SVKM's

Narsee Monjee Institute of Management Studies (NMIMS)

Declared as Deemed to be University

Under Section 3 of the UGC Act, 1956

Re-Accreditation Report (RAR)

Submitted to

National Assessment And Accreditation Council

(NAAC)

March, 2017

Table of Contents

LIST OF ACRONYMS

AICTE	All India Council for Technical Education
ASMSOC	Anil Surendra Modi School of Commerce
BSSA	Balwant Sheth School of Architecture
DBT	Department of Biotechnology, Government of India
DST	Department of Science & Technology, Government of India
GMAC	Graduate Management Admission Council
FICCI	Federation of Indian Chambers of Commerce and Industry
HBSP	Harvard Business School Publishing
IIPS	Institute of Intellectual Property Studies
ICMR	India Council of Medical Research
MPSTME	Mukesh Patel School of Technology Management and Engineering
MHRD	Ministry of Human Resources Development
NAAC	National Assessment Accreditation Council
NBA	National Board of Accreditation
SBM	School of Business Management
SPPSPTM	Shobhaben Pratapbhai Patel School of Pharmacy and Technology Management
SAMSoE	Sarla Anil Modi School of Economics
SDSoS	Sunandan Divatia School of Science
SRF	Social Responsibility Forum
UGC	University Grants Commission
PCI	Pharmacy Council Of India
CoA	Council of Architecture

LIST OF FIGURES

LIST OF TABLES

Dr. Rajan Saxena Ph.D.(Delhi)
Vice Chancellor &
Distinguished Professor of Marketing

23rd March 2017

Ref:No.F:1010:001:2017-18

Prof. D. P. Singh
Director
National Assessment And Accreditation Council
Nagarbhavi,
Bangalore 560 072

Dear *Prof. Singh,*
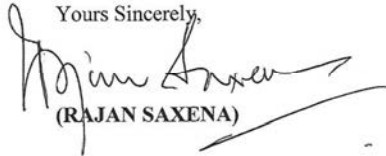
I am herewith enclosing 8 hard copies and 1 CD (soft copy) of the NMIMS Re-Accreditation Report (RAR) and request you for a favourable action.

We have already deposited the requisite fees of Rs.3,45,000/-, the receipt of which is enclosed.

I look forward to hearing favourably from you.

With warm regards,

Yours Sincerely,

(RAJAN SAXENA)

Encls.

<u>**Executive Summary**</u>

Narsee Monjee Institute of Management Studies (NMIMS) Deemed-to-be-University under Section 3 of UGC Act, 1956 is established by Shri Vile Parle Kelavani Mandal (SVKM), an 83 year old Public Charitable Trust and Society in Mumbai. SVKM is dedicated to delivering quality education to all. It is an equal opportunity University. NMIMS started its journey in 1981 as a Management Institute affiliated to University of Mumbai. In about 15 years' time, NMIMS emerged as one of the top ten Business Schools in India in the first ever ranking of management institutes undertaken by Business Today in 1995. NMIMS has since then continued to remain one of the top ten management schools as per the ranking exercise undertaken by Business and Economics magazines and newspapers. The strength of the Management School was recognized at the global level in 2011 when GMAC invited NMIMS to join the Council of world's best B-Schools. NMIMS was accredited by NAAC in 1999 with a Five Star rating and reaccredited in February 2006 with an A Grade. CRISIL and ICRA have rated NMIMS at the highest level both at national and state level.

Based on an outstanding performance in Management Education and leadership experience of building outstanding institutions, NMIMS was conferred a Deemed to be University status on January 13, 2003. This status was reconfirmed and made permanent by Government of India; vide its letter dated 15th October 2007. Following review by UGC in 2006, NMIMS (Deemed to be University) decided to diversify in other disciplines. This decision of diversification was influenced by the changing demographic structure of India and emerging education needs, particularly in the middleclass families for professional education. The aspirational youth now wanted a professional degree that would enhance their employability. Hence, development of employable graduate became an important parameter in NMIMS thinking. Equally were the emerging needs of the industry following the adoption of new technologies including ICT and growing influence of internet. Another consideration in diversification was expanding the scope of management education to other disciplines. Hence, NMIMS Deemed University established MPSTME, SPPSPTM, BSSA, SDSoS and ASMSoC in 2006. It also established the School for Continuing Education or Distance Learning. MPSTME offered for the first time in India a Five Year Integrated MBA Tech besides B.Tech and M.Tech programs. The School of Pharmacy offers MBA Pharma Tech besides offering programs in Pharmacy at Bachelor's and Master's level. In 2006 School of Commerce started with B.Com Hons and BBA programs, School of Architecture with B.Arch. and School of Science started with M.SC and Ph.D. in Biological and Chemical Sciences. Since then NMIMS has grown to be today a university with 11 schools and 3 off campuses. The University is today recognized at the national level as a credible institution with a high repute. This is reflected in the ranking exercise by various agencies and awards won by our Schools (constituent departments) and University as a whole.

Curricular, Design and Delivery

The University developed its strategic plan in 2010. Based on the performance of the institution between 2010 and 2015, University community reviewed it and developed a new one for 2015-30. The **Vision** of the University is to be a globally admired University by 2030.

The **Mission** of NMIMS is to emerge as a Centre of Excellence best in class in India and Asia and yearning to be the best in the world by 2030. This it hopes to achieve through Innovations, Benchmarking promoting faculty scholarship and creating a global learning experience on the

campus. It will also work towards establishing partnership with industry, social organizations, government agencies and top global universities.

Innovations are the bedrock of NMIMS. From the time of its inception as the Management School and later as the Deemed University, NMIMS has been at the forefront of innovations which have disrupted the academic processes and programs. Integrated programs like MBA Tech. and MBA Pharma Tech launched post 2006 are an example of such an innovation. The MBA Tech program heralded a new thinking in the country as many other institutions also started similar program post 2009-10. The UGC also included this program in its approved list of programs. Likewise, while designing, the B.Sc. Economics program, NMIMS broke the glass mould of discipline and included subjects from Humanities and Management in this Program. These inputs were over and above the Economics subjects. In fact, all these programs have today gained student, industry and foreign and other national institutions acceptance. Likewise, integrative module in the MBA Program is a distinguishing feature which sets it apart from all other Schools in India. Innovations and pedagogy has also been a recurring feature of NMIMS curricular planning and delivery. Learning from other peer group, institutions and benchmarking NMIMS programs, processes and systems has also been the DNA of the Institution. NMIMS benchmarking exercise was recognized at the global level in 2016.

Graduate employability is a value which is deeply embedded in NMIMS. To make graduates employable, NMIMS focuses on skills development and creating a network of relationship with industry which had led to almost 100% placement in all schools. The Business School has led the way in this exercise. The best practices of the Business Schools have been carried forward in other Schools. NMIMS is also promoting entrepreneurship as an alternative career. Towards this end, the university has just been awarded by Government of India in March 2017 Atal Incubation Centre. Earlier in 2016 it launched Chancellor's Challenge. The objective of this challenge is to get students to think out of the box and develop entrepreneurial initiative which will either help improve current business practices or create new solutions for today and tomorrow's problems.

To design curriculum, university has adopted an approach that integrates the emerging needs of the industry, society and the nation. It also considers emerging trends in disciplines like Management and undertakes a benchmarking exercise with the best global programs. It also considers students', alumni and faculty feedback. For this, it follows a two pronged approach, viz:

1. Making Incremental change of 15 to 20% every year
2. Disrupting the program at the end of three years or at best five years.

While analyzing needs, all Deans are advised to consider environmental changes, changing learner profiles, new educational technologies, national priorities and global developments. This two pronged approach has helped to overcome obsolescence and keep the program and curriculum relevant.

Graduate employability has emerged as one of the most significant priorities in India and in other emerging economies. Hence, the curriculum focuses on development of technical, interpersonal, problem solving and decision making and execution skills. NMIMS partnership with industry also helps prepare students for industry roles. Innovation as mentioned continues to influence program design and pedagogy development.

NMIMS interactions are not just restricted to Industry; it extends to NGOs, research institutions, other universities and government agencies. The university enjoys a high degree of flexibility in program design and delivery. It offers choice to students through electives in the MBA program. 45% of the credits in management school are earned by the students through electives offered. In

all other Schools, electives are offered. However, their percentage in terms of subjects and credits differ from one to the other. Value added workshops and blended learning have enriched NMIMS programs.

NMIMS goal is to internationalize student community and accordingly 30% of the students are to be sourced from the world market. The university follows Semester pattern for 85% of the programs. However, in the Business School it continues to follows the Trimester pattern.

As can be inferred NMIMS strategy is to be a differentiated institute of higher learning on the basis of innovation, graduate employability, rigour and creating a life changing experience for the student community. NMIMS programs are positioned in the urban aspirational middleclass market.

Feedback is an important part of any academic system. The University requires Deans to obtain feedback at two points in the academic term namely middle of the term and end of the term. Based on the feedback, the Deans advise the faculty. The university also gets the feedback from international academic community from time to time. Its programs are NBA and SAQS accredited and it has a functional IQAC. Besides Vice Chancellor reviews with each school the academic quality at the end of each term.

Teaching, Learning and Evaluation

As mentioned, one of the pillars of NMIMS philosophy is the students learning experience. NMIMS admits students from the national market. For the Business School it also admits students from foreign markets. The admission process is based on merit, admission tests, case discussions, interview or counseling as the case may be. In the context of Architecture, it admits students through the admission test conducted by the Council of Architecture. For the School of Business Management, students are admitted through NMAT by GMAC. The demand for NMIMS programs has been growing over the last 5 years. The highest demand ratio is in the School of Business Management which is 1:113. Analysis of demand ratio confirms the national reports that demand is always skewed in favour of institution perceived high on quality with excellent placement track record. NMIMS has always responded to the changing times and has discontinued several programs because of faltering demand, lack of adequate faculty resources and placement opportunities.

Diversity in students is always a challenge for any learning system. In order to bring all students at the same level in terms of their learning abilities, NMIMS conducts orientation/induction program, remedial classes, and tutorials and provides opportunities for mentoring by the faculty. For the fast learners, the University offers them opportunities to participate in national and international challenges and organizes workshops on latest technologies.

The university has adopted the trimester pattern for Business School and Semester for all other Schools. It has a system of developing academic calendar on an annual basis. This academic calendar takes into consideration the duration of classes and various events on and off the campus. It provides time for several academic activities and non-academic activities like university day or sports day. Each faculty member is required to develop a teaching plan and evaluation blueprint which is uploaded on the Black Board Learning Management System subscribed by NMIMS.

The Trimester model was extended to Science and Engineering Schools when they were established in 2006. It was also extended to Pharmaceutical Sciences, Architecture, School of Commerce and Economics. However, after the graduation of the first batch in Engineering the learning challenges emerged. While the Business School students who are comfortable with the

higher speed of learning in an autonomous and collaborative manner, the experience with the students who came immediately after the School at the undergraduate level was not the same... The faculty also felt that the time provided for academic delivery, reflection and non-classroom activities was inadequate in the trimester system. Faced with these challenges, a study of academic systems in other top engineering colleges was undertaken. Based on this study, the Board of Management of NMIMS decided to transition to semester pattern for all programs other than the MBA Programs. Since 2013 NMIMS has migrated to semester for all programs other than MBA Program.

The pedagogy used by NMIMS is experiential. Several tools are being used like Case Methods, Simulations, and Management Games etc. NMIMS invites distinguished faculty from other universities and corporate. It also uses blended learning.

University recruits faculty from national and international markets. It considers qualification and experience as provided by UGC.

Recruitments are based on the manpower plan. Faculty development is one of the major initiatives at NMIMS. NMIMS faculty has today earned several awards and recognition for contribution to institution development or to their discipline. The university encourages faculty mobility across other universities.

The university evaluation system is based on the dual principle of transparency and accountability. The examination department communicates to Faculty, Students and external expert's evaluation parameters and passing norms. Examination rules are included in the Student Resource Book. Several examination reforms are carried out by NMIMS; some of them are replacement of marks with the system of grading, relative grading, factorization and the use of open book examinations. Computer based tests are also being conducted at NMIMS.

University has clearly stated learning outcomes for its academic programs. One of the requirements of Business School is defining of program and course learning objectives and measurement of their attainment and an action plan to cover fill the learning gaps if any. In defining learning objectives Blooms Taxonomy is used.

Research, Consultancy & Extension

One of the strategies to become a global university is to promote faculty scholarship at the global level. In order to do so, faculty research and publications assume a high degree of significance. In order to promote research at the university, a research committee has been constituted whose primary goal is to promote research across all schools and faculty groups. It also plans and manages research activities of the University. Signifying the criticality of the research in the University, this Committee is headed by the Vice Chancellor. Its members are external scholars, all Deans and research active professors. In the last five years the committee has deliberated on creation of research culture in this young university. One of the direct outcome of such discussions was the announcement of Research Promotion Policy in July 2015. The salient features of this policy are making each faculty eligible for Seed Research Grant of Rs.1 lakh, which they can utilize for Case Research, Data Collection, travel for research etc.; incentives for publications in peer reviewed journals and for getting Patents. When the Policy was announced in 2015-16, the Seed Grant to the faculty increased from Rs.4,92,000/-in 2014-15 to Rs.6,74,00/-, thus accounting for 37% growth in just one year. The total number of publications in international journals rose from 17 in 2010-11 to 133 in 2015-16. The total number of publications was 707 between 2010 and 2016. The total number of publications during the same period in national peered reviewed journals was 236. The major contributors to publications have

been School of Business Management, MPSTME and School of Pharmacy and Technology Management. The total number of cases published by School of Business Management in the last five years were 39 and the total number of books published in NMIMS were 55 with the maximum being for Business Management. During the same year the total number of applications filed for national patents were 31 and for international patents two. NMIMS has been able to get 4 patents so far between 2010-11 t0 2015-16. Industry has supported NMIMS research projects as reflected by the grants received in the last five years to the extent of Rs.2.06 crores. The Business School was the major recipient. The government has also been supporting the research projects at the School of Pharmacy and School of Science. The Pharmacy School had received a research grant of Rs.57,81,982/- and School of Science another Rs.49,00,000/-. NMIMS has from its own resources, established the research infrastructure at a total cost of Rs.20 crores in the last five years. It provides to the research scholars support in the form of databases, research articles, access to research work done in other institutions and by scholars. The School of Business Management publishes the NMIMS Management Review. The University also publishes NMIMS Journal of Economics and Public Policy and the Biomedical Research Journal of from School of Science. All three journals have a global editorial board. The Journals have an ethics and publication policy which are available at http://www.nmims.edu/management-review/policy-documents/

The institutional faculty and students have won awards for their research work both at national and international level .The institution also has a policy of recognition and award to the faculty for their research output and efforts.

NMIMS believes that it needs to influence the corporate practice. It also believes that the corporate is a laboratory for testing ideas and hypotheses. Towards this end, it has established an Institute Industry Cell whose primary objective is to develop symbiotic relationship between the institution and the industry. This is done through multiple strategies. The University also has a Consultancy Policy which defines consultancy, revenue sharing model and the process of obtaining the consulting assignment. NMIMS does not aggressively advertise its consultancy skills.

Social responsibility is today instutionalized in the institution through a policy decision requiring each student to necessarily undertake a field project in one of the identified social problem and work under the mentorship of faculty and the NGO or corporate. Several initiatives have been started by the JasaniCenter for Social Entrepreneurship& Sustainability Management at the School of Business Management. This Centre has earned recognition from State Governments, Chambers of Commerce, Government of India, and Ministry of Corporate Affairs.

Infrastructure and Learning Resources
Last five years can be described as years of investment in resource creation – physical, information, human and technology. Some of the significant accomplishments in the last five years is the new campus of School of Business Management in a built-up area of 3,50,000 sq.ft., Mukesh Patel School of Technology Management and Engineering in an area of 102170sq ft. and for other Schools in an area of 137620 sq. ft. The new infrastructure of the School of Business Management and also the University Head Quarters is the landmark in Juhu Vile Parle area and among the Management Schools located in metro cities. To ensure that these resources are available and put to an optimal use, infrastructure planning is undertaken at the

commencement of each term and its utilization is monitored. While planning the infrastructure, regulatory requirements are considered and complied with. Infrastructure planning considers demand for higher education by 2030. It also considers the earlier growth rate in higher education and in different programs. Also the management considers the demand ratio for various programs. Emerging trends in technology influencing higher education and construction materials is also considered. Environmental considerations and policies in regard to physically challenged individuals are also kept in mind while planning for the infrastructure.

The Library resources have taken a quantum jump in NMIMS in the last five years. This is reflected in physical volume collections, establishments of digital library, e-resources and databases. The library has Supernova magnifier and screen Reader Software for visually challenged users. IT is in full display in the library. The library provides a range of services to the user community. It communicates on a continuing basis with the user community and also frequently undertakes research on student motivations, their needs and satisfaction with the library services. It also organizes book exhibitions and author talk. It also provides access to video lectures in addition to many other services.

Another area that has seen a major expansion in the last five years is the Information Technology. Today, the institution is not only networked but every employee and student today functions with the help of IT resources. This includes mobile platforms. Among the several softwares, it has also subscribed to are Abode Creative Suites, Coral draws and MS visual studio. The computer to student ratio is 1:5. This does not take include the laptops provided to the Architecture students and laptops/mobile platforms brought by all students of Business School. The university has invested about Rs 8.5 crores in the last five years in IT infrastructure creation.

In addition to the above, Blackboard Learning Management System, EZ Proxy and SAP, each classroom today is Wi-Fi enabled and has LED projectors, Smart board and video streaming/ conference facilities.

In order to maintain the campus, University has an Estate Office. The maintenance services like housekeeping and security are outsourced to specialized agencies.

Student Support and Progression

Student developments is through both classroom and non-classroom initiatives. The mentoring process at NMIMS is a well-defined process with the responsibility of the mentor and the mentee defined. It conducts soft skill development programs and assist students in career choices. Information on NMIMS programs, processes and systems are regularly updated on the institution website. They are also put in the Students Resource Book which defines university expectations of the students. It also informs the students on attendance, examinations, graduation and discipline related policies. Each student is required to sign an undertaking accepting the rules and regulations of the university.

The fee of various programs is based on the Fee Fixation Committee's decision which is confirmed by the Board. Scholarship support is provided by the institution, industry and alumni. The university has an International Division to attract foreign students to its University programs. It also has a Sports Director and Sports programs are organized from time to time. NMIMS students participate in inter institute sports meets and have also won several awards and laurel.

The University has a Placement Department, whose primary responsibility is to create and offer Placement opportunities to each and every student who is eligible and wanting placement on the campus. To develop entrepreneurship, E-cells are in place in each school which organize business plan contests and invite Entrepreneurs, Angel fund Managers and Venture Capitalists for Guest Talks. Incubation facilities are offered at all Schools.

NMIMS has been selected by NITI Ayog, Government of India to establish Atal Incubation Centre. NMIMS today has a large number of Alumni who are today at the CEO/Chairman levels in different corporate in India and the world. Some of its Alumni are also engaged in academics within the country and outside.

The University has various committees to address student grievances. It has also appointed retired Bombay High Court Judge as Ombudsmen.

Ragging is banned on the campus and students are informed about it. They have also been informed about the zero tolerance policy towards ragging.

In the last five years, the student progression in the MBA Program has been around 97%. In the four year undergraduate program it is 83% students and in 5 year programs 91%. In other undergraduate programs 89% students have graduated in the minimum stipulated time. 104 students have earned their Ph.D. from NMIMS in the last four years. The students of Architecture study heritage as a part of their curriculum.

The University has a Students' Council whose objective is to assimilate and integrate students from all the constituent schools and provide a platform for them to exhibit their creativity.

Governance Leadership and Management

The University's **Vision** of the University is "to be a globally admired University".

The **Mission** of NMIMS is to emerge as a Centre of Excellence best in class in India and Asia and yearning to be the best in the world by 2030. This it hopes to achieve through Innovations, Benchmarking promoting faculty scholarship and creating a global learning experience on the campus. It will also work towards establishing partnership with industry, social organizations, government agencies and top global universities.

NMIMS Mission Statement has evolved over a period of time. This evolution is based on institutions unique characteristics, strengths and the environmental context which has changed from 1981 when it was established a Management School in India. The changes in the external and internal environment have influenced modification in the Mission Statement. However the purpose of the institution that of providing quality education at affordable price was not lost. NMIMS has today come to be defined as an excellent and credible institution of higher education and undoubtedly as one of the leaders in management education. NMIMS ethos is to be innovative, responsive to the environmental changes and promote entrepreneurial culture. The institution's various programs and processes, faculty appointments and the leadership reflect this ethos. Almost all programs of NMIMS Mumbai are targeted at the growing aspirational, urban middle class families. The demographic structure of India shows an upwardly mobile population. It also shows India becoming more and more aspirational. Economic growth has further fuelled these aspirations for better standards of living. It is in this context that NMIMS believes that the educational needs in this market can serve best by offering innovative programs in multiple disciplines at Bachelor and Masters' level. The demographic structure also shows a growing women population in India and women emerging important player in the economic activity. In order to respond to this change, NMIMS has made appropriate changes in its admission policy to attract women students and has also evolved programs, especially targeted to the women

segment, especially the urban middle class women. Another area relates to inclusive education, and institutions response to the social challenges. In order to make education inclusive, NMIMS offers financial assistance to those who are not able to afford education. Also to make our graduates socially sensitive, the University has mandated that all students across all programs will have to necessarily undergo internship in social sectors.

The vision and mission of each school is in alignment with the vision and mission of the University and the aspirations of the students and the society it serves.

The development of the management systems is a continuous process. These processes are developed considering stakeholder feedback from time to time. They also reflect the changes in the regulatory framework from time to time. The management systems and the changes therein are approved by the Board of Management

The University strives to reinforce culture of excellence in administrative and academic processes by continuously reviewing and introspecting. This is reflected in all activities of the university ranging from admission to examination.

The Board of Management continuously emphasize the need to excel and out-perform the earlier performance on several parameters like teaching, research, placement, social connect, faculty systems etc. The Deans' Council is a forum in which the VC communicates the Board's directions and urges all Deans to out-perform, surpass expectations and create a new standard of performance. The VC also urges the institution to identify the benchmark and perform accordingly.

University actively promotes a culture of participative management. Following are the organizational structures that enable participative management in decision making:

1) **Faculty Council:** Each School has a Faculty Council, where all matters relating to academics and administration are discussed and decisions taken. The Faculty Council is constituted by the respective Deans. Each faculty member is also assigned an administrative role within their Schools. They also manage key university functions like admissions, student, discipline and examination.

2) **Board of Studies:** The Board of Studies of each department has the concerned faculty participating in it along with the industry and academic experts.
    The Composition of Board of Studies is as follows:
    a. Dean of the School - Chairman
    b. Head of Department
    c. All Professors of the Department
    d. Three teachers (Associate Professor / Asst Professor), nominated by the Head of the Department.
    e. Not more than four persons to be nominated by the Vice Chancellor – for their expert knowledge including those belonging to the concerned profession or industry.

3) **Academic Council:** The total number of Academic Council Members is 38 and

of these 16 are faculty members. In addition to the above, faculty is also involved in planning and strategic development for their School.

4) **Board of Management**: There are 15 members in Board of Management, of which, 3 are faculty members nominated by the Vice Chancellor. In addition, there are two Deans on the Board.

5) **Dean's Council:** A committee of all Deans / Heads of schools chaired by the Vice Chancellor is constituted to monitor the progress in their respective schools and address concerns if any. Any policy to be implemented is deliberated and finalized in the Dean's Council. This enables the University to constantly adopt healthy policies and resolve issues by participative and constructive discussions.

The University has a system of identifying leaders in all schools at the departmental level. Such individuals are assigned the roles of the head of the department or Associate Deans and, based on their performance, they are appointed as the Deans and Directors of the school. Likewise is the appointment of individuals to the position of the PVC and Registrar and functionaries in the administrative department. In addition to such identifications, the Annual Leadership Conference ensures that individuals, who are selected as Associate Deans or Deans and senior faculty, understand not only university perspective but participate in planning, systems developments, program development and institution development. The Leadership Conference is generally chaired by the Chancellor and Vice Chancellor. Further, individuals identified as leaders in the university are encouraged to participate in Leadership Conferences outside the University and programs like Fulbright Fellowship. This ensures continuity of leadership in the institution.

Recognizing the interests of millennial in active learning University has used technology extensively in its programs and processes. Black Board Learning Management System (BBLMS) forms the backbone of program delivery. Faculty members are actively involved in project based learning delivery and flipped classrooms. The BBLMS also facilitates on line tests, blogs and quizzes. The university also engages students from other campuses through video conferencing facilities so that they get the benefit of instruction from outstanding teachers who are sought after. The university not only uses technology for program delivery but also for all processes and functions like Student life cycle management (SLCM), examination, library, accounts, admission and HR. The data generated is also analyzed to improve processes and systems using analytics tools.

The University strives for excellence in all it endeavours. It has developed its model of excellence which is based on the `Baldrige Model of Excellence in Higher Education'. This model considers:
1. Building excellence in admission process
2. Making and delivering excellent academic programs
3. Faculty excellence
4. Human Resource
5. Excellence in building relationship with corporate

Model of Excellence

In specific terms some of the steps that have already been taken relates to creating rigour and transparency in admission, academic programs and processes and evaluation processes. It has also involved Faculty Development on a continuing basis and developing faculty systems which are responsive to the needs of the individual faculty. Benchmarking on a continuing basis and learning from the benchmarked institutions has also helped NMIMS climb the ladder of excellence.

Accreditation by national bodies like NBA, international bodies like SAQS and ratings by CRISIL ICRA are evidence of NMIMS pursuit for excellence.

University has a policy to ensure quality in all its programs and processes. One of the priorities of the University is to get its programs and schools accredited at national and international level. Towards this end, accreditation committee has been constituted in the School of Business Management, MPSTME and SPTM, Quality cells exists in all other schools. The School of Economics has a very active quality cell where the students are involved.

In addition to the above, university has an active IQAC which meets frequently.

Further, following steps have been taken by the University to enhance quality:
1) Periodic faculty and staff meetings to discuss issues relating to quality enhancement.
2) Setting up of the IQAC at the University level and a similar Quality Assurance Cell in each School.
3) Sharing of data on performance with all concerned individuals and departments- both administrative and academics.
4) Implementation of SAP – an ERP system to ensure consistency in quality in all the endeavours.
5) Academic information system which captures data on a number of sessions not held and the reasons thereof. This helps in reviewing the progress of the program during the term. This information is shared with all the stakeholders including the Chancellor and the Board of Management.
6) The Black Board Learning Management System also enhances the academic Quality as it ensures consistency in quality of material and pedagogy used by faculty for various subjects.
7) Focus on competency development for both faculty and staff.
8) Invariably all Board discussions focus on quality enhancement in all University Operations

Following initiatives are be taken by the University for attracting and retaining eminent faculty:
1) Source faculty from leading research and academic institutions in a more aggressive manner.

2) Recruit from the graduating students in the doctoral programs of the leading U.S. and European Universities at the annual research meets in management and different functional areas of management and technology.
3) Connect with the doctoral programs of leading Indian, U.S. and European Universities.
4) Source faculty from leading science and technology institutions, both in the government and private sector.
5) Create a faculty development program for new faculty, especially those who have just completed their Masters' program and have a research bent of mind. This will help to create a pool of potential faculty.
6) Provide a mentorship and assistance program for faculty within the NMIMS University system.
7) The class feedback of faculty members in each subject taught by them should be a minimum of 7 on a 10 point scale or 3.5 on a 5 point scale.
8) Performance incentive and recognition for excellence in teaching with a minimum score of 9 on a 10 point scale or 4 on 5 point scale will be put in place.
9) Performance incentive for outstanding research as evidenced by publication in 'A' category national and international journals, books published by leading global publishers like McGraw Hill is also being put in place.
10) To encourage international scholarship, faculty is encouraged to participate in international conferences in their own subject areas. However, these conferences have to be double blind reviewed conferences. This will be in line with NMIMS policy statement in this regard.
11) Transparent and objective faculty performance evaluation system is in place for all annual promotions and increments and confirmation. Incentives are announced based on this evaluation system.
12) A clear career path is charted for all faculty members.

Finance Committee meets thrice a year to:
 a) Finalize the budget for the forthcoming academic year
 b) Take a mid-term review and make appropriate amendments if required
 c) Approve the fee structure
 d) Approve the capital expenditure budget
 e) Approve the proposed appointment of faculty and staff

The accounts are audited regularly and there have been no major audit objections raised by the auditors.
The University conducts an external academic audit. This audit aims at evaluating the strengths and weaknesses of all the departments with emphasis on faculty quality, teaching learning process and research. This gives direction to improve on our weaknesses.

In addition to this, an Academic Review of all the Schools after every Semester / Trimester is conducted by the Vice Chancellor. The students and faculty members get an opportunity to put forth their concerns directly to the Vice Chancellor. The issues are basically related to delivery of programs, faculty effectiveness, infrastructure, library

resources and evaluation system. Based on the inputs received during the Academic Review, the University takes appropriate and immediate steps to ensure continuous improvement in all its processes and programs.

The University has an Internal Quality Assurance Cell (IQAC) which reviews the processes as a part of the Quality Assurance mechanism. The reports of the IQAC have been forwarded to the NAAC regularly.

SWOC of NMIMS Deemed to be University

Strengths of NMIMS Deemed to be University
- Name recognition: NMIMS has high brand recognition for imparting quality education; attracts meritorious students from across the country.
- Attractive Location (city and culture): Mumbai provides opportunity for close interaction with corporate world and society.
- Robust admission process across Schools and Departments
- Good governance: Proactive, dynamic and transparent leadership
- Positive Campus Climate: high employees morale; close collaboration among the senior leadership, faculty, and staff; overall feeling of safety and well-being on campus
- Dedicated and loyal faculty and staff: low attrition rate
- Quality Academic Programs and Student Services : Strong administrative support of academic programs and student services.
- Attractive urban campus: state of the art physical infrastructure, scientific laboratories, animal house and modern learning management system (Black Board)
- Growing international alumni base
- Innovative culture: Diversity of programs offered; launching new programs; development and adoption of new technology and pedagogy for effective learning process.

Weaknesses –
- Very few International full time students.
- Inadequate levels of funded research.
- Limited support to first generation entrepreneurs.
- Physical constraints for campus expansion
- Financial resources tuition dependent

Opportunities –
- Enhance NMIMS brand name through more effective marketing and communications
- Capitalize on the fact that NMIMS is the premier private university in Mumbai and one of the only few prestigious private universities in the west.
- Develop a differentiated strategy to position as a niche university within the traditional universities setup of the country.
- Development of centers of excellence.
- Leverage distinctiveness of NMIMS location for teaching, research, and public service.
- Leverage NMIMS's diversity and mix of academic programs and schools/department to create new areas of study and degree combinations as well as research opportunities.
- Develop new sources of income through program development, increased research funding, and pursuit of partnering/alliance strategies.
- Build on strengths at developing programs with international partners.

- Make NMIMS a "true" university with synergy between units, schools and colleges and connections and traditions that reinforce the unity of the institution

Challenges
- Availability of qualified faculty.
- High cost of delivering programs.
- Continuous investment to keep pace with emerging technologies.
- Need to generate new streams of revenue from non-traditional sources; keeping the tuition fee affordable
- Competition: With opening up of higher education sector by Government of India to international institution
- Uncertain Economy: It is a challenge to afford a college degree and a challenge for the University to maintain quality.
- Reduction of employment opportunity: perception that a college education is becoming less important when compared to availability/high pay among blue collar careers
- Our Response to Changing Dynamics in Higher Education: Ongoing environmental assessment will be required to keep the University at the forefront of the changing dynamics within higher education

PART I: INSTITUTIONAL DATA

A. Profile of the University

1. **Name and address of the University** :
    SVKM's Narsee Monjee Institute of Management Studies Deemed to be University
    (SVKM's NMIMS)
    V. L. Mehta Road
    Vile Parle (West)
    Mumbai-400 056
    Maharashtra, India.

2. **For communication**:
    Office:

Name	Area STD code	Tel. Number	Mobile Number	Fax Number	E-mail ID
Dr. Rajan Saxena, Vice Chancellor NMIMS	022	42355502	9833725699	42355992	rajan.saxena@nmims.edu
Dr. Sharad Mhaiskar Pro-Vice Chancellor	022	42334001	9820422602	-	sharad.mhaiskar@nmims.edu
Dr. Meena Chintamaneni Registrar	022	42355550	9920150060	42355994	meena.chintamaneni@nmims.edu

Residence:

Name	Area STD code	Tel. Number	Fax Number
Dr. Rajan Saxena	022	28373482	-
Dr. Sharad Mhaiskar	-	-	-
Dr. Meena Chintamaneni	022	25220060	-

3. **Status of the University**:
    State University
    Central University
    University under Section 3 of UGC Deemed University   √
    Private University
    Institution of National Importance
    Any other (specify)

4. **Type of University:**

15

Unitary
Affiliating
Deemed-to-be University | √ |

5. Source of funding
Central Government
State Government
Self-financing | √ |
Any other (please specify)

6. a. Date of establishment of the University: **13/01/2003**
b. Prior to the establishment of the University, was it a/an

i.	PG Centre	Yes		No	
ii.	Affiliated College	Yes		No	
iii.	Constituent College	Yes		No	
iv.	Autonomous College	Yes	√	No	
v.	Any other (please specify)				

  If yes, give the date of establishment: **29/05/1981**

7. Date of recognition as a university by UGC or any other national agency:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks (if any)
i) 2f	--	--
ii) 12 (B)	--	--
iii) 3 of UGC Act	13th January 2003	Govt. of India gave permanent recognition on 15th Oct. 2007 on the basis of the UGC Committee's review
iv) Any other (specify)	--	--

  * Enclose certificate of recognition.

   # Enclose notification of MHRD / UGC for all courses / programs / campus/ campuses.
   ^ Enclose certificate of recognition by any other national agency/agencies, if any.

8. Has the university been recognized
  a. By UGC as a University with Potential for Excellence?
  Yes [ ]   No [√]

  If yes, date of recognition ………….. (dd/mm/yyyy)
  b. For its performance by any other governmental agency
  Yes [ ]   No [√]

  If yes, name of the agency ………………… and
  Date of recognition ………………..(dd/mm/yyyy)

16

9. Does the University have off-campus centres?

Yes ⎡√⎤   No ⎡ ⎤

If yes,
- date of establishment of Shirpur campus (04/05/2007)
- date of recognition of Shirpur campus (16/05/2008)
- date of establishment of Bengaluru campus (04/08/2009)
- date of recognition of Bengaluru campus (27/08/2009)

10. Does the university have off-shore campuses

Yes ⎡ ⎤   No ⎡√⎤

11. Location of the campus and area:

i) Main campus area	5.75 acres
ii) Satellite campus I area	-
iii) Satellite campus II area	-

(* Urban, Semi-Urban, Rural, Tribal, Hilly Area, Any other (please specify)

If the university has more than one campus, it may submit a consolidated self-study report reflecting the activities of all the campuses.

Urban	√
Semi-Urban	-
Rural*	-
Tribal*	-
Hilly Area	-
Any other (specify)	-

17

12. Provide information on the following: In case of multi-campus University, please provide campus-wise information.
    - Auditorium/seminar complex with infrastructural facilities
    - Sports facilities
        ☐playground
        ☐swimming pool
        ☐gymnasium
        ☐Any other (please specify)

    - Hostel

        ☐   Boys' hostel

            i.   Number of hostels: 4

            ii.   Number of inmates: 232

            iii. Facilities: TV, Fridge, Washing M/c, Induction cooker, Geyser, Internet Facility(24 hrs.)Newspaper, Security Guards(24 hrs.), Housekeeping staff etc.
        *   Girls' hostel

            i.   Number of hostels: 4

            ii.   Number of inmates: 376

            iii. Facilities: TV, Fridge, Washing M/c, Induction cooker, Geyser, Internet Facility (24 hrs.)Newspaper, Security Guards(24 hrs.), Housekeeping staff etc.

        ☐   Working women's hostel

            i.   Number of hostels

            ii.   Number of inmates

            iii. Facilities

    - Residential facilities for faculty and non-teaching: **Yes**
    - Cafeteria: **3**
    - Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc.:**Yes**
    - Facilities like banking, post office, book shops, etc.:**Yes**
    - Transport facilities to cater to the needs of the students and staff:**Yes**
    - Facilities for persons with disabilities:**Yes**
    - Animal house:**Yes**

- Incinerator for laboratories:**No**
- Power house:**Yes**
- Waste management facility: **Yes**

13. **Number of institutions affiliated to the university:**
NMIMS is a deemed to be University under Section 3 of the UGC Act – it has no affiliated colleges but it has Departments (Schools)

Type of Colleges	Total	Permanent	Temporary
Arts, Science and Commerce			
Law			
Medicine			
Engineering			
Education			
Management			
Others (specify and provide details) Architecture & Economics			

14. **Does the University Act provide for conferment of autonomy (as recognized by the UGC) to its affiliated institutions? If yes, give the number of autonomous colleges under the jurisdiction of the University**

Yes ☐   No ☑   Number ☐

Since NMIMS is a Deemed-to-be University under Section 3 of the UGC Act, the granting of affiliation to colleges does not arise**.**

15. **Furnish the following information:**

Particulars	Number	No. of Students
a) University Departments	10	
Departments eligible for accreditation	07	
Undergraduate	03	5825
Post graduate	04	2359
Research centres on the campus	-	-
b) Constituent Colleges	N.A.	N.A.
c) Affiliated Colleges	N.A.	N.A.
d) Colleges under 2(f)	-	-
e) Colleges under 2(f) and 12B	-	-
f) NAAC accredited colleges	-	-

g) Colleges with Potential for Excellence (UGC)	N.A.	N.A.
h) Autonomous Colleges	N.A.	N.A.
i) Colleges with Postgraduate departments		
j) Colleges with Research Departments	N.A.	N.A.
k) University recognized Research Institutes/ Centers	N.A.	N.A.
Total	**10**	**8184**

16. Does the university conform to the specification of Degrees as enlisted by the UGC?

    Yes | √ | No | |

17. **Current** Academic programs offered by the university departments at present, under the following categories: (Enclose the list of academic programs offered)

Programs	Number
UG	8
PG	11
Integrated UG/PG	5
Certificate course	-
M.Phil.	-
Ph.D.	1
Integrated Ph.D.	1
Certificate	6
Diploma	1
PG Diploma	-
Any other(please specify)	3
Grand Total	**36**

   Number of working days during the last academic year: 285

18. Number of teaching days during the past four academic years.

    208   207   207   207

    ('Teaching days' means days on which classes were engaged. Examination days are not to be included)

19. Does the university have a department of Teacher Education?
    Yes | | No | √ |

    If yes,
        a. Year of establishment ……………… (dd/mm/yyyy)

b. NCTE recognition details (if applicable) Notification No.:

……………………………………

Date: ………………………… (dd/mm/yyyy)

Is the department opting for assessment and accreditation separately?

Yes ☐   No ☑

20. Does the University have a teaching department of Physical Education?

Yes ☐   No ☑

If yes,
   a. Year of establishment ……………… (dd/mm/yyyy)

   b. NCTE recognition details (if applicable) Notification No.:

……………………………………

Date: ………………………… (dd/mm/yyyy)

Is the department opting for assessment and accreditation separately?

Yes ☐   No ☑

21. In the case of Private and Deemed Universities, please indicate whether professional programs are being offered?

Yes ☑   No ☐

If yes, please enclose approval / recognition details issued by the statutory body governing the program.

22. Has the university been reviewed by any regulatory authority? If so, furnish a copy of the report and action taken there upon.
Yes. By UGC and respective statutory bodies

23. Number of positions in the University

Positions	Teaching Faculty					Non-Teaching (Total-incl. tech staff)	Technical Staff
	Professor	Associate Professor	Assistant Professor	Adjunct faculty	Other (Visiting)		
Sanctioned by the UGC / University / State Government	53	106	319	-	-	424	85

Recruited:	70	79	267	-	-	388	79
Yet to be recruited:							
Number of persons working on contract basis	-	-	-	-	-		

24. Qualifications of the teaching staff

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.							
Ph.D.	43	26	28	19	37	54	207
M.Phil.				2	3	6	11
PG	1		26	5	61	93	186
Others (Professional Qualifications)	3	2			4	3	12
Temporary teachers	NA						
Ph.D.							
M.Phil.							
PG							
Part-time teachers							
Ph.D.							
M.Phil.							
PG							

25. Emeritus, Adjunct and Visiting Professors

	Emeritus	Adjunct	Visiting
Number	4	8	290

26. Chairs instituted by the university:

	Chairs
School / Department	-

27. Students enrolled in the University during the current academic year, with the following details:

Type of Student	UG		PG		Ph.D.		Int. Ph.D.		D.Litt,/ D.Sc.		Certifi-cate		Diploma		PG Diploma	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
From the state where the University is located	512	333	212	219	57	42							41	18		
From other States of India	615	291	405	231	1	-							1	-		
NRI students																
Foreign students																
Total	1127	624	617	450	58	42							42	18		

M = Male F = Female

*UG includes Integrated Masters programs as well.

28. 'Unit cost' of education?

Unit cost = Total annual recurring expenditure (Actuals) divided by total number of students enrolled	
a) including the salary component:	**Rs. 1,77,184/-**
b) excluding the salary component:	**Rs. 1,27,693/-**

29. Academic Staff College
  € Year of establishment …………
  € Number of programs conducted (with duration)
      o C Orientation
      ∗ UGC Orientation
      ∗ UGC Refresher
      ∗ University's own programs

30. Does the University offer Distance Education Programs (DEP)?

Yes √   No ☐

If yes, indicate the number of programs offered. 23

Are they recognized by the Distance Education Council?

31. Does the university have a provision for external registration of students? √

Yes ☐   No √

  If yes, how many students avail of this provision annually?

32. Is the university applying for Accreditation or Re-Assessment? If Accreditation, name the cycle.

Accreditation: Cycle 1 ☐   Cycle 2 ☐   Cycle 3 √   Cycle 4 ☐

Re-Assessment: √

33. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)
    Cycle 1: (09/10/1999), Accreditation outcome/Result **5 Star**
    Cycle 2: (02/02/2006), Accreditation outcome/Result **A**
    Cycle 3: …………… (dd/mm/yyyy), Accreditation outcome/Result ……
    Cycle 4: …………… (dd/mm/yyyy), Accreditation outcome/Result ……
    * Kindly enclose copy of accreditation certificate(s) and peer team report(s)
    Annexure-I

34. Does the university provide the list of accredited institutions under its jurisdiction on its website? Provide details of the number of accredited affiliated / constituent / autonomous colleges under the university.
    Yes.

35. Date of establishment of Internal Quality Assurance Cell (IQAC) and dates of submission of Annual Quality Assurance Reports (AQAR).
    IQAC: 04/06/2005

    AQAR   (i)   14/08/2013
               (ii)   21/08/2014
               (iii)   19/08/2015
               (iv)   30/08/2016

36. Any other relevant data, the university would like to include (not exceeding one page)
    a) NBA accreditation – The Engineering School of NMIMS received provisional accreditation for a period of three years for three programs which were eligible for accreditation viz. computer, IT, and EXTC (Electronics & Telecommunication) **Annexure-II**
    b) SAQS Accreditation – School of Business Management received this accreditation in 2012
    c) NIRF Ranking – NMIMS received the NIRF ranking 72 out of 800 amongst the 800 Universities in 2016
    d) Business School Media Ranking of other schools – Business school has been ranked in the top 10 Management Schools in the country consistently by various ranking agencies
    e) Placement – As a result of the strong industry connect and the relevance of the programs – placement across all schools is almost 100%
    f) Scholarships – The University offers scholarships to students which are need based. The staff and faculty are offered fee concessions once their children are enrolled in the sister institution of the trust.
    g) Faculty & staff welfare - The University has several facilities in place like – Medical Reimbursement
       - Pension scheme for Super Annuating Employees
       - Mediclaim
       - Executive Health Check-up

B. CRITERION-WISE INPUTS

CRITERION I: CURRICULAR ASPECTS

"The end product of education should be a free creative man, who can battle against historical circumstances and adversities of nature."
— Dr. S. Radhakrishnan

1.1   Curriculum Design and Development

1.1.1   How is the institutional vision and mission reflected in the academic programs of the university?

Vision

To be a globally admired University.

Mission

Emerge as a centre of excellence best in class in India and Asia and yearning to be the best in the world by 2030. This will be achieved by:

a. Promoting faculty scholarship at the global level
b. Benchmarking academic programs and processes, best in India, Asia and the world
c. Creating a global learning experience through a mix of student and faculty community from the world market
d. Developing institutional level partnership with one of the top 100 global universities recognized for its academic and research excellence
e. Strengthening the bond with industry and community or social organizations at a global level
f. Pursuing the agenda of innovation across all Schools and Faculty
   This mission is to be achieved through an action plan that focuses on innovation, benchmarking, development of a global learning experience enhancing student employability, promoting faculty scholarship at the global level and developing bond with industry and community at a global level. Figure 1.1 below shows the pillars on which the NMIMS vision and mission rests
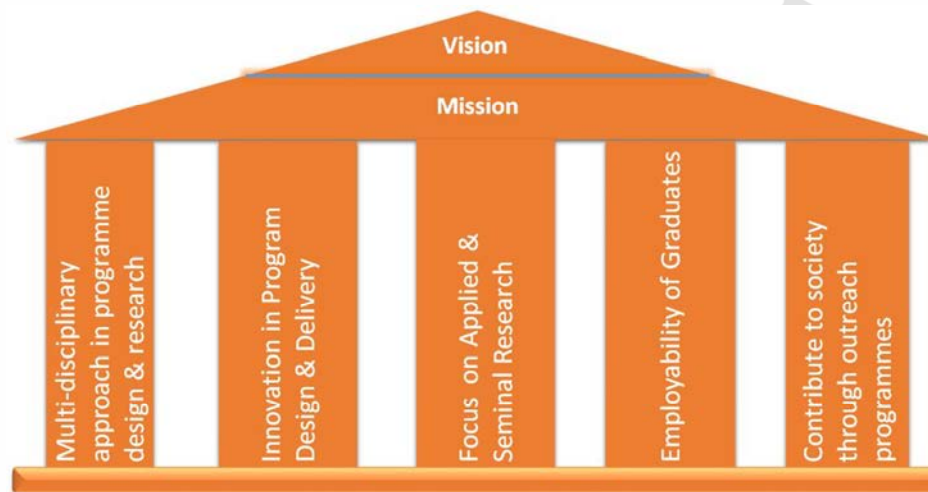
Figure 1.1: NMIMS Vision / Mission

NMIMS is steadily translating its vision into reality through innovations, student accomplishments, faculty scholarship and integration of industry and society needs with its academic programs across all schools to fulfill the needs of human resources globally. The strategy hinges on its core belief that all programs must enhance the employability of the students through an integrated and inter-disciplinary approach.

NMIMS has launched several pioneering initiatives and innovative programs that are informed by its philosophy of bringing integrated perspectives into play. It believes in breaking the boundaries of a discipline to ensure that our students are most sought after by industry.

NMIMS has established linkages with industry and created centres of learning to ensure that the curriculum is contemporary and nothing is imparted that has outlived its usefulness. The Centre for Capital Markets, the launch of Bloomberg terminals, the creation of courses such as "Mathematical Finance" – are few initiatives that effectively ensure that its students are placed in top companies by virtue of a relevant knowledge and experiential base. Apart from this, we offer live industry projects and summer internships. These ensure a learning environment that emphasizes applicability in the organizational context. NMIMS regularly organizes workshops, seminars and conclaves to keep students steadily updated with contemporary developments in the external world. For instance, the Business School organized a seminar on the "Goods and Services Tax" with the top experts in the domain. Theatre workshops and art appreciation events are also organized to enhance learning and holistic development.

To develop research skills, included research projects in our curriculum design for several programs. The School of Economics, for example, includes a course in which students are expected to research contemporary economic problems.

Innovations – the primary foundation of NMIMS.

NMIMS over the years has been recognized for its innovations in curriculum planning. These innovations are at the program and pedagogy level, processes and systems governing academics. At the program level, the most significant innovation relates to the breaking of the silos, thereby creating interdisciplinary and integrated learning context for

students. MBA Tech. (Integration of Engineering and Management), MBA Pharma Tech (Integration of Pharmaceutical Sciences, Technology in Pharmaceutical and Management) were the first such initiatives of NMIMS post it's becoming University in 2003 which are some unique progams across the country. In fact, MBA Tech. which is a Five Year program also got a national acceptance when UGC included the program and the degree in its approved degree nomenclature under UGC Section 22. Emboldened by the students and industry response to these integrated programs and with the commitment to provide holistic learning to the students, NMIMS decided to include subjects like Logic, English Literature, Behavioural Psychology, Sociology, Law and Analysis of Financial Statements in the B.Sc. Economic in 2011. This was perhaps the first time in India that the B.Sc. Economic program focus went beyond conventional Economic Courses. Similar approach guided development of MBA Law program in 2016. The MBA Law program is a program offered by the Business School. Same approach is visible in our Architecture program. As mentioned earlier the students experience has been positive and they have been accepted in some of the best institutions outside India for their higher studies. In fact, one of the students from School of Economics recently got the Award as **'Budding Economist of South Asia',** at the 13th annual South Asian Economics Students Meet, an undergraduate Economics conference sponsored by the World Bank at Kathmandu.

The following illustration from the School of Economics highlights the uniqueness and the innovations at the program level.

In Focus:

Innovative B.Sc. Economics Program

The B.Sc. Economics Program is an academically rigorous program that is highly relevant and contemporary to meet the students' and employers' unique and ever changing needs.

- The Program provides the inter-relationship between courses required for holistic understanding. There is a strong flavour of liberal arts with incorporation of courses like Logic, English Literature, Behavioural Psychology, Sociology, Law and Analysis of Financial statements. At the same time there is a strong focus on quantitative techniques and on different and contemporary fields of Economics like Behavioural Economics, Economics of Geopolitics and International Relations, Game Theory, Finance and Business.
- It focuses on understanding economic theory through an applied approach. The emphasis is on developing critical and analytical thinking through the high quality course content, innovative pedagogy and continuous evaluation.
- Focus on skill development with courses such as leadership training, effective communication, motivational training, business simulation, IT skills, training in statistical software like SPSS and 'R' which are integrated into the curriculum.

- Independent learning and peer learning through Seminar Paper in IV Semester, Research Paper in V and VI Semester and live projects, which make students independent and creative learners.
- 5 % of Economics Courses from second year, taken by Industry experts and compulsory summer internship every year, give the students a competitive edge.

  The students' overall development is ensured through non-instructional activities like conferences, Economics Conclaves, workshops, outbound activities and participation in, and organization of, Intercollegiate Sports, Economics and Cultural festivals.

Integrative module of the Business School in the MBA Program makes it distinctively different from all management programs in India. The following highlights the integrative module at SBM.

<u>In focus</u>
<u>Integrative learning in Management</u>
The Integration Challenge is a multi-organizational competition across 5 months focused on involving students in live business challenges. It requires primary research and students are required to propose recommendations for instant evaluation by the partnering corporate. Through this mechanism, the School of Business Management seeks to provide a supplement to the case study methodology used in the classroom by introducing students to live complex business issues existing in emerging economies such as ours. The students are required to integrate their learning across different functional domains using principles of design thinking to offer innovative and probably disruptive solutions to the owners of the business issue. As part of the challenge, the partner organizations send their team of Managers to our campus to present the live business problem/opportunity they face to the students and provide some parameters they would like the students to keep in mind while co-evolving the solution. The Integration Challenge serves to integrate in these ways: converge learning from various functional areas, grouping students across their divisions, integrating Action and research in solving business problems. The phases of the Integration Challenge included pre-work and partnership generation; Launching the Integration Challenge; Incubation; Verification; Postwork and assessment. The Student group benefits from the corporate engagement in two ways: Being active participants in their learning process and by moving from "desk" learning to "field-based" learning and hands-on. Secondly, developing research based decision making skills and honing cognitive as well as social skills is a huge value addition in the process. The Integration Challenge has become an annual feature with several organizations as partners. The School has been able to showcase its student strength and talent and provide innovative solutions to organizations.

Apart from the program innovations, NMIMS focus is to use innovative pedagogy which is experiential in nature. It is in this context that the three major initiatives are worth the mention here. **Simulation** is one of the best forms of creating learning without necessarily having to go to the industry. In fact the best form of learning is either on the job or off the job as evident by commercial pilot training or armed forces training in the defense academies of the world. NMIMS today places a significant emphasis on such learning. Consequently, simulation today is not only a part of program delivery in School of Business Management but also in Mukesh Patel School of Technology Management and Engineering (MPSTME) and Architecture.

Field based learning is another major innovation in the curriculum. Architecture students are engaged in field based studies as a part of their learning process. One such field based learning is their participation in Kala Ghoda Festival with their models. The others are field based project in India and outside India. The objective of these projects is to provide students an understanding of sociological, cultural and historical context of the cities and countries which has influenced the architectural style. These projects and the design portfolio so made by the students are appreciated by a global jury each year. This has also enabled them to get an admission in some of the best schools of design and architecture in US and Europe.

Outbound Training
School Of Business Management conducts an intensive Outbound Training Program for its incoming students. The two year MBA programs at SBM use pedagogical tools that require students to function as relevant and supportive group members to achieve the aims of learning and development – both at the individual and group level. This presumes that students are trained in team work skills and know how to collaborate. However, we found team work and collaboration skills to be lacking and designated these as an area of development. Another challenge was to quickly enable a huge group of students to become comfortable and learn to work together in a speedy fashion, as well as to introduce the importance of decision making in the managerial world.
The goals of the OBT hence were two fold - to facilitate icebreaking amongst the large number of incoming students and build pride amongst themselves; to build up the skills of team work and collaboration, as well as decision making.
The **components** of the Outbound training included an excursion into natural environs located close to Mumbai, group based activities involving intellectual challenges, trust building games with elements of team member reliance, activities requiring supporting team members, in a healthy competitive context. Learning from each activity was converged and crystallized through an intensive, participative debriefing session.
The **process** followed included three phases: The first phase was preparatory in nature and included setting up volunteer teams from the senior student groups, logistical arrangements, smaller groups formation (of 600 students), briefing each student about the relevant guidelines regarding clothing, activities and objectives of the OBT. The second phase included the actual conduction of the OBT with reporting of the students at 6 am, travel to the designated venue and conduction of the specially designed activities and games. After each activity the learning was drawn out and discussed for internalizing by the students. Phase three was conducted in the classroom sessions of the Organizational

Behavior courses, where the Faculty facilitated reflection and discussion around leadership, decision making and team work by connecting with the OBT experience.

The OBT every year receives good feedback on the components of **outcomes** achieved, learning process and delivery mechanism. For us at SBM we see bonding of students across programs, improvement in team work skills, easier transition into the student role (that of a "learner") and early signs of working with a collaborative approach for decision making.

Benchmarking:

Another pillar relates to benchmarking. NMIMS believes that to ensure relevance, rigour and competitiveness in the program, NMIMS Schools need to benchmark on a continuing basis their programs with the best in India and outside. This benchmarking exercise done at least once in three years does give an insight on the evolution of the program in other institutions and their strengths and limitations. This has helped in the growth of the Schools and also the programs in NMIMS. The benchmarking approach and strategy of NMIMS received a global recognition at the Tenth International Benchmarking Conference and Jiangsu Benchmarking Conference NMIMS was conferred the Runners-up Award. As an example in the evolution of MBA (Tech) a benchmarking exercise was done vis-à-vis IITs, Asian Institute of Technology and University of Southern California. This benchmarking study showed strengths of Mukesh Patel School of Technology Management & Engineering (MPSTME) MBA Tech. and the gaps that were needed to fill to make it the best program in India. This exercise is shown in **Annexure in 1.1a** and **Annexure 1.1b**.

<u>Employability:</u>

One of the guiding philosophies relate to graduate employability. In all its programs, the emphasis has been on skill building. These skills not only prepare the students for the workplace but also to manage their lives. University's firm faith is that the best institutions in the world are those that focus on a life changing experience. All the schools provide such an experience through skill building exercises, interpersonal labs, innovation labs and other experiential pedagogy like field based projects. One such field based project for social outreach and civic engagement to develop social sensitivity is "WE CARE"- in the business school. Students interact with non-profit organizations for understanding societal problems, constraints, organizational and government response. Based on this field exercise, these students provide recommendations to NGOs/government agencies.

Annexure 1.2 shows NMIMS linkages with industry and community

Annexure 1.3 shows NMIMS partnership with other universities that assist in curriculum design and faculty research.

All these efforts have resulted in almost 100% placement of eligible students in all the departments. Further, entrepreneurship is being promoted as an alternative. Among the several initiatives is the Chancellor's Challenge. The challenge is to create an entrepreneurial community on campus for ideation, facilitation, implementation through interaction, learning and exploration guided by experts. For doing so, student teams

IN FOCUS

We Care

The *We Care* project initiated by NMIMS reflects a changing paradigm that acknowledges partnerships between academic institutions and the local community. The "We Care" program is integrated with the MBA program of the University. Students are required to go through modules that help them to understand the structure of the Indian Society, decision making processes and the political system. Students are expected to examine social issues like poverty, gender, literacy, healthcare, immunization, female infanticide environmental issues that confront policy makers in the country. Students are motivated to develop management solutions that will help NGOs and government agencies develop more effective solutions.

across all schools are encouraged to participate with their business plans. These are screened by a jury of angel capitalists, entrepreneurs and faculty. Final round of contests with 15-20 plans is held where jury consists of venture funds, angel funds and successful entrepreneurs.

To encourage Ph.D. students take to faculty roles, Ph.D. students are required to take a course along with their faculty guide.

Research Skills:
To build research skills, students are required to complete a research project in Economics, Science, Pharmaceutical Sciences, Architecture and Management School.

1.1.2 **Does the university follow a systematic process in the design and development of the curriculum? If yes, give details of the process (need assessment, feedback, etc.).**

NMIMS has evolved a structured process of curriculum design and development. It is a system that integrates emerging needs of industry, society, emerging trends in the discipline and benchmarking with the best programs. It also considers students, alumni and faculty feedback. As shown in Figure 1.2 below, the exercise of ensuring relevance of the program is a continuing one. Each year courses are dropped or added in the programs. The University follows a two-pronged approach in designing and developing the curriculum: an incremental change of 15-20% every year and a disruptive change at the end of three years. While analyzing needs, all Deans are advised to consider

environmental changes in terms of changing learner profiles, new educational technologies, national priorities and international developments. The decision to modify the program and the curriculum in each subject is taken by the faculty group. This is based on the industry feedback as also the new developments in a particular discipline. Obsolescence in knowledge is today a reality. Hence, this change is an annual exercise.
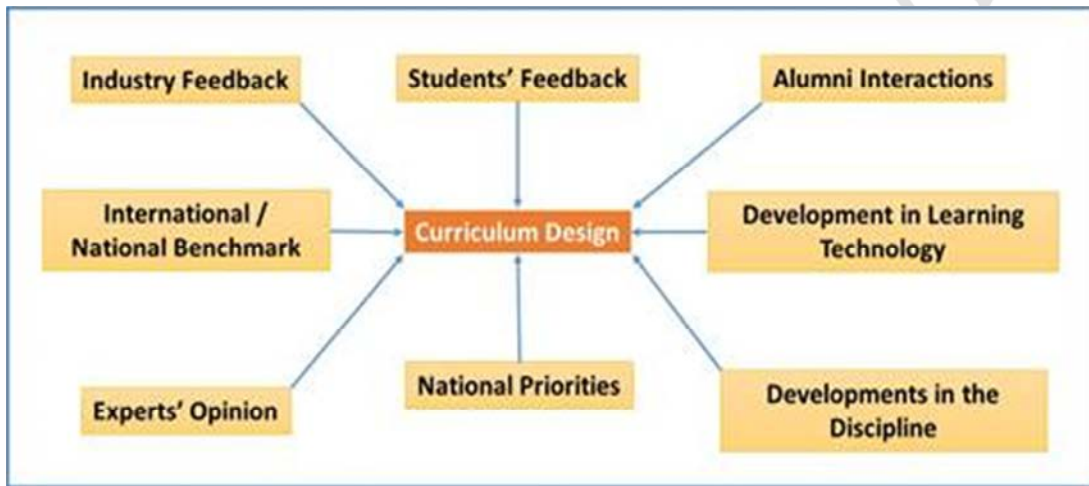
Figure 1.2: Curriculum Development Model

Industry need analysis has helped us adapt to disruptive technology – for example, the shift from Blackberry to Android in mobile technology. It is this continually adaptive approach that has encouraged us to launch new courses such as Mechatronics, Data Analytics, Applied Statistics, Digital Marketing, Mathematical Finance, Financial Engineering, Mathematical Finance and Business Analytics. Our recruiters give feedback on the adequacy and relevance of skills that are required in our students to make them corporate ready. We also get feedback from our alumni on the curriculum design. **Annexure-1.3a** gives details of such feedback in the last three years. The Board of Management which has representatives from industry and other academic experts also provide suggestions about the changing needs and therefore the program requirement.

The results of our gap analysis in the curriculum are placed before the Departmental Advisory Board for additional inputs; and then before the Board of Studies, which, in turn, places them before the Academic Council for further consideration. We finally benchmark our new program architecture against national and international premier educational institutions. The entire process thus reflects our key principles and goals underlying curriculum development and design: and integration with industry and society. It also provides insights on learner profiles emerging learning needs and new learning technology.

1.1.3 **How are the following aspects ensured through curriculum design and development?**
- Employability
- Innovation
- Research

Employability: Graduate employability as mentioned about is one of the guiding principles or philosophies of NMIMS. At NMIMS graduate employability is understood as skill building and making students job ready and placing them successfully in corporate. Of late it is also to encourage students to consider entrepreneurship as an alternative career.

The skill building exercise is undertaken in each program. As mentioned earlier, skills are categorized as technical skills which are required for problem solving and decision making. Hence, the technical skills involve understanding of the subject, development of analytical and decision making skills. Simulations, cases, structured exercises and field based projects, assignments and quiz help students understand and analyze problems and issues. It also develops their decision making skills. Field based projects, outbound training and integrative module along with a course on strategy implementation assists in development of execution skills.

The next set of skills relate to development of interpersonal relations on the workplace. Soft skills, interpersonal labs, outbound training, communication labs, corporate etiquette training are some exercises undertaken at each school level. Annexure 1.4 shows the innovations, value added workshops and skills building exercise undertaken in various programs at NMIMS.

Likewise, structural arrangements like NMIMS BOSCH, Center of Excellence in Automation Technologies, Lucas Nulle~ Centre for students at MPSTME has helped in developing the skills required by Engineering graduates today. The Automation Centre set up in 2013 in the engineering school is an example of the result of the involvement of all our stakeholders. The Centre has created a learning environment that has enhanced the employability of our engineering graduates. Similarly, the Central Instrumentation Lab at School of Pharmacy which houses sophisticated analytical and pharmaceutical instruments is a classic example. LCMS is one of the instruments used in training Pharmacy graduates for industry and research roles. The Bloomberg financial lab at the School of Business Management assists in developing Financial Analytics skills among management graduates.

Industry Internships by students of all schools is an integral part of all the programs. Additionally, as part of the academic process, a live industry sponsored project is acquired and given to a group of students in Statistics. The process starts from understanding a business problem, converting it into a statistical or analytical problem and working on a methodology like statistical theory involving complex analysis and interpretation leading to specific conclusions and recommendations to the company. This process is also guided and mentored by Project Monitory Committee and faculty as internal mentors. This gives students huge learning in terms of using appropriate statistical techniques and getting business solutions in a live environment involving obstacles of various kinds which makes them industry ready.

Committed to make Engineering graduates skilled and employable NMIMS has also partnered with FICCI to establish National Knowledge Functional Hub and is currently

engaged in curriculum research and industry relationship development as part of the Newton Bhabha Fund.

Further, to develop the research and conceptualization skills, almost all courses have research projects as part of the pedagogy. Capstone project in MBA Tech is an example how NMIMS builds research skills of Engineering graduates. Likewise, integrative module of Business School helps in developing the research skills. In the School of Economics the students are required to necessarily undertake the research project. At the M.Tech., MSc. or M.Pharm level the research is an integral part of the curriculum.

All these activities make NMIMS graduates a preferred choice of the corporate.
As shown by the placement data of the last five years in Annexure 1.5., NMIMS has had the record of 100% placements of all those graduates who opt for placement on the campus. In fact, NMIMS Business School is today ranked among the top ten B- Schools. Among the several factors that has made NMIMS Business School one of the most prestigious B school in India initiatives in curriculum development, focus on skill development and a 100% placement track record for more than three decades now.

Innovations: As mentioned earlier, innovations have made NMIMS programs unique and much more creative. The principles that have guided us are the emerging needs of the industry, workplace changes, learner profile, developments an education technology and the disruptive technologies influencing economy and society. For example, NMIMS set up a Task force under Dr. R. A. Mashelkar to study the McKinsey Report on Disruptive Technologies and its likely effects on NMIMS Program and curriculum/design. Based on this Taskforce report changes were made in the B.Tech and M.Tech Programs. It also guided the research initiatives of the faculty in Engineering and Management.

The University involves both external and internal stakeholders at various levels in its curriculum design and development so that employability is assured. We engage with our external stakeholders (industry, regulatory and statutory councils, and society) through industry-institute meets, alumni meets and faculty body meetings. Our internal stakeholders (the trust and the management, faculty, students and alumni) are equally involved in the systematic process of designing and developing the curriculum as described earlier. The high frequency of meetings and continual interaction within the Department, Advisory Board, the Academic Council, and the Board of Management ensure that our curriculum is regularly updated and made more relevant to ensure employability. It also ensures that rigour is not compromised.

Innovation lies at the center of our pedagogical philosophy; we have pioneered new programs that completely redefine learning in an age of disruption. Our new MBA Law program exemplifies our gazing into the future to understand the needs of industry. We have also adopted innovative practices in delivery such as virtual learning, flipped classrooms, case-based teaching, simulations, and field projects.
The curriculum design has an inherent research orientation which is of paramount importance at both graduate and post-graduate levels.

1.1.4 To what extent does the university use the guidelines of the regulatory bodies for developing and/or restructuring the curricula? Has the university been instrumental in leading any curricular reform which has created a national impact?

Yes, the University has used the guidelines of regulatory bodies such as the University Grants Commission, All India Council for Technical Education (AICTE), Pharmacy Council of India (PCI) and Council of Architecture (CoA). We consistently follow the norms laid down with regard to program duration, credits, introduction of nationally important subjects as communicated by the UGC, and the nomenclature of degrees is as specified by Section 22A of UGC.

We have been at the forefront in initiating curricular reforms through our innovative programs such as the MBA Tech program launched in 2005. It has had a national impact by virtue of its novel integration of disciplines. This program has since been emulated by other institutes. We have recently launched the MBA Law program, which adopts innovative approaches in terms of program architecture and pedagogy. Our Entrepreneurship and Family-based program has emerged as a trendsetter and has been replicated by Indian School of Business (ISB), IIM Bangalore, and S. P. Jain Institute of Management & Research. McKinsey report The Power of Many Realizing the Socioeconomic potential of entrepreneurs in the 21st Century, 2011 made a special mention of the E & FMB program as a model program.

Our philosophy of setting a new trend in curricular design and ensuring quality in delivering the same is evidenced by the accreditation of three programs of engineering school at Tier 1 level; these were amongst the first 35 programs which helped India receive the permanent membership of the Washington Accord. Three of our engineering programs have now been accredited at Tier I level National Board of Accreditation and mention of programs like MBA by (Family Business) in McKinsey. Also SAQS considered NMIMS MBA program design as a benchmark in South Asia.

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In Focus

MBA Family Business

Focusing on a different audience, Mumbai's NMIMS University has set up an MBA program that is designed to meet the specific education and training needs of family-business owners and managers (Initiative 4).

INITIATIVE 4. THE ENTREPRENEURSHIP & FAMILY BUSINESS MBA ADDRESSES THE NEEDS OF OWNER-MANAGERS (INDIA)

Family-owned businesses play a crucial role in the economies of many economies, and especially in India, where they account for 95% of all registered firms. Most of these companies face specific management challenges, with only 13% of them surviving until the 3rd generation, and no more than 4% beyond that. Additionally, one third of family businesses disintegrate as a result of intergenerational conflict.

The Entrepreneurship and Family Business Master in Business Administration (MBA) program was developed to assist family-owned firms to move into line with professional organizations and help the businesses continue to grow while staying in the family.

The premier MBA program specifically enrolls owners and heirs of family businesses in India. Starting from just 6 students in 1999 and growing steadily to an intake of 120 students in 2011, the program is an example of a successful and consistent education and skilling initiative by the private education sector in Mumbai, India's commercial capital.

Source: McKinsey: The Power of many realizing the socio-economic potential of entrepreneurs in the 21st century. Page Nos. 30 & 31

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1.1.5 **Does the university interact with industry, research bodies and the civil society in the curriculum revision process? If so, how has the university benefitted through interactions with the stakeholders?**

NMIMS continuously interacts with industry and civil society in the curriculum revision process. It also interacts with research bodies like Indian Council of Medical Research, Bhabha Atomic Research Centre, National Chemical Laboratory Pune, Indian Institute of Science, Bangalore, etc.

The University has immensely benefited from these interactions. As mentioned earlier, we interact on a continuing basis with all our external stakeholders. The benefits of this continual interaction have accrued to us in the following ways:

1. Ensuring relevance of the curriculum. For example Industry feedback got the University to consider introducing Business Analytics, Big Data, Data Mining and Warehousing across all programs and at SBM across functional areas like Marketing,

Finance and HR. It also led to launch of M.Tech. Decision Sciences and B.Sc. Applied Sciences. It helped in the launch of new electives at the Business School, new verticals in the MBA Tech like infrastructure Management, Project Management and Innovations Management and Consumer Analytics in the Pharma Programs, in programs like EMBA, PGDM-Real Estate and Construction Management. The interaction with community also helped NMIMS launch programs in Family Business Management and programs exclusively for women segment. It also helped develop a six year integrated Diploma and Degree Program post class tenth. Further, each year courses are added or deleted based on recruiter feedback and new skill sets required at the work place. This has helped in overcoming obsolescence.

2. Making students socially sensitive. The engagement in the community helped institution develop socially sensitive graduates. It also helped program design for NGOs and social enterprise and sustainability management.

3. Technology forecasting: industry and society helped us understand the changes in technology. As mentioned earlier the Taskforce led by Dr. Mashelkar helped the university understand the technologies disrupting economies and society and influencing quality of life. It also helped in introducing new electives.

- Our students are better prepared for industry positions. Industry to partner University in its several initiatives. Our quality has been rated by agencies such as CRISIL, ICRA, BIS, etc.

- Continual interaction with industry has also helped to set up sponsored laboratories on campus. These laboratories include BOSCH, Accenture, Blackberry and Bloomberg.

1.1.6 Give details of how the university facilitates the introduction of new programs of studies in its affiliated colleges.

NMIMS does not have affiliated colleges. It is a Deemed to be University. As explained earlier, introduction of new programs is done in a structured manner. Every department conducts the need assessment and market demand for the proposed program. It then contemplates and deliberates with experts in their respective Board of studies. The recommendations of Board of Studies are placed before the Academic Council for approval. Further, the Board of Management endorses the same and new program is launched.

1.1.7 Does the university encourage its colleges to provide additional skill-oriented programs relevant to regional needs? Cite instances
(not applicable for unitary universities).

NOT APPLICABLE

1.2   Academic Flexibility

1.2.1   Furnish the inventory for the following:
- Programs taught on campus: **36 (Annexure-1.6)**
- Overseas programs offered on campus: **NIL**
- Programs available for colleges

   Following interdisciplinary courses are offered to students:
   - Sales and Distribution Management
   - Design Thinking
   - Business Analytics

   Further, following programs are interdisciplinary:
   - MBA (Law)
   - Integrated MBA (Family Business & Entrepreneurship)
   - B.Sc. (Economics)

   The students of Engineering and Pharmacy are allowed to take lateral entry in the second year of their program. There are electives across most of the programs offered in the University. Moreover, there are verticals introduced in the Management and Engineering programs which in itself have a basket of electives. There is a joint MS program offered in the Engineering school along with Stevens University, USA where the credits earned at NMIMS are accepted for awarding the MS degree.

1.2.2   Give details on the following provisions with reference to academic flexibility
   a. Core / Elective options
   The program design at NMIMS consists of Core and Elective courses. It also has choice based credit courses. This is more visible at the MBA programs where the core courses account for 55%. The rest is the bouquet of electives. The elective courses are in the functional areas on Management. The core courses are the foundation courses which amount to around 55% to 60% of the total courses. Electives account for another 40% of the total courses. Students have freedom to select electives/verticals. Further, University also offers inter-disciplinary courses for students from different departments.

   Students are free to choose their electives. In Business School some electives have pre course requirements in terms of either subjects taken earlier or the GPA earned in that subject.

   Annexure No.1.7 shows the program architecture of MBA and MBA Tech. program

   b. Enrichment courses
   Value added workshops and skill building exercises are undertaken in each program in Annexure No. 1.4 shows details of such workshops and skill building exercises. The School of Science offers a course in Business Analytics in collaboration with SAS Institute. Soft skill training is also imparted to all the students. Students are also encouraged to undertake international research internships.

38

Internships: 5 students

Sr. No.	Name of Student	Year	Place of Internship
1.	Ms. Delina Joseph	2015-16	TU Chemintz, Chemintz Germany
2.	Ms. Miloni Thakkar	2015-16	Reddy Chemtech, Inc. Georgia GA USA
3.	Ms. Swati Chitrangi	2015-16	National Institute of Advanced Industrial Science & Technology (AIST), Ibraki, Japan
4.	Ms. Hetal Damani	2015-16	Charles Darwin Univeristy, Australia
5.	Ms. Jeanette Martins	2015-16	Department of Behavioral Medicine, College of Medicine and Health Sciences, SQUH, Muscat, Oman.

Blended learning like the Harvard online modules is a part of the foundation course of MBA Program, integration of Khan Academy Tutorials in Engineering programs and satellite based instructions from IIT have enriched the engineering program and the students' learning experience .

c. The EMBA program offers flexibility in terms of pace and duration by offering modules which students can complete according to their convenience.

d. Credit accumulation and transfer facility
Yes, a policy on credit transfer exists. This policy takes into consideration courses/subjects and credits taken by students and NMIMS requirements. Based on such a comparative analysis, a decision is taken on accepting student credits. Articulation agreements / MoU facilitates the credit transfer. Before spelling out the articulation agreements mapping of courses is carried out by the faculty

e. Lateral and vertical mobility within and across programs, courses and disciplines
Policy as per statutory requirements for lateral entry in B.Tech. and B.Pharm. exists. Students after the first year of Engineering are also given an option to change stream as per the vacancy available.

1.2.3 Does the university have an explicit policy and strategy for attracting international students?

NMIMS has an explicit policy for attracting foreign students. For example, Business School accepts GMAT scores of foreign students. The University has defined `foreign students' admission policy and fees in its admission bulletin for foreign students. Annexure 1.8 shows the admission policy for Foreign Students at NMIMS. NMIMS, in its endeavour to bring diversity in the classroom, encourages mobility of students from across the world and guest lecture from foreign academics. We are also promoting our regular programs in different geographies to attract students from there.

Further, one of the goals of NMIMS is to internationalize student community and

accordingly 30% students are proposed to be sourced from the world market. The international division has been mandated to do so. The division is working towards making 5 summer programs in the summer of 2017 successful.

NMIMS has MoU with Business School in Europe and Australian Universities. As a result of these MoU each year NMIMS gets 15-20 students for Business School and School of Commerce.

We have two articulation agreements, one in engineering and one statistics offering a year abroad program. We are successful in implementing a centre for international virtual internship for companies from France and UK. Currently 18 students have undergone international internship exposure in technology area through this virtual platform, which is expected to grow as full-fledged cost effective alternative to students intending to do an internship abroad.

NMAT by GMAC is also offered now in various geographies. This will help NMIMS attract foreign students to its MBA Program.

Also, students are placed abroad for MIP Progams where students are paid by the companies under MIP for 10 weeks as a part of bilateral MOU signed with the companies.

1.2.4 Have any courses been developed targeting international students? If so, how successful have they been? If 'no', explain the impediments.

We have five exclusive short term programs for international students at our campus scheduled during summer break.

1.2.5 Does the university facilitate dual degree and twinning programs? If yes, give details.

NMIMS has collaboration with Stevens Institute of Technology. One of the clauses relates to credit transfers for Masters Program.

The scope of the MoU is:
   i. Development of 4+1 degree programs
  ii. Development of combined Bachelor/Master degree programs
 iii. Exchange of faculty & students
  iv. Cooperation in research, exchange of academic materials and publications, etc.
   v. Development of joint Masters' program and customized or open executive programs for management or engineering professionals

Similarly, SBM has a partnership with University of South Florida to offer program in Business Analytics. School of Architecture has a tie up with IAAC Barcelona for offering Masters of Architecture in City and Technology Program.

The School of Commerce has signed a MoU with University of South Florida. Under this MoU, students who complete three years of the B.Sc. Economics will register for another year and will

be eligible for a MS in Business Studies. The School also offers a dual degree program with an exit option. A student opting for this program is offered BBA and MMS degree. This program is only offered to students who secure CGPA of more than 3.00

1.2.6 Does the university offer self-financing programs? If yes, list them and indicate if policies regarding admission, fee structure, teacher qualification and salary are at par with the aided programs?

Since NMIMS is a Deemed to be University, all programs are self-financed.
The admission policy and fee structure for each of these programs is decided by the Board of Management on the basis of recommendations of respective departments and Finance and fee fixation Committee. The teacher qualifications and salaries are at par with UGC norms.

1.2.7 Does the university provide the flexibility of bringing together the conventional face-to-face mode and the distance mode of education and allow students to choose and combine the courses they are interested in? If 'yes,' give operational details.

Yes, the University provides flexibility of bringing together the conventional face-to-face and online mode of education. In 2016 the Business School introduced the online courses of Harvard as Foundation Courses and asked all its incoming students to undertake them. This was very much appreciated by the students' and the faculty feedback was very positive. In accordance with the UGC circular on MOOCS and online courses on SWAYAM, the university has recently issued a communication to all its Schools to select courses from various open learning platforms.
The copy of the circular is shown in **Annexure 1.9**

1.2.8 Has the university adopted the Choice Based Credit System (CBCS)? If yes, for how many programs? What efforts have been made by the university to encourage the introduction of CBCS in its affiliated colleges?

The University follows CBCS in all programs. Each program has a foundation program, core courses and electives. Each course has a pre-defined credit structure. Following process is in place for implementation of choice based credit system.

1. Restructuring of Syllabus in the form of Module (define learning objectives and outcomes; inclusion of lectures/tutorials/lab/field work/project work etc)
2. Flexibility in designing curriculum and assigning credits based on the course content and hours of teaching
3. Cafeteria type approach for students to choose courses of their choice :
   a. Foundation
   b. Core
   c. Elective
   d. Value added

4. Students to acquire more than required credits by taking additional courses – students may choose additional course or in lieu of elective from interdisciplinary offering of courses.
5. Interdisciplinary approach to learning
   a. Within a program by offering selection across different areas/stream
   b. Interdisciplinary offering of courses where students of home schools may choose courses offered by host school within NMIMS as per master list
6. Credit for Skill development (CFSD) is also allocated in some selected programs.

1.2.9 What percentage of programs offered by the university follow:
☐ Semester system: 85% (All other programs)
☐ Trimester system: 15% (M.B.A Programs)

1.2.10 How does the university promote inter-disciplinary programs? Name a few programs and comment on their outcome.

The University fosters an inter-disciplinary approach to learning. This approach is a completely new concept in line with international academic systems. It enables students from different streams to select courses, acquire knowledge of other domains and to ensure all-round development. In 2015-16 following interdisciplinary courses were offered on a pilot basis on a Masters' level.

Table 1.1: Interdisciplinary courses

School	Courses
SBM	Sales & Marketing
MPSTME	Business Analytics
BSSA	Design thinking

The first such initiative of interdisciplinary programs at NMIMS were MBA(Tech) and MBA Pharma Tech in 2006. Over the years after the first batch graduated and placed successfully. The demand for these programs has substantively increased. In fact at MPSTME MBA Tech is a preferred program of most students. Buoyed by this success, NMIMS continued its tradition when in 2011 it designed B.Sc(Eco)program which has subjects in humanities and management too besides economics courses. Students of this school have found acceptance in London School of Economics other foreign universities for their M.Sc. programs. And in 2015, NMIMS launched a five year integrated program in Family Business Management. This has inputs from engineering, pharmaceutical sciences and architecture schools, besides the inputs from Business School. This program is today being sought after by family business.

1.3 Curriculum Enrichment

1.3.1 How often is the curriculum of the university reviewed and upgraded for making it socially relevant and/or job oriented / knowledge intensive and meeting the emerging needs of students and other stakeholders?

As mentioned earlier, the University reviews the curriculum at the end of each year. This review is based on feedback from students, faculty and recruiters. The student feedback

provides an understanding of the learning difficulties and the subjects which they felt did not add value to them or the inputs over there in terms of contents and examples were perceived to be obsolete. The recruiter feedback provides the understanding of the learning gaps in the curriculum. Further, to ensure that incremental innovations are made in the curriculum of various subjects. Faculty is required to mandatorily make 15 to 20% change in the course design. This could be in the form of deletion and addition of some topics, new cases or new reading material. Once in three years a comprehensive review of the program is undertaken. This leads to either redesigning the entire program from the scratch as was done in the Business School in 2009 or MBA Tech. in 2014-15. The review also takes into consideration the emerging learning technologies, learner profiles and the future of workplaces.

The process of reviewing programs involves industry conferences, Faculty taskforce Composition, approval by the Board of Studies and University Academic Council.

The University's top leadership meets once in two years to discuss the current curriculum design, learning challenges and the emerging scenario from the point of view of workplace, skills and education requirement.
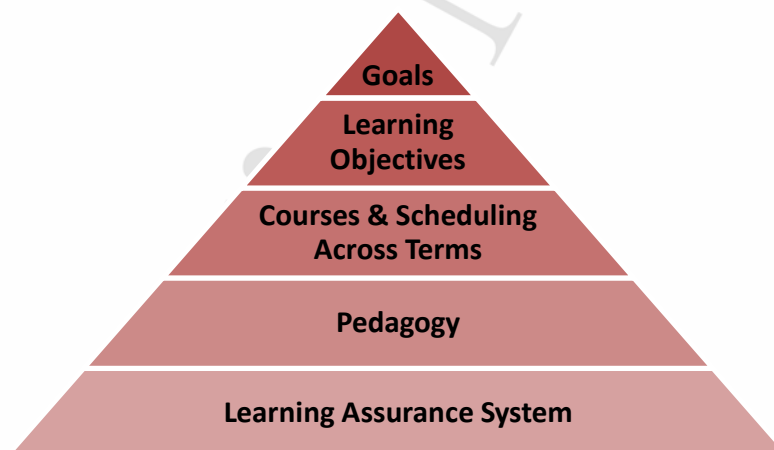
Figure 1.3: Curriculum Delivery Process

1.3.2   During the last four years, how many new programs at UG and PG levels were introduced? Give details.

In the last 4 years, the programs which were introduced at PG/UG Diploma levels appear in Table 1.2

Table 1.2 UG & PG Programs Introduced

Year	School Name	UG Programs Introduced	PG Programs Introduced
2016-17	School Of Business Management	-	MBA (LAW)
2016-17	Sunandan Divatia School Of Science	-	Integrated M.Sc in Biomedical Science
2016-17	Sarla Anil Modi School Of Economics	-	M.Sc. Economics
2014-15	Balwant Sheth School Of Architecture	-	Joint M. Arch Program Master in City &Technology(MaCT)
2014-15	Sunandan Divatia School Of Science	-	Ph.D. Physiotherapy
		-	Post Graduate Diploma in Physician Assistance
		-	Post Graduate Diploma in Operation Theatre Technology
		-	Post Graduate Diploma in Central Sterile Services
		-	Post Graduate Diploma in Non-Invasive Cardiology
		-	Certificate Course in Business Analytics (Predictive Modelling)
2014-15	Anil Surendra Modi School Of Commerce	B.Sc. (Finance)	-
2013-14	Shobhaben Pratapbhai Patel School Of Pharmacy And Technology Management	-	M. Pharm. (Drug Development & Regulatory Affairs)
2013-14	Sunandan Divatia School Of Science	-	Certificate Course in Molecular Medicine
		-	Certificate Course in Molecular Oncology

44

Year	School Name	UG Programs Introduced	PG Programs Introduced
2012-13	Spp School Of Pharmacy And Technology Management	-	M.PHARM. (PHARM. ENGINEERING)
2012-13	Sunandan Divatia School Of Science	-	M.Sc. Biological Sciences
		-	M.Sc. Chemical Sciences
		-	Master of Physiotherapy
2011-12	School Of Business Management	-	MBA Human Resource
		-	Executive MBA
2011-12	Shobhaben Pratapbhai Patel School Of Pharmacy & Technology Management	B. Pharm + M.Pharm	M.Pharm + MBA (Pharma Tech & Healthcare Management) – Pharmaceutics
		-	M.Pharm + MBA (Pharma Tech & Healthcare Management) - Pharm Analysis
		-	M.Pharm + MBA (Pharma Tech & Healthcare Management) - Quality Assurance
2010-11	Sarla Anil Modi School Of Economics	B.Sc. (Economics)	-

1.3.3 What are the strategies adopted for the revision of the existing programs? What percentage of courses underwent a syllabus revision?

NMIMS differentiates itself from other universities on the basis of relevance and rigour of the curriculum. The strategy is based on environmental scanning which analyses emerging student profiles, developments in the middleclass market with regard to priority accorded to higher education, learning technologies and competition offerings. The competition here is not only offerings from other universities but also other education concepts which have the potential to upstage conventional education model. Once such education concept relates to MOOCs and online tutorials. This environmental scan helps in distilling the future. NMIMS also uses strategy of networking and collaboration with industry, national institutions and foreign experts for curriculum revision. In the last five years, all our programs have undergone a revision. One of the most significant changes across all programs is the use of technology for learning purposes. Also is the introduction of analytics, entrepreneurship courses, and courses on innovation, soft skills and outbound training for development of behavioural skills. Also the new subjects at the School of Engineering like Mechatronics and verticals in Infrastructure Management and

Real Estate Management and Technology Management are the outcomes of such collaborations.

Almost 85% of the courses have undergone syllabus revision in last 4 years.

1.3.4 What are the value-added courses offered by the university and how does the university ensure that all students have access to them?

The courses that are offered in all Schools over and above those defined in the curriculum are listed in **Annexure-1.4.**

Some of the value added courses at different schools are:
- Business Ethics
- Corporate Social Responsibility
- Mechatronics
- Business Intelligence & Analytics
- Innovation
- Soft skills
- SAS Predictive Modeling
- Microsoft certified courses
- Project Management courses conducted by PMI.
- Theatre workshops
- Econometrics

The workshops and seminars are open to all students and are based on registrations. In a few cases, attendance is mandatory.
Marketing is done by faculty and Dean for these workshops through their communications to the students and Open House Sessions.

1.3.5 Has the university introduced any higher order skill development programs in consonance with the national requirements as outlined by the National Skills Development Corporation and other agencies?

NMIMS has worked towards the development of Analytics Skills of its graduates. The higher order skill development is a continual exercise at NMIMS, especially so at the Masters and Ph.D. level. Critical thinking, application of logic, analytical skills and decision making skills are some of the higher order skills that are emphasized in the program design of all schools. In specific reference to analytics and Data Sciences, following new programs were introduced in NMIMS in the last three years.
1. Business Analytics courses (SAS)
2. Predictive Modeling
3. Financial Analytics & Decision Making
4. Visual Analytics

46

1.4   Feedback System

1.4.1   Does the university have a formal mechanism to obtain feedback from students regarding the curriculum and how is it made use of?

Yes. The University has a formal mechanism to obtain student feedback. Student feedback is taken twice during an academic term, once during the middle of the term and the other at the end of the term.

The objective of the midterm feedback is to understand how well the course was progressing and the learning challenges if any requiring midterm course correction. This feedback is used by the Dean to counsel the faculty wherever so required. The term end feedback is administered through Blackboard which not only eliminates/ minimizes the scope of human errors, but also incorporates all the advantages associated with technology, including speed and ensuring student privacy. It has been seen to encourage a more honest feedback from the student community. This student feedback is tabulated, analyzed and shared with the faculty by the Dean. The term end feedback is collected in two parts. Part A is an objective feedback measured on a seven point scale. The feedback is on the course learning objectives, content planning (depth and breadth of coverage), pedagogy, faculty preparation and faculty's effectiveness in the class. The qualitative feedback is on the faculty preparedness, perceived value of the course from the faculty and the faculty's classroom management style. The Dean acts upon this feedback to improve various aspects of course content and pedagogy.

It is to be noted that Dean looks at extreme feedback very closely for intervention if required.

The feedback is tabulated, analyzed and sent to the faculty by the Dean. The feedback analysis to the faculty is with regard to his or her course, best feedback in his or her area or department in that term and the best feedback across all departments for areas. The Dean categorizes the faculty in three groups:
   a. Faculty with an outstanding feedback of 6 and above – congratulations from the Dean
   b. Faculty with average feedback of 3.5 to 4.5 – Dean urges faculty to improve
   c. Faculty with score of less than 3.5 and below is provided counseling by the Dean

The feedback has helped in improving the learning experience thereby enhancing the value of learning in each courses offered in a semester or term. The feedback of each school is presented to the Board each year as part of the Annual Academic Report.

A copy of the Feedback Form is enclosed as **Annexure 1.10**

In addition, feedback is also taken through an open house by the Vice Chancellor at the end of each academic year. This feedback is on the course, faculty, administration and infrastructure.

The feedback mechanism has yielded the following outcomes:
- The average faculty feedback has improved
- The confidence level of the student in giving feedback has improved
- It has helped the faculty to understand the areas of improvement
- It has also given us information on the new learning profiles and expectations of students

1.4.2 Does the university elicit feedback on the curriculum from national and international faculty? If yes, specify a few methods such as conducting webinars, workshops, online discussions, etc. and its impact.

Yes, the University elicits feedback on the curriculum from national and international faculty on an ongoing basis. At the business school, we have constituted a curriculum review committee with international experts from Harvard, Cornell and Case Western University as well a senior member from the Tata group. In addition, the committee is chaired by a former dean of Indian School of Business (ISB). The members met through video conference and looked at future trends. This was followed by an online chat/discussion among experts on the research that was undertaken at the business school with its alumni. This is a highly structured exercise and changes are suggested and incorporated every three to four years. The engineering school consults experts from IITs, NITs and the Indian Institute of Science, and their inputs are incorporated into the program. These experts meet two to three times a year.

1.4.3 Specify the mechanism through which affiliated institutions give feedback on curriculum enrichment and the extent to which it is made use of.

NMIMS is a deemed to be University. Hence, there are no affiliated institutions. However, every department gives feedback on curriculum enrichment to the University.
Curriculum design, delivery as well as evaluation incorporating global best practices. This is done by way of benchmarking course curricula against the best Schools / Institutions in the world who use experiential pedagogy involving cases, simulations and industry-academia interface, and a system of internal continuous evaluation across all Departments. The feedback on curriculum enrichment is taken on a regular basis from alumni and eminent industry leaders, recruiters, etc. The student also gives feedback on curriculum at the end of every term. These suggestions are compiled and discussed in the Board of Studies. The recommendations are further placed for approval before the Academic Council. Three Academic Council meetings are held in an academic year where such feedback on curriculum enrichment is deliberated and is further placed before the Board of Management for endorsement of the same, which is implemented from the subsequent academic year.

1.4.4 What are the quality sustenance and quality enhancement measures undertaken by the university in ensuring the effective development of the curricula?

Following measures are in place to sustain and enhance quality to ensure the effective development of the curricula:

- Establishment of IQAC
- Vice-Chancellor's review at the end of each term to primarily understand whether the curricula meets quality standards
- Compliance with the requirements of NBA and the earning of accreditation
- South Asian Quality System Accreditation (SAQS Accreditation) of MBA Programs of the Business School
- Faculty Development initiatives: the business school nominates faculty for training at Harvard. The engineering school trains its faculty through tie-ups with BOSCH, Lucas and Stevens Institute. The pharmacy school helps faculty in gaining industrial exposure
- Establishment of Quality Circles in each School

CRITERION II: TEACHING-LEARNING AND EVALUATION

"A small body of determined spirits fired by an unquenchable faith in their mission can alter the course of history".

- Mahatma Gandhi
Father of the Nation

2.1 Student Enrolment and Profile

2.1.1 How does the university ensure publicity and transparency in the admission process?

NMIMS uses print, social media, web portals, blogs and institution website to give publicity to the admission process of all its programs. The website contains all the details relating to the admission process.

In specific terms the role of the print media is to create an awareness in the target segment for different programs. Generally, target market for NMIMS program is the urban and rural middleclass families which have an aspiration to improve their standard of living. Hence, the selection of the national and regional print media. In specific terms NMIMS admission ads are in national newspapers like Times of India, Hindustan Times, and The Hindu. In addition, we also use regional newspapers like Telegraph, Tribunal and Deccan Chronicle. Vernacular language papers like Dainik Bhaskar, Amar Ujala, Lokmat, etc. are also used to reach tier 2 and 3 cities.

Further, to these newspapers, general purpose magazines like Outlook are also used for advertising NMIMS programs.

Digital medium: Given the profile of the aspirants, NMIMS uses digital tools like Google extensively. Banner Ads are placed on Google in the relevant search categories. In addition, NMIMS Search Engine Optimization (SEO) strategy has ensured that NMIMS programs remain in the top 3 to 5 searches on the first page of its category on Google and other similar search engines and YouTube. NMIMS channel on YouTube presents the highlights and events of each schools and the University, which assists students in making choices.

Social Networks: NMIMS communicates through Facebook, Snapchat, LinkedIn and all other social communication channels. Given the profile of the student community, it has been decided that the digital and social communications would account for almost about 25% to 30% of the total advertising budget.

NMIMS also engages with the target market to answer their queries or remove the misgivings with regard to careers and the programs. These engagements help NMIMS understand the target students mind. Accordingly **NMIMS uses discussion forums** like Pagalguy and Snapchat for engaging the target market. It also engages students on the institutions Facebook page and Twitter handle.

NMIMS website provides a comprehensive detail of admission procedure in different programs. It provides information on number of seats, Admission Test, Case Discussion, Interview, and Counseling, refund policy, important dates in admission and the fee details etc.

Ensuring transparency: To ensure transparency in admission process, NMIMS uses a multi-pronged strategy which includes dissemination of relevant information as mentioned above through various media vehicles and also guiding the students in their application and admission test process. NMIMS Admission Test for its various programs are conducted by GMAC (Global Management Admissions Council) and TCS (Tata Consultancy Services). All through the years NMAT was owned by NMIMS, it was conducted by third party like Institute of Banking Personnel Selection and later, post 2009 Pearson Vue which designed online test and delivered them successfully. NMAT was acquired by GMAC in 2015. The Undergraduate Admission Test was designed by IBPS until 2015 when NMIMS decided engage TCS to design and conduct the Test at an all India level.

Students get to know their Test Scores, Final Score and Merit Rank. All these are communicated through the NMIMS website.

NMIMS has no Management Quota and does not admit students without their going through the Admission process. This is communicated through all communication channels to the target market.

2.1.2   Explain in detail the process of admission put in place by the university. List the criteria for admission: (e.g.: (i) merit, (ii) merit with entrance test, (iii) merit, entrance test and interview, (iv) common entrance test conducted by state agencies and national agencies (v) other criteria followed by the university (please specify).

Yes. The University follows a very elaborate and transparent admission process for UG and PG programs. The Admission process is based on merit admission test, interview/counseling/common entrance test conducted by state/national agencies and case discussion in School of Business Management. In specific terms:

Admission process for MBA Program:
1. Admission Test. As stated above, NMIMS conducted its Management Education Test namely NMAT since 1993. Initially it was paper pencil test Designed and conducted by IBPS. Until 2009, invariably the School received around 30,000 applications for just about 600 seats in the MBA programs at Mumbai. NMAT became a computer based test. The test was designed and conducted by Pearson Vue. The strength of the test is, it is psychometrically validated. In 2015, GMAC acquired the test and made it global.

    Business School has all along admitted students for the MBA program which is a national test conducted by NMIMS. In 2015 it was taken over by GMAC. The admission test has three components namely Comprehension (verbal), Quantitative

and Logic. To shortlist the students Case Discussions and Interviews are carried out. Students are advised on the sectional cut-off scores and the aggregate cut-off scores which varies from year to year. Students are informed that they need to have scores which are above the cut-off point. Based on this score, the students are shortlisted for Case Discussion and Interview. Generally, institution maintains the ratio of 1:5 for shortlisting the students. For example in 2016 the total number of students called for Case Discussion and Personal Interview were 3130. for 630 seats in MBA program. Case Discussion is different from Group Discussion and is a unique feature of NMIMS only. Here the students are given a caselet and about 5 to 10 minutes to read and reflect on the case before starting the discussion for the next 20 minutes. This caselet provides decision points for students to critically think, analyze and come up with recommendations. This helps institution assess problem solving, communication, interpersonal and group decision making skills. This is followed by an interview with a panel comprising of a faculty, alumni and industry personnel.

In the overall selection process Admission Test has 80% weightage. The balance 20% is for Case Discussion, Personal Interview, Work Experience and past Academic Performance. For application rating on all these criteria, weightages are defined well in advance by the Admission Committee.

The eligibility for the MBA Program is as per the AICTE norms, that is a graduate in any discipline with a minimum of 50% marks from an institution recognized by AIU or from one of the national institutions of eminence like the IITs.

Based on the application rating, Case Discussions, Interview and NMAT score, a composite score for each student is worked out and a merit list is generated through SAP.

Similarly, for undergraduate programs in Engineering, Economics, Pharmaceutical Sciences and Commerce, NMIMS conducts NPAT (NMIMS Programs Admission Test) at national level. The admission to these programs is based on NPAT scores and NPAT scored and 12th standard marks for few programs.

In the context of B.Arch. students are admitted through NATA which is the admission test conducted by the Council of Architecture and in the School of Law they are admitted through CLAT. Pharmacy, admissions are also made through GPAT conducted by AICTE. In 2016-17, there were 60,000 students who had applied for 630 MBA seats in Mumbai campus and another 20,000 students wrote NPAT to join one of the undergraduates programs of NMIMS. The details of these admission tests and processes are shown in **Annexure 2.1.**

Further, gender diversity in MBA Programs is ensured by offering 30% seats to women

2.1.3   Provide details of admission process in the affiliated colleges and the university's role in monitoring the same.

NMIMS is a Deemed-to-be University with no affiliated colleges.

2.1.4   Does the university have a mechanism to review its admission process and student profile annually? If yes, what is the outcome of such an analysis and how has it contributed to the improvement of the process?

Each year after the admission session, the University reviews the Admission Process. This review takes place at two levels, which are Board of Management and Faculty Council/Admission Committee. The Board is presented the data on the total number of applications, number of offers made and accepted. Demographic profile and work experience wherever required is also shared with the Board, which also considers the national scenario. In one such meetings of the Board in 2015, it was decided to have 30% women students in the MBA Programs. Until 2015, the number of women students' admission in Mumbai has been 20 to 25%. This was also motivated by industry preference for women MBA students. The Board also discusses the challenges in admission. The Board also deliberates on rigor in the admission process.

The review process of Management Admission Test in 2009 led to NMAT becoming computer based psychometrically validated test. The global best practices in admission test, design and delivery were adopted in NMAT design and delivery post 2009.

Assessment Centre Methodology was used for admission to MBA HR.

Given the negative experiences with Group Discussion process, NMIMS SBM decided to use case methodology to assess student's critical thinking, lateral thinking, analytical skills, communication skills and people skills.

For admitting students to the UG programs, it was decided to develop an admission test on the lines of SAT (Scholastic Aptitude Test) and accordingly, it was decided to have the following components in NPAT also, namely, Quantitative, Comprehension and reasoning. For admission to Engineering programs higher weightage was given to quantitative and logical reasoning.

These reviews and continuous improvements in the admission tests have made NMIMS admission process rigorous, competitive and transparent.

2.1.5   What are the strategies adopted to increase / improve access for students belonging to the following categories:
∗SC/ST,
∗ OBC
∗ Women
∗Persons with varied disabilities
∗Economically weaker sections

∗Outstanding achievers in sports and other extracurricular activities

The admission process is merit based. 30% seats are reserved for women candidates to maintain gender diversity in all the full-time management programs. To enhance access to economically weaker sections, scholarships / tuition fee waivers are given on a case to case basis. To encourage outstanding achievers in sports and other extracurricular activities, higher weightage is given at interview or counseling stage.

2.1.6 Number of students admitted in university departments in the last four academic years:

Table 2.1 shows the number of students admitted in various programs during the last four years.

Table No. 2.1: Number of students admitted in various programs during the last four years.

2013	UG	PG	Ph.D.	Total	2014	UG	PG	Ph.D.	Total
MPSTME	2523	208	53	2784	MPSTME	2862	172	56	3090
SPPSPTM	316	268		584	SPPSPTM	402	243	22	667
BSSA	191			191	BSSA	194			194
SBM		1215	52	1267	SBM		1307	62	1369
SOC	824			824	SOC	1035			1035
SOE	95			95	SOE	144			144
SOS		89	25	114	SOS		108	28	136
Total	**3949**	**1780**	**130**	**5859**	**Total**	**4637**	**1830**	**168**	**6635**

2015	UG	PG	Ph.D.	Total	2016	UG	PG	Ph.D.	Total
MPSTME	3313	191	56	3560	MPSTME	3071	222	75	3368
SPPSPTM	472	155	20	647	SPPSPTM	525	127	28	680
BSSA	194			194	BSSA	194			
SBM		1467	58	1525	SBM		1515	49	1564
SOC	1438			1438	SOC	1871			1871
SOE	184			184	SOE	223	16		239
SOS	24	143	31	198	SOS	80	156	32	268
Total	**5625**	**1956**	**165**	**7746**	**Total**	**5964**	**2036**	**184**	**8184**

2.1.7 **Has the university conducted any analysis of demand ratio for the various programs of the university departments and affiliated colleges? If so, highlight the significant trends explaining the reasons for increase / decrease**.

The demand ratio for various programs is shown in Table 2.2.The analysis of demand to seat ratios reveal that MBA program is the most sought after program. The next most sought after programs are BBA/B.Com/B.Sc. Finance/B.Sc. Economics. Pharmacy, Science, and Architecture programs shows stagnation or marginal growth. The applications for engineering programs have shown growing acceptance. The demand ratio also confirms national trend of growing demand for professional education especially if it enhances student's employability. It also confirms that demand is skewed in favor of institutions perceived to offer quality program with good placement track record.

Table No. 2.2: Demand Ratio
Demand Ratio for NMIMS Programs

Year	SBM		MPSTME		SPPSPTM		SOC-SOE		BSSA	
2012	Applications	56714	Applications	4018	Applications	254	Applications	3647	Applications	639
	Intake	540	Intake	610	Intake	60	Intake	340	Intake	40
	DR	105	DR	7	DR	4	DR	11	DR	16
2013	Applications	67980	Applications	5146	Applications	289	Applications	4873	Applications	831
	Intake	570	Intake	620	Intake	60	Intake	340	Intake	40
	DR	119.26	DR	8.30	DR	4.82	DR	14.33	DR	20.78
2014	Applications	63109	Applications	7023	Applications	391	Applications	7820	Applications	753
	Intake	600	Intake	660	Intake	60	Intake	560	Intake	40
	DR	105.18	DR	10.64	DR	6.52	DR	13.96	DR	18.83
2015	Applications	61190	Applications	8333	Applications	404	Applications	10022	Applications	800
	Intake	620	Intake	850	Intake	60	Intake	700	Intake	40
	DR	98.69	DR	9.80	DR	6.73	DR	14.32	DR	20.00
2016	Applications	60862	Applications	7851	Applications	7851	Applications	12108	Applications	687
	Intake	620	Intake	850	Intake	60	Intake	800	Intake	40
	DR	98.16	DR	9.24	DR	15.83	DR	15.14	DR	17.18
2017	Applications	70194								
	Intake	620			Admissions in process					
	DR	113.22								

56
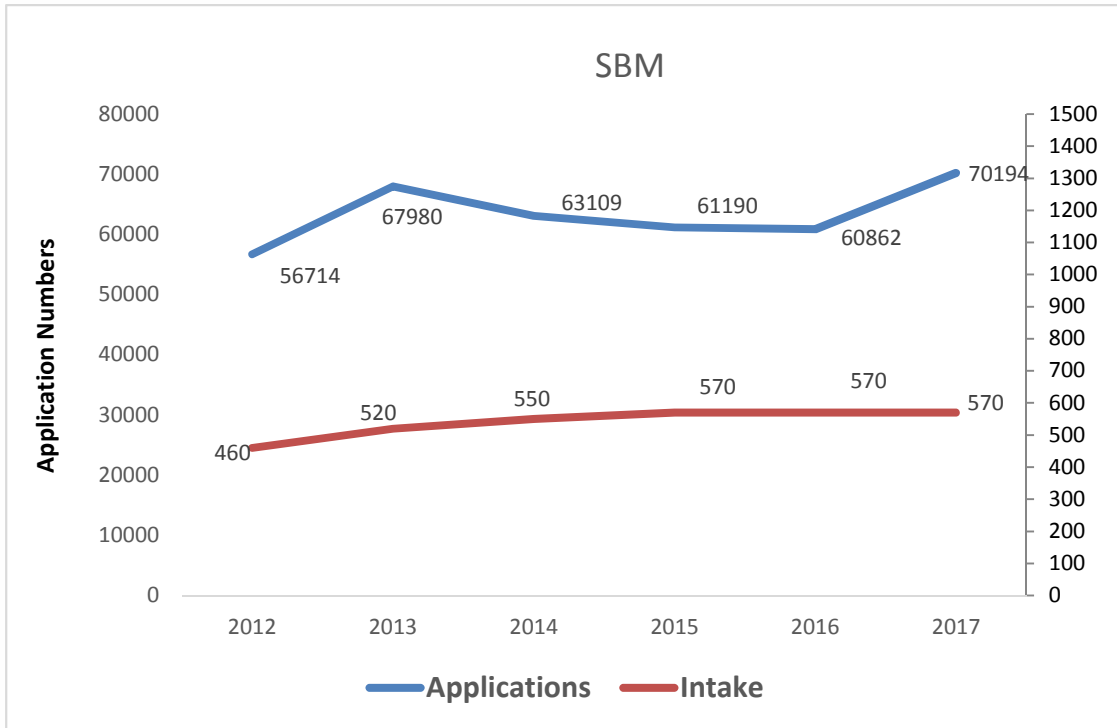
Figure 2.1: SBM Demand Ratio
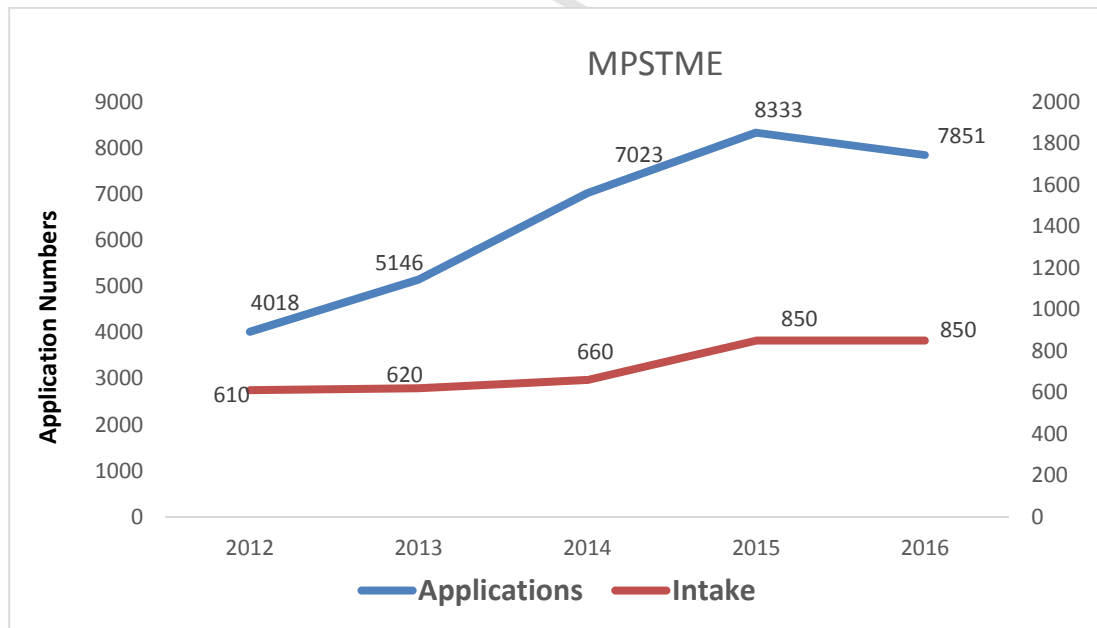
Figure 2.2: MPSTME Demand Ratio
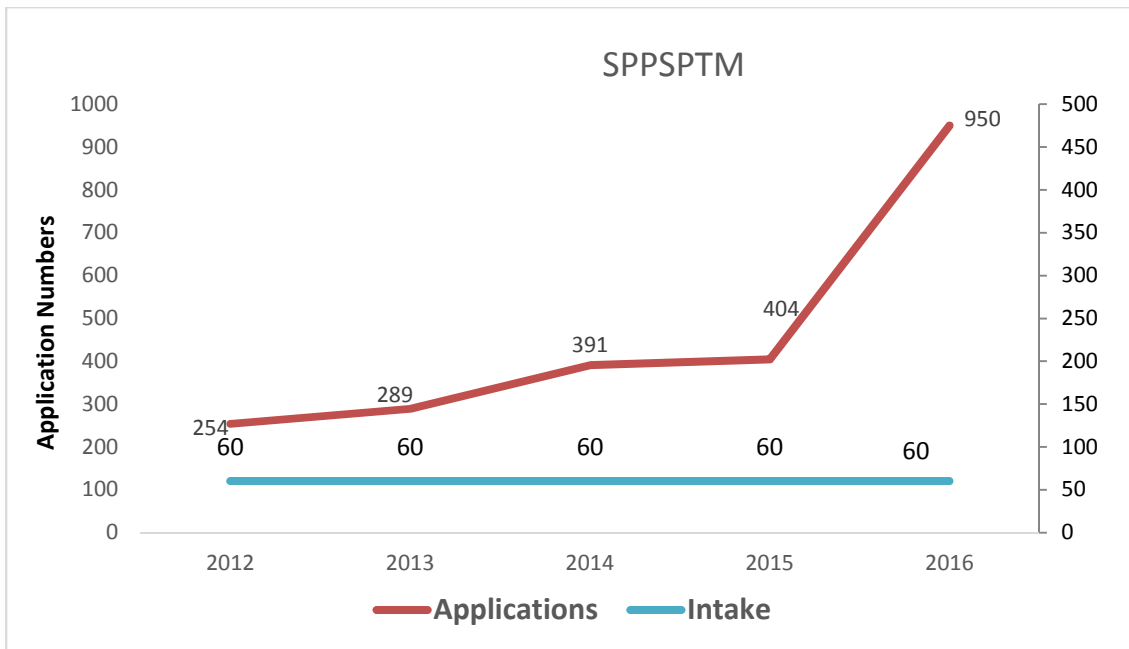
Figure 2.3: SPPSPTM Demand Ratio
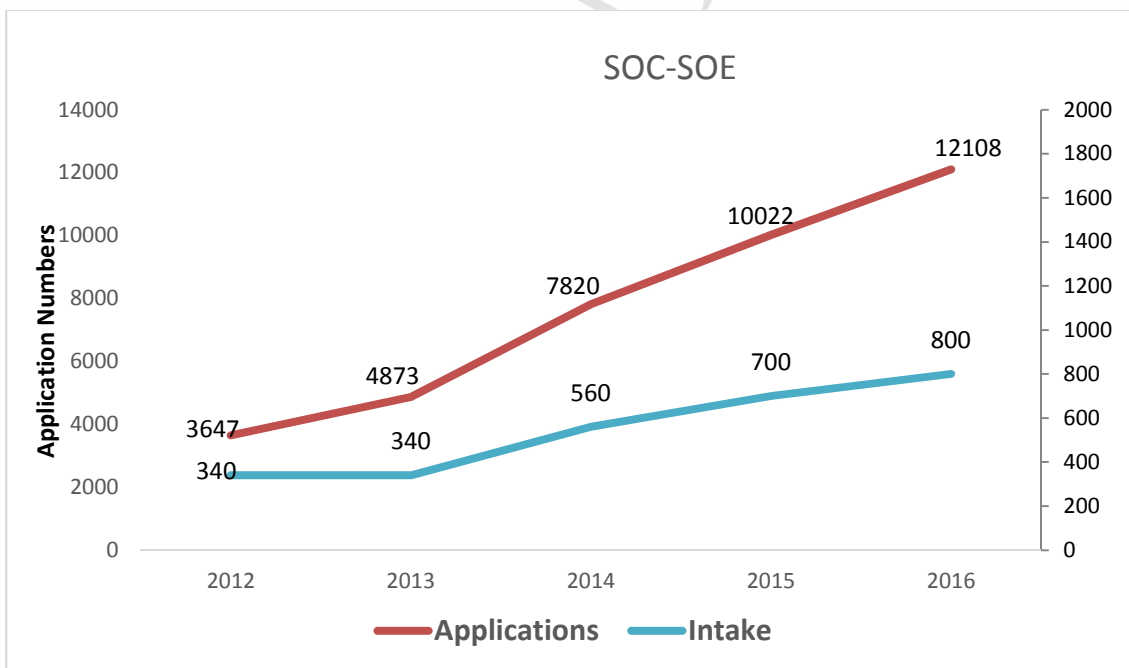
Figure 2.4: ASMSoC & SAMSoE Demand Ratio

2.1.8 Were any programs discontinued/staggered by the university in the last four years? If yes, please specify the reasons.

NMIMS has discontinued programs in the last four years. **Table 2.3** below sums up the number of programs discontinued in various schools of the university. The most important factor contributing to this, as reflected in table 2.1 and 2.2, is the declining demand for these programs. Another reason for dropping the programs is the non-availability of relevant faculty in a particular discipline and/or lack of job opportunities in the sector.

Year	School Name	Number of Programmes Dropped
2016-17	**Mukesh Patel School Of Technology Management & Engineering, Mumbai**	B.Tech – Integrated Diploma & Degree Program (Electrical) M.Tech. IT
2016-17	**SPTM School Of Pharmacy & Technology Management, Mumbai**	M.Pharm (Pharmacology)
		M.Pharma (DDRS)
		M.Pharm (Pharmaceutial Chemistry)
		M.Pharm (Clinical Pharmacy)
		M.Pharm (Pharmaceutical Biotechnology)
		M.Pharm (Pharmaceutical Analysis)
		M.Pharm + MBA (PT + HCM) - Pharm Analysis
2016-17	**Sunandan Divatia School Of Science**	Certificate Course in Molecular Medicine
		Certificate Course in Molecular Oncology
		Certificate Course in Business Analytics (Predictive Modelling)
		Ph.D. Physiotherapy
2014-15	**School Of Business Management**	MBA Banking (Merged with MBA)
		MBA Capital Market (Merged with MBA)
2014-15	**Mukesh Patel School Of Technology Management & Engineering, Mumbai**	M.Tech. - I.T.
2013-14	**Mukesh Patel School Of Technology Management And Engineering, Mumbai**	M. Tech – Electronics
2013-14	**Spp School Of Pharmacy And Technology Management, Mumbai**	M.Pharm. Part Time (Pharmaceutics)
		Ph.D. (Applied Pharm. Sciences)
2012-13	**School Of Business Management**	MBA Actuarial Science
2012-13	**SPP School Of Pharmacy And**	M.PHARM. PART TIME (PHARMACEUTICS)

Year	School Name	Number of Programmes Dropped
	Technology Management, Mumbai	M. Sc. (APPLIED PHARM. ANALYSIS)
		M. Sc. (APPLIED PHARM. MICROBIOLOGY)
		B. Sc. + M. Sc. (APPLIED PHARM. SCIENCES)
		PH.D. (APPLIED PHARM. SCIENCES)

For example, one of the most important factor for discontinuing MBA Insurance was the non-availability of the faculty and little or no support from the Actuarial and industry. The MBA Banking and Capital Markets programs were discontinued because of lack of job opportunities and industry preference for MBA Finance graduates. Likewise, M.Tech. Information Technology program was discontinued because of the paucity of appropriate faculty. Lack of industry resources led to the dropping of M.Pharm (Chemistry, Clinical Pharmacy & Biotechnology.

2.2   Catering to Student Diversity

2.2.1   Does the university organize orientation / induction program for freshers? If yes, give details such as the duration, issues covered, experts involved and mechanism for using the feedback in subsequent years.

The University organize orientation / induction program for freshers. The Orientation/induction Program consists of two parts. The first part is Introduction to the University and the School and familiarization with institutional processes. It is also about providing an understanding of career and placement opportunities along with the support available to the students. The second part comprises preparing the students for the program and therefore sessions are conducted by faculty in different subjects like Mathematics, Excel Spreadsheets, Communication, etc.

In the first part Vice Chancellor, Pro-Vice Chancellor, Registrar, CoE, Librarian and the Dean of the School address the students. The COE takes the students through the examination process while the Registrar and Dy Registrar (Academic) takes them through the rules governing the Academic Program and conduct in the University. Generally, the University gets one of the successful Alumni or industry leader to speak on this occasion.

The Business School orientation program prepares the students in Case Methodology and Simulation. It also gets them to undergo online orientation courses of Harvard Business School in Economics, Finance and Communication. The Orientation Program of the Business School is for 15 days. Likewise, orientation programs at other schools are conducted. A sample copy of the Orientation Program of a few Schools is shown in **Annexure 2.2.**

At the end of the orientation program, an informal student feedback is taken which is then used for filling the gaps in the academic years.

2.2.2 Does the university have a mechanism through which the "differential requirements of the student population" are analysed after admission and before the commencement of classes? If so, how are the key issues identified and addressed?

Analysis of 12+ scores is carried out as the students enter the different programs is carried out. This data is used to give inputs for bridge courses and /or remedial coaching. Results of the midterm tests and final examinations are reviewed and analysed. The differential requirements of the student population are categorized as under:

a) Academic requirements are analysed based on regional distribution. For example, students from some regions lack communication and soft skills or have high Quantitative skills.

b) Individual requirements regarding soft skills, behavioural traits, etc., are analysed and addressed through soft skills training programs embedded in programs.

c) Special programs are organized in Quantitative Techniques, Economics, Communication and pedagogy. All these additional inputs are provided to students who are relatively weaker than others. For students who are having learning difficulties tutorials are organized especially at the undergraduate level.

d) A faculty mentor is assigned to a group of students to address personal and academic problems

e) In addition, a full time clinical psychologist is appointed by the University to support and counsel the students on various issues.

f) The student data for UG programs is analyzed and students are placed in divisions on the basis of the stream that they are coming from. For example in School of Economics students coming from Science stream are strong in Mathematics but weak in Economics and those coming from Arts/Commerce are strong in Economics but weak in Mathematics and hence appropriate training and help is provided.

g) Academic groups are created in a manner that there is diversity of students from various regions as well as diversity in their academic performance. This helps in better students' learning outcomes due to heterogeneity amongst groups.

h) Fast learners meet is conducted to seek feed back on the curriculum.

In addition to the midterm test and final examinations, the University Schools organize the above additional inputs on the basis of their backgrounds of the students and any certificates that they provide with regard to their learning difficulties.

61

2.2.3 **Does the university offer bridge / remedial / add-on courses? If yes, how are they structured into the time table? Give details of the courses offered, department-wise/faculty-wise?**

Yes. The University does offer bridge, remedial and add-on courses. All these courses are part of the time table and are well structured. The University has a process to identify slow as well as advance / fast learners. Accordingly, the University takes necessary steps as mentioned below:

a) Foundation/bridge courses for some programs are offered with an objective of having all students at one datum / platform before the actual curriculum of the set program is initiated.

b) The University offers Remedial Classes for the students who face problems in understanding the subject along with the regular courses and even in vacation before the commencement of the exams.

c) A basket of electives is offered to students of all programs depending on emerging areas of specialization.

d) Interdisciplinary courses are offered to students to bridge cross discipline requirements.

e) Add on courses in emerging domains like Analytics, Nano Science,

f) Sharpening aptitude skills

g) Add on courses to sharpen skill sets like team work, etc.

      Examples of these for courses for engineering programs are listed below:

   i. Bridge courses to ensure a smooth transition from 12 to 12+ stage – e.g. mathematics and physics

   ii. Remedial courses for first year programs for courses which students have found difficulty in understanding – applied mechanics, engineering mathematics

  iii. Add on courses to improve communication and soft skills

  iv. Fast learners meet to provide a channel for accelerated learning

   v. Add on classes in emerging domains like analytics and aptitude

  vi. Add on courses to sharpen skill sets like team work, conducting research

 vii. Extra time is provided in the timetable for tutorials and add on courses given in

2.2.4 **Has the university conducted any study on the academic growth of students from disadvantaged sections of society, economically disadvantaged, physically handicapped, slow learners, etc.? If yes, what are the main findings?**

a) Through the Internal Continuous Assessment, University tracks students' progress. This also leads to identification of slow learners.

b) It is found that certain differently abled students are able to perform better given additional time in exam although the matter written is equal. It also showed that these students overcome learning difficulties through one to one interaction by faculty.

2.2.5 **How does the university identify and respond to the learning needs of advanced learners?**

Generally, student performance in different subject is an indicator whether the student is an advanced learner or a fast learner. For example in the MPSTME the top 5 students are identified on their basis of the CGPA. This exercise is carried out in all the departments like Civil Engineering, Computer Engineering, IT. Similar exercise is undertaken in School of Pharmacy and Technology Management.

a) Advanced / fast learners in a subject seek to practically apply the knowledge or get a deeper understanding relevant to the current scenario. Students are given projects and assignments in addition to the regular curriculum which enhances their ability to assimilate and present additional data on a given topic as well as an opportunity to learn experientially.

b) Interaction with Industry Experts through seminars provides a good opportunity for fast learners to gain exposure and confidence in their field. Such interactions are a regular feature in all the schools.

c) Industrial visits are arranged for students to get a hands-on feel of the industry and the working atmosphere. Outbound trainings also aid in the experiential and active learning.

d) Workshops on the latest technologies are conducted under the student chapters of reputed International Societies like IEEE, CSI, ASME, ISA etc. The in-house facility provided to all the schools housing sophisticated equipment, instruments and software gives an additional opportunity to students.

e) Faculty provides guidance to interested advanced / fast learners to carry out research and projects for presentation at Competitions and Conferences. The mentorship provided by the faculty has resulted in students performing and excelling on various platforms which is evident by the accolades got by them. Research papers and patents applied are a testimony to such initiatives.

2.3 Teaching-Learning Process

2.3.1 How does the university plan and organise the teaching, learning and evaluation schedules (academic calendar, teaching plan, evaluation blue print, etc.)?

The University has adopted Trimester pattern for the School of Business Management. All other programs follow the Semester pattern. The planning and organization process takes into consideration the various events, holidays and likely closure of the university on account of different festivals and national holidays.

Academic Calendar is an important document of the University/School which provides information on activities during the Academic Year, Academic Planning Exercise starts in the University with the making of this Calendar. It is a guide to students, staff and faculty.

It is prepared by each school taking into consideration of duration of conduct of classes and various events. The academic calendar broadly covers dates and duration of following major activities:

- Foundation/Orientation program
- Commencement of program
- Last instruction day
- Mid-term examinations
- Term end examinations
- Submission of projects/ assignments/reports
- Extra- curricular/co-curricular activities
- University day
- Vacations/ Non- Instructional days
- Internships

It is mandatory for each school at NMIMS to prepare academic calendar in advance. The academic calendar is prepared by academic office officials and approved by each school Dean. At University, the academic calendar is further approved by Deputy Registrar (Academics), Registrar, Pro Vice Chancellor and Vice Chancellor.

The approved academic calendar is further circulated by Deputy Registrar (Academics) at University office to all other departments like examination/ SAP team/ concerned school. The concerned school further circulates the same with all students and faculty. It is also uploaded on NMIMS website and blackboard for further reference.

The academic calendar once approved cannot be changed and requires approval from Vice Chancellor.

The details of the Academic Calendar are provided in **Annexure 2.3**

The teaching plan and evaluation blue print is developed by each faculty. This is a learning contract between the student and the faculty. The teaching plan consists of learning objectives, session wise plan outlining the topic, pedagogy and the background reading material. It also contains the essential and recommended reading and evaluation plan. Typically the evaluation plan consists of the components of internal assessment and the weightages assigned by the faculty to each of the components. The final exam details are also provided in terms of the weightage and the mode of examination. The teaching plan or the course outline are uploaded on the Blackboard Learning Management System. An illustrative example of teaching plan (course outline) is shown in **Annexure 2.4**

To ensure rigour in learning, faculty advises students on essential and recommended readings for each topic and conducts surprise quizzes and tests from time to time.

2.3.2 **Does the university provide course outlines and course schedules prior to the commencement of the academic session? If yes, how is the effectiveness of the process ensured?**

Yes, the University provides course outlines and course schedules prior to the commencement of the academic session. The course outlines are made available to the students through Black Board Learning Management System (BBLMS). The Time Table is also announced through BBLMS.

At the end of every course, faculty members assess course outcomes through different tools. Based on the degree of attainment, measures to enhance attainment are taken and reported to the Dept. Advisory Board and subsequently to Board of Studies. The recommendations of the Board of Studies are also taken up in the Academic Council for improvement in course design and delivery.

The University takes feedback from students on the course and faculty in the middle of the semester and at the end of the term on line medium. This feedback is analyzed and communicated to the faculty. The faculty is then asked to submit a plan for the next semester or trimester wherever improvement is desired.

Open sessions with the VC and Dean of the respective school also encourage feedback on the teaching learning process as well as other issues.

2.3.3 **Does the university face any challenges in completing the curriculum within the stipulated time frame and calendar? If yes, elaborate on the challenges encountered and the institutional measures to overcome these.**

NMIMS Business School had adopted a Trimester model from the time it started PGDM program in early 90s. After becoming the University in 2003, the University Board decided to adopt Trimester model across all programs and schools. It was believed that Trimester model was better than Semester model, as it enhanced autonomous learning and group learning in an accelerated mode. It was felt that the Trimester model also ensures a great degree of rigor. The experience with Management School was highly rewarding on these counts and students generally were more comfortable learning at a higher pace. However, this model did not succeed at the undergraduate level especially in Engineering and Pharmaceutical Sciences where more time was required for different subjects. The challenges were faced were:

1. **Inadequate course coverage in the trimester model**
   The feedback of the students and faculty of MPSTME and SPTM was that 10 weeks were inadequate to cover subjects like Engineering Mathematics or other disciplines in Science and Technology. They were neither able to understand the breadth of the subject nor the faculty was able to do justice in providing inputs in depth insight in the subject. Consequently, the rigour was missing in these programs.

2. **Little time for experiential learning**
   The Trimester model left little time for experiential learning. Students became rote learners as both faculty and students were completely focussed on finishing the topics rather than learning by doing. No time was left for exploration, experimentation, problem solving and decision making skill building

3. **There was very little time for non-classroom activities** as a result of which the holistic development of the students especially at the undergraduate level was not possible.

4. **And finally, there was very little time for engaging students in skill building exercises.**

   This feedback was shared by the Deans in the University Board of Management in 2011 and 2012. The Board decided to request to Dr. R. Natarajan Former Chairman of AICTE and a special invitee to NMIMS Academic Council and give his observations on what needs to be done. Based on a report from Dr. Natarajan, NMIMS decided to shift to Semester Model for Engineering and Pharmaceutical Sciences, especially at the undergraduate level from 2013 onwards. To ensure a smooth transition from Trimester to Semester in these schools, a Transition Committee was constituted under the Chairmanship of Pro Vice Chancellor and Deans of the Schools. Deans of Engineering and Pharmaceutical Sciences also mapped their curriculum and accordingly the subjects were aligned to fit semester model.

   This major change had its effect on the examination system also and accordingly, appropriate changes were made in the conduct of evaluation schemes and the SAP processes. For example Engineering School moved from two to three sessional tests in the Semester model. The School also now provided time for tutorials and makeup courses.

2.3.4 **How is learning made student-centric? Give a list of participatory learning activities adopted by the faculty that contributes to holistic development and improved student learning, besides facilitating life-long learning and knowledge management?**

NMIMS has adopted experiential learning across all its Schools and programs. It believes that classroom learning can be made more interesting and challenging for the student community only when the pedagogy adopted involves them in the learning process. Doing and learning is a belief at NMIMS. Accordingly, the pedagogy adopted by the faculty is a mix of the following:
1. Case Method
2. Simulations
3. Outbound training
4. Games – especially the management games
5. Industry visits
6. Field projects

7. Participation in contexts and innovation challenges
8. Internships
9. Participation in institutional governance
10. Workshops or theatre workshop
11. Collaborative learning
12. Experiments
13. Films
14. Design Studios
15. MOOT Court
16. Debates
17. Role plays

As shown in the example below, simulations have become a part of program delivery, not only in the Business School but also MPSTME.

In Focus

Simulations is a part of NMIMS pedagogy. One of the concerns often voiced by industry, regulators like AICTE and the policy planners is the lack of employability skills in Management and Engineering graduates. NMIMS view is that on the job training does help in building employable skills but equally are some of the off the job pedagogy tools. One such tool successfully used in training commercial pilots and defence personnel is the use of simulator and simulated exercises. The application of this today finds place in NMIMS. Simulations today are a part of several pedagogy tools as mentioned above. In the case of Business School for example students are introduced to the simulated way of learning in the orientation program through a simulation program MIKES, BIKES. Marketing engineering elective uses decision pro which focuses on concepts, methods and applications of decision making in Marketing. The School also uses similar simulation programs in Operations Management and Strategic Management. The Engineering School uses a wide range of Simulations like Matlab, Palisad, R-Simulator, Android,

Geny, Motion and Automation Studios. Simulations are also used in the School of Economics and School of Commerce.

Annexure 2.5 gives the details of participative learning tools used by NMIMS faculty

2.3.5 What is the university's policy on inviting experts / people of eminence to deliver lectures and/or organize seminars for students?

To provide inputs on developments in economy, society, industry technology and changing policies, NMIMS regularly invites experts/people of eminence from different walks of life. These lectures are in the form of Guest Lecture in a course or a special lecture like one by Dr. A. Pillai, Founder CEO & MD, BrahMos Aerospace, Padma Shri & Padma Bhushan awardee, panel discussion like the one on GST with experts from E&Y, KPMG, TCS and

Future Group. To make the program relevant, the Business School invites industry experts or experts in other walks of life to design and outline a course or organize workshop for the MBA students. For example the course on consulting in Business School is offered by Cognizant and KPMG. The theatre workshops are designed by the personalities from theatre. At the Business School all the core courses especially in the first year must be handled by the fulltime faculty and experts are required be called to share their experience. In the second year, the experts are invited to offer electives where the school does not have the faculty strength. For example a course on `Hedge Funds' is offered by the visiting faculty and so is the course in the Smart city Management. Almost every week there is a corporate CEO /industry leader /policy planner /social organization leader on the SBM Campus delivering a lecture.

The School of Economics likewise invites industry experts as guest faculty who deliver 5% of the curriculum

Similarly courses in Analytics, Applied Statistics and Real Estate & Construction Management at MPSTME have a large share of industry faculty.

The same holds good in our other schools. A list of guest speakers at NMIMS in 2015-16 is shown in **Annexure 2.6** and a summary in **Table 2.4**

Table No. 2.4: Guest Lecture – 2015-16

Statistics

Sr. No.	School	Guest Lectures
1	SBM-Mumbai	115
2	MPSTME-Mumbai	5
3	SPPSPTM-Mumbai	26
4	BSSA	4
5	SD-SOS	31
6	ASM-SOC	23
7	SAM-SOE	9
	Total	**213**

2.3.6 Does the university formally encourage blended learning by using e-learning resources?

The uniqueness of NMIMS is fast adaptation to technology change and in some cases being ahead of the change curve. The development in learning technology, including MOOCs had been discussed by NMIMS faculty since 2010. The most significant issue that have often been discussed in the Board Meetings relate to making classroom learnings interactive bringing the global learning resources including faculty to the classroom. Also the discussion in Faculty Councils and Academic Councils has veered around to encouraging autonomous and collaborative learning. Towards this end, NMIMS has used a

range of technologies. One such tool at the Business School is the use of online learning resources and courses by the MBA students. Post 2009, NMIMS as a part of an understanding with Harvard Business School which gives an online access to Harvard's instructional materials which includes cases and simulations. This is on the same pattern as it happens for HBS Faculty. These learning resources are accessed and selected by the faculty for their respective courses and made available to the students online through the Blackboard. Harvard online courses in Economics, Finance and Communication were used in 2016 to compliment faculty interventions in the orientation program. Likewise, the school uses YouTube videos for teaching courses in Advertising and Marketing Communications. The MPSTME uses Khan Academy videos to supplement classrooms instructions. Courses on SWAYAM and MOOC platforms like Coursera are being recommend to the students by the faculty.

2.3.7 **What are the technologies and facilities such as virtual laboratories, e-learning, open educational resources and mobile education used by the faculty for effective teaching?**

NMIMS encourages faculty members to keep abreast with fast changing learning technologies. It adopts multiple approaches to deliver education through state of the art technology tools. The extensive use of Blackboard Learning Management Technology with its latest updates like the Blackboard Elluminate and Lectora enhance the lecture presentations of the faculty. It also promises opportunity to link…. YouTube, Videos on various topics to give additional knowledge on a given topic.

The University subscribes to a large number of e-resources and open educational resources. For example its E-brary has 1,38,240 books in different disciplines. It also subscribes to e Journals & E-databases like EBSCO, ISI Emerging databases subscribed by NMIMS.

Table No. 2.5: List of E-resources

Sr. No.	Database	No. of Ejournals & ebooks
	Electronic Journal Databases	
1	ProQuest Central	24853
2	EBCSO	6312
3	JSTOR	3062
4	Science Direct	122
5	Economic and Political Weekly	
6	JGATE (Social & Management Sc.)	10977
	Engineering databases	
7	IEL Online- IEEE	
8	Springer	
9	Science Direct	
10	ASCE	
11	ASME	

	E-books databases	
12	E-brary	1,38,240
13	Pearson E-Books	361
14	McGraw-Hill Express Library	230
	Research databases	
15	ISI Emerging Markets	
16	CRISIL	
17	Frost & Sullivan	
18	EViews 8	
19	CMIE: Economic Outlook	
20	SPSS: AMOS	
21	Euromonitor International: Passport	
22	EPWRF India Time Series	
	Company/mutual funds databases	
23	Capital Market	
24	NAVIndia	
25	**Statistical databases**	
26	IndiaStat	
27	**Law databases**	
28	Manupatra	
29	Lexis Nexis	
30	Hein Online	
31	**Marketing database**	
32	TVADINDX	
33	WARC	
	Directory	
34	Cabell's Directory	
	Case study database	
35	Harvard	
	Finance lab	
36	Bloomberg	

The 3D printer at MPSTME helps students in product design. Institutions are provided with scanners. BSSA students advanced model software such as 3D Studio Max, Revit, AutoCAD, Maya, etc. Dassault systems design suite helps in advanced design and stress analysis.

As mentioned earlier, cases and reading material are uploaded on the Blackboard. As the Blackboard can be globally accessed on the mobile in 24 x 7 model, students learning opportunity also gets enhanced.

Virtual studio is the part of the learning technology used at BSSA. In 2013, BSSA & IAAC Barcelona students participated in the virtual studio on the

Networked City and Production City held simultaneously at Barcelona, Twin(Italy), Mumbai. New York and Texas in Spain.

2.3.7   Is there any designated group among the faculty to monitor the trends and issues regarding developments in Open Source Community and integrate its benefits in the university's educational processes?

The University has a designated group of faculty consisting of all Heads of Departments and Schools who get together as members of the Library and Learning Resources Committee and periodically monitor the development in the open source community and integrate its benefits in the University's educational processes. The faculty are encouraged to develop course materials and upload on the internet or intranet for the larger benefit of the student community. Library and Learning Resources Committee is a recommending body on major library resources and archives related policies including developments in the open source community.

The University regularly examines the possibility of inducting open source software

2.3.8   What steps has the university taken to orient traditional classrooms into 24x7 learning places?

The University has procured Blackboard Learning Management System with 50000 user licenses for the benefit of the students and faculty who can access the assignments, lectures, presentations, attendance reports, feedback, etc., 24x7 on the go as it also has an App which can be accessed by the students in their smartphones anytime they want. The BBLMS, as said earlier, is the backbone of the academic delivery at NMIMS.

2.3.10   Is there a provision for the services of counsellors / mentors/ advisors for each class or group of students for academic, personal and psycho-social guidance? If yes, give details of the process and the number of students who have benefitted.

Yes. The university provides guidance to students at different levels and different fronts.
- A full-time Psychologist at the University gives personal counselling to students. Counselling is highly recommended for the students in view of the stress this generation experiences, especially when one cannot cope with personally disturbing situations.
- There are faculty mentors whose role is to help students make intelligent choices regarding electives and careers, resolve their academic and personal problems as also to assist in the identification of resources needed by all students.
- Head of the Departments also provide guidance.
- Each faculty is allotted certain number of students for mentoring their academic and personal development.
- Hostel students get help from the Rector of the Hostel.

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In Focus:

How more than 9000 students are aware of the counselling services

- On the orientation day 15 minutes are given to the counsellor to interact with all the new students where the importance of the healthy emotional health is shared.
- SRB – Article of the counsellor and where to approach counsellor is mentioned.
- Invitation by few deans to hold sessions for the faculties to identify are held
- Invitations by the dean to hold sessions for the students are also held
- Emails where articles and matter on better mental health are sent to all students
- Direct Phone call to seek and finalise an appointment
- For emergency personal Mobile number and 24x7 help line is written on the door in case of emergency

Approach Counsellor:

1. Majority of the students come on their own for counselling as they have seen the identity on the website, orientation day, or through the pro- active awareness mails sent.

2. Few parents who read the mails also come with their child for not being able to study, having lack of interest or distraction towards smart gadgets.

3. At times they are referred by faculties/HOD.

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Counseling process:
Following is the process adopted by Counselor:
Student is required to fill basic information form.
Counselor understands the clients Issues patiently and empathetically and then Psycho educates them and convince them of the counselor being non-judgemental. She maintains confidentiality unless it involves a life and death situation.
Students are explained the research based therapies and the need for collaboration to works towards converting their unhealthy negative emotions. She then creates with the student an agenda and the goal for the session and reach towards it by working together applying the research based therapies like CBT and REBT, at times a combination of like NLP and Gestalt.
CB-REBT and its latest application helps achieve the goals faster and more accurately.
Nearly **80% to 90% students have benefitted** who sought help through counselling sessions, as reflected by declining suicidal tendencies and having better acceptance of self and others and are working towards a more healthy way to deal with life's challenges. Few students were taken into confidence and their parents had involved.

Counseling process reveals students concerns as:

Student's concerns:

- Not able to perform
- Having low confidence
- Feel lonely
- Not being happy and cry all day
- Not able to sleep
- low grades
- relationship issues with family and friends
- Breakups
- Fights with friends/family members
- Family issues –separation
- Emotional deprivation
- Dependency on substances
- Death and trauma in the family or with close friends etc

On probing further they were found to have hidden unhealthy emotions or behavior like:

1. Feeling lonely/sad and have low self-acceptance and low self -confidence
2. Have high Anxiety at times accompanied with panic attacks
3. Anger issues/fights
4. Guilt or shame

Assessment process:

After assessing the students' mental state, if required, a Becks test of depression or Anxiety is given for further assessment and if needed supplemented by vitamin deficiency tests or a MBTI (Personality test) or a psychiatric intervention.

In all other issues like sadness, anxiety, moderate depression, anger, unhealthy negative emotions research based therapeutical counseling is given to help them cope with the issues with the help of structured researched based therapies.

Mentoring: A group of students are assigned to the faculty. They are required to be meet the faculty once a week or as and when required for discussing their academic and career related issues. Each faculty member is required to display the meeting time.

2.3.11 Were any innovative teaching approaches/methods/practices adopted / put to use by the faculty during the last four years? If yes, did they improve learning? What were the methods used to evaluate the impact of such practices? What are the efforts made by the institution in giving the faculty due recognition for innovation in teaching?

Innovations have defined the ethos and the growth strategy of NMIMS. The university has actively encouraged faculty to innovate on program design and

pedagogy. Faculty awards at the end of each year takes into consideration innovations made by the faculty. Some of the most innovative teaching methods/approaches adopted by the faculty are outbound training programs (Soft skill based activity), simulation, cultural emersion program (to foster team bonding), fair decision making and managing finances, community and social projects namely We Care at the Business School. At the MPSTME live problems have been used as innovative tools. In the School of Economics, faculty has used range of innovative methods for teaching Economics at the undergraduate level. Some of the innovative pedagogy are constructed games for understanding the concepts of savings and investments and perfect competition, live projects in the area of economics of sustainable developments, experiments in behavioural economics, computer quiz in E-code, blogs, video clips etc.

These innovative approaches have significantly helped in learning. One of the methods used to evaluate the impact of such pedagogies is the industry feedback on the level of preparation of graduating students. The feedback that we have received is on the conceptual understanding and the applications of concepts to the problem situations. This has also positively affected the placements. The quality of the placements at the Business School and MPSTME is a testimonial to the student learning. Students' feedback has been another approach to understand, whether a particular pedagogy was effective. In the feedback form there are specific questions on effectiveness of the pedagogy.

NMIMS recognizes faculty for innovation in teaching. Best Teacher Awards are given to those who not only have a high feedback scores but have also innovated in their program design and pedagogy. These awards consisting of cash, certificate of honour and a memento is given to the outstanding faculty at the annual convocation.

2.3.12 How does the university create a culture of instilling and nurturing creativity and scientific temper among the learners?

To encourage creativity, innovations and scientific approach among the learners, NMIMS uses a range of tools and approaches. Individual faculty depending on their domain, creates platform for students to engage in constructive discussions emerging into an innovative idea to be taken forward for such competitions, incubation and commercialisation.

Recently the University has also initiated event named 'Chancellor's Challenge', which encourages students across the schools to emerge with innovative ideas leading to an entrepreneurial venture. The scientific temperament of students is enhanced by providing an environment which is conducive for research in emerging areas with all infrastructural requirements and faculty guidance.

Each school has an innovation cell which nurtures the spirit of innovation and entrepreneurship. The cell also supports incubation, creation of IPR and setting up of ventures. NMIMS has also put in place an IPR policy.

Case methods, controlled and uncontrolled experimentation are some of the other tools used to nurture creativity and fact based reasoning. The study tours of BSSA is an example of the approach used by a School to develop a fact based reasoning. The design studios used by BSSA and the Tinkering Labs. are some of the other approaches used by various schools to encourage creativity. Blackberry/ Android Innovation Lab at MPSTME also encourages creativity and development of problem solving skills. In this lab, live problems by BlackBerry are shared with the student community, who then develop appropriate software. Students have used this facility for developing apps on Blackberry / Android platform. As a part of this initiative, a competition was conducted in the western region of the country wherein the students were evaluated on the basis of the apps designed for different purposes like social outreach, etc.

2.3.13 Does the university consider student projects mandatory in the learning program? If yes, for how many programs have they been (percentage of total) made mandatory?
Number of projects executed within the university
Names of external institutions associated with the university for student project work.
Role of faculty in facilitating such projects

Project method is an integral part of the learning process at NMIMS. Most subjects in different programs involve project work. This is more distinctively visible at the School of Science and School of Pharmacy Technology Management where the postgraduate students are mandatorily required to undertake project work. Similarly, at the School of Business Management, Executive MBA participants and MBA Social Enterprise are required to do the project work as part of their program completion requirement. In the MBA Family Business project work is included in each subject. Students are required to undertake project in their family businesses and use the learnings in the course to bring change in their business.

The School of Architecture undertakes live urban and rural projects where students are encouraged to visit, study and analyse live conditions in the city of Mumbai, smaller towns and villages in India, specifically to study climate, culture and people. Architecture generating out of this is documented and projects are based on real conditions.

The MBA students are mandatorily required to undertake a community engagement project in the first year of their program. These projects are to be completed in the third term. This requires them to be in the field for a period of three weeks. These projects titled "We Care: define the uniqueness of the MBA program. After completing their projects students are required to present their work to an external jury through a poster Post Presentation. The best project works are collated each year by NMIMS Jasani Centre for Social Enterprise and Sustainability Management at SBM. The Centre comes out with an anthology of work done by the students. Two such volumes have already been published. Also the centre brought out a Coffee Table Book

`Small Ideas … Big Impact which is a summary of the innovative ideas presented by the students

At the engineering school, Implementation of Technology and capstone projects form a part of the curriculum

There are large number of external institutions and companies that are associated with the University for Students' Project Work. The names of some of them are shown in **Annexure No. 2.7.**

The faculty guides these projects and is one of the mentors and evaluators of the project work.

2.3.14 Does the university have a well-qualified pool of human resource to meet the requirements of the curriculum? If there is a shortfall, how is it supplemented?

Yes, the University has a well-qualified pool of human resources to meet the requirements of the curriculum. Faculty members are selected as per the guidelines of the UGC/AICTE/COA/BCI/PCI guidelines and as per the procedure given in the SVKM's NMIMS University Employees' Service Bye-laws – 2016.

The gap between the number of faculty required and the available pool of faculty is filled by engaging faculty from industry and services as visiting faculty. The gap is bridged by inviting foreign scholars on a short-term basis. These scholars generally offer a module to our students at the Masters or Ph.D. level. In the last four years, NMIMS has had 25 such scholars visit the institution. These include faculty member from Stern Business School, New York University, Penn State University, Drexel University, EGADE Business School, Mexico, University of Turin, Italy, University of South Florida, and Charles Darwin University etc. University also considers appointing senior professionals and academics a short-term contract as Professor Emeritus.

Further, Ph.D. students are mandatorily required to take one course in School of Business Management. This is to prepare them for the faculty role.

2.3.15 How are the faculty enabled to prepare computer-aided teaching/learning materials? What are the facilities available in the university for such efforts?

Application of technology in the Academics and Administration of the university was initiated in a large manner in 2009. NMIMS had procured Blackboard Learning Management System. The diffusion of this technology faced challenges primarily because of the lack of awareness and training on Blackboard. Hence it was decided to train the faculty on Blackboard Learning Management Software. When Blackboard acquired Lectora Software the faculty was trained and handholding was done. This helped the faculty to prepare PowerPoints and also link videos from YouTube in their Power Point presentation. The faculty has also been trained in Business

analytics, Virtual analytics, Predictive Modelling and have been incentivized to acquire SAS Certifications. This is in line with NMIMS thinking of making Business Analytics & Data Analytics as a part of NMIMS programs. Likewise, faculty has been trained in open source software. They have also been trained in industrial automation technologies. Thus creation of awareness, training and exposure to the global learning environment tools have been used by NMIMS to prepare faculty for technology enabled learning environment on the campus.

To encourage use of computer added teaching/learning materials, NMIMS provides to each faculty members a work station which is fully networked with latest software. All classrooms are equipped with computers, LEDs and are wi-fi enabled. Some classrooms also have Smart boards. Faculty members are also encouraged to upload their assignments on the Blackboard and share with the students their powerpoint presentations and reading material. In addition, NMIMS also has tie-ups with SAS and has established labs in partnership with Bloomberg, Bosch and Lucas Nulle.

2.3.16 Does the university have a mechanism for the evaluation of teachers by the students / alumni? If yes, how is the evaluation feedback used to improve the quality of the teaching-learning process?

NMIMS has a robust feedback system. The feedback provides a comprehensive understanding of how the course was delivered in the term. This helps in continuous improvements in the institutions. Feedback is taken twice in a term:

1. Mid-term feedback
2. End- term Feedback

Mid-term feedback is an informal feedback process in which Dean of the school along with program head and academic administration head visits to each class and interact with students informally. This helps to identify the immediate issues and take a course concerns. The areas broadly covered in mid-term feedback are course objective, course contents, course methodology, effectiveness of faculty & suggestion for improvement. The mid-term feedback form is divided into 3 parts:

1. Courses that exceeds expectations
2. Courses that meets expectations
3. Courses below expectations

Courses that falls below expectations are reviewed action is taken immediately to resolve the issues.

End-term Feedback is a formal process of capturing feedback through blackboard and ensures privacy for students. Feedback is taken by academic administration office on completion of 80% of syllabus. The feedback is tabulated, analyzed and shared with concerned faculty, HOD's and higher authorities. The feedback is taken on 7 point scale. The Dean of schools

communicate faculty members their feedback. The appreciation letter is sent if feedback is in the range of 6-7. The acceptable feedback is in the range of 4-5.99. Faculty with average feedback (below 4) are counseled for further improvement and progress is subsequently monitored.

In addition to the structured feedback which is quantitative in nature, the qualitative feedback on the faculty and the course is also taken. As can be made out from the midterm feedback and term end feedback, NMIMS attempt is to understand how well defined are the course objectives contents, choice of methodology, faculty effectiveness and suggestions for improvement. At the end of the term the feedback is tabulated and shared by the Dean with the faculty. Dean categorizes the faculty in three groups, one who have the feedback in the range of 6 to 7 that is excellent; another one with acceptable feedback in the range of 4 to 4.99 and faculty with feedback below 4. In all these three categories, the faculty receives his or her feedback, highest and lowest feedback in the program and likewise highest and lowest feedback in the area. The letter also points out the average feedback in the area/department and in the program. This helps the faculty understand his or her standing in the faculty group and the corrective action he/she needs to take.

The faculty feedback is a part of the Academic Information System (AIS) which is unique to NMIMS. The Academic Information System is a Monthly Information System which keeps the Vice Chancellor and the Dean informed on the conduct of the Academic program. Parameters like number of sessions cancelled or rescheduled by the faculty, student attendance, Blackboard usage etc. is collated and shared. At the end of the quarter the AIS is shared with the Vice Chancellor who reviews it with the Dean and the Pro Vice Chancellor. The annual AIS is presented to the Board of Management. Based on this report, the Board acknowledges outstanding faculty and urges the Deans to counsel and train those with average feedback. **Table 2.5 below and Annexure 2.8** give details of faculty feedback and feedback format.

Table 2.6: Quality of faculty's classroom performance on the basis of feedback in academic year 2015-16

Sr No.	Schools Name	Feedback (6-7)	Feedback (4-5.99)	Feedback (<4)
	SBM-Mumbai	40%	56%	4%
	MPSTME-Mumbai	16%	73%	11%
	SPPSPTM-Mumbai	33%	64%	3%
	BSSA	35%	56%	10%
	SD-SOS	46%	47%	7%
	ASM-SOC	29%	58%	13%
	SAM-SOE	23%	68%	8%

In addition to the above, **feedback is also taken through an open house by the Vice Chancellor at the end of each academic term.** This feedback is on the courses, faculty, administration and infrastructure.

NMIMS has also got **suggestion schemes in place wherein all stakeholders are invited to give suggestions** to the Vice Chancellor on improvements of the institution's functioning. This helps in continuous improvement of the institution.

The annual Alumni Meet also helps understand the quality of the teaching learning process at the institution. Vice Chancellor in his informal interaction tries to gauge the academic strength of the institution from the alumni.

2.4   Teacher Quality

2.4.1   How does the university plan and manage its human resources to meet the changing requirements of the curriculum?

The University HR planning exercise follows bottoms up approach where each department or functional area forecast their work load in terms of teaching, research, extension and consulting and training. Typically each department shares their plan with the Dean who negotiates with the department faculty on the teaching and research targets. The aggregate of this workload determines the total number of faculty required at the School in a particular year. The gap between the budgeted and actual number of faculty forms the basis manpower plan. The Dean assesses whether the need can be met by the visiting faculty or if not then the need for full time faculty is established. The Dean also identifies unique and new subjects for which the skills sets competencies may not be available in the existing fulltime faculty. In all such cases visiting faculty from industry or adjunct faculty plan is identified. The university's manpower plan also takes into consideration the new emerging areas and skills. Based on the competency audit, new competencies are identified for which the University advertises or use the services of HR consultants to identify faculty resources from other academic institutions or industry.

The University HR plan also considers induction, training, performance management and career advancement. The University HR plan is put into action once it is approved by the Board of Management.

The HR Management program also takes into consideration continuous development, motivation and retention of the faculty.

The orientation program of the faculty is a two day program. It orients them to the institution, school, Academic and HR processes, and administration and examination systems and processes. One of the important initiative of NMIMS is the continuous faculty development, especially when a new need is identified. For example in 2008 when the MBA program was restructured involving a shift to experiential pedagogy, it was felt that the Business School did not have adequate number of faculty trained in Case Methodology and

other experiential learning tools. The University management decided to sponsor faculty to the Global Faculty Development Program at the Harvard Business School. Since then, NMIMS Business School has trained 25 faculty members in Case Methodology, who in turn have organized case workshops at the University. Likewise, given the rapid pace of adoption of Automation technology in the industry, NMIMS decided to partner with Bosch Rexroth to establish Centre of Excellence in Industrial Automation. This Centre has four components namely Hydraulic, Electronic Pneumatic, Sensorics & Robotics. The engineering faculty was trained by BOSCH who subsequently trained other members of the faculty. NMIMS also organized Faculty Development Workshop through University of Illinois and Urbana Champaign, Cornel University, New York University and Harvard Business School faculty. Further, NMIMS deputed its faculty to SAS for training in Analytics and ICICI Bank for training in Treasury Management. Thus continuous faculty development is an important part of the Faculty Management Plan.

Deputation to Foreign Institutions like University of Regensburg, on Humboldt Scholarship, Steven Institute of Technology, New Jersey, George Washington University, George Town University and N C State University & Duke's University on Fulbright Fellowship and Athens University of Economics and Business has helped NMIMS develop the faculty at the world standards.

The compensation strategy acknowledges the differential capabilities of the individuals while providing to all faculty members a minimum of compensation as per UGC and Sixth Pay Commission's recommendations. It offers higher compensation to individuals who have rare skills sets or have doctoral qualification from national institutions of excellence and foreign universities.

The university Faculty Performance Management System takes into consideration the faculty's performance on teaching and research front and contribution to institution development. This is shown in **Annexure 2.9.**

The University recognizes outstanding faculty with financial and non-financial rewards.

2.4.1 Furnish details of the faculty

Table 2.7: Faculty details at NMIMS

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.							
Ph.D.	41	27	29	19	37	54	207
M.Phil.				2	3	6	11

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
PG	1		26	5	59	92	183
Others (Professional Qualifications	3	2			4	3	12
Temporary teachers	NA						
Ph.D.							
M.Phil.							
PG							
Part-time teachers							
Ph.D.							
M.Phil.							
PG							

2.4.3 Does the university encourage diversity in its faculty recruitment? Provide the following details (department / school-wise).

University does not discriminate on the basis
The university encourages regional diversity in its faculty recruitment.

Table 2.8: Diversity in Faculty

Department / School	% of faculty from the same University	% of faculty from other universities within the State	% of faculty from universities outside the State	% of faculty from other countries
SBM	14%	34%	40%	12%
MPSTME	21.39%	47.76%	26.87%	3.98%
SPPSPTM	20.51%	48.72%	28.21%	2.56%
BSSA	0%	40%	20%	40%
ASMSOC	3%	64%	30%	3%
SDSoS	NIL	82%	18%	0%
SAM-SOE	12.50%	25%	62.50%	0%

2.4.4 How does the university ensure that qualified faculty are appointed for new programs / emerging areas of study (Bio-technology, Bio-informatics, Material Science, Nanotechnology, Comparative Media Studies, Diaspora Studies, Forensic Computing, Educational Leadership, etc.)? How many faculty members were appointed to teach new programs during the last four years?

Over the years, University has identified following as emerging areas and therefore designed the teaching and research programs in these areas.
Emerging Areas:

Stem Cell and Cancer Research
Nano Sciences – Green Chemistry
Analytics
Mathematical Finance
Industrial Automation Technologies
Artificial intelligence
Cloud Computing
Family Business
Sustainability Management

In the last few years programs have been designed and offered in these areas. To ensure that qualified faculty are appointed, University identifies faculty resources in Industry and global markets. Based on such search, the University has appointed about 25 faculty members as shown in **Table No. 2.8**

Table No. 2.9: Emerging area and faculty search

Sr. No.	Faculty
1	Mukesh Nandave
2	Yugal Sikri
3	Satya Dev Tiwari
4	Addepalli Veeranjaneyulu
5	Sunil Shirvaikar
6	Amit Bhadra
7	P.N. Mukherjee
8	Suresh Mony
9	Nandip Vaidya
10	Paritosh Basu
11	Mayank Joshipura
12	P. G. Shotriya
13	M. K. Bhandari
14	Ashok Nag
15	Anuja Agarwal
16	Sarada Samantaray
17	Mukund Prasad
18	Ranjan Chakraborty
19	Harjeet Singh
20	Subhendru Bhattacharya
21	Mayur Yergeri
22	Prakash Apte
23	Vikas Gadre
24	G. Venkatachalam
25	Dhanajaya Saranath

2.4.5 How many Emeritus / Adjunct Faculty / Visiting Professors are on the rolls of the university?

In the last 4 years there have been 4 Emeritus Professors one in Business School and other in the Engineering School. The total number of Visiting Professors were 145 per semester across schools which is equivalent of 10 full time members. The number of Adjunct Faculty were 24.

The University encourages experts from different domains to engage a part of the course so that students are made aware of the latest trends in the industry. The university has a policy of engaging around 5-25 % of the total faculty depending on the need of each school.

2.4.6 What policies/systems are in place to academically recharge and rejuvenate teachers (*e.g.* providing research grants, study leave, nomination to national/international conferences/ seminars, in-service training, organizing national/international conferences etc.)?

The University has following policies for academically re-charging, rejuvenating and motivating faculty:-
- Faculty is motivated to seek funding for their research work from reputed national bodies like SERB, DST. To ensure that the proposals are written appropriately the university facilitates workshops and seminars delivered by experts.
- To motivate the faculty to undertake research which will result in IPR of value the university provides seed funding after due screening. About 50 faculty members have taken the benefit of the funding.
- The university provides seed funding for faculty to undertake research
- The University has a well-defined policy for sponsoring faculty to national and international conferences. While doing so the university whets the proposal for the type of the conference, organisers, review process etc. This ensures that the quality of conferences where the faculty is attending is of value.
- University also incentivizes faculty for their publications
- The University organises faculty development seminars for enhancing domain knowledge. In addition the university also organises several seminars and workshop for enhancing the delivery of programs and courses through pedagogical innovations.
- The University has fully funded national and international conferences where faculty has played a major role in technical as well as organizational aspects. These conferences are held regularly across schools.
- The University has supported the faculty with study leave for pursuing Ph.D. program.
- The University has an IPR as a well as a consultancy policy.

2.4.7 How many faculty received awards / recognitions for excellence in teaching at the state, national and international level during the last four years?
Few of the distinguished awards are mentioned below

Table No. 2.10: Faculty Awards

Sr. No.	Name of Faculty	Year	Name of Award	Organization conferring the award	National/International
1.	Dr. Rajan Saxena	2012-13	Achievers & leaders Award	1st world education congress, Mumbai.	International
2.	Dr. Rajan Saxena	2012-13	Leadership Award	Forum for Emotional Intelligence Learning (FEIL), Mumbai	National
3.	Dr. Rajan Saxena	2012-13	Visionary Leadership' Award in Education	ET NOW National Education Leadership	National
4.	Dr. Rajan Saxena	2012-13	Legendary Contribution to Education Award	20thDewang Mehta Business School Awards	National
5.	Dr. M. N. Welling	2012-13	Best Paper Award titled "Input for the Development of Environmental Management and Monitoring Systems in the Indian Hospitality Industry	Academy of Business Research, Fall 2012 Conference at Atlantic City, New Jersey, USA	International
6.	Dr. Tarun Gupta	2012-13	Shiksha Rattan Puraskar	India International Friendship Society, New Delhi	International
7.	Dr. Meena Galliara	2012-13	Bharat Jyoti Award	India International Friendship Society, New Delhi	International
8.	Dr. Bala Krishnamoorthy	2012-13	Best Teacher in Business Strategy	Dewang Mehta Awards	National
9.	Dr. (Mrs.) Seema Khanvilkar	2012-13	Best Teacher in General Management:	Dewang Mehta Awards	National

84

Sr. No.	Name of Faculty	Year	Name of Award	Organization conferring the award	National/International
			(Business Communication)		
10.	Dr. Rajan Saxena	2013–14	Dr.SureshGhai Memorial Award for "Outstanding Contribution to Management Leadership"	Higher Education Forum	National
11.	Dr. Debashis Sanyal	2013–14	Exemplary Leader Award	MBA by Choice	National
12.	Dr. Sreeram Sivaramakrishnan	2013–14	Best Teacher in Marketing Award	Dewang Mehta Award	National
13.	Dr. Rajan Saxena	2014–15	Distinguished Educationist Award	BERG Awards for Innovation & Excellence in Education 2014, Singapore	International
14.	Dr.Tarun Gupta	2014–15	Life Time Achievement Award	Industry Body AWACS Pvt. Ltd.	National
15.	Dr. Hufrish Majra, Dr. Rajan Saxena, Dr.SumiJha	2014–15	FIRST PRISE, 10th SIMSR Global Marketing Conference	K J Somaiya Institute of Management Studies & Research (SIMSR) Institute, Mumbai	National
16.	Dr.Tarun Gupta	2015–16	Advancement of Education In Pharmaceuticals Award	Organization of Pharmaceutical Producers of India	National
17.	Prof. Smita Mazumdar	2015–16	ITM Silver Jubilee Award for Outstanding Young Management Teacher, Female	Higher Education Forum	National

Sr. No.	Name of Faculty	Year	Name of Award	Organization conferring the award	National/International
18.	Dr. Mayank Joshipura	2015–16	Best Professor in Finance	23rdDewang Mehta National Educational Awards	National
19.	Dr. Jigisha Vashi	2016	Young Geotechnical Engineer Award	India Geotechnical Society	National
20.	Dr. Dhirendra Mishra	2015	EMC^2 Award for Best Teacher	EMC^2	National
21.	Prof. Vinod Jain &Sawan Kumar N aik	2015	Recognised as International Faculty	Bosch Rexroth	International
22.	Prof. Dattatreya Sawant	2016	Best Faculty for Industry Institute Interaction	International Society for Automation	International
23.	Dr. LaxmiGort y	2016	Bharat Jyoti Award & Outstanding Scientist award in the category of Science/Maths	VIFRA	National
24.	Dr. Sharad Mhaiskar	2016	Best Dean Award	DNA & Stars group	National
25.	Dr. Anuja Agarwal	2016	Distinguished Woman in Management	VIFRA-Centre for Women Empowerment	National
26.	Dr. Sharad Mhaiskar	2017	Fullbright Award –FN-IEAS 2017	USIEF	International
27.	Dr. Anil Pethe	2016	Outstanding Contribution	Association of Pharmaceutical Teachers India (APTI)	National
28.	Dr. Meena C.	2014	Best Teacher Award	HEF	National

2.4.8   How many faculty underwent staff development programs during the last four years (add any other program if necessary)?

Table 2.11: Staff Development programs

Faculty / Staff Development Programs	Number of faculty
Refresher courses	-
HRD programs	29
Orientation programs	5
Staff training conducted by the university	34
Staff training conducted by other institutions	-
Summer / Winter schools, Workshops, etc.	29

Table 2.12: Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad

Academic Staff Development Programmes	Number of faculty			
	2015-16	2014-15	2013-14	2012-13
Refresher courses	258	128	50	58
HRD programmes	144	20	7	1
Orientation programmes	-	1	-	1
Staff training conducted by the university	379	135	69	65
Staff training conducted by other institutions	40	37	29	18
Summer / Winter schools, workshops, etc.	17	23	41	23

A large number of teachers have undergone staff development programs during the last five years.

2.4.9   What percentage of the faculty have:
- **been invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies?**
- All senior faculty members are invited as resource person in Workshops / Seminars / Conferences organized by external professional agencies

Table 2.13: Faculty invited as resource persons

Sr. No.	School	Refresher / Orientation Program	Workshop	Training	Other	Total
1	MPSTME	1	2	3	-	6
2	ASMSOC	1	4		-	5
3	BSSA		4			4
4	SBM	-	10	10	30	50

87

Sr. No.	School	Refresher / Orientation Program	Workshop	Training	Other	Total
5	SAMSOE	-	6	1	1	**8**
6	SDSOS		5		1	**6**
7	SPPSPTM	21	40	3	-	**64**
	Total	**23**	**71**	**17**	**32**	**143**

- **participated in external Workshops / Seminars / Conferences recognized by national / international professional bodies?**

  60% of the faculty regularly participates in external Workshops / Seminars / Conferences recognized by national / international professional bodies

- **presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies?**

  A total of 410 papers were presented by faculty members in international conferences and 196 papers in national conferences.

- **teaching experience in other universities / national institutions and other institutions?**
  70% of the faculty members have teaching experience in other universities

- **industrial engagement?**
  25% of faculty members have industrial engagements by means of projects, consultancies and MDPs.

- **international experience in teaching?**
  5% of faculty members have international exposure / experience

2.4.10 How often does the university organize academic development programs (*e.g.*: curriculum development, teaching-learning methods, examination reforms, content / knowledge management, etc.) for its faculty aimed at enriching the teaching-learning process?

The Academic development programs are organized by the schools on a regular at least basis, once in a year. These have been organized on the following topics:
1. Innovative pedagogical techniques: Keeping in mind the interest of millenials in active learning, several methods of delivery like project based learning, flipped classroom, team learning and collaborative learning and continuous learning have been organized every year.
2. Each of these academic development program had modules on content creation, engaging students in MOOC's and blended learning.

  Conclaves and Round Tables are organised where faculty brainstorms on industry needs, the future of workplace and jobs and hence the curriculum changes that are needed.

3. Research skills development which includes proposal writing and publishing

4. Faculty is involved in department advisory boards.

The faculty is regularly trained in a program called "Train the trainer". Experts from Industry and other universities of repute form the faculty for these programs. This helps the teachers teach difficult topics in an interesting manner.

2.4.11 Does the university have a mechanism to encourage

∗Mobility of faculty between universities for teaching?
The University does have Memorandum of Understanding with National and International Universities for faculty exchange. NMIMS has executed 32 MoUs with international universities spreading over North America, Europe and Australia. For example, under the teaching exchange program with the Charles Darwin University, faculty member has visited for one month a year for 3 years. Similar exchange with DMG Germany for incoming and outgoing faculty for duration of two weeks in the School of Science was done. The University has facilitated 16 incoming faculty members from reputed international universities.
The Pharmacy School has an understanding with JSS University, Mysore for faculty exchange and use of equipment for research.
Faculty is also encouraged to go for post doctoral fellowship or undertake research in collaboration with Industry and other Institutes.

∗ Faculty exchange programs with national and international bodies.

As a part of the industry connect, faculty members from MPSTME have been trained in BOSCH Rexroth in Germany. Faculty from School of Engineering participated in a conference organised by RaENG, UK.
Such interactions with reputed international universities and professional national and international bodies has enhanced the knowledge of the faculty and also helped in understanding the processes involved in higher education thereby enriching the quality of the faculty.

NMIMS has an MOU with Athens University of Business where faculty from NMIMS goes to teach the course on doing `Business in India'. The School of Business Management has Mo U with Business Schools in UK, France, Germany Australia for Students Exchange, Faculty Exchange and Joint Research. Under these exchange arrangements about 25 students from leading French Business School join NMIMS for their academic programs and similar numbers visit these schools.

2.5 Evaluation Process and Reforms

2.5.1 How does the university ensure that all the stakeholders are aware of the evaluation processes that are in place?

The Examination system at NMIMS rests on the pillars of transparency and accountability. This involves communication of the system of examination and its processes at various levels. The entire examination process is administered through SAP. This ensures systematic implementation and well defined processes.

The Academic Guidelines in the Student Resource Book, which is distinct for each School and which is provided to the students at the beginning of an academic year lays down the parameters of student evaluation and the passing norms. This Student resource book is also loaded on the NMIMS website.

In addition, course outlines prepared by individual faculty members, are communicated to the students at the beginning of the year / trimester through the **Blackboard Learning System**. It also contains details of the evaluation pattern, along with the weightages allotted for the same.

The evaluation procedure followed by the University is transparent. This transparency extends to various stages of the examination-evaluation process.

- Students of every School are explained the various aspects of the examination and evaluation processes through an interaction with the Controller of Examinations/Deputy CoE/Dy. Registrar (Examinations) during their respective Orientation programs as well as information seminars in every divisions. These guidelines/ Evaluation criteria are available to them for continuous reference throughout the year/ term in the form of their Student Resource Book as well as through course outlines uploaded on the Blackboard Learning System.
- The internal continuous assessment marks are shared with the students for each component of continuous assessment within the specified period. The students are made aware of the shortcomings in their papers.
- In the term end examinations, students' answer-sheets are barcoded, which mask their identity and thus ensure fair assessment.
- After declaration of the trimester end results, the total marks obtained by the student, marks obtained by him/her in the internal continuous assessments, marks obtained by him/her in the trimester/semester-end examination, letter grade for each subject and the GPA/CGPA for the related trimester/semester are shared with the student concerned.
- Grievance redressal process also ensures that there is complete transparency in the evaluation process.

2.5.2 What are the important examination reforms initiated by the university and to what extent have they been implemented in the university departments and affiliated colleges? Cite a few examples which have positively impacted the examination management system.

In 2010 NMIMS moved from conventional marks system to Grade and CGPA system, which was in line with all international universities. Once again NMIMS used its experience as a Business School to administer this system. The autonomy of the university helped in even question paper reform as now the requirement was to test as how much students could apply their knowledge, rather than laying emphasis on their memory. Innovations like case centric evaluation, open book examination, multiple choice examination, and assignment based examinations are now increasingly used by NMIMS for evaluation of the student performance.

NMIMS also involved external experts both from the country and outside to evaluate the performance of the students.

Based on a review of the evaluation processes, the major evaluation reforms implemented at the University level are:

- Replacement of the earlier 'Marks' system by a system of Grading
- Continuous internal evaluation of the students comprising of class participation, mid-term examinations, assignments, quizzes, projects, practicals, etc. ,with pre-defined weightages in addition to a trimester-end examination
- Integration of attendance penalty with grades (in Management programs)
- A system of moderation of answer books with a predefined set of rules and processes, carried out by subject experts with a minimum of ten years teaching experience.
- Grievance redressal mechanism
- Factorisation

At the level of individual Schools, certain other reforms have been introduced.

Open book examinations are conducted in a few subjects. In some courses (such as Tools for Business Analytics, IT skills and Computer Applications in Finance), Computer Based Tests are conducted. Relative grading with minor variations is in places across the university.

In the School of Business Management, there exists a system of relative grading. Grading is done after marks awarded by different examiners to different divisions for the same subject are factorised. Grades are assigned only after factorisation of marks.

In MPSTME and SPPSPTM, where the University runs certain programs at the twin centres at Mumbai and Shirpur, the coded answer books (of a particular course) of both the campuses are mixed before evaluation to avoid campus biases. The university is planning to introduce an on line evaluation system from the next academic year.

Question papers are vetted by external experts and they give feedback as to syllabus coverage, difficulty level and general standards of the question papers. Such a feedback is taken from the external faculty for every school during the end of semester when papers are set by the faculty.

2.5.3 **What is the average time taken by the university for declaration of examination results? In case of delay, what measures have been taken to address them? Indicate the mode / media adopted by the university for the publication of examination results (*e.g.,* website, SMS, email, etc.).**

The trimester/semester end results have been declared within four weeks of the date on which the final examination was held. This has helped the university to maintain its academic calendar and also conduct of graduation ceremony on pre-scheduled dates.

The declaration of results is conveyed to students via Blackboard. The examination department also sends a SMS to students. The Dean concerned conveys the details once the respective program results are declared.

A student portal has been developed to inform the individual students of his/her results.

2.5.4 **How does the university ensure transparency in the evaluation process? What are the rigorous features introduced by the university to ensure confidentiality?**

The University ensures transparency as well as confidentiality through following steps:-

- Timely declaration of result of internal assessment on Blackboard
- 3 sets of question papers are set with a panel comprising external chairman
- Bar coding of answer books to maintain the confidentiality of identity.
- Mixing of answer books across campuses to avoid campus vide bias.
- Redressal mechanism which includes issuing of Xerox copies, revaluation.
- There is a Question paper setting Committee for each course consisting of faculty and external expert leading to better quality of evaluation and more transparency
- Double evaluation
- Factorization

2.5.5 **Does the university have an integrated examination platform for the following processes?**

The entire examination process is administered through SAP ERP. This leads to a well-defined process.

∗Pre-examination processes – Time table generation, OMR, student list generation, invigilators, squads, attendance sheet, online payment gateway, etc.

∗Examination process – Examination material management, logistics, etc.

∗Post-examination process – Attendance capture, OMR-based exam result, auto processing, generic result processing, certification, etc.

2.5.6 **Has the university introduced any reforms in its Ph.D. evaluation process?**

NMIMS had earlier adopted UGC Ph.D. guidelines 2009 for its Doctoral programs. Recently the university has adopted the UGC 2016 guidelines for Doctoral programs.

- All India based admission test is conducted for admission to Doctoral program
- All the students have to go through a coursework before they can qualify to submit their research proposal and register for Ph.D. program. At all schools the course work is well beyond the credits specified by the UGC.
- At department level, NMIMS has a Research Recognition Committee (RRC), which looks into all the research proposals and progress of the research submitted by the doctoral students.
- Besides this, a Thesis Advisory Committee (TAC) is appointed for each doctoral student. This committee comprises the Faculty Supervisor and two other experts- one preferably from the industry. The role of the TAC is to guide the student in the development of the thesis proposal and also during the thesis work.
- Prior to submission of Thesis all Doctoral students are required to show evidence of publication of at least two research papers of pre-selected Journals. The thesis is sent for evaluation to external experts. In some cases, it is also sent to foreign experts for evaluation. The university carries out anti-plagiarism checks before appointing examiners.
- The viva voce is an open defence which is attended by faculty other doctoral students and anyone who feels interested in the topic.
- NMIMS has a provision of conducting viva through Skype/Video if it so required.

2.5.7 Has the university created any provision for including the name of the college in the degree certificate?

NMIMS does mention on the Degree and the Marks-Statement/Transcript the school from where the student has graduated.

2.5.8 What is the mechanism for redressal of grievances with reference to examinations?

NMIMS has in place an elaborate mechanism for redressal of student grievances regarding evaluation. Under this mechanism, a student can obtain photocopy/copies of his/her answer book / answer books. On receipt of the photocopy/copies, the student can put up his/her grievance in which he/she has to specify clearly – question-wise – his/her justification for revaluation.

Examination Grievance Redressal Mechanism
(Providing Photo copies to the candidates and Revaluation)

The Grievance Redressal Mechanism as regards evaluation of answer books and timelines to be followed for the same would be as under:
The Grievance Redressal Mechanism will apply only to the 'term-end Examinations' of the University.

The Grievance Redressal Mechanism will **not apply to** practicals / oral examinations / viva / projects / MCQ's in online exams/assignments/ dissertation/ presentation/ field work etc.

The application for Redressal of Grievance can be made online only through the Student Portal. Applications made through offline mode would not be considered under any circumstances.

All the students will be informed the course/module-wise marks obtained by them in the 'Internal Continuous Assessment' and 'Term-end Examination' by the Examination Office, **on the date of declaration of result of the examinations of the respective class/es. The date of declaration of result shall be the date on which examination result is made live on 'Student Portal' of the University.**

Under the Grievance Redressal Mechanism, a student can apply for:

Verification of Answer book: Under this process, on application of the student, the University ensures that (i) all the answers in the respective answer book are evaluated, (ii) marks have been allocated to each answer and carried forward to the first page of the answer book properly and (iii) totalling of the marks on the first page of the answer book has been carried out correctly.

OR

Re-evaluation of the Answer book: Under this process, the student may (i) opt to first apply for the photocopy/ies of the answer book/s and subsequently apply for the re-evaluation of the said answer book/s after going through the answer book **OR** (ii) directly apply for the re-evaluation of his/her answer book/s without applying for photo copy of his/ her answer book.

After the result declaration on 'student portal', if a student is not satisfied with the marks awarded to him/her in the Term-end Examination/s, in any course/module, s/he may apply for the Grievance Redressal **within the prescribed number of days as per the example mentioned in the table below**:

Activity under Grievance Redressal Mechanism	Time Limit	Date of Declaration of Result 10th October 2017	Processing fee (Subject to change from time to time)
Application for Verification of Answer book/s	Within 5 days from the date of result declaration	On or before 15th October 2017	Rs. 500/- per answer book
Application for Photocopy of the answer book/s	Within 2 days from the date of result declaration including holidays	On or before 12th October 2017	Rs. 500/- per answer book
Collection of the answer book/s from the School Examination Office	Latest on the 4th day from the date of result declaration (excluding holidays)	No later than 14th October 2017	N.A.
Application for Re-valuation of the answer book/s	Within 5 days from the date of result declaration including holidays	On or before 15th October 2017	Rs. 1000/- per answer book

No application, received after the prescribed number of days as mentioned in the table above, shall be entertained for any reason whatsoever.

The student concerned will have to appear in person and prove his/ her identity at the time of obtaining the photo copies from 'Examination Office' by showing his/ her University Identity card.

As an exception to the aforesaid process of collection of answer book/s, scanned image of the respective answer book/s will be sent to the email ID (registered with NMIMS) of the applicant student or photo copy/ies will be handed over to a person authorized (in writing) by the student concerned - only during the time when the results of final/ re-examinations of final terms (e.g. Sem II/ IV, Trim III/ VI etc.) are declared and when the students are not expected to be on campus/ city. The Photo-copies would be authenticated by the 'Examination Office' by way of a rubber stamp and initials of competent authority. Photo copies shall not be sent by post or by courier.

Photo copies of the answer-book/s provided by the University are only for Grievance Redressal mechanism and do not have any evidentiary value.

Any deviation from the above procedure by the student in any form shall be construed as an unfair act making him/ her liable for appropriate punishment by the University. The decision of the University shall be final in this regard.

Application for Redressal of grievance received after the stipulated due date shall not be entertained or accepted for any reason whatsoever. Also application will be deemed to be complete only after payment of requisite fee.

The application received from the student for re-evaluation shall be placed before an external examiner for re-evaluation.

After following the process of re-evaluation under the Grievance Redressal, effect will be given to change in original marks on re-evaluation, if any, as under:

If the marks of re-evaluation, increase or decrease by less than ten percent (10%) There will be no change in the marks and original marks awarded to the candidate in the subject will be retained.

If the marks of re-evaluation increase or decrease between 10.01% and 20%: In such cases the marks originally awarded to the candidate in the subject shall be treated as null and void and the marks obtained by the candidate after re-evaluation shall be accepted as the marks obtained in that subject. Fractional marks if any shall be rounded off for the purpose of computing the ten percent (10%) difference in marks.

If the marks of re-evaluation increase or decrease by more than 20% A second revaluation of the said answer books shall be done by the examiner from the panel of examiners for the said subject and then **an average of the marks obtained in the first re-evaluation and marks obtained in the second re- evaluation shall be taken** and this shall be accepted by the University as the final marks for the said subject (fractional marks if any shall be rounded off to the next integer).

An answer book shall be sent for second revaluation to another senior examiner appointed by the Controller of Examinations in consultation with the Dean of the School or Chairperson of the Board of Studies of the University, if in the first revaluation, marks of a candidate are decreased below the passing marks or if a candidate obtains 'F' grade after the first revaluation or the marks required for securing a class from originally secured marks required for passing or for the particular class and the marks assigned

by the third examiner in the second revaluation be treated as the final marks in the said subject.

The revised marks obtained by a candidate after re-evaluation, as accepted by the University shall be taken into account for the purpose of amendment of his results only and the said result shall be communicated to the student/s.

The above difference in marks in percentage term shall be with reference to the maximum marks assigned for the term end examination of the respective subject.
The examiner/s for re-evaluation will be appointed by the Controller of Examinations from the panel of examiners provided by the Dean of the School duly approved by Pro Vice Chancellor and the Vice Chancellor of the University.
The revised marks obtained by a candidate after re-evaluation, as accepted by the University shall be taken into account for the purpose of amendment of his/her results only and the said result shall be communicated to the student/s by suitable means.
The marks awarded by examiner/s in re-evaluation shall be final and binding on the student applicant and the original examiner.
The change of marks, if any, shall be communicated to the student applicant and a revised 'Grade Sheet' shall be issued to him/ her only on surrendering the original grade sheet to the Examination Office.
The whole process of Redressal of grievances shall be completed within a period of 15 working days from the date of receipt of application for Redressal of grievances.
In any case, the photo copies of re-evaluated answer-books shall not be provided to the student/s.
The outcome of Revaluation process shall be final and binding on student.

2.5.9 **What efforts have been made by the university to streamline the operations at the Office of the Controller of Examinations? Mention any significant efforts which have improved the process and functioning of the examination division/section.**

Multiple initiatives have been taken to streamline the operations at the office of the Controller of Examinations. These include automation of processes, introduction of ERP System (SAP) and the involvement of the various Faculty Committees to assist in the conduct of the examination.

Automation Technologies including Degree and mark sheet printing. Major concerns were being resolved when NMIMS adopted Automation technology for printing the Degree Certificate and Mark sheet. One was the speed at which the Degree was required to be generated. This became important because of the growing numbers graduating from the University each year. And the second was with regard to authenticity and credibility of the University paper. To ensure a high degree of authenticity in the document NMIMS use hologram, barcodes, individualization with NMIMS logo, personalized complex graphics to ensure all round security.

- Access to unique, controlled-supply paper that has a genuine watermark for added security.
- A holographic visual deterrent giving extra protection from illegal counterfeiting.
- Branded overprint of the hologram, personalising it with your Coat of Arms or Corporate Branding. Giving extra protection from illegal counterfeiting.
- Easy auditing with individual numbering for each certificate.
- Instant certificate authentication with a heat reactive spot – simply touch it to authenticate genuine certificates.
- Personalised, complex graphics to rival banknote-level security, which are extremely difficult to reproduce.

Further to ensure authenticity, credibility and speed in the declarations of results, SAP process was used.

The Office of the CoE has been set up with a well-defined organizational structure. The roles and responsibilities at each level are well defined. This has, over a period of time helped in smooth functioning of the office. ERP SAP has helped not only in clearly defining the roles and functions but also defined a structured process for evaluation and grievance redressal. Automation of all processes has helped in maintaining a high level of efficiency and timely declaration of results. The registration with National Depository Service has also helped in issuing transcripts promptly. Furthermore, "On screen marking and evaluation" will be implemented from the next academic year. The University is also evaluating the possibility of implementing a paperless evaluation process.

All these steps have helped in improving the processes and functioning of the examination section.

2.6. Student Performance and Learning Outcomes

2.6.1 Has the university articulated its Graduate Attributes? If so, how does it facilitate and monitor its implementation and outcome?

Yes, the University has articulated Graduate Attributes for all its programs. The School of Business Management which is currently undergoing AACSB Accreditation process, has defined graduate attributes sated below:

- An understanding of global issues impacting organizations
- Critical thinking skills
- An integrative approach to decision making
- Effective communication and interpersonal skills
- An understanding of CSR, ethical and sustainable business models
- Collaborative team based behaviour
- Personal and Professional leadership

The Graduate Attributes of Engineering programs were defined as a part of the NBA Accreditation process at Mukesh Patel School of Technology

Management and Engineering (MPSTME) and similar exercise has been undertaken at the School of Pharmacy (SPTM). School of Science has also defined the Graduate Attributes in its programs. These attributes are then defined at the course level.

At the engineering school the Graduates attributes (GA's) as defined by National Board of Accreditation (NBA) have been used to define the program outcomes for every program. The program outcome so defined have been communicated to the students along with the course outcomes. At the beginning of every session each faculty member has been communicated the program outcomes to the student, the course outcomes as well as the program outcomes. At the end of the program review of the course as well as program outcome is undertaken. The gaps in the assessment are taken up by the Program Coordinator (PC) with the Departmental Advisory Board (DAB). The DAB deliberates on strategies to bridge the gaps through the various measures like change in pedagalogy, evaluation and assessment techniques etc.

2.6.2   Does the university have clearly stated learning outcomes for its academic programs? If yes, give details on how the students and staff are made aware of these?

Yes the University has stated learning outcomes for its academic programs. These learning outcomes in the case of SBM has been defined as One of the standards of AACSB which relates to Assurance of Learning (AoL).

To demonstrate that students achieve **learning** expectations for the programs in which they participate, the school is committed to the Assessment of Learning (AOL) process. The AOL process started in April 2013 at NMIMS School of Business Management. Separate processes were adopted for different programs.
In line with SBM's mission, expected outcome and strategy, the Program Learning Outcomes (PLOs) were formulated. These PLOs were further converted into specific Course Learning Objectives (CLOs) which were measured to ensure student learning. Remarkable change across all programs is brought about by aligning the teaching and learning process to the CLOs. AOL system ensures continuous learning by measuring learning outcome- using rubrics or through the mid term and end term exam by embedded questions.

For every CLO detailed guidelines and expectations are set. Students who score below 65% on the assessed CLO are graded Below Expectation (BE), Students with score above 65% and below 75% on the assessed CLO are graded Meet Expectation (ME), Students with score above 75% on the assessed CLO are graded Exceed Expectation (EE)
Across disciplines, results of AOL are discussed with faculty members in the curriculum review and revision meetings for improvement to be made for the next academic year in each discipline. To continue with the AOL culture in SBM, AOL committee regularly briefs the faculty council on AOL requirements and orients the new faculty into AOL process.

Students who do not meet the learning objectives are counseled and helped to improve their performance. To improve on some expected outcome the school over time adopted many new intervention. To mention a few:

- Providing students with Harvard Online Course pack on "Management Communication". This 20-hour module on how to communicate effectively and persuasively through memos and emails has enhanced the learning of the students.
- The Harvard Online Course pack was also rolled out for other courses like Financial Accounting, Quantitative Methods, Spreadsheet Modelling and Mathematics for Management, and Finance. This improved the learning and strengthened the pedagogy.
- Deweyan Methods of Experiential Learning was used as pedagogy for Corporate Social responsibility (CSR).
- Continuous improvement on rubrics to help capture properly students learning outcome.

To develop The PLO the School used the following graduate's attributes.

Table. 2.14: Program Learning Goals

Program	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
MBA	An understanding of global issues impacting organizations	Critical thinking skills	An integrative approach to decision making	Effective communication and interpersonal skills	An understanding of CSR, ethical and sustainable business models
	PLO 1	PLO 2	PLO 3	PLO 4	
EMBA	Demonstrate the ability to analyze contemporary business issues and challenges in global environment	Enhance critical and analytical thinking to enable decision making	Demonstrate effective communication skills	Apply concepts of CSR and sustainable practices in business	
	PLO 1	PLO 2	PLO 3	PLO 4	
Ph.D.	To create and apply advanced knowledge in business	To develop advanced research skills in the area of specialization	To develop an original and substantive research project	To adhere to research ethics	
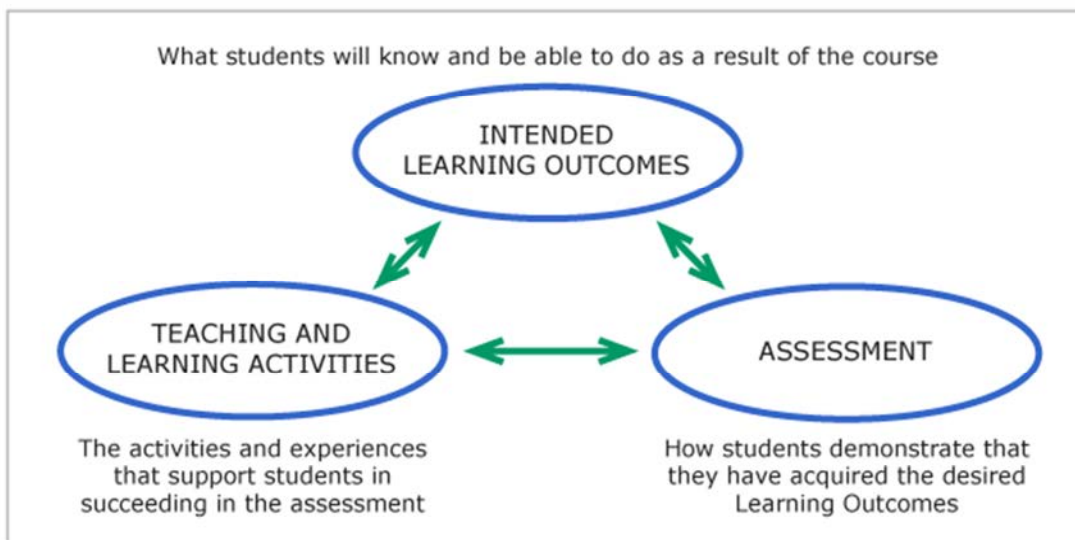
Figure 2.5: Process of attainment of program and course outcomes as defined in the NBA process

The University for all its programs has clearly stated learning outcomes for e.g., in the Engineering School and Business School the learning outcomes for each course have been defined using Blooms' Taxonomy, to ensure different levels of learning. Dissemination of the Program Educational Objectives (PEO), Program Outcomes (POs) and Course Outcomes (COs) are disseminated to the students and other stakeholders of various communication tools like a) Student Resources Book (SRB) b) Faculty meetings c) Departmental website d) Handouts distributed to students and faculty periodically. e) Presenting them to the Alumni at Alumni meets f) inform the industry at round tables, conclaves and during the placement process.
The students are communicated the learning outcome in each course through the course outline developed by the faculty. The assessment pattern is structured in a way by which these learning outcomes are achieved. The results of the such assessment are then discussed in the department of the area meetings and wherever the gaps are either in content, pedagogy or assessment method steps are taken to close it.

Likewise, the academic administration staff and those working in the examination department are made aware to these learning outcomes.

Once the program and course outcomes are defined dissemination is done through different initiatives. These initiatives include seminars, workshops, group interaction, one to one interaction with students, faculty as well as staff.

2.6.3 **How are the university's teaching, learning and assessment strategies structured to facilitate the achievement of the intended learning outcomes?**

Once the program outcomes and course outcomes are disseminated, the faculty spells out the assessment tools which will be used for assessing the

course outcomes - The pedagogy and assessment revolves around the learning outcomes and achievement through different techniques like tests, quizzes, classroom participation, group projects, projects which are done through experiential learning etc. These measures facilitate the achievement of the learning outcomes.

The University follows a well-defined and elaborate process of evaluating the attainment of outcomes. Each faculty evaluates the course outcomes through different tools like well-designed tests, quizzes, experiments and end semester examinations. Each component is given due weightage. Once the assessment is carried out the attainment of outcomes is evaluated. The advisory board reviews the hurdles in attainment and suggests changes in the content / evaluation / teaching techniques to ensure that the desired level of attainment is achieved.

2.6.4   **How does the university collect and analyse data on student learning outcomes and use it to overcome the barriers to learning?**

Once the students and faculty members communicate the CO's & PO's with an objective of learning outcomes, analysis of the achievement is carried out at the end of the semester. Alongwith the assessment of the attainment, the faculty members also give a summary of the gaps which inhibit learning the desirable levels of attainment of outcomes. With this process the barriers to learning emerge clearly. The faculty member also gives suggestions to bridge these barriers so that the attainment can improve subsequently. Over a period of time the faculty members, through this process, ensure a continuous improvement in learning and achievement of learning outcomes.

At the end of every semester each faculty member assess the attainment of course outcomes based on various tools. Once the assessment is done the faculty member reviews the attainment and suggests / proposes changes in the evaluation and / or teaching tools and redefines the strategy for delivery or recommends changes in the content. The attainment of each program is reviewed by the University in its Academic review of each school. The review process set up by each school for different programs,t o address the barriers is also reviewed at the university level during the academic review. The data so obtained is analysed and the university leadership addresses the barriers through administrative interventions and academic innovations.

2.6.5   **What are the new technologies deployed by the university in enhancing student learning and evaluation and how does it seek to meet fresh/ future challenges?**

Once the barriers to learning are clear, the faculty members have deployed newer techniques and technologies in facilitating the student learning and evaluation, a few examples of this initiative are listed below:
1) Beyond classroom learning
2) Experiential learning
3) Project based learning

4) Learning through online content available in different platforms like Coursera

5) Self and continuous learning

Along with these newer technologies, the faculty members have also deployed different evaluation techniques like group evaluation, open book exams, online evaluation of responses after viewing video clips.

To ensure that the aspirations of the millennial are met with, different objectives and evaluation techniques as mentioned above are practised.

However, extensive training is carried out so far and are being also planned for the future for the faculty so that they understand the requirements of the future generation and practice the student centric teaching learning process.

Recognising the importance active learning the university gives due importance to pedagogical innovations in the performance management system. Several faculty members have devised innovative techniques to ensure active learning. These techniques include flipped classrooms, collaborative learning, project based learning and self and continuous learning. To ensure that faculty members are equipped with the skills to engage students in modern teaching tools the university organises faculty development programs. For example the engineering school through the Newton Bhabha Funding has collaborated with Cranfield University UK as well as industry partners like L & T, Thermax to ensure project based learning courses. Similar FDP's have been planned to equip the faculty.

The University is also ensuring that the evaluation techniques keep pace with the changes in the delivery techniques. Open book exams, group assessment, case based discussion and assessment are few different tools being used to evaluate a student performance.

These initiatives prepare the faculty to address the present as well as future challenges.

Take up one idea. Make that one idea your life - think of it, dream of it, live on that idea. Let the brain, muscles, nerves, every part of your body, be full of that idea, and just leave every other idea alone. This is the way to success.

- <u>*Swami Vivekananda*</u>

3.1 Promotion of Research

3.1.1 Does the university have a Research Committee to monitor and address issues related to research? If yes, what is its composition? Mention a few recommendations which have been implemented and their impact.

Yes. The University has constituted a Research Committee which monitors and also plans for various research activities conducted in all the departments of the University. It is headed by the Vice Chancellor. It consists of Pro-Vice Chancellor and Deans. It also consists of national and international experts. Each School also has a Research Committee headed by Dean and consists of Heads of the Departments and Professors.

A post of Dean Research has been created at the University to drive quality research. School of Pharmacy and Technology Management has appointed a Research Director.

Some of the major issues discussed in the University Research Committee relates to improving research profile of the University and developing a research culture. It has often been felt in the Research Committee and various Faculty Council Meetings that young age of the University is an asset in building research culture. With the growing research publications and Patents, this young university has already started getting recognized in various academic and industry associations. The faculty publications and patents in a short period of time that is in about last 4 to 5 years has strengthened the Research Committee's resolve to aggressively pursue the research agenda in the University.

Research Committee monitors the progress of research being conducted by the research scholars and post graduate students. The guidelines for submission of theses (PG and Ph.D.) are revisited every year. The Research Committee monitors the expenditure on the research projects by the School. Necessary recommendations are made with respect to availability of instruments and equipments, consumables, etc. The Research Committee also evaluates the potential of the projects with reference to intellectual property.

The Research Committee is also responsible for the recommendation of requests by the Faculty Members and Students for the oral/poster presentation at national/international conferences/seminars. These recommendations are then forwarded to the University Research Committee for further consideration for funding to the Faculty. Tier I to III level conferences are funded by the University. The List of these Conferences has been put on the University Website.

The Board of Management in one of its meetings, while discussing performance, all agreed to the recommendation of the committee to create research culture. Towards this end, the research promotion policy was announced by the university in July 2015. The details of the policy are shown in Annexure in 3.1.

The faculty was also communicated of their eligibility for seed research grant of Rs.1 lakh. Soon after the announcement of the Research Policy, the University received 38 proposals in the last 5 years which were screened by the Committee and those eligible were provided the seed money of Rs.1 lakh each. The details of the research projects so funded in the last few years are shown in the table below:

Table 3.1: Funded Research Projects

Sr. No.	Dept.	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Total (Rs.)
1	Management	1	1	-	-	-	3	365000
2	Engineering	-	-	-	1	18	-	1507000
4	Pharmacy	1	-	1	-	-	-	65000
3	Science	-	-	-	-	-	1	100000
	Total	**2**	**1**	**1**	**1**	**18**	**4**	**2037000**

Another major recommendation of the Research Committee relates to development of the Institutional Impact Factor of research publications of the faculty. The Committee deliberated on the impact factors of various journals and arrived at the Research Index for the Schools and the University. This methodology has now been accepted by the Board of Management and communicated to all the Schools. The research publications in journals with high impact factor has gone up after the communication of this decision. **Annexure 3.2** gives the details of the methodology to compute Institutional Research Index.

The Table 3.2 below shows the growth of research publications in journals with good impact factor and in Management Journals categorized in ABDC list. It also gives the details of number of cases published by the Management School faculty.

Table 3.2: Publications (International / National)

International Publications							
Schools	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Tot
Management	6	11	47	42	40	86	**232**
Engineering	114	79	105	61	46	50	**455**
Pharmacy	33	39	38	52	44	33	**239**
Science	11	22	16	19	22	20	**110**
Commerce	-	-	5	5	5	15	**30**
Economics	-	-	1	2	5	2	**10**
Total	**164**	**151**	**212**	**181**	**162**	**206**	**1076**

National Publications

Schools	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Tot
Management	7	8	10	16	9	18	**68**
Engineering	21	12	13	9	4	3	**63**
Pharmacy	8	17	14	9	6	3	**57**
Science	6	3	6	8	8	4	**35**
Commerce	-	-	3	7	2	4	**16**
Economics	-	1	-	1	-	2	4
Total	**42**	**41**	**46**	**50**	**29**	**34**	**242**

Faculty members of School of Business Management have published a total of 65 publications, which are listed in ABDC Journals list (Annexure – 3.3).

3.1.2 What is the policy of the university to promote research in its affiliated / constituent colleges?

As mentioned above the policy to promote research in its constituent schools is shown in **Annexure 3.2**. Further, the University gives differential compensation to faculty members with Ph.D. and research publication in high impact factor journals or patents.

The University has given due weightage to research in the Faculty Performance Management System. This reflects the vision and mission of the university and sends an important message to the faculty.

Faculty is encouraged to register for Ph.D. They are provided tuition fee waiver, if registering for Ph.D. in NMIMS University. The University facilitates research activity of the faculty by providing concession in the workload.

- The faculty members are provided monetary and non-monetary incentives for publishing in high impact factor journals and for obtaining patents.
- To encourage research, the University has initiated distinguished Research Scholar Lecture Series.
- The University also sends its faculty member to understand the research methodology and collaborate with research scholars to other research institutions in India or overseas.
- The University has also established research labs at the behest of research scholars. The Tissue Culture Lab at the School of Science is an example of one such lab set up by NMIMS at the behest of the faculty who is also the Dean of that School.
  The University has funded development of full-fledged Central Instrumentation Labs I,II and Cell Culture Lab at the School of Pharmacy. Also, keeping with recent trends in the Bioanalysis and Trace Analysis, the University has felt the need to set-up a highly sensitive LC-MS/MS laboratory. The setting-up and purchase of the LC-MS/MS

instrument was completed funded by the University (Rs. ~2 Cr). This has immensely benefited the Research Scholars and post graduate students.

3.1.3 What are the proactive mechanisms adopted by the university to facilitate the smooth implementation of research schemes/ projects?

The University has adopted various mechanisms to help faculty members in smooth implementation of research schemes / projects. These are:
- Mentoring of faculty members for writing research proposals. This mentoring is done by research active faculty or external experts.
- These research proposals are sent to various funding agencies depending on thrust areas defined by the funding organizations.
- Rs. 1 lakh per faculty is available to develop a proof of concept and can be used for their pilot project.

University has so far invested Rs.10 crores research in labs and workshops. The research journals and databases required only for research are also available to faculty and students.

Faculty member has autonomy for:
- Advancing funds for sanctioned projects
- Simplification of procedures related to sanctions / purchases to be made by the investigators
- Autonomy to utilize overhead charges
- Submission of utilization certificate to the funding authorities

3.1.4 How is interdisciplinary research promoted?

- between/among different departments /schools of the university and
- collaboration with national/international institutes / industries.

Interdisciplinary programs and research is one of the founding pillars of NMIMS philosophy.

Interdisciplinary research is promoted by encouraging faculty members to interact across all departments / domains where faculty from management, pharmacy, technology management and engineering collaborate. At the same time faculty is also encouraged to undertake collaborative research with reputed organizations. Three examples of such research are given below:-
- Project undertaken by engineering school for Tumor Trace UK, which combines domains like statistical clustering, product security, software for healthcare application.
- Product development for foetal heart rate variability which combines image processing and medical diagnostics domains.
- Project undertaken at School of Science with Charles Darwin University, Australia for computational modeling / drug design and cancer biology. Another project involves nanoscience research and biomedical applications with University Medical Center of Hamburg, Universität Regensburg, and Technische Universität Chemnitz, Germany.

- Projects undertaken at School of Pharmacy with School of Science involved Antibiofilm-forming Agents, Development of H.Ras inhibitors and Computational Studies of Phytoestrogens. Projects with MPSTME involved Newer Tools for QSAR/QSPR and 3D Printing of Scaffolds for Bone Regeneration

- Godavari Biorefineries Ltd., Mumbai - Project: Development of Cancer Stem Cell Inhibitors: The Collaborative Project between SPPSPTM and Godavari Biorefineries Ltd., Mumbai was funded by BIRAC, Department of Biotechnology (DBT), Government of India, to the tune of Rs. 1.5 Cr. under its BIPP Scheme. The development of anticancer stem cell agents is a niche area in the cancer therapy and has a potential to radically change the mortality associated with a dreadful disease such as cancer.

- Advent ChemBio Pvt Ltd, Mumbai - Project: Synthesis of API impurities: This involves synthesis and characterization of drug impurities. Impurity synthesis is one of the lucrative and intellectually challenging area of chemical research. As and when the need arises, the researchers work on the synthesis of these impurities.

- University of Mauritius: A research faculty at School of Pharmacy, Dr. Prashant S. Kharkar, has been working closely with Dr. Ponnadurai Ramasami, Professor and Department Chair at University of Mauritius, Mauritius, on several projects. These projects focus on drug repositioning, i.e., finding new uses of old drugs. Two publications on drug discovery for Ebola and Anti-inflammatory drugs have resulted from this collaboration. Recently, Dr.Kharkar visited Dr.Ramasami's lab for one week to get updated on Quantum Chemical Calculations. Dr.Kharkar's visit was sponsored by Indian National Science Academy (INSA) under its International Collaboration and Exchange Programme.

- Quantum Chemical Studies of Flourescent Probes: These studies are being done in collaboration with Dr. Ponnadurai Ramasami, University of Mauritius.

- Drug Repositioning for Ebola Virus Disease: This was a multicentric collaborative computational project involving School of Pharmacy, SVKM's NMIMS, University of Mauritius and University of Malaysia. The research work was published in a reputed, peer-reviewed international journal RSC Advances.

- Design and Development of Amino Acid Analogs: This project was undertaken in collaboration with Dr. Sabina Jhaumeer-Laulloo, University of Mauritius. Computational analysis was done by Dr. Kharkar, School of Pharmacy. The work has been communicated to a reputed journal for consideration for publication.

- DNDi, Geneva - Project: Design and Development of Anti-Leishmanial Drugs. This is a collaborative effort of international repute. DNDi, an organization based in Geneva, Switzerland, work primarily on discovery of drugs for neglected diseases. Collaboration with DNDi recently contributed to activities of DNDi along with reputed institutes like ETH, Zurich, University College, London, Boston University, USA and few more institutes. The role of School of Pharmacy researchers is to synthesize new chemical entities (NCEs) and send it to DNDi for further evaluation for anti-Leishmanial properties. The outcome will be a collaborative publication in internationally reputed journal.

3.1.5 Give details of workshops/ training programs / sensitization programs conducted by the university to promote a research culture on campus.

The University regularly conducts workshops and training programs to sensitize and promote research. Details of few prominent workshops are given below:

- Dr. G. Kalyanaram, Former Dean, Research, conducted a 1 week workshop on Research methodology in 2013.
- A group of researchers and senior faculty form University of Illinois at Urbana-Champaign conducted a workshop on conducting and presenting Research in 2015.
- Senior faculty from Cornell University conducted a workshop on Research in Management domain in 2016.
- Guest talk by Dr. Dr. Jnanesh Thacker, Consultant in Cardiovascular and Thoracic Surgery, Hinduja Hospital, Mahim, Mumbai on "Heart transplantation: Recent trends and challenges" on January 7, 2012.
- Guest talk by Mr. Amul Desai, Senior Principal Consultant, SAS Institute India Pvt. Ltd. on "Applications of Statistics in Industry" on March 31, 2012.
- One-day workshop on Computer Aided Molecular Design (CAMD) was organized on 27th October, 2012.
- One-day workshop on Statistics in Pharmaceutical Research was conducted on 14th December, 2012.
- Half day workshop on "Quality by Design and Design of Experiments" was conducted on 5th January, 2013.
- Workshop on Advances in Thermal Analytical Techniques was organized on 11th January, 2013.
- One day workshop on Problems and prospects in new Drug Discovery-role of PK–PD was conducted on 15th January, 2013.
- Half day seminar on "Nanotechnology" was conducted on 16th February, 2013.
- Guest talk by Dr. Ankona Datta, Principal Investigator, Chemical Biology and Molecular Imaging Lab, Tata Institute of Fundamental Research (TIFR), Mumbai on "Turn on' Sensors for Imaging the Chemistry of Life" on February 16, 2013.
- One-day regional workshop on Computer Aided Molecular Design (CAMD) was conducted on 23rd February, 2013.
- Guest talk by Dr. Medha Rajadhyaksha, Head and Associate Professor, Dept of Life Sciences, Sophia College, Mumbai on "Speech and Language" on March 20, 2013.
- Half day workshop on Problem solving approaches- Part I was organized on 23rd March, 2013. Part II was conducted on 2nd April, 2013.
- Guest talk by Dr. Basuthkar J Rao, Chairperson and Senior Professor of Department of Biological Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai on "Chromosomes Move While Repairing Themselves" on August 24, 2013.

- Guest talk by Dr. Jyothi Subramanian, Biostatistician – Consultant and Research Scientist on "Importance and Impact of Statistics in Drug Development" on August 31, 2013.
- Workshop on "Applications of Nanotechnology in Drug Delivery" was conducted on 19th September, 2013.
- Guest talk by Dr. Dhruv K. Singh, Consultant Diabetologist and MD, Just Diabetes, Andheri, Mumbai on "Tubular Dysfunction With Low Circulating Levels of Erythropoietin and 1,25-(Oh)2 D3 Occurs Early in Diabetes Subjects With Normal GFR" on September 26, 2013.
- Guest talk by Dr. Jyotishman Dasgupta, Department of Chemistry, Tata Institute of Fundamental Research (TIFR), Mumbai on "Light-induced Chemistry: Story of Reactive Motions and Intermediates" on October 7, 2013.
- One day workshop on "Inferential Statistics in Pharmaceutical and Medical Research" was conducted on 20th November, 2013.
- One-Day seminar on "Advances in Spectroscopy and Chromatographic Techniques" was conducted on 8th January, 2014.
- A seminar on ChemAxon Tools organized on 13th February, 2014.
- Guest talk by Dr. Pritha Ray, Scientific Officer- E and Assistant Professor, Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Kharghar, Navi Mumbai on "In vivo Molecular Imaging" on 17th February 2014.
- Guest talk by Mr. Suresh Nimbalkar, Senior Vice President, Hansa Research, Mumbai on "Application of Statistics in Market Research" on 21st February 2014.
- Guest talk by Dr. Anagha Damre, Piramal Life Sciences, Mumbai on "Herb-Drug Interaction: Prevalence and Underlying Mechanism" on 8th March 2014.
- Guest talk by Dr. Sanjeeva Srivastava, Department of Biosciences and Bioengineering, Indian Institute of Technology Bombay on "Identification of Potential Early Diagnostic Biomarkers for Gliomas and Various Infectious Diseases using Proteomic Technologies" on 28th April 2014.
- Guest talk by Dr. Yasmin Khan, Associate Professor, Sophia College on "Role of Retinoic Acid on the Development of the Posterior Lateral Line in Zebrafish" on 26th July 2014.
- One-Day Technical seminar on Solid Dispersions was conducted on 22nd September, 2014.
- Four day hands on workshop on "Cell Culture and Molecular Biology Techniques" from 3rd–6th November 2014.
- Two-day workshop on "Analytical Nanoscience for Chemist" on 21st–22nd November 2014. The workshop provided guest talks and hands-on training in synthesis of different types of nanomaterials and their characterization techniques.
- One day workshop on basic concept on micro-emulsions was conducted on 6th January, 2015.
- Faculty Development Program on "Molecular Modeling and Drug Design" on 16th–17th January 2015.

- Guest talk by Dr. Salil Bendre, MD, Consulting Chest Physician, Nanavati Superspeciality Hospital on "Respiratory Care" on 22nd February 2015.
- Guest talk by Prof. Steve Winder, Director, M.Sc. in Stem Cell and Regenerative Medicine, Department of Biomedical Science, University of Sheffield, Western Bank, Sheffield S10 2TN, United Kingdom on "A new therapeutic strategy to treat Duchenne muscular dystrophy" on 9th March 2015.
- Seminar on Clinical Research and Career Pathways was conducted on 14th March, 2015.
- One day workshop on Criticality in Pharmaceutical Mixing was conducted on 4th April, 2015.
- Guest talk by Dr. Ganesh Viswanathan, Department of Chemical Engineering, Indian Institute of Technology Bombay on "Systems biology of Tumor Necrosis Factor alpha signalling" on 7th April 2015.
- Workshop on "Flow Cytometry: Basic & Clinical Applications" conducted on April 10-11, 2015.
- Guest talk by Mr. Sudeepta Chaudhuri, Asst. Vice President - Business Intelligence & Advanced Analytics, Idea Cellular on "Project Orientation: Applications of Statistics and Analytics in the Telecom Sector" on 11th April 2015.
- Guest talk by Mr. Satya Tiwari, Commercial Director, Anti-Infectives, Classic Brands, EMAP, GSK on "Project Orientation: Applications of Statistics and Lean Six Sigma in Pharmaceutical Sector" on 11th April 2015.
- Workshop on "Histopathology in Preclinical Research" was organized on 15th April, 2015.
- Guest talk by Dr. Pradeep Moonot, Orthopedic Surgeon. Breach Candy Hospital, S L Raheja Hospital, Mahim, Sunridges Multispeciality Hospital on "Foot and Ankle – Biomechanics and Clinical Conditions" on 15th April 2015.
- Guest talk by Dr. Vandana Patravale, Professor of Pharmaceutics, Institute of Chemical Technology, Mumbai on "Novel Cationic Heterolipid: A Tojan Horse for Drug Delivery" on 8th August 2015.
- One-Day workshop on Advances in Instrumentation and Dissolution Testing was conducted on 22nd August, 2015.
- Guest talk by Mr. Sandeep Sailli, Clinical Specialist, BCR-Therapie (Singapore) Pte Ltd. on "BCR – Therapy" on 22nd August 2015.
- Guest talk by Dr. Vidita Vaidya, Associate Professor, Department of Biological Sciences, Tata Institute of Fundamental Research, Mumbai on "Early Life and the programming of Psychopathology" on 2nd September 2015.
- Guest talk by Mr. Debopam Chadhuri, Vice President & Chief Economist Zyfin Research Foundation on "Statistical Analysis of Indian Capital Market" on 19th September 2015.
- Workshop on "Indian Pharmacopoeia (IP) And Indian Pharmacopoeia Reference Substances (IPRS) was organized on 7th October, 2015.
- Three-day National Seminar on "Recent Advances in Spectroscopy and Analytical Techniques" on 15th –17th October 2015. The Seminar was

designed to highlight the latest developments in the area of Electrochemistry, Spectroscopy, Phytochemistry and Nanosciences.

- National Conference on Nanotechnology and Drug Delivery Research (NCNDDR) Challenges, Opportunities & Innovations 2015 organized on 16th& 17th October 2015.

- Guest talk by Dr. Aashish Contractor, Head- Cardiac Rehab & Sports Medicine, Shri H.N. Reliance Foundation Hospital, Mumbai on "Exercise is Medicine" on 19th November 2015.

- Guest talk by Mr. Jairam Sridharan, President - Retail Lending & Payments, Axis Bank Ltd. on "Statistics and Data Science – The New Differentiator" on 20th November 2015.

- Guest talk by Dr. A. P. Gore, Vice President (Statistical Services), Cytel Statistical Software and Services Pvt. Ltd. on "Clinical Trials for Health and Beauty" on 20th November 2015.

- Guest talk by Mr. Sudeepta Chaudhuri, Vice President - Business Intelligence & Advanced Analytics, Idea Cellular Ltd. on "Scope of Analytics to Make Every Phone Ring" on 20th November 2015.

- Guest talk by Ms. Moumita Sarker, Director – Client Delivery, Cartesian Consulting on "Analytics in Cartesian Consulting" on 20th November 2015.

- Guest talk by Mr. Nirlap Vora, SAS Practise Head - Analytics Platform (SAS and Ultramax) on "Analytics in Action" on 20th November 2015.

- Guest talk by Mr. Raj Jhaveri, Manager – Education, SAS and Ultramax on "Role of Education in SAS and Ultramax" on 20th November 2015.

- Guest talk by Ms. Shubhosree Dasgupta, Vice President, Business Intelligence Unit, Axis Bank Ltd. on "Applications of Statistics and Analytics in the Banking Sector" on 20th November 2015.

- Guest talk by Mr. Leslie Rebello, Director, L. R. Associates Pvt. Ltd. on "Conducted the "Campus to Corporate" Training Session during this workshop" on 21st November 2015.

- Guest talk by Dr. Purnima Karia on "Stroke Rehabilitation" on December 23, 2015.

- One day National Seminar on Techno – Managerial Skill for Pharmaceutical Industry (NSTMS - 2016) on 4th January 2016.

- Five-day hands on workshop on "Cell Culture and Molecular Biology" from 11th–15th January 2016. This course was designed as a stepping stone to educate and train participants who were new to mammalian cell culturing systems or as a refresher course in cell culture and molecular biology techniques.

- Guest talk by Ms. Moumita Sarker, Director-Client Delivery, Cartesian Consulting on "Applications of Statistics in the Retail / Ecommerce sector" on February 20, 2016.

- Guest talk by Mr. Satya Tiwari, CEO, Avesta Nordic Pvt. Ltd. on "Applications of Statistics in the Pharma / 6 sigma sector" on February 27, 2016.

- Guest talk by Mr. Nandkishore Rawat, Founder, Cytel Statistical Software and Services Pvt. Ltd. on "Industry expectations from young Statisticians" on February 27, 2016.

- Guest talk by Mr. Viswanathan Subramanian, Vice President – Analytics, Brandscapes Worldwide on "Applications of Statistics in the Market Research sector" on March 05, 2016.
- Guest talk by Dr Ravindra Shetty, Patent Attorney and Advocate on"Patent & its Impact" on March 10, 2016.
- Guest talk by Mr. Sudeepta Chaudhuri, Vice President - Business Intelligence & Advanced Analytics, Idea Cellular on "Applications of Statistics in the Telecom sector" on March 12, 2016.
- Half Day Workshop on Diverse applications of Nano-Zeta Sizer in nanotechnology organized on April 7, 2016.
- Hands on workshop on Basics of LC-MS/MS was conducted from 22nd - 24th August, 2016.
- ISTE approved one week Faculty Development Program on Applications of Advanced Analytical Tools & Technology in Pharma Sciences was organised between August 26-30, 2016.
- One week Faculty Development Program (FDP) on "Quality driven Integrated Technology in Formulation Sciences" was organised on November 18-23, 2016.
- Seminar on "Skill Development on Research Rubics & Outcomes: on 26th November, 2016.
- Guest talk by Dr. Them Kolja, Institute for Biomedical Imaging, Hamburg University of Technology (TUHH), Germany on "Biomedical applications of nanoparticles in Magnetic Particle Imaging" on December 9, 2016.
- International Conference on "Artificial Intelligence in Healthcare" was organized on 27th & 28th December, 2016.
- Guest talk by Ms. Madhumita Ghosh, Business Transformation Leader - BIG DATA & Advanced Analytics: Digital Practice-Global Business Services at IBM on "Applications of Statistics in the Telecom sector" on January 21, 2017.
- Guest talk by Mr. Jitendra Tawde, Asst. General Manager, Operations International Business Division, Godfrey Phillips India Ltd on "Applications of Statistics in the Manufacturing sector" on March 4, 2017.
- Guest talk by Ms. Moumita Sarker, Director - Client Delivery at Cartesian Consulting on "Applications of Statistics in the Retail / Ecommerce sector" on March 4, 2017.

Besides, every University Day, the University invites eminent researchers working in national laboratories and reputed universities to share their research.

Every school organizes monthly research talks to disseminate research in progress.

3.1.6 How does the university facilitate researchers of eminence to visit the campus as adjunct professors? What is the impact of such efforts on the research activities of the university?

The University initiates dialogues with well-known research Scholars for their involvement in the research programs. These Scholars are invited as adjunct professors or as Visiting Distinguished Scholars. Over the last five years, the University has had more than 10 such Scholars visit or be part of NMIMS. These Scholars have been from IITs, Indian Institute of Science, IIMs, ISRO, IISER, US and Australian Universities.

These activities have strengthened Ph.D. program and research publication of the University. For example 60 faculty members completed their doctoral degree during the assessment period and many scholars published papers in journals of repute under the guidance of Dr. H. B Kekre (Professor Emeritus) and also that School of Science carried out collaborative work which resulted in joint authorship with IIT Mumbai.

3.1.7 **What percentage of the total budget is earmarked for research? Give details of heads of expenditure, financial allocation and actual utilization.**

The budget is formulated in a structured manner, first at the school level and then at the university level. Research and Development is given due importance at both the levels.

The budget for 2015-16 for example included the following heads of expenditure along with financial allocation and actual expenditure:
- Infrastructure (including computers): Rs. 931 Lakhs
- Seed money: Rs. 58 Lakhs
- Information resources: Rs. 667 Lakhs
- Funding for travel and conferences: Rs. 68 Lakhs
- Inviting eminent researchers and academicians
- Incentivising faculty
- Research talks
- Workshops and training programs

Total expenditure: 8% to 10% of the budget

3.1.8 **In its budget, does the university earmark funds for promoting research in its affiliated colleges? If yes, provide details.**

Yes. Although we don't have affiliated colleges, funds are earmarked for its every constituent unit in the University budget, details of which are shown below:
SBM : Rs. 115 Lakhs
MPSTME: Rs. 228 Lakhs
SPPSTM: Rs. 24 Lakhs
SDSoS: Rs. 40 Lakhs
BSSA: Rs. 14 Lakhs
ASMSoC: Rs. 10 Lakhs
SAMSoE: Rs. 7 Lakhs
Total: Rs. 438 Lakhs

3.1.9 **Does the university encourage research by awarding Post-Doctoral Fellowships/Research Associate ships? If yes, provide details like number of students registered, funding by the university and other sources.**

Research students are given scholarship. The University offers scholarships to two top ranker pursuing Ph.D. in School of Engineering, School of Management, School of Pharmacy and School of Science. Above all these, there are research associates, junior research fellows and senior research fellows working in various departments on sponsored research projects. 188 Research Associates are currently carrying out research in the University.

The University also encourages faculty to pursue post-doctoral fellowships. Faculty members are given opportunity and leave to pursue their post doctoral research. They are also encouraged to apply for prestigious scholarships like Fulbright and Humboldt. Faculty members pursuing Ph.D. at NMIMS are offered tuition waiver.

Meritorious students registered for Ph.D. are availing scholarship from NMIMS University. The total value of scholarship disbursed so far is Rs. 45.80 lakhs. In addition to this, ten research scholars who have registered for Ph.D. at NMIMS University, are other scholars who are availing scholarship from other funding agencies namely DBT, DST, BRNS, CSIR, SERB, CCRUM, and AYUSH. This scholarship amounts to Rs. 1.01 crores.

3.1.10 **What percentage of faculty have utilized the sabbatical leave for pursuit of higher research in premier institutions within the country and abroad? How does the university monitor the output of these scholars?**

About 2% (10) of the faculty have availed of the sabbatical leave to complete the Ph.D. work or engaged in Post-Doctoral Research. The University expectations from these Scholars is that they share with other faculty members their learnings and also make a presentation on their research. They are also required to submit their progress report to the University.

3.1.11 **Provide details of national and international conferences organized by the university highlighting the names of eminent scientists/scholars who participated in these events.**

The University conducts national and international conferences regularly. Details of prominent conferences are given below.

International
- International conference conducted by the Engineering school. "Emerging trends in Engineering and technology which had five tracks", January, 2013.
- **International Conference on, "Artificial Intelligence in Healthcare":** The International Conference on, "Artificial Intelligence in Healthcare" was organized on 27th & 28th December, 2016 at SVKM's NMIMS, MPTP Shirpur. Some of the eminent speakers were Dr. Shailendra Saraf, Vice President Pharmacy Council of India, New Delhi, Dr Narendra Gore

Sector leader for DevOps/Cloud/Mobile Tiger Team for Distribution Sector in IBM – USA, Dr Vijaykumar University of Missouri-Kansas City, USA, Dr Balaji Ganeshan CEO of TexRAD Ltd, Director of New Business at Feedback Plc, Senior Imaging Scientist <u>Brighton & Sussex Medical School and University of Sussex</u> UK, Dr P K Chande, Ex-Director MANIT Bhopal, Dr Parag Kulkarni Founder, Chief Scientist and CEO of iknowlation, Pune, Prof Narendra S Chaudhari, Director VNIT Nagpur, India, Dr Tom Verhelst, Associate Director, New Medicine IT UCB Pharmaceuticals London UK. Dr. Anjali Jaiprakash, Post-Doctoral Research Fellow at the Australian Centre for Robotic Vision and Queensland University of Technology, Australia, Dr Santosh Bothe, Professor, Bharati Vidyapeeth Pune.

National Conference

School of Pharmacy has conducted following National & International Conferences and Seminars

- **Inspire 2012** Science **Camp:** A Science camp for students having 80% marks and above at 10th level from 1st to 6th October 2012. The program was sponsored by DST, Govt. of India, New Delhi. Invited speakers were scientists and Bhatnagar awardees across the country. More than 300 students from various sciences colleges attended the camp.

- **Inspire 2014 Science Camp:** A Science camp for students having 80% marks and above at 10th level from 6th to 11th November, 2014. The program was sponsored by DST, Govt. of India, New Delhi. Invited speakers were scientists and Bhatnagar awardees across the country. Eminent Scientists like Dr. Vidita Vaidya, TIFR, Mumbai, Prof. R. V. Hosur, TIFR, Mumbai, Prof. S. K. Maji, IIT, Mumbai, Prof. B. J. Rao, TIFR, Mumbai, Prof. H. M. Antia, TIFR, Mumbai, Prof. B. M. Bhanage, ICT, Mumbai, Dr. S. Chaplot, BARC, Mumbai, Dr. Sanjeev Srivastava, IIT, Mumbai, Dr. Ullas Kolthur, TIFR, Mumbai, Prof. Jayesh Bellare, IIT, Mumbai, Prof. Sudhir Ghorpade, IIT, Mumbai and Dr. N. Shivprasad, BRIT, Mumbai addressed the students. Around 200 students attended the Inspire Science Camp.

- **Workshop on "Flow Cytometry: Basic & Clinical Applications":** Workshop on "Flow Cytometry: Basic & Clinical Applications" on April 10-11, 2015 in association with The Cytometry Society- India (TCS). Around 25 students and faculties from ACTREC, Haffkine's Institute, Bombay College of Pharmacy, Principal K.M. Kundnani College of Pharmacy, Nirma University, School of Science, and SPPSPTM participated in the workshop. The expert faculties from NCBS, Bangalore; ACTREC, TMH, Mumbai, PD Hinduja Hospital, Mumbai; Bio-Rad, Beckman Coulter, Sathgen Biotech Mumbai Flow Cytometry Solutions-India, Mumbai and NIRRH, Mumbai etc. conducted lectures, tutorials, and wet labs.

- **Workshop on "Indian Pharmacopoeia (IP) And Indian Pharmacopoeia Reference** Substances **(IPRS)" :** A One day workshop

on "Indian Pharmacopoeia (IP) and Indian Pharmacopoeia Reference Substances (IPRS)" was organized by Indian Pharmacopoeia Commission Jointly with Pharmexcil, Central Drugs Standard Control Organization and SPPSPTM on 7th October, 2015. Emeritus Professor P. C. Dandiya, Dr. Robin Kumar, Pr. Scientific Officer, IPC, Dr. P. L. Sahu, Pr. Scientific Officer, IPC, Dr. Raman Mohan Singh, Director, CDTL, Mumbai, Dr. Bangarurajan, DDC (I), CDSCO, Dr. Ranjan Chakrabarti, VP, Head-Global Biologics Lab Operations, USP India were the eminent speakers.

- **National Conference on Nanotechnology and Drug Delivery Research (NCNDDR) Challenges, Opportunities & Innovations 2015**. The event was partially sponsored by Indian Council of Medical Research (ICMR). This conference was attended by 385 delegates. Some of the eminent speakers were Dr. Ahmed Kamal from NIPER Hyderabad, Dr. Rinti Banerjee from IIT Mumbai, Dr. P.A. Hassan, Head – BARC, Prof. Jayant Khandare, Professor – MIP, Pune and Dr. Jayeeta Bhaumik, Scientist – NIPER, Dr. P. R. Vavia, ICT, Mumbai; Professor A. N. Mishra, Dean, M. S. University, Dr. V. R. Sinha, Professor - Punjab University and Dr. Asif Khan Shanavas, Scientist, Institute of Nanoscience and Technology, Mohali.

- **One day National Seminar on Techno – Managerial Skill for Pharmaceutical Industry (NSTMS - 2016)** on 4th January 2016. Some of the eminent speakers were Mr. Muralidharan M. Nair, Partner Ernst & Young India Ltd., Dr. Krishna Iyer , Professor - Bombay College of Pharmacy, Mumbai, Dr. Vinayak Sharode, Mr. Milland Mangale, Mr. Saleel Panse. This event was attended by more than 300 delegates.

- "National Education day" on 11th–12th November 2013 as a "National Symposium on Multidisciplinary Research in Biomedical and Applied Sciences". Eminent scientists from across the country such as Dr. D. Bahadur from IITB, Mumbai, Dr. D. B. Anantha Narayana, Ayurvidye Trust, Bengaluru, Dr. Sharad Varde, External Academic Advisor, Warwick University, UK, Dr. M. N. Welling, SVKM's NMIMS (Deemed-to-be) University, Mumbai, Dr. Prabha Nair, Sree Chitra Thirunal Institute for Medical Sciences and Technologies, Thiruvananthapuram, Dr. Sujala Kapur, Institute of Pathology, New Delhi and Dr. Radhika Tandon, AIIMS, New Delhi, delivered talks on varied topics related to Chemistry, Phytochemistry, Statistics, Stem Cell Biology and Cancer Biology. Close to 150 delegates participated in the Symposium and 79 young budding scientists presented their research work, of which 13 were oral presentations and 66 were posters. Winners of oral and poster presentations in each category, viz., 'Chemistry/Phytochemistry', 'Statistics' and 'Cellular, Molecular and Applied Biology' were awarded cash prizes.

- **"Sankhyiki", two-day workshop with theme "Empower Future: Career Readiness" on 29th and 30th November 2013.** A workshop on Data Analysis Using R software and sessions by stalwarts from the

industry were the main features. The program was inaugurated by Mr. Srikanth, the Co-founder and Chief Executive Officer, Fractal Analytics.Other speakers of the day include Dr. Debjit Biswas, Vice President, Clinical Development and Head of Biostatistics & Data Management, Piramal Enterprises Ltd., Ms. Smita Tibrewal, Head – Motor Underwriting – Reliance General Insurance, Mumbai, Ms. Bhavyata Dave, Adjunct Assistant Professor (Soft Skills), NMIMS and Dr. Abhiman Das, Director, Statistical Analysis Division, Department of Statistics and Information Management, Reserve Bank of India, Mumbai. Prof. Madhvi Jardosh, Associate Professor and Prof. Aarati Kore, Assistant Professor of Department of Statistics, K. J. Somaiya College of Science and Commerce guided the students on the data analysis using R Software. Dr. Jyothi Subramanian, Biostatistician – Consultant and Research Scientist, conducted a session of advanced R.

- **Seminar Series: "Reverse Pharmacology and Observational Studies of Ayurvedic Drugs and Plants" on 17th October 2014.**Dr. Ashok Vaidya, Research Director, Kasturba Health Society (KHS), Mumbai who delivered a key note talk on "Reverse Pharmacology for new domains in Life Sciences". Dr. Rama Vaidya, Director, Endocrine –Metabolic Disorders, KHS, spoke enthusiastically on "Observational studies and Paradigm shift in clinical medicine" followed by Dr. Ashwinikumar Raut Director, Clinical Research & integrative medicine at KHS, who gave an insight on Ayurvidya along with comprehensive overview on Reverse Pharmacology in his talk titled "Reverse Pharmacology Path to drug discovery and development in Ayurvidya". Dr. Nancy Pandita, Professor, Department of Chemical Sciences, School of Science NMIMS discussed the importance of "Quality parameters in herbal drugs" especially in the initial phytochemical analysis and manufacture of herbal products. The concluding talk was given by Dr. Jayashree Joshi, Jt Research Director, KHS, on "Curcuma longa as an example of the reverse pharmacology in diabetes and cancer" which was extremely informative.

- **Four day hands on workshop on "Cell Culture and Molecular Biology Techniques" from 3rd–6th November 2014.** The workshop began with an invited talk by Dr. Nishigandha Naik, Assistant Director Haffkine Institute, Mumbai, who is an eminent Cell Biologist, entitled "Mammalian Cell Culture Technology – Old is Gold". The four-day course constituted theoretical classes, demonstration and hands on training.

- **"National Education day" on 11th November 2014.** The Chief Guest Dr. Snehalata Deshmukh, Former Vice Chancellor, University of Mumbai, delivered a talk on 'Emerging Trends in Education'. The Guest of Honour Ms. Flavia Agnes, Co-founder of 'Majlis', A legal resource centre, delivered a talk on 'Woman Empowerment'. Dr. Jayant Gandhi, Honorary Joint Secretary, Shri Vile Parle Kelvani Mandal, and Dr. M. N. Welling, Pro Vice-Chancellor, NMIMS (Deemed to be University), also spoke on the occasion.

- **Two-day workshop on "Analytical Nanoscience for Chemist" on 21st–22nd November 2014.** The workshop began with the inaugural lecture by Prof. D. Bahadur, Chair professor, IIT Bombay on "Surface engineered oxide nanomaterials for water purification". Participants included faculties, post-graduates and doctoral students from various institutes namely, Bombay College of Pharmacy, SNPH College, UICT Jalgaon, Ismail Yusuf College Mumbai, Central University of Gujarat, Junagadh Agricultural University, to name a few. Lectures also included, "Drug delivery by nanomaterials" by Dr. Mangal Nagarsenker, Professor, Bombay College of Pharmacy, Mumbai; "Characterization of nanomaterials" by Dr. K. C. Barick, Scientific Officer D, Bhabha Atomic Research Centre, Mumbai; "Particle characterization by Zeta potential" by Mr. Deepak Munnar, Aimil Ltd, Mumbai; and "Nanobiosensing" by Dr. Sudeshna Chandra, School of Science, NMIMS University, Mumbai.

- **"Sankhyiki", two-day workshop with theme "Empower Future: Career Readiness" on 28th and 29th November 2014** for providing training to UG and PG Statistics students in soft skills such as group discussion, interview skills, and industry job oriented skills and preparing them for corporate life. Series of lectures is organized for application of Statistics in various fields like Quality Management and Catastrophe Modeling.

- **Three-day National Seminar on "Recent Advances in Spectroscopy and Analytical Techniques" on 15th –17th October 2015.** The Seminar was designed to highlight the latest developments in the area of Electrochemistry, Spectroscopy, Phytochemistry and Nanosciences. The seminar brought together experts, scholars and researchers from different parts of the country on a common platform to deliberate and discuss the emerging trends and challenges in the above areas. The technical program of the seminar included 16 invited talks, 8 oral presentations by students and around 25 contributed papers as posters. The plenary talk was delivered by Prof. D. Bahadur, Emeritus Professor, Indian Institute of Technology Bombay. Talks by Prof. T. G. Gopakumar (IIT Kanpur), Dr. Ankona Dutta (TIFR), Prof. A. K. Srivastava (Mumbai University), Prof. C. P. Rao and Prof. Nandkishore (IIT Bombay) were highly valued and appreciated by the students.

- **"Sankhyiki", two-day workshop with theme "Campus to Corporate: Career in Statistics and Analytics" on 20th and 21st November 2015.** During this workshop, a series of lectures had been organized, along with panel discussion and Campus to Corporate training program for students of Statistics. The program was inaugurated by the Chief Guest Mr. Jairam Sridharan, Chief Financial Officer, Axis Bank Ltd. "Statistics & Data Science – The New Differentiator". Other speakers during this workshop include Dr. A. P. Gore, Vice President (Statistical Services), Cytel Statistical Software and Services Pvt. Ltd. "Clinical Trials for Health and Beauty", Mr. Sudeepta Chaudhuri, Vice President - Business Intelligence & Advanced Analytics, Idea Cellular Ltd. "Scope Of Analytics To Make Every Phone Ring", Ms. Moumita Sarker, Director – Client Delivery,

Cartesian Consulting "Analytics in Cartesian Consulting", Mr. Nirlap Vora, SAS Practise Head - Analytics Platform (SAS and Ultramax) "Analytics in Action", Mr. Raj Jhaveri, Manager – Education, SAS and Ultramax "Role of Education in SAS and Ultramax", Ms. Shubhosree Dasgupta, Vice President, Business Intelligence Unit, Axis Bank Ltd. "Applications of Statistics and Analytics in the Banking Sector". Panel Discussion was moderated by Prof. Sunil S. Shirvaiker, Associate Professor - Statistics, Sunandan Divatia School of Science. The Panel Members were distinguished members of different sectors - Ms. Geeta Zankar, Vice President – Data Assembly and Science, Karvy Insights, Mr. Jitendra Tawde, Asst. General Manager Operations International Business Division, Godfrey Phillips India Ltd., Ms. Madhumita Ghosh, Practice Leader - Advanced Analytics, IBM India Pvt. Ltd. The scope of Analytics and the future scope of Statistics was discussed. Mr. Leslie Rebello, Director, L. R. Associates Pvt. Ltd. conducted the Campus to Corporate Training Session during this workshop.

- **Five-day hands on workshop on "Cell Culture and Molecular Biology" from 11th–15th January 2016.** This course was designed as a stepping stone to educate and train participants who were new to mammalian cell culturing systems or as a refresher course in cell culture and molecular biology techniques. The workshop was second in the series and included a guest talk, informal lectures and hands-on sessions. The guest speaker Dr. Pallavi Karnik, Principal Scientist, Biogenomics Limited gave a talk on "Cell culture and its applications: An Industrial Perspective". This was followed by talk by Dr. Purvi Bhatt, Assistant Professor, SDSOS. The contents of the workshop were as follows: Cell culturing techniques; Maintenance and subculturing of cells; Preservation and cell revival; Cytotoxicity assays (MTT assay); Cell death Assays: based on morphology (Acridine orange/Ethidium bromide staining) and based on Molecular Techniques (Western Blot, DNA laddering); Real time PCR & Immunofluorescence staining.

- **'Continuing Physiotherapy Education' in the Intensive Care Unit on 6th February 2016.** The event consisted of lecture series by eminent speakers and discussed the latest trends in ICU Physiotherapy. The event was inaugurated by Dr. Rajan Saxena, Dr. Aparna Khanna and Dr. Ali Irani. The Chief Speaker for the event was Dr. Seemi Retharekar, Associate Professor and Head of Department, Cardiopulmonary Physiotherapy, Sancheti College of Physiotherapy, Pune. The other speakers for the event were Dr. Mariya Jiandani, Associate Professor, Seth GS Medical College and KEM Hospital. Dr. Sushil Gadekar, Chief Intensivist, Nanavati Super Speciality Hospital, Dr. Ankit Shah, Consulting Radiologist, KS Hospital and Dr. Poonam Parulekar, Assistant professor, SDSOS. The event received an enthusiastic response from students of various colleges in Mumbai and Pune.

- School of Economics organized a National Economics Conference on 11th February, 2017. The theme of the conference was 'Contemporary Issues in Economic Development with special focus on Emerging

Economies'. The keynote address was given by Dr. Ravindra H. Dholakia. Prof, Economics and Public Systems, IIM Ahmedabad, on Macroeconomic Vulnerability and Prospects for the Indian Economy,

Seven papers were presented in two parallel pre-lunch technical sessions on International Trade and Finance and Development Economics. Ms. P. A. LakshmiPrasanna, Senior Scientist with Indian Institute of Rice Research, Hyderabad was presented with the best paper awarded for her paper titled 'Nexus between land inequity and stunting in children - insights from district level analysis for India'.

The first session was chaired by Dr. M.H. Suryanarayana, Professor, IGIDR and Dr.C.Veeramani, Assistant Professor, IGIDR

The Second session consisted of the Research Colloquium where seven papers were presented in two parallel sessions on Development Economics and Applied Economics -. Ms. Tanima, a final year B.Sc. Economics student of School of Economics, NMIMS, Mumbai was awarded the best paper award for her paper on 'Effect of Ethnic Diversity on Economic Growth in India'.

Research Colloquium sessions were chaired by Dr. Sarthak Gaurav, Assistant professor, IIT Bombay and Dr. Mona Bhalla, Associate Professor, School of Commerce , NMIMS.

- The Economics Conclave 2015-16
  The Economics Conclave was organized on 1st March 2016 on the theme 'Financial Inclusion in India'. The Keynote address was delivered by Mr. S. S. Mundra, Deputy Governor, Reserve Bank of India.
  This was followed by a Panel discussion. The panelists Mr. Ramraj Pai, President, CRISIL Foundation. The panelists were Mr. Krishnan Sitaraman, Senior Director, Financial Sector Ratings, CRISIL Ltd., Prof. Pushpa Trivedi, Professor and Institute Chair Professor, Department of Humanities and Social Sciences, IIT-Bombay, Mr. Rajesh Prasad, VP & Head, RuPay Acceptance & e-Commerce, National Payment Corporation of India, Mrs.TrishnaGuha, Executive Director, Dena Bank.

- Economics Conclave 2013-14
  The School of Economics, NMIMS University, organized its second Economics Conclave on 20 March, 2014. The Keynote address was delivered by Mr.ArunMaira, Member, Planning
  Commission. This was followed by a panel discussion on the theme Indian Manufacturing: Growth, Challenges and Opportunities. The panelistsMr.Saugata Bhattacharya, Senior Vice President and Chief Economist, Axis Bank, Mr.Dharamkirti Joshi, Senior Director and Chief Economist, CRISIL, Mr. Durgesh Mehta, Ex-Joint Managing Director, Bombay Dyeing & Manufacturing Company Ltd.,Mr. Prasad Koparkar, Senior Director, Industry and Customized Research, CRISIL, Mr. Shirish Belapure, President (Manufacturing-Formulations), Zydus Cadila

Healthcare. The discussion was moderated by Mr. Saugata Bhattacharya.

- Economics Conclave 2012-13
  On December 4, 2012 the SarlaModi School of Economics, organised its inaugural annual Economics Conclave- 2012 on the theme, 'Indian Economy – Navigating Choppy Waters'. The key note address was delivered by Dr. Subir Gokarn, Deputy Governor, Reserve Bank of India on the topic: Managing Inflation- Challenges for Indian Central bank.' This was followed by a panel discussion on the Conclave theme. The panelists, including Mr. Dharmakirti Joshi, Chief Economist, CRISIL; Dr. Thomas Richardson, Senior Resident Representative, India and Nepal, IMF; Dr. Abhay Pethe, Professor, University of Mumbai, Mr. Niranjan Rajadhyaksha, Executive Editor, Mint and Mr. Nilesh Shah, Deputy Managing Director, Axis Capital The discussion was moderated by Mr. Dharmakirti Joshi.

3.2   Resource Mobilization for Research

3.2.1   What are the financial provisions made in the university budget for supporting students' research projects?

The University does have specific provisions for undergraduate student research project. Students are encouraged to undertake research projects and publish them in conference for which they are provided with grants. In addition, students are also provided funding for patenting their ideas and generate IPR. For example, at the Pharmacy School, University provides funding support for students' major and minor projects. Research Scholars pursuing Ph.D. Program are provided Research Grants.

3.2.2   Has the university taken any special efforts to encourage its faculty to file for patents? If so, how many have been registered and accepted?

Yes. The University has an IPR policy which encourages faculty to file for the Patents. The Research Promotions Policy incentivise faculty members for the Patents. Following is the abstract from the Research Promotion Policy

Incentive for Patents

To encourage faculty to file for Patent and actively pursue it NMIMS policy is to provide:
a) Assistance for filing the Patent Application
b) On grant of National Patent Rs.50,000/-
c) On commercialisation of the Patent, the royalty to be shared by the faculty with the institution in the ratio of 80:20.
d) On grant of International Patent it is Rs.1,00,000/-
e) On commercialisation of the Patent, the royalty to be shared by the faculty with the institution in the ratio of 80:20

Following the IPR and Patent Policy the University has had success, as 33 applications have been filed for Patents in the last 5 years, of which 4 have been granted.

Table 3.3: Patents

Sr. No.	School	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	National	International	Tot
1	MPSTME	-	-	-	4	3	3	**10**	**0**	**10**
2	SPPSPTM	3	2	2	2	2	12	**21**	**2**	**23**
3	SDSOS	-	-	-	3	-	-	**3**	**0**	**3**
	Total	**2**	**5**	**1**	**8**	**11**	**6**	**31**	**2**	**36**

- Patents Granted:

3.2.3 Provide the following 4**details of ongoing research projects of faculty:**
Table 3.4: Ongoing Research Projects:

Sr. No.	School	Govt	Govt Amount	Industry	Industry Amount	Total Ongoing	Tot Amt. (Rs.)
1	**Management**	-	-	1	300,000	1	300,000
2	**Engineering**	1	3,754,850	1	4,150,000	2	7,904,850
3	**Pharmacy**	13	23085267	3	225000	16	23,310,267
4	**Architecture**	-	-	3	2000000	3	2,000,000
5	**Science**	4	17381000	-	-	4	17,381,000
6	**Commerce**	-	-	1	9750	1	9,750
	Total	**18**	**44,221,117**	**9**	**6,684,750**	**27**	**50,905,867**

3.2.4 Does the university have any projects sponsored by the industry / corporate houses? If yes, give details such as the name of the project, funding agency and grants received.

Yes the University has had research project funded by the Industry/corporate. The details of which are shown in Table 3.5 given below:

Table 3.5: Industry Research Projects

School	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Total Projects	Total Amount (Rs.)
Management	3		-	3	1	1	8	8669761
Engineering	-	-	-	-	-	1	1	4150000
Pharmacy	7	5	4	3	4	3	26	4644639
Architecture	-	-	7	1	4		12	1000000
Total	**10**	**5**	**11**	**7**	**9**	**5**	**47**	**18464400**

3.2.5 How many departments of the university have been recognized for their research activities by national / international agencies (UGC-SAP, CAS; Department with Potential for Excellence; DST-FIST; DBT, ICSSR, ICHR, ICPR, etc.) and what is the quantum of assistance received? Mention any two significant outcomes or breakthroughs achieved by this recognition.

122

Three out of our 10 schools in Mumbai are recognized by various national agencies like DST, DDT, ICMR, Ayush, BRMAS, etc. are Mukesh Patel School of Technology Management, School of Science and SSPTM that is the School of Pharmacy and Technology Management. The School of Pharmacy have received Research grant of Rs. 6.50 crores in the last 4 years. While the School of Science has received Rs.1,7 crores grants in the last 4 years. Two major outcomes of these research grants are publications in Journals of Impact Factor of 2 and above. The highest being the Journal with an impact factor of 4.2 from the School of Science. In the case of School of Pharmacy the research project yielded 4 Indian Patents and applications for 16 Patents have been filed.

3 projects at MPSTME funded by DST, ICMR and BARC are currently under way.

3.2.6 **List details of:**
   a. **research projects completed and grants received during the last four years (funded by National/International agencies)**
   b. **Inter-institutional collaborative projects and grants received**
   i) **All India collaboration**
   ii) **International**

Table 3.6: Research Projects Completed

Sr. No.	School	Govt	Amt.	Ind./Uni. Seed Grant	Amt	Total	Total Amt (Rs.)
1	SBM	6	23,08,495	9	9034761	15	11343256
2	ASMSOC	-	-	1	32500	1	32500
3	MPSTME	6	7,86,149	18	15070000	21	15856149
4	SDSOS	1	4495000	1	1,00,000	2	45,95,000
5	SPPSPTM	12	5781982	25	4509639	26	10291621
	Total	**25**	**13371626**	**54**	**28746900**	**65**	**42118526**

3.3 Research Facilities

3.3.1 **What efforts have been made by the university to improve its infrastructure requirements to facilitate research? What strategies have been evolved to meet the needs of researchers in emerging disciplines?**

Consistent with the university's vision and mission of giving prime importance to research, considerable efforts have been made to invest in research infrastructure, (both hard and soft) . All these initiatives focus on meeting needs of researchers in emerging areas. Prominent examples of this initiative are given below:

1. Establishment of BOSCH-REXROTH centre of excellence in Industrial automation at a cost of Rs. 5 crore.
2. Setting of Tissue /cell culture lab for carrying out research in the Biological sciences and Molecular Biology Lab at a cost of Rs. 55 lakhs

In view of a large number of students interested in working on research projects involving cell culture techniques, the Sunandan Divatia School of Science with support from NMIMS Management has established a state of the art "Animal Tissue Culture (ATC) Laboratory". The laboratory supports work of Ph.D. students who are involved in research in various fields like Stem Cell Biology, Cancer Biology, Medicinal Plant Research, Drug Delivery Systems etc. that require use of various cancer cell lines and stem cells. The Cell Culture Laboratory is also used for conducting practicals for students of M.Sc. and Integrated M.Sc. in Biological Sciences, as well as for students of the 5-Year Integrated M.Sc. in Biomedical Science course. The Cell Culture Lab is also made available for students and faculty of other sister institutions/colleges of the SVKM Management.

SDSOS also organizes an annual Cell Culture Workshop wherein participants from across Mumbai are trained in various techniques related to cell culturing and other molecular biology techniques.

The laboratory contains all the necessary facilities that are required for handling cell lines. The basic infrastructure available at the ATC lab includes:

- Esco Class II Biosafety Cabinet
- Klenzaid Laminar Hood
- Carl Zeiss inverted phase contrast microscope with camera
- Two CO_2 incubators (Sanyo – 1, Thermo Scientific – 1)
- MBE 2000 Liquid Nitrogen Cryosystem
- Eppendorf refrigerated centrifuge

3. Central Instrumentation Lab. which is a common facility at a cost of Rs. 4 crores

The central instrument lab at SPP SPTM was established in 2006.

Objectives

- To provide hands on training to postgraduate and undergraduate students of all the streams so that they are readily accepted in industry after their studies. The students are trained on these sophisticated instruments in regular practicals. The penultimate aim is to enhance the scope of the students in the industry and make them accustomed to the skills required in the industry.
- To cater to the needs of research work of doctoral students and research projects funded by government agencies and industries.

The lab consists of various sophisticated instruments useful in research activities related with pharmaceutics, analytical chemistry, pharmacology, and *in vitro* analysis (Cell Culture Technique).

Some of the sophisticated instruments have been purchased from research grants received from various government funding agencies like Department of Science and Technology (DST), Department of Biotechnology (DBT), Science and Engineering Research Board (SERB), Ministry of AYUSH etc.

This facility is also used to provide training and to help various academic and research institutes for their research activities within our University and also for faculty and students of other colleges in and around Mumbai.

The instruments are covered by Annual Maintenance Contract and

Instrument Performance Verification Scheme to regulate and monitor their performance.

4. LCMS at a cost of Rs. 1.2 crores
   The LC-MS/MS (Shimadzu 8040) with ESI and APCI probes was installed in Pharmaceutical Analysis at SPPSPTM, SVKMs NMIMS in the month of March 2016. The purpose of purchasing this sophisticated instrument was to improve quality of research at SPPSPTM and all other schools affiliated to SVKMs NMIMS at Mumbai and Shirpur and to provide research services to other institutes and industry.
   LC-MS/MS is being utilized for various research projects such as molecular weight determination of newly synthesized compounds, Impurity profiling of drugs, bio-analytical method development and validation in various biological matrices, pharmacokinetics of drug molecules in animal plasma, metabolite identification of drugs, etc.
   Academic and industrial research projects of institutes from in and around Mumbai are carried out using this instrument. Various workshops related to application of this instrument are regularly conducted for internal and external faculty members, from industry personnel and research students.

5. Bloomberg Lab with 12 terminals for financial analytics research
6. SAS Lab for research in analytics domain

The strategy of industry partnership and networking with funding agencies and foreign universities has been deployed by NMIMS to meet the needs of researchers in emerging disciplines.

University also encouraged participation of faculty in conferences organized by national and international professional bodies, research organizations and industries. For example the University has encouraged faculty participation in Analytics Conference organized by SAS in Mumbai and US.

University also funds research proposal in emerging disciplines and develops the labs required by the researchers. As for example, the Tissue/Cell Culture Lab at the School of Science or the Bloomberg Lab at the School of Business Management.

3.3.2 Does the university have an Information Resource Centre to cater to the needs of researchers? If yes, provide details of the facility.

Yes. University has an Information Resource Centre to cater to the needs of researchers. It provides below mentioned facilities to researchers.
1. Well maintained, centrally carpeted with Wi-Fi facility is available in every corner of resource centre.
2. The Resource centre has a collection of more than 50,000+ books covering not only all aspects of business and management but also including related areas like Economics, Behavioral Sciences, IT, Law, Engineering, etc. It subscribes to about 80+ National and International periodicals spanning all aspects of management with back issues of some important journals.

3. Dedicated digital library with around 30 machines is part of our resource centre. Where students can access databases and A-V material.
4. Resource centre has 12 terminal prestigious Bloomberg lab for the use of students and researchers.
5. Resource centre has the facility to access National Digital Library of India and SWAYAM for undergoing MOOC courses.
6. In-house/remote access to subscribed e-resources is available.
7. The centre has an open access system facilitating the free use of material on the shelves. It has a separate Reading Hall with ample capacity.
8. Active reference desk available at central library for user queries & assistance in accessing databases.
9. Reading list/ Bibliography compilation facility is available.
10. Information Deployment and Notifications provided through Email & Blackboard – Current Content Service (Fortnightly) and New Arrivals (Monthly).
11. INFLIBNET/IUC facilities are available through Shodhganga.
12. The Library organizes user orientation at the beginning and during the year. In this a detailed session is taken on the Library services, facilities and activities. Users are also trained how to use the online resources.
13. Inter-Library Loan (ILL) Service is available through other sister concerned libraries and British Council Library membership as an extension service.
14. In addition to this, each School has a dedicated library exclusively for research. For example, in the Architecture School.

3.3.3 Does the university have a University Science Instrumentation Centre (USIC)? If yes, have the facilities been made available to research scholars? What is the funding allotted to USIC?

As a part of creating research infrastructure which can be used across domains, the university has set up four important central facilities. These facilities have been made available to research scholars. Details of facilities are given below along with the amount spent.

1. Four laboratories (Robotics, Sensorics, Advanced Hydraulics, Pneumatics) which form a part of BOSCH-REXROTH-NMIMS Centre of Excellence in Industrial Automation at a cost of Rs. 5 crores
2. Liquid Chromatography and Mass Spectrometry (LCMS) – which can be used for Biological Sciences and Pharmacy research. This facility is set up a cost of Rs. 2 crore.
3. LUCAS-NULLE laboratories in Radar, Antennae and Communications set up at a cost of Rs. 1.80 crores.
4. SAS hardware for analytics domain at a total cost of Rs. 2 crores.
5. Central instrumentation laboratory – CIL which houses all basic equipment required for science and engineering. This facility is set up a total cost of Rs. 2 crores.
6. Cell Culture Laboratory, Real-time PCR and Electrochemical Workstation at School of Science.

3.3.4 **Does the university provide residential facilities (with computer and internet facilities) for research scholars, post-doctoral fellows, research associates, summer fellows of various academies and visiting scientists (national/international)?**

Limited residential facilities are provided in the Hostels and guest houses owned by the institution. In some cases residential facility is provided in the nearby apartment hotels.

3.3.5 **Does the university have a specialized research centre/ workstation on-campus and off-campus to address the special challenges of research programs?**

In addition to the above Infrastructure, University has specialized research centres for research and development work in different domains. These are

1. Jasani Centre for Social Enterprises & Sustainability Management
2. Pravin Dalal Centre for Entrepreneurship and Family Business Management
3. BOSCH Centre of Excellence in Industrial Automation
4. Centre of Excellence in Analytics
5. Centre of Excellence in Cyber Security
6. Centre of Excellence in ERP (Accenture)
7. Incubation Centre for Entrepreneurship
8. Legal Aid Clinic
9. Institute of Intellectual Property Studies

Each of these research centres have been provided with necessary equipment / facilities including workstation where they have access to specialized research database from the NMIMS Library. In addition, they have their own staff and faculty and research associates.

3.3.6 **Does the university have centres of national and international recognition/repute? Give a brief description of how these facilities are made use of by researchers from other laboratories.**

The above mentioned nine centres have acquired national recognition as reflected by the research project undertaken by them. Some of the projects are funded by the Industry and government agencies. These facilities are made use by in-house researchers for projects obtained from government / industry / corporate agencies. A total of around Rs. 9.92 crores have been received from various funding organizations.

These facilities are also used by companies for conducting their own research and training.

3.4   Research Publications and Awards

3.4.1   Does the university publish any research journal(s)? If yes, indicate the composition of the editorial board, editorial policies and state whether it/they is/are listed in any international database.

Yes, the University has three Research Journals, namely; NMIMS Management Review, Journal of Economics and Public Policy, Biomedical Research Journal.

- The NMIMS Management Review journal is edited by Dr. Gurumurthy Kalyanaram, an eminent researcher and academician based in New York. He was earlier the Dean of Research.

  He also edits NMIMS Journal of Economics and Public Policy. All the four journal's editorial boards have international and national scholars. The editorial Board of the three journals is shown in **Annexure No.3.4** (Editorial Board)

  The Journal's Editorial Policy contains author obligations, code of conduct, publishers copyright policy etc. The Editorial Policy is shown in the link below
  Policy Documents:
  http://www.nmims.edu/management-review/policy-documents/
  The NMIMS Management Review journal is listed in Cabel directory and is under review in Indexation in Scopus.

- Biomedical Research Journal (BRJ) (http://brj-sdsos.nmims.edu/) is a premier peer reviewed open access journal, published twice in a year by Sunandan Divatia School of Science, NMIMS (Deemed-to-be) University, Mumbai, since April 2014 for promoting the advancement of ideas in the interdisciplinary realms of Medicine, Science and Technology. The goal is to share new discoveries and translational knowledge with scientists, academicians, clinicians and students in the field of Biomedical and Biological/Chemical/ Biotechnology/Stem Cell Biology/Cancer Biology in the realm of basic and applied aspects in the different areas.
  The Editorial Board (http://brj-sdsos.nmims.edu/editorial-board.php) of the journal comprises of distinguished academicians and scientists from wide spectrum of areas within the Science and Technology field from across the world. The Editors-in-chief of BRJ are Dr. Aparna Khanna, Dean SDSOS and Dr. Dhanajaya Saranath, Professor, Biological Sciences, SDSOS. The Editorial Board includes a panel of Section Editors who have the responsibility of overseeing the peer reviewing and publication of review articles and original research papers in the areas of Cancer Biology, Stem Cell Biology, Nanoscience and Nanotechnology and in Pharmaceutical Sciences. The experience and expertise of the board members in their respective fields ensure the articles published in BRJ meets the standard and quality that the journal aims for.

128

Policy documents:http://brj-sdsos.nmims.edu/journal-policies-and-process.php

The journal is indexed with EBSCO*host*, Index Copernicus, Google Scholar, WHO HINARI, CiteFactor, DRJI and Advanced Sciences Index.

3.4.2 Give details of publications by the faculty:
- Number of papers published in peer reviewed journals (National / International)
- Monographs

Table 3.7: International and National publication, Case Studies, Books Published, Book Chapters & Books Reviewed

International Publications

Schools	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Tot
Management	6	11	47	42	40	86	232
Engineering	114	79	105	61	46	50	455
Pharmacy	33	39	38	52	44	33	239
Science	11	22	16	19	22	20	110
Commerce	0	0	5	5	5	15	30
Economics	0	0	1	2	5	2	10
Total	**164**	**151**	**212**	**181**	**162**	**206**	**1076**

National Publications

Schools	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Tot
Management	7	8	10	16	9	18	68
Engineering	21	12	13	9	4	3	62
Pharmacy	8	17	14	9	6	3	57
Science	6	3	6	8	8	4	35
Commerce	0	0	3	7	2	4	16
Economics	0	1	0	1	0	2	4
Total	**42**	**41**	**46**	**50**	**29**	**34**	**242**

Case Studies

Schools	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Total
Management	4	10	5	15	6	5	**45**
Engineering					1		**1**
Commerce					1	3	**4**
Total	**4**	**10**	**5**	**15**	**8**	**8**	**50**

Books Published

Schools	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Total
Management	6	2	0	1	3	3	**15**
Engineering	5	7	4	2	2		**20**
Pharmacy	6	3	-	-	2	-	**11**
Commerce	-	-	-	-	2	1	**3**
Total	**17**	**12**	**4**	**3**	**9**	**4**	**49**

Book Chapters

Schools	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	Total
Management	4	4	5	6	5	3	**27**

Engineering	-	-	-		3	**-**	**3**
Pharmacy	-	5	11	3	5	10	**34**
BSSA	1	-	-	1	-	-	**2**
Commerce	-	-	-	-	-	6	**6**
Economics	-	-	-	1	1	2	**4**
Total	**5**	**9**	**16**	**11**	**14**	**21**	**76**

Book Reviews

Schools	2011-12	2012-13	2013-14	2014-15	2015-16	Total
Management	1		1	-	-	**2**
Engineering	-	1	-	-	27	**28**
Commerce	-		1	-	2	**3**
Total	**1**	**1**	**2**	**0**	**29**	**33**

3.4.3 Give details of:

- Faculty serving on the editorial boards of national and international journals
- faculty serving as members of steering committees of international conferences recognized by reputed organizations / societies
- research awards received by the faculty and students
- national and international recognition received by the faculty from reputed professional bodies and agencies

NMIMS faculty servers the editorial boards of national and international journals and also serve as member or as Chair of the Steering Committee of national and international conferences. The details of such service by the faculty are given below in **Table: 3.8**

Table: 3.8: Faculty serving on the editorial boards of national and international journals

Faculty serving on the editorial boards of national and international journals		
Schools	**National**	**International**
Management	5	4
Engineering	5	4
Pharmacy	4	4
Architecture	1	-
Science	3	-
Economics	4	1

Schools	**Steering Committee Members**
Management	20
Engineering	12
Pharmacy	9
Science	5

The recognition received by the faculty from reputed professional bodies and agencies is shown in – **Table: 3.9** below:

School	Faculty	
	National	**International**
Management	26	-
Engineering	1	2
Pharmacy	5	-
Architecture	1	-
Science	-	2
Total	**33**	**4**

3.4.4 The total research awards received by the faculty and students are given in Table 3.10

Table 3.10: Research Awards

School	Faculty	Students
Management	2	16
Engineering	4	
Pharmacy	6	
Architecture	2	
Science	-	32
Economics	1	
Total	**15**	**48**

3.4.5 **Indicate the average number of successful M.Phil. and Ph.D. scholars guided per faculty during the last four years. Does the university participate in *Shodhganga* by depositing the Ph.D. theses with INFLIBNET for electronic dissemination through open access?**

Total Ph.D. awarded in last 4 years are 66 and No. of Ph.D. faculty who have guided are 37. Therefore, average number of Ph.D. scholars guided per faculty during the last four years is 1.78
Yes, the University participates in Shodhganga by depositing the Ph.D. theses with INFLIBNET for electronic dissemination through open access.

3.4.6 **What is the official policy of the university to check malpractices and plagiarism in research? Mention the number of plagiarism cases reported and action taken.**

To ensure quality and originality in the manuscripts, the University follows highest ethical standards in its research. It advises its authors, reviewers and editors to refer to the Committee on Publication Ethics (COPE) website in addition to publication ethics of the University. It is necessary to agree upon standards of expected ethical behaviour for all parties involved in the act of publishing: the author, the journal editor, the peer reviewer and the publisher. Our ethics statements are based on COPE's Best Practice Guidelines for Journal Editors. Also, NMIMS is making use of software services like Blackboard &Turnitin to check plagiarism.

131

No cases have been reported so far as the students are required to do self certification before submission.

3.4.7 Does the university promote interdisciplinary research? If yes, how many interdepartmental / interdisciplinary research projects have been undertaken and mention the number of departments involved in such endeavours?

The University believes in interdisciplinary programs as well as research. It promotes interdisciplinary research in sub-domains in a school (Mechatronics, Image processing, Technology Management, image processing and medical diagnostics) as well as interdisciplinary research across domains (Artificial Intelligence in Health care - Pharmacy and Engineering, Pharma Tech. – Pharmacy and Management). This has broken the silos between domains as well as faculty.

An exhaustive list of such projects is given below:-

i. Project undertaken by engineering school for Tumor Trace UK, which combines domains like statistical clustering, product security, software for healthcare application.
ii. Product development for foetal heart rate variability which combines image processing and medical diagnostics domains.
iii. Project undertaken at School of Science with Charles Darwin University, Australia for computational modeling / drug design and cancer biology. Another project involves nanoscience research and biomedical applications with University Medical Center of Hamburg, Universität Regensburg, and Technische Universität Chemnitz, Germany.
iv. Projects undertaken at School of Pharmacy with School of Science involved Antibio film-forming Agents, Development of H. Ras inhibitors and Computational Studies of Phytoestrogens. Projects with MPSTME involved Newer Tools for QSAR/QSPR and 3D Printing of Scaffolds for Bone Regeneration
v. Godavari Biorefineries Ltd., Mumbai - Project: Development of Cancer Stem Cell Inhibitors.
vi. Advent Chem Bio Pvt Ltd, Mumbai - Project: Synthesis of API impurities
vii. University of Mauritius
viii. Quantum Chemical Studies of Flourescent Probes
ix. Drug Repositioning for Ebola Virus Disease
x. Design and Development of Amino Acid Analogs
xi. DNDi, Geneva - Project: Design and Development of Anti-Leishmanial Drugs

3.4.8 Has the university instituted any research awards? If yes, list the awards.

Yes. The research awards are listed below:
- Best research grant approaches
- Research grant award
- Best Research Faculty
- Best Research activities Award

- Best Research paper Award
- Best Ph.D. Thesis Award

3.4.9   What are the incentives given to the faculty for receiving state, national and international recognition for research contributions?

Faculty receiving state, national and international recognition for research contributions are given a financial and nonfinancial recognition by the University, The financial recognition is a cheque of Rs.1 lakh and the non-financial including sponsorship to international conferences and a certificate and recognition at the Annual Convocation.

To enhance research, the University has announced Research Promotion Policy. This policy has 3 components:
  a) Provision of seed grants for proof of concept
  b) Incentivisation of research based on the impact factor
  c) Facilitation for filing applications for patents

In order to encourage research, the University has recently introduced research policy, which entitles each faculty member a grant of Rs. 1,00,000/- Research assistance in the form of Research Associates has been provided.

3.5   Consultancy

3.5.1   What is the official policy of the university for structured consultancy? List a few important consultancies undertaken by the university during the last four years.

NMIMS has an official consultancy policy which is communicated to the faculty.
The details are shown in Annexure 3.5.

Given below are a list of important consultancies undertaken by the university during the last four years.

Table 3.11: Few important consultancies:

Faculty	Client Organization	Title of Consultancy	Amt.
Dr. Sangita Kamdar	TCS E SERVE	General Management	1514040
Dr. Sangita Kamdar	Lupin Limited	General Management	1500000
Dr. Veena Vohra & Dr. M. C. Agarwal	National Board of Accreditation	General Management	1201495
Trilochan Chhaya	Government of India, Ministry of Culture and Tourism	AjantaVisitorCenter	2000000
Trilochan Chhaya	Government of India, Ministry of Culture and Tourism	Ellora Visitor Center	2000000

Faculty	Client Organization	Title of Consultancy	Amt.
Dr. Prashant Kharkar	Godavari Bio-refinery Ltd.	Design and development of Novel anti cancer stem cell therapeutics	1000000
Dr. Mukesh Nandave	Dabur India Ltd.	Evaluation of formulation for its COX inhibition potential by invitro and vivo model	600000
Dr. P.N.Mukherjee & Dr. Amit Bhadra	Maharashtra State Agricultural	General Management	226059
Dr. P. N. Mukherjee & Dr. Amit Bhadra	Maharashtra State Agricultural	IT infrastructure assessment for Deesan Infrastructure Pvt Ltd	266998
Dr. Anupam B Rastogi	Asian Development Bank	Resource Person for Strengthening Knowledge-Driven Development in South Asia	USD 27010
Dr. Paritosh Basu	RSPL Ltd.(FMCG, Company of Kanpur)- Through Radisson consulting Pvt. Ltd.	Enterprise Risk management, internal Control for financial reporting and related SOP's Accounting Manual, etc.	750000
Dr. Ashok Kumar Nag	63 Moons Technologies	Risk Solution Division of 63 Moons	2400000

3.5.2 Does the university have a university-industry cell? If yes, what is its scope and range of activities?

Yes. The University has University-Industry Cell whose objective is to strengthen the relationship of NMIMS with the corporate so that both the institutions and the corporate benefit. The model of the University Industry partnership on the basis of which this cell has been created is shown in Figure 3.1 below:

134
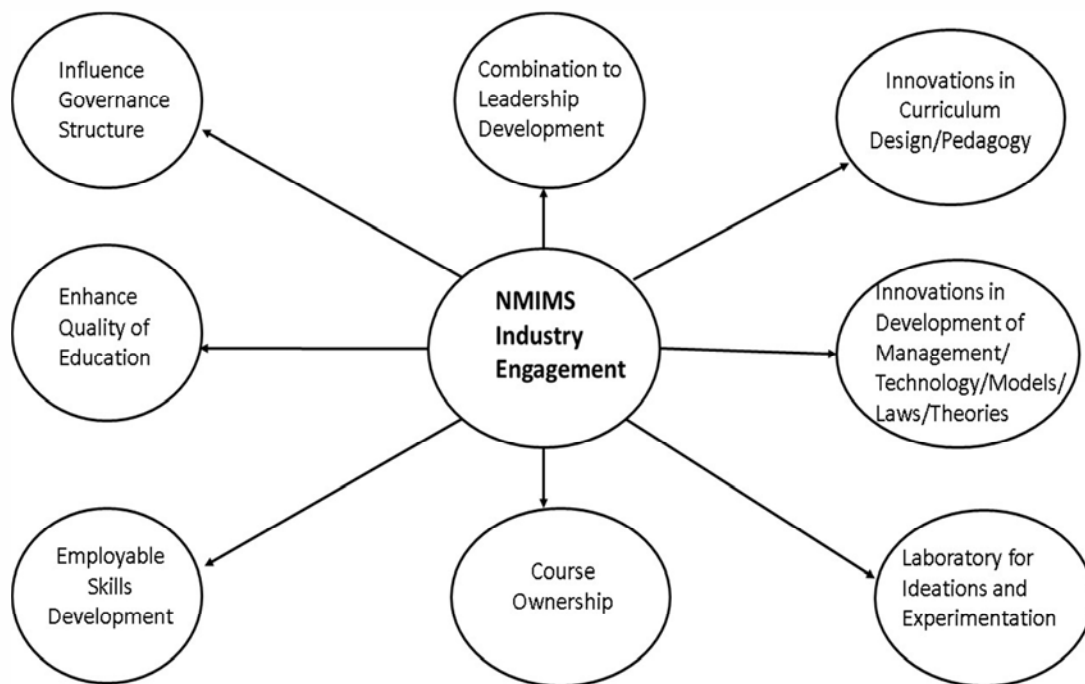
NMIMS Model of Industry Engagement

Figure 3.1: NMIMS Model of Industry Engagement

As can be seen, the objective of this centre is to complement university faculty inputs with the corporate practical insights. It is also to provide students an opportunity to be mentored by Industry stalwarts. Its emphasis is on providing students the realm of the corporate environment. At the Business School, the cell organizes several events to give opportunity to the best minds to respond to the corporate challenge.

Some of the major activities of the cell are
1. Organization of Guest Lectures
2. Course design and delivery
3. Joint research leading to joint publications
4. Providing live corporate problems to the students
5. Participation in Program Architecture
6. Curriculum revision and pedagogy development
7. Sharing best practices by both University and Corporate and thereby learning from each other.

In the past the University has benefited extensively from this relationship. Benefits to the corporate are listed below:

Business Solutions
o Opportunity to outsource any project/work to some of the brightest students
o Optimal solutions to various Strategic and Operational challenges faced by companies

Intellectual Capital
- o Tap the excellent talent pool at NMIMS, a top 10 B-school in India
- o Large percentage of students with valuable & relevant work experience with some of the big MNCs

Efficiency
- o Cost Effective alternative for companies across sectors
- o Periodic interaction between the students and company ensuring quality of the deliverables

Brand Building
- o Serves as an ideal mechanism to identify potential talent for recruitment
- o Increases the visibility of the company on campus enabling them to attract crème de la crème of the batch

NMIMS has been fortunate to have had the support from some of the leading corporates, like Tata Group, Yes Bank, State Bank of India, L'Oréal, Castrol, Idea, ICICI Bank, etc.

3.5.3 What is the mode of publicizing the expertise of the university for consultancy services? Which are the departments from whom consultancy has been sought?

NMIMS does not advertise its consulting strengths. Rather it encourages the faculty to participate in industry meets where they network with corporate leaders. This provides them the opportunity to showcase their strengths. They are also encouraged to chair or speak in industry conference. This once again gives the industry to peep into the strengths of the faculty.

Industry meets organized by various schools is another forum where NMIMS is able to showcase its faculty strengths.

Following are the departments/schools of NMIMS from whom industry seeks consultancy on a continuing basis:

1. School of Business Management
2. School of Architecture
3. School of Engineering
4. School of Pharmacy
5. School of Science

3.5.4 How does the university utilize the expertise of its faculty with regard to consultancy services?

Depending on the nature of the consultancy assignment received by the University, a team of faculty with skill sets required is assembled by NMIMS. In a sense therefore, matching of the faculty expertise with the nature of the consultancy assignment is undertaken by the School.

3.5.5 List the broad areas of consultancy services provided by the university and the revenue generated during the last four years.

The broad areas of consulting in the last 4 years are:
1. Supply Chain Management
2. Corporate Social responsibility
3. Competency Mapping
4. Design and Planning of various resorts and information centres
5. Strategy Planning
6. Professionalization of Family Business
7. Pharmaceutical Sciences – Design and Development of drugs therapies
8. In-vitro and In-vivo studies

The total revenue generated from consultancy in the last five years is **Rs. 27.85 crores**

3.6 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does the university sensitize its faculty and students on its Institutional Social Responsibilities? List the social outreach programs which have created an impact on students' campus experience during the last four years.

NMIMS has set up the Jasani Centre for Social Entrepreneurship & Sustainability Management to institutionalize its social commitment. As a catalyst and innovator, the Center's mission is to create a new generation of business leaders and social entrepreneurs who are knowledgeable about and are committed to create a sustainable society.

In the above context the University in March 2013 in partnership with Pacific Institute, Tata Steel, HCC, the Global Compact India Network and the UN Global Compact's CEO Water Mandate convened an international conference on "Corporate Water Stewardship and the Post-2015 Development Agenda: Drawing from the India Experience.'' The main objective of the conference was to explore how the global business community can positively contribute to the growing global and regional water and sanitation challenges – especially with respect to the UN's Post-2015 Development Agenda.

The conference constituted one of the United Nations' formal consultations with respect to the post-2015 process, which sought to identify critical development objectives and formulate new Sustainable Development Goals. The event was live-streamed to the UN's official website devoted to the formal UN water consultations

Approximately 160 leaders from business, civil society, UN agencies and other groups gathered to discuss collaborative approaches to water and sanitation problems. This mega event was well attended by the faculty members as well as B-School students.

The Centre regularly carries out short term and long term training programs in the areas of CSR, social entrepreneurship NGO management & sustainability in partnership with Bombay Chamber of Commerce and Industry, Indian Institute of Corporate Affairs and TISS.

Besides the above events the academic curriculum to socially sensitize its students has incorporated subjects like 'Corporate Social Responsibility,'

Environment Management'; 'Social Marketing' Disease Management and so on.

The Centre in partnership with the Socially Responsible Forum (SRF) of students (SRF) undertakes social development activities in the areas of education, social awareness, economic empowerment of the marginalized, city infrastructure maintenance and skill development.

In order to undertake community development activities yearly plan is designed. Various short term and long term social activities are undertaken. Short term events include blood donation, toy/clothes donation, marathons, and awareness camps for Dengue, Tuberculosis, Obesity, HIV/Aids and so on. Efforts are also undertaken to carry out disaster relief work and fund raising events for NGOs.

Long term events include:

a) Educational mentorship project through which MBA students provide educational mentorship for underprivileged children in local municipal schools.

b) Market-connect project for developing capacities of NGOs to market their products/services.

c) Gift a skill project for developing computer literacy skills among the NGO staff and women entrepreneurs.

d) Management support project for developing information systems, marketing and communications system for NGOs.

e) Sadbhavana festival to celebrate the spirit of NGOs for addressing social issues.

In addition to the above the School of Business Management students have to complete We Care: Civic Engagement internship as part of their MBA program. The internship enables students to examine the ground realities and engage their creative energy to address some of the social issues like education, gender discrimination, energy conservation, poverty and others. It enables them to develop entrepreneurial ideas to deal with these issues. Students are placed in the month of February for 21 days in a social organization in their respective hometowns. Higher emphasis is placed on mentoring and supervision of students. Internship is supervised by organizational mentors and faculty supervision.

Post internship, the students are evaluated by organizational mentors, faculty members and external assessors. The organizational mentors assess students on quality of work undertaken. The faculty mentors evaluate students with a help of a rubric to guage the extent of learning that has taken place. The external evaluators evaluate the students on the basis of a poster presentation highlighting the tools and techniques used by the students to understand the social issue and innovations proposed to resolve the same.

Amidst various activities undertaken in last four years special mention needs to be mentioned of the following innovative projects undertaken with support of our students in the last four years:

i) Market Connect

To economically empower the marginalized women and youth, SRF volunteers help NGOs to design marketing strategies to increase their sales and customer loyalty. In all 57 NGOs of Mumbai have been adopted and a learning lab has been developed to experiment with various ideas for marketing NGO products as well train NGO personnel in increasing their

sales. Students provide inputs in the areas of quality control, procurement, inventory management, sales and marketing. As part of the project a Marketing Carnival is organized in July every year in the campus to boost the sales of the NGOs.

In the process of working with the NGOs students get exposed to the challenges of the marginalized sections of the society. These are related to availability of market related information, access to markets and managerial knowledge. As a major outcome of the project World Wild Life Fund, Mumbai office has taken students this year on board to design the marketing strategy for the entire State of Maharashtra.

ii) Gift a Skill

To familiarize start up women entrepreneurs, youth and local NGOs with computer skills, software and apps a week end Gift a skill project has been designed. Every week end students spend four hours in with the target audience and help them to acquire skills to handle MS office and other computer programs. Till date more than 600 individuals have been supported and a helpline has been designed to facilitate the new learning. The skill sharing process has helped students to understand the barriers of the learners, their environment and thereby helped them to customize the learning process.

iii) Hamara Station Hamari Shaan (Our Station, Our Pride)

Local Trains in Mumbai are termed as the city's lifeline. They carry thousands of commuters across the width and breadth of the city. Over the years, because of its iconic image, the locals have become as much a city landmark as it is a transport system. However, the railway stations of the city are really drab. In partnership with two leading NGOs of the city, the students of SBM designed a project "Our Station, Our Pride" and adopted the local railway station in the vicinity. The student volunteers along with the local residents beautified the entire railway station in ten days. A fund of INR 3.6 lakhs was collected through crowd funding from which 65 per cent was contributed by the alumni of SBM. Students contributed more than 3000 hours of moonlight volunteering. The work undertaken by the students was acknowledged by the Minister of Railways, Government of India.

In the process of the working on the above project students learnt the process of co-creation as there were multiple partners working both from public and private sector on the project. The students are now working with the local committee to ensure maintenance of the station.

iv) The Fireflies Program

This program provides mentorship support to underprivileged children and helps them to shape their lives in a positive way. Student volunteers help underprivileged children to overcome their academic barriers and provide inputs to develop their confidence. Each year 50 kids are adopted by student volunteers for a period of two years.

In addition to the above student volunteers also provide training on computer skills to children affiliated with NGOs in Mumbai like Sneh Sadan

v) Sports Day for NGOs

This initiative is an effort to bring together the underprivileged kids from different NGOs by providing them a common platform where they can display their sportsmanship as well as develop their interest in sports. Children in the age group 8 to 14 from different NGOs participate in box cricket, football and athletics.

iv) Saadbhavana Festival

A three day festival to celebrate the spirit of social sector organizations for addressing social issues is organized. Every year students select a social theme like financial inclusion, digitalization, feminization, child rights, and environment and so on are selected. Series of events like NGO workshops, social B-Plan competition, dance, social documentary competitions and other events are held around the theme.

The above activities have helped students as well as faculty members to get sensitized to social realities and design a few mechanisms to address them. The E-newsletter Praytna published by SRF keeps both faculty and students updated on the social events undertaken by SRF.

3.6.2 How does the university promote university-neighbourhood network and student engagement, contributing to the holistic development of students and sustained community development?

The University believes that higher education should not be solely about developing economic opportunities for its graduates, but is all about the business of developing graduates who are fully prepared to participate and create a just, humane and sustainable society.

It is in this context the University has set up Jasani Centre for Social Entrepreneurship & Sustainability Management to facilitate participation of students and faculty in community extension activities.

The School of Business Management has incorporated We Care: Civic Engagement 21 days internship as part of its MBA program since 2010. The internship enables students to examine the ground realities and engage their creative energy to address some of the social issues like education, gender discrimination, energy conservation, poverty and others. It enables them to develop entrepreneurial ideas to deal with these issues. Through this program we have built partnership with more than 200 NGOs at pan India level. The internship has helped students to design innovative solutions in the areas of health, education, skill development and livelihood activities. Training through 'We Care' facilitates transfer of education of democratic values, ethical standards, social responsibility and civic competencies through civic engagement.

The Centre has developed a network with social sector organizations comprising of NGOs, Social enterprises and CSR departments of public and private sector (Refer Annexure 3.6). NGOs like CRY, WWF, Arpan, Voice Vision, ATMA, Oscar Foundation, Srujana, Educate Girls, Sujaya Foundation, Sols Arc, and others have consistently engaged our students and faculty by offering them consulting work. For instance in June 2016 the Centre conducted a 15 days Digital Training Program for school teachers of Sujaya Foundation. In December 2016, Digital Training for senior citizens of Mumbai was undertaken.

Corporates like Indian Oil, ONGC, HPCL, Tata Housing, Tata Motors, Mahindra & Mahindra and few others engage our students to carry out impact assessment of their CSR activities.

Public sector companies like Indian Oil and ONGC during vigilance week organize elocution and debates on the theme of anticorruption in the University.

Through our partnership with the Municipal Corporation of Greater Mumbai (MCGM) we are involved with carrying out disaster preparedness workshops both at the University as well as outside the University with Community Based Organizations (CBOs) and Advanced Locality Management Groups(ALMs), School Safety and Disaster Management Workshop at Schools for Students, Teachers and Parents, Training of Trainers on Disaster Management for NGO executives. Our students actively participate in helping us to organize these events.

In partnership with Bombay First and Make a Difference the students of SBM adopted a designed a project "Our Station, Our Pride". The local railway station in the vicinity was adopted beautification. A fund of INR 36600 million was collected through crowd funding. In the process of the working on the above project students learnt the process of co-creation as there were multiple partners working both from public and private sector on the project. The students are now working with the local committee to ensure maintenance of the station.

The Jasani Centre for Social Entrepreneurship& Sustainability Management, NMIMS approaches various NGOs and solicits their support in training FTMBA students to organize short term projects like peace exhibitions, resource donation camps, Thalassemia Test camps, Disaster Relief activities, Stem Cell Donor campaign, Saadbhavna festival, and other activities. These events provide students and opportunity to get training in 'Resource Mobilization and Management and Marketing of Social Causes.

The Financial Literacy Project undertaken in collaboration with Swadhaar Fin Access, NGO in Mumbai provides an opportunity for students to learn about of role of SHGs in women's work empowerment and role of micro finance to develop community owned business

The University in the last four years has conducted eight CSR workshops in partnership with Bombay Chamber of Commerce and Industry and TISS National CSR Hub.

The Centre also conducts training programs in the areas of NGO Management, Social Returns on Investment, Social Impact Assessment, Digitalization and so on.

A network of Mumbai based NGOs having livelihood support intervention has been created by the Jasani Centre. The SRF volunteers work with these NGOs in the areas of quality control, procurement, inventory management, sales and marketing. Marketing Carnival is organized in July every year in the campus to boost the sales of the NGOs. The NGO network provides opportunities to students to avail training in the areas of social development and management of social issues

The NGO and CSR interface with the University helps students to examine the strategies adopted the organizations to address social issues. It also gives them an opportunity to design innovative mechanisms to address the issues.

3.6.3 How does the university promote the participation of the students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International programs?

The University has set up Jasani Centre for Social Entrepreneurship & Sustainability Management to undertake community extension activities with

the help of students and faculty members. Though the University does not have NSS, NCC and YRC, each School of NMIMS has set up Social Responsibility Forums (SRFs).SRF volunteers undertake social development activities in the areas of education, social awareness, economic empowerment of the marginalized, city infrastructure maintenance and skill development.

In the recent past the University in partnership with two leading NGOs of the city under the aegis of Clean India Campaign designed a project "Our Station, Our Pride" (Hamara Station, Hamari Shaan) and adopted the local railway station in the vicinity. The student volunteers along with the local residents beautified the entire railway station in ten days. A fund of INR 36600 million was collected through crowd funding. The work undertaken by the students was acknowledged by Shri Suresh Prabhu, Minister of Railways, Government of India.

The We Care: Civic Engagement internship for three week initiated by the School of Business Management enables students to examine the ground realities and engage their creative energy to address some of the social issues like education, gender discrimination, energy conservation, poverty and others. It enables them to develop entrepreneurial ideas to deal with these issues. This program reflects a changing paradigm that acknowledges partnerships between academic institution-community generated local knowledge.

3.6.4 Give details of social surveys, research or extension work, if any, undertaken by the university to ensure social justice and empower the underprivileged and the most vulnerable sections of society?

Details of the extension work carried out by NMIMS students to ensure Social justice have been given under appropriate places in this report. However, some examples of the impact of research work to ensure social justice and to empower underprivileged sections are mentioned below.

In the School of Science, a research scholar had undertaken a project which aimed at evaluating the nutritional status of young children (primary school) in Mumbai. The findings from this study were communicated to the parents, thus, imparting nutritional education through an improved intervention program.

In the School of Business Management, research and extension work is undertaken to ensure Social justice and empowerment of underprivileged sections in general, and women and children in particular.

Through the 'We Care' project, extension work is carried out in seven NGOs (Stree Mukti Sanghathana, YWCA, Rajasthani Mahila Mandal, SOS, Sneha, Majlis, Swadhar) working on women's issues and fifteen NGOs (Teach for India, Life Trust, ATMA, Kotak Education, Each one Teach one etc.) working with children. Extension work also has been undertaken with NGOs working in the areas of Health, Handicapped, Environment, Livelihood Support and other related areas.

School Safety and Disaster Risk Reduction programs with Municipal Schools have been undertaken in partnership with MCGM. Similarly Disaster Management Training Programs for the Women Representatives of Self Help Groups in the rural areas in partnership with NGOs, Panchayats and District Administration have been undertaken.

3.6.5 Does the university have a mechanism to track the students' involvement in various social movements / activities which promote citizenship roles?

Yes the university has a mechanism to track the students' involvement in various social movement/activities which promote citizenship roles.
Quarterly meetings are held to monitor the progress and a E-newsletter Praytna is published thrice in a year.

Apart from the above the School of Business Management students have to complete We Care: Civic Engagement internship as part of their MBA program. The internship enables students to examine the ground realities and engage their creative energy to address some of the social issues like education, gender discrimination, energy conservation, poverty and others. It enables them to develop entrepreneurial ideas to deal with these issues. Students are placed in the month of February for 21 days in a social organization in their respective hometowns. Higher emphasis is placed on mentoring and supervision of students. Internship is supervised by organizational mentors and faculty supervision.
Post internship, the students are evaluated by organizational mentors, faculty members and external assessors. The organizational mentors assess students on quality of work undertaken. The faculty mentors evaluate students with a help of a rubric to gauge the extent of learning that has taken place. The external evaluators evaluate the students on the basis of a poster presentation highlighting the tools and techniques used by the students to understand the social issue and innovations proposed to resolve the same.

3.6.6 Bearing in mind the objectives and expected outcomes of the extension activities organized by the university, how did they complement students' academic learning experience? Specify the values inculcated and skills learnt.

The We Care initiative and the Community development activities undertaken by SRF has impact students in the following ways:
a) **Increased ability: Understand and analyze social and environmental risks**
The experience generated through the intensive engagement in social organizations has sensitized, inspired and facilitated understanding of social realities. The students are able to line the macro and micro impact of externalities that have been created by the modern corporate and its cascading impact on communities, trade as well governments. They are able to gauge how social and environmental liabilities can be potential risks to business sustainability.
They are able to integrate their theoretical inputs of the theory paper on CSR which provides them the knowledge about the triple bottom line performance

of the company (Financial, Social and Environmental) with the ground realities. Most importantly there is a mind-set and attitudinal change seen which facilitates their understanding about the wider effects of globalization.

b) Increased ability: Integrate and apply management learnings

Training through 'We Care' has facilitated transfer of education of democratic values, ethical standards, social responsibility and development of civic competencies. For instance students placed in rural development organization has gained understanding of the social capital of rural communities, their decision making, and their world view. They are now able to examine the importance of using networks of the rural development agency to develop the distribution strategy for FMCG companies / service industry. Hence were able to apply their knowledge in the area of logistics, marketing and allied areas to strengthen the efficiency of the rural development agency by introducing appropriate MIS systems.

Developing technical, financial and management capacity building programs enabled them to directly transfer knowledge gained from classroom to the field. These activities fostered their training skills.

Similarly students of finance were able to examine how social organizations calculate returns on investment, what types of performance ratios are used to evaluate the financial health of the organization. They were able to apply their learnings developed in the class to enable the NGO staff to strengthen their skill sets.

HR students had an opportunity to learn about how employee volunteers could contribute to NGOs, understand how NGOs develop their HR systems. They were able to apply their HR learnings at the field.

Activities like social research helps the students to apply their knowledge of research methodology while carrying out community research or social audits.

c) Developing technical and managerial innovative solutions

Participation in community development activities has propelled students to generate innovative and entrepreneurial ideas which have been put to use to address a few unmet needs of the marginalised. The We Innovate Challenge organized by the Centre promoted the spirit of social innovation. The event enabled students to share their ideas for responding to social challenges in the area of education, women's empowerment, marginalized farmers, vocational training, livelihood support and homeless. 'Osmosis- Small Ideas for Big Impact' a coffee table book based on social innovations showcases the proposed solutions put forth by our students to address a few social agendas.

d) Developing interactive and leadership skills

Through engagement in the wider community students develop competencies in setting direction, aligning and motivating people and managing complex challenges. Through the applications of these competencies, students were able to develop a deeper commitment by using their knowledge and skills in the service of the public good. For instance SBM students undertook active lead in designing social campaigns like organ donation, financial inclusion, energy conservation and related others. The adoption of local railway station for beautification and cleanliness under the Swachh Bharat Abhiyan by the students is indicative of their leadership trait and skills.

e) Inculcating values

The importance of civic engagement is paramount to the success of democracy and philanthropy. Direct engagement of students in civic activities has facilitated in building up good citizenship and pro-poor values related to respecting cultural and social diversity, social justice, respecting the dignity of each person, integrity, participatory decision making process, human rights, stakeholder engagement, environment, secularism and so on. These values have helped in directing and guiding socially responsible and socially responsive behaviour.

The testimony to the above can be seen through the annual We Care Anthology publications. Unfinished Agenda… Unfolding Social Challenges was the first volume of the Anthology. Student authors penned their experiences of working with various socially excluded groups. Volume II of the Anthology was Brand India's GenNext: Bridging the Gap for Equity and Inclusion. The anthology articles highlight the understanding gained by the students in examining various issues of inequities which children face and strategies deployed by the NGOs, governments and corporates to address the same. We Care Anthology Volume III titled Business that Cares concentrated on exploring the transformational actions taken by corporations in the light of Section 135 to address community issues. Similarly, the social innovation ideas proposed by students have been documented as Osmosis: Small ideas for Big Impact.

3.6.7 **How does the university ensure the involvement of the community in its outreach activities and contribute to community development? Give details of the initiatives of the university which have encouraged community participation in its activities.**

The Jasani Centre for Social Entrepreneurship & Sustainability Management carries out its community development work through the following:

a) Knowledge development and dissemination

The Centre disseminates knowledge through designing and upgrading relevant courses at MBA level in the areas of micro finance, marketing for social change, management of micro enterprises and social enterprises, micro insurance corporate social responsibility and other related aspects.

The Centre actively engages in designing short term courses and customized training for personnel working in public as well as private sector in the areas of sustainability, CSR, social entrepreneurship, project and program management, social marketing, impact assessment and any other area which supports the objectives of the Centre.

The Centre actively works with Bombay Chamber of Commerce and Industry, TISS, Nirmala Niketan, Sujaya Foundation, E&Y Foundation and various other organizations to carry out training activities.

The Centre concentrates its research efforts in the areas of a) impact assessment of sustainability practices of business and civil society organizations, b) social audits, c) NGO management

b) MBA student's involvement in the social sector

The Centre believes that higher education institutions have a vital role to play in shaping the way in which future generations learn to cope with the complexities of sustainable development. They bear the distinctive responsibility for developing the professional and moral quality of future leaders in society and economy. As significant societal actors, they are an important partner in the agenda for attaining sustainable development. In this context the We Care: Civic Engagement Program was introduced in 2010. We Care is an essential part of the MBA program. Students are placed for three weeks in the month of February in an NGO/Social Enterprise/CSR Department in their home towns. Students handle projects in the areas of energy, water, sanitation, education, health, public governance and other related areas. The We Care project initiated by SBM reflects a changing paradigm that acknowledges partnerships between academic institution-community generated local knowledge. In 2015-16 in all 586 students were placed in 247 organizations across 23 states and 2 union territories.

The Centre actively supports the 'Social Responsibility Forum' (SRF) of students by creating opportunities to engage effectively with the social sector. The students voluntarily undertake short term and long term assignments with the social sector in the areas of developing MIS, marketing, fund raising, educational mentoring and other related areas. They have partnerships with over 60 local NGOs. The students also undertake donation drives like blood donation, toy donation, study material donation, raising funds for DaanUtsav and other support activity.

Amidst various activities undertaken special mention needs to be mentioned of the following innovative projects undertaken by students:

i) Market Connect

To economically empower the marginalized women and youth, SRF volunteers help NGOs to design marketing strategies to increase their sales and customer loyalty. In all 57 NGOs of Mumbai have been adopted and a learning lab has been developed to experiment with various ideas for marketing NGO products as well train NGO personnel in increasing their sales. Students provide inputs in the areas of quality control, procurement, inventory management, sales and marketing. As part of the project a Marketing Carnival is organized in July every year in the campus to boost the sales of the NGOs.

In the process of working with the NGOs students get exposed to the challenges of the marginalized sections of the society. These are related to availability of market related information, access to markets and managerial knowledge. As a major outcome of the project World Wild Life Fund, Mumbai office has taken students this year on board to design the marketing strategy for the entire State of Maharashtra.

ii) Gift a Skill

To familiarize start up women entrepreneurs, youth and local NGOs with computer skills, software and apps a week end Gift a skill project has

been designed. Every week end students spend four hours in with the target audience and help them to acquire skills to handle MS office and other computer programs. Till date more than 600 individuals have been supported and a helpline has been designed to facilitate the new learning. The skill sharing process has helped students to understand the barriers of the learners, their environment and thereby helped them to customize the learning process.

iii) Hamara Station Hamari Shaan (Our Station, Our Pride)

Local Trains in Mumbai are termed as the city's lifeline. They carry thousands of commuters across the width and breadth of the city. Over the years, because of its iconic image, the locals have become as much a city landmark as it is a transport system. However, the railway stations of the city are really drab. In partnership with two leading NGOs of the city, the students of SBM designed a project "Our Station, Our Pride" and adopted the local railway station in the vicinity. The student volunteers along with the local residents beautified the entire railway station in ten days. A fund of INR 3.6 lakhs was collected through crowd funding. From which 65 per cent was contributed by the alumni of SBM. Students contributed more than 3000 hours of moonlight volunteering. The work undertaken by the students was acknowledged by the Minister of Railways, Government of India.

In the process of the working on the above project students learnt the process of co-creation as there were multiple partners working both from public and private sector on the project. The students are now working with the local committee to ensure maintenance of the station.

c) Developing academic programs in Social Entrepreneurship (Diploma/PTMBA in Social Entrepreneurship) and Entrepreneurship for Women

Societies are searching for innovative and efficient ways to provide socially important goods in health, education, social services, environment and community development. With the emergence and growth of cross sector partnerships, there is a growing realization that there is a way to combine the very best of the not-for-profit, philanthropic world with the very best of the for-profit, enterprising world. This hybrid is the wave of the future for both profit and non-profit organizations. In the face of this new reality, an increasing number of forward-looking non-profits / NGOs are beginning to appreciate the increased revenue, focus and effectiveness that can come from adopting "for profit" business approaches. Increasingly, they are reinventing themselves as social entrepreneurs, combining "the passion of a social mission with an image of business-like discipline, innovation, and determination. NMIMS is committed to nurturing the social entrepreneurs of tomorrow and strengthen the social entrepreneurs of today. In this context in 2007, NMIMS designed and launched a uniquely architectured one year Diploma Program in Social Entrepreneurship and a two year Part Time MBA Program in Social Entrepreneurship. The program is heavily subsidized and enables to build capacities of the social entrepreneurs and NGO/CSR staff members.

Enterprise Training for Women

As the potential of women entrepreneurs remains largely untapped with many lacking access to the financial services, skills and opportunities they need to become successful business owners. Improving opportunities for women to earn and return income spurs economic growth and fosters a more inclusive and fair society, which is fundamental to sustainable growth and building more equitable societies. The Enterprise Training for Women program was introduced to accelerate women's economic empowerment and the development of women-owned business through the recognition of training in business management.

Since 1992, the School of Business Management has been active in providing enterprise development training to women in India. The 150 hours of week-end certificate program empowers women-led enterprises by providing women with tailored services in business planning and management tools to transition into small and growing business owners. The program is an adaptation from a reputed program offered by the University Of Stirling, Scotland.

So far 585 women have been trained and 42 per cent women have set up their enterprises.

d) Promotion of Social innovation and Social Entrepreneurship

The JasaniCenter believes that social innovations are largely incubated in the voluntary sector and to scale it up the students must learn to embrace state or market institutions. To promote student interest in social innovations and facilitate their skills for scaling up, various Social B-Plan competitions are organized. The Centre provides unstinted support to students to participate in the inter college and inter university social venture and social entrepreneurship B-Plan competitions. Efforts are made to introduce the students to the funding agencies like Unltd India, Ennovent, CII, and FICCI to provide seed capital to students who wish to incubate their innovative ideas.

The Center's efforts have proved to be rewarding. Students in the past have won global social venture competitions which address issues of nutrition, eco-friendly transport, livelihood, health and so on. The alumni of the MBA Social Entrepreneurship program have set up eleven social enterprises from which two are for profit social enterprises. The Centre has active partnership with Singapore International Foundation, Dell Social innovation, Schwab Foundation for Social Entrepreneurship, Skill Foundation and Ashoka.

To promote Social innovation and Social Entrepreneurship the Centre has also submitted a proposal on Atal Incubation Centre to NITI Aayog in June 2016. The result on the same is awaited.

All these efforts led to the funding of the Centre by the Jasani Family and also by Rotary Club Bombay West, Bombay Chamber of Commerce and Industry, Shroff Trust. It is also resulted in creation of a network of NGOs, Corporate and Government organizations. The illustrative list of NGO partners is shown in Annexure: 3.6

3.6.8 **Give details of awards received by the institution for extension activities and/contributions to social/community development during the last four years.**

Table 3.13: Awards received by the institution for extension activities

Year	Award	Conferred by
2014-15	Commendation for Exemplary Partnership in IICA Certificate Program in Corporate Social Responsibility (ICP in CSR)	Indian Institute of Corporate Affairs (IICA), Ministry of Corporate Affairs, New Delhi
	Special Jury Recognition Award for Social Excellence	Federation of Indian Chambers of Commerce and Industry (FICCI), New Delhi
2015-16	Certificate of Merit for We Care Anthology	In-house Communication Excellence (ICE), Mumbai (Maharashtra)
2016-17	Certificate of Excellence for Community Educational Initiatives	INDYWOOD, Telangana

3.7 Collaboration

3.7.1 **How has the university's collaboration with other agencies impacted the visibility, identity and diversity of activities on campus? To what extent has the university benefitted academically and financially because of collaborations?**

The University's visibility, credibility and reputation has increased many folds in the last five years. Primarily due to partnership with industry associations, professional bodies, social organizations and the Government of India and Government of Maharashtra agencies. For example NMIMS has partnered with FICCI, CII, Bombay Chamber of Commerce and Industry, OPPI, NBA and a range of government and non-governmental organizations in the last five years for research studies, seminars and training. These collaborations have helped establish NMIMS identity as a multi-disciplinary university of high repute with strong industry connect. Its Business School is today recognized as one of the leaders and torch bearers in Management Education. Several awards and rankings of the University by government and media is testimony to this statement. For example FICCI at its Annual Education Summit in 2016 conferred on NMIMS University of Year Award in the category of 10 to 30 years old universities. Likewise, Education World, India Today ranked NMIMS among the top 20 universities in India.

This network has also helped in introducing diverse programs like Mechatronics, MBA Law, etc. All these programs have added diversity among student populations and also among the learning systems.
The University has benefited in terms of academic inputs. It has also helped in skilling the graduates.

Awareness about NMIMS activities led to support from Gujarati

149

Philanthropies. In the last four years the University has received about Rs.13 crores from these Philanthropies for naming their Centers.

3.7.2   Mention specific examples of how these linkages promote
- Curriculum development
- Internship
- On-the-job training
- Faculty exchange and development
- Research
- Publication
- Consultancy
- Extension
- Student placement
- Any other (please specify)

The linkages cover various aspects of teaching-learning, research, consultancy, faculty and student exchange, curriculum development and so on. However, some highlights are given here.

(a)   Curriculum Development :
Through various MoU's a number of faculty and students of NMIMS visit the collaborating partner institutes abroad very often. They bring with them the academic culture including information about new curricula introduced elsewhere in the world. They also visit other universities in the country. This, in turn, is useful in revising the curricula adopted by the Schools concerned.

(b)   Internship and on-the-job-training :
MBA students are placed for Summer Projects in various industries/ organizations and students of Social Entrepreneurship are placed in NGOs/ Social Enterprises to get hands on experience and realize the real time situations. This helps them to develop practical knowledge and integrate their theoretical learning with field experience.

During internship, MBA students get on the job training with global management practices used in reputed organizations. Such students are able to compete nationally as well as globally in getting placements.

Engineering, Pharmacy and Science students undergo at least 10-20 weeks of internship in the industry during their program which provides them hands- on- training at the job.

The students of the School of Science (SOS) get exposure to newer methods during their summer training with external institutions. These collaborations have also helped students obtain internships in international institutions. Ms. Delina Joseph, Ph.D. student, Chemical Sciences, was selected for training at the Technische Universitat, Chemnitz, Germany for a period of three months (July to September 2015). Ms. Hetal Damani, Ph.D. student, Biological Sciences, was selected for a training at Charles Darwin University, Australia for

project on computational modelling/drug design and cancer biology for a period of three months (July to October 2016)

(c)   Faculty Exchange and Development :

A number of faculty members from different departments of different Schools have visited the Universities abroad with whom NMIMS has signed MoU's for faculty and students' exchange programs, thereby getting adequate exposure to the knowledge advancement taking place outside the country.

For example, the University of Torino, Italy and SVKM's NMIMS signed an MOU for carrying out collaborative programs at international level. Under this MoU, Dr. Pravin Shende (SPPSPTM) is the first faculty member, who has been deputed to the University of Torino.

Dr. Dhananjaya Saranath visited Charles Darwin University (CDU), Australia for finalization of the project on examine the role of genomic variants in oral cancer, a high incidence cancer in the indigenous and Caucasian oral cancer patients from Australia and India. Dr. Rama Jayaraj, CDU spent 15 days at SDSOS with Dr. Saranath for discussions on the project.

Dr. Sudeshna Chandra visited University of Regenberg, Germany as an "Experienced Research Scholar" sponsored by Alexander von Humboldt Foundation, Bonn, Germany. The visit was for a period of three months beginning 1st Novermber 2015. The objective of the program was to build network of scientists with cultural diversity. During her stay she focused on exploring newer dendrimer based nanoparticles to develop biosensors for diagnosis of liver ailments.

(d)   Research :

Faculty members and research scholars participate in the research programs in collaboration with their counterparts in the following Universities/Institutions where they get ample opportunities to learn new research techniques and to work in state-of-the-art laboratories:

- The Royal Melbourne Institute of Technology, Melbourne, Australia
- Athens University of Economics & Business, Greece
- Rouen Business School, France.
- Institute for Advanced Architecture of Catalunya, Barcelona, Spain
- Glasgow School of Art, Scotland (Student Faculty Exchange)
- University of Morotowa, Srilanka
- Cornell University, USA for research in various housing typologies in Mumbai.
- Charles Darwin University (CDU), Australia
- University Medical Center of Hamburg, Universität Regensburg, Germany
- Technische Universität Chemnitz, Germany

Within India:

- University of Jodhpur, Rajasthan for research in old settlements.

The School of Pharmacy has also developed national and international linkages to promote collaborative programs and research with the following.

- Cadila Healthcare
- Indian Pharma Machinery Manufacturers Association (IPMMA)
- University of Torino, Italy

The School of Science has established research collaborations with the following Scientists/institutions:

- Dr. Prabha Nair, Tissue Engineering and Regeneration Technologies Division, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, Kerala, India.
- Dr. Dhirendra Bahadur, Department of Metallurgical Engineering and Materials Science, Indian Institute of Technology (IIT) Bombay, Mumbai, Maharashtra, India.
- Dr. Pritha Ray, Advanced Centre for Training Research and Education in Cancer, Tata Memorial Centre, Kharghar, Navi Mumbai, India.
- Dr. V. P. Gaikar, Department of Chemical Engineering, Institute of Chemical Technology (ICT), Mumbai, Maharashtra, India.

Dr. Geetanjali Sachdeva, Primate Biology, National Institute for Research in Reproductive Health (NIRRH), Mumbai.

(e) Consultancy:
The linkages help to develop competency and expertise amongst the faculty. NMIMS encourages consultancy work by the faculty and suitable guidelines have been prepared to provide lucrative incentives for revenue sharing from the consultancy work on a 70:30 basis.

(f) Extension:
Linkages with the Government, NGOs, business organizations and international organizations lead to sensitizing students to social realities and engaging them in civic activities. It also leads to development of consultancies and research projects.

(g) Publications:
NMIMS encourages its faculty to publish in journals with high impact factor. These linkages and collaborations have also helped in obtaining more than 10 joint publications in high impact peer reviewed international journal.

(h) Student Placement:
NMIMS's linkages with business organizations enable student placements. Students get hands-on experience in relevant industries and NGOs during their summer project work/field work. Many industries/organizations visit NMIMS to hold campus interviews.
NMIMS's School of Business Management has established a placement cell and the Industry Institute Partnership Cell for promotion of linkages between SBM and industries in order to cater to the needs of the stakeholders and better placement of our students.

3.7.3 Has the university signed any MoUs with institutions of national/international importance/other universities/ industries/corporate houses etc.? If yes, how have they enhanced the research and development activities of the university?

NMIMS has signed MoUs with universities in Australia and Europe for research, with corporate and industry bodies like BOSCH and Bombay Chamber of Commerce and Industry and Nanavati Hospital for research and training. These MoUs have helped faculty research in CSR, Automation, Artificial intelligence etc. These collaborations have also helped acquire the equipment necessary for research work. In addition, it has enriched the Ph.D. program of the University.

3.7.4 Have the university-industry interactions resulted in the establishment / creation of highly specialized laboratories / facilities?

NMIMS has entered into collaborations with a number of foreign and Indian Universities and national and international research institutions. Through them, joint research projects, faculty and students exchange program, collaborative teaching and curriculum development programs in national thrust areas are extensively organized by the institution for giving adequate exposure to faculty and students to teaching and research done in the country and abroad. Special efforts are made by the Schools and their departments to bring in industry and corporate world as a knowledge partner in the development of curricula, teaching and research programs. This has helped the institute to give relevant courses to the students enhancing their employability.

CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 How does the university plan and ensure adequate availability of physical infrastructure and ensure its optimal utilization?

Planning for physical infrastructure is done by the project department in phased manner. Strategic plan of the university takes into consideration the new academic programs/new campus to be started in a specific time period and infrastructure requirements. All proposed plan is sent to the Board of Management/Office Bearers / Managing Committee for approval and construction is then carried out as per approval thus, leading to the creation of well-furnished class-rooms, laboratories, and library, faculty & staff offices for optimum academic utilization. NMIMS has modern and well equipped centrally air conditioned Library, Board Rooms, Administrative Offices, Computer Laboratories, Lecture Theatres, Auditorium, Meeting Rooms, Medical Facilities, Visitors Lounge and Cafeteria. In addition, the University has adequate Parking Place. The entire campus is Wi-Fi enabled with sufficient bandwidth. Each classroom is provided with LCD, internet and other modern facilities.

The department is endowed with sufficient physical infrastructure. The department is spread over an area of around 4397 sq. meters which includes 7 classrooms, 17 laboratories, 2 computer laboratories, 2 stores, an administrative office, 6 faculty rooms, library, pilot plant and animal house. The Academic calendars and the class time table of the university ensure that available infrastructure is utilized thoughtfully. All the facilities are conveniently accessible from the department and there is a provision of 8 lifts in addition to the staircases. There is water purification system in place. Uninterrupted power supply is available throughout the day and power generators are also provided to ensure the same. Fire alarms are fixed on each floor for safety purpose.

The infrastructure available at the department is well equipped for carrying out academic as well as co-curricular activities. Availability of sufficient classrooms, dedicated laboratories, equipments and instruments, chemicals and glassware, computers and internet, library, A-V- material etc. supports academic activities adequately. Facilities like seminar hall, auditorium and museum are easily accessible to carry out various co curricular activities

The Academic calendars and the class time table of the university ensure that available infrastructure is utilized thoughtfully.

4.1.2 Does the university have a policy for the creation and enhancement of infrastructure in order to promote a good teaching-learning environment? If yes, mention a few recent initiatives.

Yes. Extensive planning for physical infrastructure is made by the project team. Strategic plan of the university takes into consideration the new academic programs to be started in a specific time period.

The present campus provides for state of the art infrastructure for academic

delivery, research and student centric learning.

The Strategic Plan also considers the projected demand for the next ten years along with technological advances which would affect the teaching-learning process.

4.1.3   How does the university create a conducive physical ambience for the faculty in terms of adequate research laboratories, computing facilities and allied services?

The University has created need based research infrastructure. The future needs were assessed based on the recommendations of the task force under the mentorship of Dr. Raghunath Mashelkar. While recommending the initiatives the task force gazed in to the futuristic requirements and technologies impacting businesses and life.

The Library resources in the last five years have been enhanced phenomenally including new e-database subscriptions as online resources. An area of around 25000 sq. ft. has been created which has a separate reading room and a digital section for accessing e-resources. The creation of Bloomberg Financial Lab which has 12 terminals gives a live experience to students and faculty in Financial Analytics domain.

At the School of Engineering, several centres of excellence have been created to undertake research in emerging areas. Bosch Rexroth Centre of Excellence in Industrial Automation and Accenture Centre of Excellence for ERP are few examples of such labs. At the School of Science, the need of In-vitro based research was envisaged resulting in the creation of a Tissue Culture Lab. At the School of Pharmacy, a Central Instrumentation Lab housing all sophisticated equipment for research was created to cater to common needs of various schools. A pilot plant was also set up for oral solid dosage forms. High end LCMS has been recently procured to help analysis within the department.

University has an excellent physical ambience for the faculty to support high quality teaching, learning and research activities. Each faculty member is provided with latest computing systems i.e. all in one PC at their work stations directly connected internet. The facilities are state of the art which include access data bases, research infrastructure.

4.1.4   Has the university provided all departments with facilities like office room, common room and separate rest rooms for women students and staff?

Yes. Faculty and staff have been provided with office space. SVKM's NMIMS has faculty and staff lounges, common room. Separate rest rooms for women students and staffs are provided inside the campus. All facilities required for hygiene is maintained.

4.1.5   How does the university ensure that the infrastructure facilities are disabled-friendly?

The campus is designed taking into consideration supportive environment for physically challenged people. Slopes and Ramps are created for smooth

commute through wheelchairs, each building has sufficient elevators. Disabled friendly wash rooms are also created. Ramps are also provided in all buildings.

4.1.6 How does the university cater to the requirements of residential students? Give details of:

The University campus in Mumbai is located in a prime locality. NMIMS has a boys hostel housing 225 students and a girls hostel housing 373 students. Besides these owned hostels, we also provide residential facility to students by hiring buildings / apartments in the vicinity of the campus. The students are provided with Gymnasium facilities at a concessional rate. Two full time doctors are engaged by the University to attend to medical exigencies of the employees and students. Doctors are also available on call after academic hours. In addition, the University has a tie-up with Nanavati Hospital for employees and students.

Student safety and security is given high importance by deploying security and rector / warden as required in all the hostels.

- Capacity of the hostels and occupancy (to be given separately for men and women)
  SVKM's NMIMS has currently 598 boys and girls at its hostels located in the vicinity of the campus. All essential items are available at hostel like; washing machine, TV, Wi-Fi connectivity etc.
- Recreational facilities in hostel/s like gymnasium, yoga centre, etc.
  Students have access to gym, indoor games, and in-house canteen with in campus.
- Broadband connectivity / Wi-Fi facility in hostels.
  All Hostels are equipped with Wi-Fi facility.

4.1.7 Does the university offer medical facilities for its students and teaching and non-teaching staff living on campus?

Students SVKM's NMIMS has appointed 2 doctors (1 male and 1 female), who visits the university campus every day from 9.00 AM to 6.00 PM for students, faculty, staff. University has also tie up with nearest hostel i.e. Nanavati super speciality hospital. At the time of admission we ensure that all students have their medical insurance for their medical treatment, if required.
Teaching and Non-teaching staffs are covered under family medi-claim policy through New India Insurance Company.

4.1.8 What special facilities are available on campus to promote students' interest in sports and cultural events/activities?

Every department has a Students Council comprising of committees which are mentored by faculty. The Student Council conducts, sports, cultural and annual technical festivals.
In addition to this, the University Student Council conducts various events. For conduct of these events, the University has wide ranging facilities in the form of seminar halls, auditoriums of capacity ranging from 100 to 1200.

For sports, grounds are made available by the University on the basis of a tie-up. In addition, the University also provides in-house sports facilities for indoor games.

University conducts its annual sports festival called "YUVA" in January every year. This sports event attracts many sports people to the campus.

The department has made available various indoor and outdoor sports kits like cricket, football, table tennis, volley ball, badminton, carrom board, chess etc. These facilities are accessible to all students, faculty and staff members. The students from the department participate in intercollege Pharmacy College Competition called Rx different sports &cultural events are organized.

The department works under different banners like "ISTHMUS URJJA" and "EXCALIBUR" to take care of Extracurricular and sports activities respectively. The department has made available various indoor and outdoor sports kits like cricket, football, table tennis, volley ball, badminton, carom board, chess etc. These facilities are accessible to all students, faculty and staff members.

The institution always encourages women to participate in various sports activities by organizing sports competitions for them. Some of such activities include volley ball, throw ball matches. Women are also actively participating in various indoor sports activities like table tennis, carom and chess etc.

4.2 Library as a Learning Resource

4.2.1 Does the library have an Advisory Committee? Specify the composition of the committee. What significant initiatives have been taken by the committee to render the library student/user friendly?

Yes, NMIMS University has a central LARC committee and every school has a Local Library Advisory Committee.

The committee plays a key role in:

1. Laying down sound policies and regulations for the functioning of the library.
2. Making budgetary provisions for procurement of recommended text books, reference books, general books, periodicals (national and international) and other reading material.
3. Formulating procurement policy for books and Journals.
4. Advising for subscription of online databases as well as institutional memberships.
5. Putting forward the views of faculty members regarding books/journals selection, ordering process etc.
6. Inviting suggestions from students for the improvement of library and its services
7. Providing suggestions for administrative matters.
8. Providing necessary guidance with regards to library infrastructures, library facilities and services.
9. Upgrading the library to make it more students centric.

157

10. **SuperNova Magnifier & Screen Reader Software** for visually challenged users is installed in central library.

Table No. 4.1: Central University Library Committee- LARC

Sr. No.	Designation	Name
1.	Chairperson	Dr. Rajan Saxena (Vice Chancellor, NMIMS University)
2.	Secretary	Mr. Shivanand Sadlapur (Librarian, NMIMS University)
3.	Members	Dr. Jayant Gandhi (Trustee)
4.		Shri. Jagat Killawala (Trustee)
5.		Dr. Sharad Mhaiskar (PVC and Dean, MPSTME)
6.		Dr. Dhirendra Mishra (Associate Dean, MPSTME)
7.		Dr. Yogesh Kulkarni (Assistant Professor, SPPSPTM)
8.		Prof. Shruti Barve (BSSA)
9.		Dr. Rishikesh Dave (I/C Law)
10.		Dr. Akshay Damani (SOC)
11.		Dr. Nancy Pandita (SOS)
12.		Dr. Amita Vaidya (SOE)
13.		Mr. Ravikumar Bellary (Deputy Librarian, NMIMS University)

4.2.2 Provide details of the following:

- **Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)**
  The layout of the library is displayed at the entrance so that a user can navigate various sections of the library. A separate section has been provided for the faculty. The library also houses 30 computers for accessing e-resources and online databases. Adequate signage, fire alarms, etc. are also provided in the library.

- **Clear and prominent display of floor plan; adequate sign boards; fire alarm; access to differently-abled users and mode of access to collection.**

- **SuperNova Magnifier & Screen Reader Software for visually challenged users is installed in central library.**

Table No. 4.2: Library Details

School	Library Area (Sq. Metres)	Total Seating Capacity	Working Hours		
			Mon.-Sat.	Vacation	Reading Hall
SBM (Central Library)	1393.54	284	08.30 a.m. to 10.00 p.m. (Mon.-Sat.) 10.00 a.m. to 05.30 p.m. (Sundays)	Reading hall is open throughout the year except on National Holidays.	08.30 a.m. to 11.00 p.m. (During Exam: 08.30 a.m. to 03.00 a.m.)
MPSTME	205.78	110	08.00 a.m. to 08.00 p.m.	10.00 a.m. to 05.30 p.m.	08.00 a.m. to 08.00 p.m.

158

School	Library Area (Sq. Metres)	Total Seating Capacity	Working Hours		
			Mon.-Sat.	Vacation	Reading Hall
SPPSPTM	167.22	80	08.00 a.m. to 08.00 p.m.	Library is working throughout the year except Sundays and holidays	08.00 a.m. to 08.00 p.m.
BSSA	186	40	08.00 a.m. to 07.00 p.m.		08.00 a.m. to 07.00 p.m.
ASMSOC	650.32	130	08.00 a.m. to 08.00 p.m.		08.00 a.m. to 08.00 p.m.
SAMSOE	650.32	130	08.00 a.m. to 08.00 p.m.		08.00 a.m. to 08.00 p.m.
SDSOS	650.32	130	08.00 a.m. to 08.00 p.m.		08.00 a.m. to 08.00 p.m.

4.2.3 Give details of the library holdings:

Table 4.3: Details of Print (books, back volumes and theses)

a) Print (books, back volumes and theses)

Particulars	SBM	MPSTME	SPPSPTM	BSSA	ASMSoC	SDSOS	SAMSoE
Books	51116	13520	7447	2255	2835	1033	1145
Back Volumes	1874	491	369	214	-	-	-
Theses	163	35	819	156	-	10	-

Table 4.4: Average number of books added during the last three years

Particulars	SBM	MPSTME	SPPSPTM	BSSA	ASMSOC	SDSOS	SAMSOE
2014-15	342	1490	265	216	86	33	25
2015-16	1040	1024	238	144	1593	226	257
2016-17	847	518	139	263	392	144	312
Average	743	1010	214	208	690	134	198

b) Average number of books added during the last three years

Table 4.5: Non Print Resources (Microfiche, AV)

c) Non Print (Microfiche, AV)

Particulars	SBM	MPSTME	SPPSPTM	BSSA	ASMSOC	SAMSOE	SDSOS
AV	1673	884	380	56	-	13	-

Table 4.6: Electronic (e-books, e-journals) Resources

d) Electronic (e-books, e-journals)

Particulars	Nos.
E-Books	139194
E-Journals	45326

159

Table 4.7: Special collections

e) Special collections (e.g. text books, reference books, standards, patents)

PARTICULARS	SBM	MPSTME	SPPSPTM	BSSA	ASMSOC	SAMSOE	SDSOS
HBSP Cases	655 (2015-16)	16 (2015-16)	-	-	-	-	-
Management Games	23	-	-	-	-	-	-
Standards	-	245	8	4	-	-	-
Pharmacopoeias & Formulary			25 Titles 189 Volumes				
Ref. books from Piramal Life sciences			47 Titles 48 Volumes				
Study Tour Drawings/Reports	-	-	-	15/12	-	-	-
Urban Designs	-	-	-	26	-	-	-
Product catalogues	-	-	-	141	-	-	-
Students' Portfolios	-	-	-	72	-	-	-
Students' Models	-	-	-	32	-	-	-
Students' Project Reports	878	-	277	25	-	-	87
Research Compendium (SAMSoE)	-	-	-	-	-	5	-

f) Book Banks – No
g) Question Banks - No.

4.2.4 What tools does the library deploy to provide access to the collection?

- OPAC - Available to library users globally through Internet. We also provide real time availability of library books. Users can access our sister institute library's collection through Union OPAC.
- Electronic Resource Management package for e-journals: Through Blackboard, users can access e-journals globally.
- Federated searching tools to search articles in multiple databases – No
- Library Website – Library webpage is part of Institutional website.
- In-house/remote access to e-publications – Both facilities available through EzProxy.
- SuperNova Magnifier & Screen Reader Software for visually challenged users is installed in central library.

4.2.5 **To what extent is ICT deployed in the library? Give details with regard to:**

- Library automation – Fully automated with **Libsys7** software and all modules are used to provide effective services to the users. Library has implemented **BARCODE TECHNOLOGY** for smooth functioning.
- Internet band width speed- 100 MBPS
- Institutional Repository- Available through Blackboard
- Content management system for e-learning- Question papers and syllabus are uploaded on Blackboard.
- Participation in resource sharing networks/consortia (like INFLIBNET) – Participating through Shodhganga (INFLIBNET) and DELNET membership (MPSTME)

Table No. 4.8: Library ICT

Particulars	SBM	MPSTME	SPPSPTM	BSSA	ASMSOC	SAMSOE	SDSOS
Computers	48	6	11	4	8 PCs + 20 laptops	8 PCs + 20 laptops	8 PCs + 20 laptops
Printers	4	3	2	3 (2 plotter Printers)	2	2	2
Barcode scanner	2	2	2	1	2	2	2
Scanner	3	1	1	1			
Lamination machine		1			1	1	1
Photocopy	1		1	1			
Climatology Equipment				1			

4.2.6 Provide details (per month) with regard to:

Table 4.9: Library usage:

Particulars	SBM	MPSTME	SPPSPTM	BSSA	ASMSOC	SAMSOE	SDSOS
Average number of walk-ins	6873	5352	1893	569	2318	166	236
Average number of books issued/returned	939	1223	598	576	38	11	31
Ratio of library books to students enrolled	16:1	4:1	12:1	10:1	2:1	5:1	7:1
Average number of login to OPAC	2456	1149	174		150	94	116
Average number of login to e-resources/ Average number of e-resources downloaded/printed	50165	10528	18633		966	740	772

Table 4.10: Average number of books added during the last four years

Particulars	SBM	MPSTME	SPPSPTM	BSSA	ASMSoC	SDSoS	SAMSoE
2012-13	765	535	441	225	158	124	120
2013-14	790	1049	412	300	124	70	58
2014-15	342	1490	265	216	86	33	25
2015-16	1040	1024	238	144	1593	226	257
2016-17	847	518	139	263	392	144	312
Average	**757**	**923**	**299**	**230**	**471**	**119**	**154**

- Number of IT (Information Technology) literacy trainings organized (Last 3 Yrs.)
- Central library conducted Libsys7 training every year
- Trainings by Database Vendor:

Year	No. of Trainings
2014-15	4
2015-16	3
2016-17	2

Table 4.11: Library Resource Details

▪	Manuscripts	No
▪	Reference	Active reference desk available for user queries & assistance in accessing databases.
▪	Reprography/Scanning	Available in all Institutes.
▪	Inter-library Loan Service	ILL service is followed amongst all the schools of NMIMS. Other ILL Services: SBM – British Council Membership. BSSA – Kamla Reheja, Rachana Sansand, Urban design research Institute
▪	Information Deployment and Notification	Provided to students & faculty through Email & Blackboard – Current Content Service (Fortnightly) and New Arrivals (Monthly)
▪	OPAC	Available globally - union catalogue of 21 NMIMS/ SVKM Institutions.
▪	Internet Access	Internet access available through Wi-Fi
▪	Downloads	Downloads from all the databases as well as internet is allowed.
▪	Printouts	Available.
▪	Reading list/ Bibliography compilation	Provided as per the requirement of faculty & students.
▪	In-house/remote access to e-resources	In-house as well as remote access to e-resources is available to all students/faculty.
▪	User Orientation	At NMIMS we are practising rigorous user orientation / information literacy programs. All the schools organize orientations for all the new batches at the starting of the course. Apart from this we provide personal/ group orientations as & when required.
▪	Assistance in searching Databases	Active reference help desk.
▪	INFLIBNET/IUC facilities	Available through Shodhganga.

- Orientations for use of library resources conducted by schools:

Table 4.12: Details of Library Orientations

Particulars	SBM	MPSTME	SPPSPTM	BSSA	ASMSOC	AMSOE	SDSOS
2013-14	20	4	8	1	5	3	2
2014-15	24	15	8	1	8	4	2
2015-16	30	21	10	1	12	5	2

4.2.7 Give details of specialized services provided by the library with regard to online data bases.

Ezproxy: It is a remote access platform. It converts the URL of the subscribed databases in to proxy URLs, using which the faculty and students can access the online databases across the globe.

4.2.8 Provide details of the annual library budget and the amount spent for purchasing new books and journals. (Amount in Rs.)

Table 4.13: Annual library budget

Particulars	2013-14 Library Budget	2013-14 Amount Spent	2014-15 Library Budget	2014-15 Amount Spent	2015-16 Library Budget	2015-16 Amount Spent
SBM						
Books	20,00,000	7,68,849	20,00,000	1,49,837	20,00,000	5,70,472
Periodicals	30,00,000	6,73,574	30,00,000	5,10,127	20,00,000	5,96,427
MPSTME						
Books	20,00,000	8,62,307	22,00,000	12,08,655	22,00,000	9,28,006
Periodicals	20,00,000	6,54,794	22,00,000	6,87,952.5	22,00,000	6,52,661.5
SPPSPTM						
Books	10,00,000	3,83,376	8,00,000	4,28,175	4,00,000	1,30,702
Periodicals	6,00,000	1,15,042	5,00,000	1,12,981	2,00,000	1,08,529
BSSA						
Books	13,00,000	5,68,664	13,00,000	4,12,673	9,00,000	2,84,288
Periodicals	5,00,000	70,218	5,00,000	66,187	4,00,000	1,65,719
ASMSOC						
Books	5,00,000	65,991	5,00,000	49,901	5,00,000 (Budget provision made)	12,75,219
Periodicals	50,000	-	50,000	-	50,000	11,768
SAMSOE						
Books	8,00,000	66,592	5,00,000	38,915	5,00,000	2,93,062

163

Particulars	2013-14 Library Budget	2013-14 Amount Spent	2014-15 Library Budget	2014-15 Amount Spent	2015-16 Library Budget	2015-16 Amount Spent
Periodicals	3,00,000	49,267	3,00,000	38,110	3,00,000	24,205
SDSOS						
Books	5,00,000	1,47,841	5,00,000	86,441	5,00,000	2,97,845
Periodicals	7,00,000	6,44,040	7,00,000	-	12,00,000	4,40,588

4.2.9 What initiatives has the university taken to make the library a 'happening place' on campus?

- **Infrastructure**: Well maintained, centrally carpeted with Wi-Fi facility in every corner of library.
- **User Orientation:** The Library organizes user orientation at the beginning and during the year. In this a detailed session is taken on the Library services, facilities and activities. Users are also trained how to use the online resources.
- **Text Books distribution**: SBM, MPSTME, SPP SPTM distribute all prescribed textbooks for first year students for permanent use.
- **Management Development Programs / Library Conference:** Library organizes training programs for the staff and Management Development Programs (MDP)/ **Library Conference** for the Librarians. Since 2004 library has is organizing MDP's for library professionals.
- **Library Staff Training Program:** To improve the skills of working staff, conducting training programs.
- **Library Software-Libsys7Training:** Frequently conducting training program of library automation software Libsys7 at all levels.
- **Librarians' Day:** Every year 12th August is celebrated as National Librarian's Day in India. At NMIMS we are celebrating National Librarian's Day event for SVKM and NMIMS library professionals.
- **Library Internship Programs:** Library also has internship program wherein the student studying in the library science school comes to NMIMS for 3-8 days to study the library functions and processes. The students are exposed to practical knowledge.
- **Book Exhibitions:** Conducting book exhibitions.
- **Author Talk:** Authors are invited to deliver lecture to students.
- **Launch of Smart Book:** Recently had an event of releasing smart book.
- **Book display** showcasing topic wise collections from library stock.
- **Library Membership**: All admitted students, faculty members and staff of the institute are by default member of library.
- **Happy Reading**: Reading facility, home lending, TOC, new arrivals, Inter library loan and reservation facility provided to cultivate a lifelong reading habit of the student's community
- **Access to video lectures**: Access to all IIT's and IISc Bangalore lectures through NPTEL
- **Institutional Memberships**: Users can access British council library, IIT
- **In-house & remote access**: to various electronic resources through EzProxy server globally

- Follow **open access** system to easy flow of information
- **Regular updating of library collection**: Regularly check trade catalogues to procure new editions and titles to update library collection.
- **Quick reference desk**: Search strategies and complex information search from e-resources are supported by the experienced library staff
- **LED Display:** (SPPSPTM)
- **Display**: of Installations designed and crafted by students, study models and architectural models (BSSA)

4.2.10 What are the strategies used by the library to collect feedback from its users? How is the feedback analyzed and used for the improvement of the library services?

Library frequently conducts online surveys with user community. One such survey was on e-resources, and the other was on reasons for usage of library services by students. The details of these surveys conducted in 2016 are shown in Table 4.14.

Table 4.14: Details of Surveys

Criteria	Adequacy	Coverage	Availability
Very Good	50	52	62
Good	93	92	77
Satisfactory	17	16	21
Poor	0	0	0

The suggestions/complaints made by library users are always taken into consideration and acted upon from time to time. Relevant matters are put in library committee meetings for advice. As stated, User Survey is conducted amongst library users through online questionnaire. Some of the measures taken to improve library services recently are:
1. Increase in number of Spike guards.
2. Increased space for reading newspapers and other reference material in library reference area.


Figure 4.1: Online user satisfaction survey with e-resources collection

3. Regarding books entitlement at home - During Trimester system students home issue entitlement were 2 books. It changed to 3 books when Trimester pattern changed to Semester.

Feedback/ Suggestions are analysed and commented by Library Committee.
Forwarded to higher authorities. Some action taken is as below-
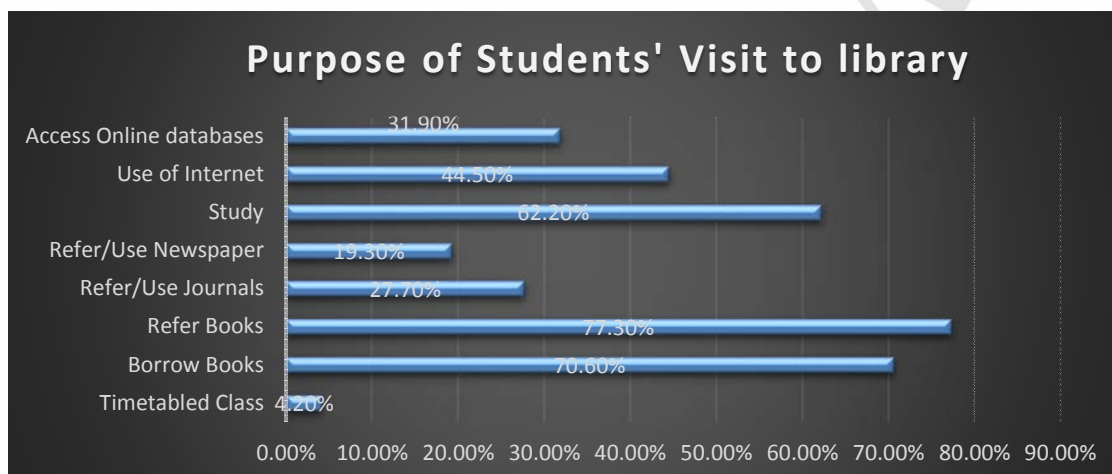
Figure 4.2: Purpose of students' visit to Library

4.2.11 List the efforts made towards the infrastructural development of the library in the last four years.

To cater to the ever-growing needs of the students and faculties there is a library committee in place, which periodically reviews the infrastructural and academic requirements. During the assessment period the library has made many efforts to improve infrastructure facilities. As a result of these efforts many new facilities are added in the library.

Table 4.15: Infrastructural Facilities

Schools	2012-13	2013-14	2014-15	2015-16
SBM	Library Automation with Libsys7	Central Server for Databases, Introduced EzProxy	Shifting of Library to new premises	Digital Library, CC TV Surveillance
MPSTME	Library Automation with Libsys7	Installed new Cisco intercoms, Introduced EzProxy	Installed additional Wi-Fi access device	Installed high definition surveillance cameras for library users' security.
SPPSPTM	Library Automation with Libsys7, CCTV installed	HP Scanner, LED TV, Introduced EzProxy	-	8 Steel Book cupboards (with glass)
BSSA	Library Automation	Introduced EzProxy	-	Plotter Machine updated.

Schools	2012-13	2013-14	2014-15	2015-16
	with Libsys7, Plotter Machine installed			
ASMSOC	Library Automation with Libsys7, Installed two PCs in library	Power plug points increased, Introduced EzProxy	Book shelves increased, fire extinguisher installed	Renovation of Library
SAMSOE	Library Automation with Libsys7, Installed two PCs in library	Power plug points increased, Introduced EzProxy	Book shelves increased, fire extinguisher installed	Renovation of Library
SDSOS	Library Automation with Libsys7, Installed two PCs in library	Power plug points increased, Introduced EzProxy	Book shelves increased, fire extinguisher installed	Renovation of Library

4.3   IT Infrastructure

4.3.1   Does the university have a comprehensive IT policy with regard to

- IT Service Management: Yes, we have Manage Engine tool for Service Desk. The University uses Manage Engine's Service Desk system for logging all the IT related calls/incidents. This Helpdesk System is integrated with Active Directory. Hence, every user within NMIMS has access to the system. The calls are registered through mails, phones and portal respectively. End users are encouraged to make use of this system. Helpdesk Executive assigns the calls to the Desktop Engineers who in turn close the call when it is resolved. Desktop Engineers attend and close the calls within the respective time frame and if they face any issue then they escalate the same to the concerned parties (in coordination with Helpdesk Executive).

- Information Security: Yes, we do have access management system

- Network Security: Yes, IDS, ACS, IPS implemented. We have implemented Fortinet Firewall, where we have created Group based access, i.e. Faculty, Staff and management. ACS- Access control system is part of same, policy based access. IDS- Intrusion detection system, IPS – intrusion prevention system is feature of Security Firewall, all these helps in securing network across campus.
- Risk Management: Implemented Forti Analyser, which helps in monitoring web traffic. We carry out VAPT Audit – Vulnerable Assessment and Penetration Test, this will help to strengthen our IT infrastructure setup, improve security level and risk mitigation audit. Symantec Antivirus Suit implemented across campuses.

- Software Asset Management: We have Manage Engine service desk plus, enterprise edition – toll to manage entire life cycle of all incidence/tickets/calls on daily basis. End user can log a call thru' web based/telephony/mail based, which will be serviced in a given stipulate SLA. Asset management, Software management is part of this. We maintain CMDB – Configuration and Management DB, across campus. Various MIS reports can be generated from this to measure IT service delivery.
- Open Source Resources: Linux based system
- Green Computing:We have many applications moved on cloud computing, e.g. our organization Email System.Migrated our Email solution on Office 365, on Microsoft Cloud. Migrated and consolidated our Websites on Managed service on cloud. Blackboard learn is also cloud based web application. Our online Admission portal is thru' SAP on web based application.

4.3.2 Give details of the university's computing facilities i.e., hardware and software.

Hardware

Table 4.16: Details of Hardware (1772 computers & 326 Laptops)

Model	Configuration
HP ProOne 400 AIO	Core i3, 4GB Ram, 500 GB HDD
HP Compaq 6200	Core i3, 4GB Ram, 500 GB HDD
HP Compaq 6300	Core i3, 4GB Ram, 500 GB HDD
HP Compaq 4300	Core i3, 4GB Ram, 500 GB HDD
Dell OptiPlex 3010	Core i3, 4GB Ram, 500 GB HDD
Dell OptiPlex 3020	Core i3, 4GB Ram, 500 GB HDD
Dell OptiPlex 390	Core i3/i5, 4GB Ram, 500 GB HDD
Dell OptiPlex 3030 AIO	Core i3, 4GB Ram, 500 GB HDD

Software

Windows Operating System 7/8
MS Office 2010/2013
Symantec Antivirus
Adobe Creative Suites
Corel Draw
MS Visual Studio 2010
Academic softwares

- Number of systems with individual configurations: 3000+ for university, All-in-One, Core i3, 8Gb, 1TB
- Computer-student ratio: 1:5. Over and above, students have their own laptops. In the School of Architecture the Institute provides laptops to the first year students.
- Dedicated computing facilities (multiple computers LABs for students, 10+ labs facility)
- LAN facility (Entire campus is connected thru' LAN, even other campuses are connected on Extended LAN thru' MPLS)
- Proprietary software (No)
- Number of nodes/ computers with internet facility (All PCs are connected on LAN and internet, we have BYOD concept, where all students are connected

168

via Wi-Fi)

- Any other: Implemented Cloud Learning Management System (Blackboard), Anti-plagiarism software (Turnitin), VMWare for server consolidation, Video conference facility across campuses, all classrooms are with Audio Visual facility, Entire campus is Wi-Fi enabled. Bloomberg Lab for Finance students is developed with 12 terminals, Bombay Stock Exchange Lab, etc.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

We have policy to retire 5 years old assets like PC, laptops, printers, etc. We have moved on Manages Print service to optimize usage of printing. Migrated from Digital telephony system to IP telephony system. All campuses are with Wi-Fi facilities. Upgrading all PC and laptops with latest OS and necessary patches.

The University has a central IT department. A Director and two Deputy Directors along with a team of 20 members are deployed to maintain and upgrade the IT infrastructure and associated facilities on a continuous basis. However, in the last 5 years, some of the strategies implemented with respect to IT are given below:

- All classrooms are with AV/VC facility
- Video conferencing setup for dedicated classrooms
- WebEx Facility to conduct classes
- Entire campus and all locations are with Wi-Fi facility & IP telephony system
  Web Sites are consolidated and hosted on cloud, using Green cloud services
- Call centre setup done for NMIMS University
- Implementation of ERP system (SAP) in Purchase, HR, Student Life Cycle, Admissions, Examination and Finance
- Installed 3M security gates at the entrance of stacking room
- Installed CCTVs in reading room for vigilance
- Terminals for OPAC search for users
- Wi-Fi enabled campus
- Having number of online e-journals in addition to local and international software for study purposes
- All faculty members have official e-mail ids on the domain as well as on exchange server
- The University website contains updated information regarding all faculty
- There is sufficient bandwidth for online search
- Students can also use the computer centre in the campus
- All faculty members and staff have the latest desktops with 10/100 MBPS LAN connectivity and high speed internet connection. During special events, the bandwidth is increased according to their needs.

In last 5 years, following development or changes have happened in IT infrastructure for NMIMS University.
For all above setup, we have spent approximately Rs. 8.56 Cr.

4.3.4 **Give details on access to on-line teaching and learning resources and other knowledge and information database/packages provided to the staff and students for quality teaching, learning and research.**

The University has purchased licences of Blackboard, which is an online Learning Management System. Blackboard tools are used to engage, collaborate, grade, track assignments, etc. Faculty members can reach students effectively to ensure they are interacting with the content and curriculum in the most effective ways. Ex PHARM software from Elsevier is used by pharmacology department for practical simulation.

4.3.5 **What are the new technologies deployed by the university in enhancing student learning and evaluation during the last four years and how do they meet new / future challenges?**

Considering the needs of the millennial students and their inclination to student-centric learning, the University has adopted several new technologies to enhance the learning as well as evaluation methods. The Blackboard Learning Management System (BBLMS) is a backbone of all the academic processes at NMIMS. Several features of the Blackboard enable enhanced learning and evaluation. Faculty members can use blogs, collaborative learning, Youtube content and other learning material available as freeware as well as copyrighted. Faculty members also use several features like blogs and discussion boards to help the students in collaborative learning. These facilities are available to the students even on their smart phones thereby providing a virtual 24x7 access to online learning. In addition, the University has also signed up for online learning resources like NPTEL. Faculty members also use blended learning tools for several courses for which they have been trained by the National Projects implemented through IITs. Students upload their assignments on the Blackboard on the basis of which the faculty members conduct quizzes, tests, etc. to evaluate. With this, the conventional method of writing journals has been completely eliminated. The laboratory sheets describing the equipment, procedure, etc. has also been uploaded on the Blackboard and the student only has to conduct the experiment, calculate the results and present the conclusions.

The Blackboard also offers online tests which also generates grade sheets at the end of the test. The use of Blackboard has transformed the entire teaching-learning and evaluation process. The students are also encouraged to undergo courses available on MOOCs platform and online learning courses offered by several agencies like Coursera.

To facilitate the use of modern technology, each classroom can be converted in to a virtual classroom with a well type arrangement to facilitate interactive learning. The classrooms are having state of the art facilities with well designed acoustics and sound proof classroom.

4.3.6   What are the IT facilities available to individual teachers for effective teaching and quality research?

Dedicated Laptop/PC or iPads, Digital smart interactive boards are available in each classroom. In addition, the faculty is also provided with AIOs / laptops in their area of sitting. The faculty can also access online resources through their homes by using EZProxy software.
Classrooms are fully furnished with LCD/OHP/Computers/Aruba Wi-Fi routers.

4.3.7   Give details of ICT-enabled classrooms/learning spaces available within the university? How are they utilized for enhancing the quality of teaching and learning?

Black board is a tool for presentation, assessment, lecture delivery, sharing learning material, Assignment. Each classroom has Wi-Fi, Projector and AV system with internet connection for lecture delivery. Video conferencing across campus for eminent speaker from industry is provided. Web-Ex for School of Distance learning for lecture delivery. Smart interactive boards for Executive / PG programs and MDPs – (Management Development Programs).

4.3.8   How are the faculty assisted in preparing computer-aided teaching-learning materials? What are the facilities available in the university for such initiatives?

Every faculty member is provided with latest desktop PC. Every classroom is provided with Audio Visual facility. The School of Business Management has introduced Smart Board Technology. The faculty members have access to Harvard and ECCH case studies. The School of Engineering has labs like Accenture Lab, EMC^2 and Bosch Automation Lab where latest technology including Robotics have been introduced to give first -hand experience to the faculty and students. A group of faculty members were sent to Germany to get trained and in turn the faculty members have started training not only the students, but also the staff of companies like L&T. In the School of Architecture, courses which enhance skill building in students like graphics skill enhance, sustainable construction and structures, installation techniques, design of emergency shelter in natural catastrophic situations like floods and earthquakes are imparted using latest software. The School of Science has introduced B.Sc. Statistics where analytics using latest tools (SAS tools) are being taught and the students are able to get themselves internationally certified which helps them get live projects during their undergraduate course. The School of Pharmacy has software of Schrodinger series which helps students to get hands-on training on Computer Aided Drug Design and the other pharmacokinetic parameters related to drug discovery. The School is also well-equipped with many in-vivo simulation software which help in teaching and learning. In addition to all these, the University has an enriched archive of databases and e-learning resources which help faculty and students being abreast with the latest research in their own domain.

4.3.9 **How are the computers and their accessories maintained?**

We have an in-house team of IT engineers who share the responsibility of maintaining the computers and their accessories. There is a Manage Engine tool through which the faculty and staff can log a complaint which is viewed by the helpdesk. These complaints are resolved as per the Service Level Agreement (SLA) defined by the IT head. As soon as the call has been attended and resolved, a report is generated which gives details like number of calls attended and resolved within given SLA. If the problem is not resolved, it is then escalated to the next level, which is then dealt within a stipulated period of time. A separate budget is allocated for the same.

4.3.10 **Does the university avail of the National Knowledge Network connectivity? If so, what are the services availed of?**

Yes, the University avails the National Knowledge Network connectivity. A bandwidth of 1GBPS connectivity from MTNL is availed for the same. Courses/webinars are made available to students from institutes of national repute like IIT through NPTEL.

4.3.11 **Does the university avail of web resources such as Wikipedia, dictionary and other education enhancing resources? What are its policies in this regard?**

Yes, the University avails web resources.
Policy to avail web resources: For paid e-resources/ research databases, after user recommendations, library arranges trial access of respective database / takes feedback from the users and the same is discussed in Local Library Committee meeting for its content and relevance. Once it is approved by authorities, library subscribes to these databases and gives access through EzProxy and Black Board.

Users directly get access through institute Wi-Fi to freely available resources such as Wikipedia, dictionary, etc.

4.3.12 **Provide details on the provision made in the annual budget for the update, deployment and maintenance of computers in the university.**

There is a provision in the annual budget for upgradation, deployment and maintenance of computers. The University extensively uses IT facilities in all its functions ranging from admissions, to academics to examinations, to teaching and learning. The budget for the last year was around Rs. 10 crores.

4.3.13 **What plans have been envisioned for the gradual transfer of teaching and learning from closed university information network to open environment?**

University has envisioned the importance of implementing the concept of virtual classroom. NMIMS has Blackboard technology which helps students connect to the teacher beyond the classroom. There are features which help

students to create discussion forum and also submit assignments.

NMIMS has also configured few classrooms with all facilities for video conferencing. Connectivity through WebEx is a regular feature used in the University. Faculty members are encouraged to select courses offered on open platforms to supplement their classroom input.

4.4   Maintenance of Campus Facilities

4.4.1   Does the university have an estate office / designated officer for overseeing the maintenance of buildings, class-rooms and laboratories? If yes, mention a few campus specific initiatives undertaken to improve the physical ambience.

Yes, SVKM's NMIMS has an Estate/Maintenance office and a designated staff to oversee the maintenance of buildings, class-rooms and   laboratories.
1.   Beautification of buildings.
2.   Proper car parking areas & seating areas for students.
3.   Well maintained class rooms.
4.   Planting of artificial trees & shrubs.
5.   Emergency Maintenance Vehicles
6.   Excellent canteen.

The University is maintained through an outsourced maintenance agency.

4.4.2   How are the infrastructure facilities, services and equipments maintained? Give details.

The housekeeping & security services have been outsourced and are supervised by maintenance and Administration Department of SVKM's NMIMS. AMC of all mechanical equipment (Lift, AC, water purifier, firefighting systems etc) are out sourced and supervised by maintenance team. Maintenance of infrastructure & equipment is under maintenance and administration department.

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1   Student Mentoring and Support

5.1.1 Does the university have a system for student support and mentoring? If yes, what are its structural and functional characteristics?

Faculty members provide counselling and advice to all students. A well-structured **faculty-student-mentoring system** is in place. Every faculty member has 6-8 students assigned for mentorship each year. Faculty members provide regular counsel and assistance to students on academic matters, research, projects and study planning. They assist them in course selection and advise students to ascertain reasonable and achievable academic and career goals. Faculty members assist students to participate in various competitions and contests some of which lead to placements. Apart from individual mentoring that is available by every faculty member, the University has in place 'Placement Cell' that helps students in the process of identification of right prospective profile/company and the efforts needed to attain their perspective career objectives.

The mentoring of the students start right from the Orientation on day – 1, where the vision and mission of the school and their respective programs are shared with them. The officials of various departments are introduced so that they are clear about whom to approach for specific purposes.
Besides this there is a University Counsellor who is easily accessible to all the students for their psychological issues.

Responsibilities of a mentor
To carry out the following -
- Meet the students assigned to you at least once a week.
- Discuss their activities / issues related to academics as well as extra-curricular activities.
- Inform the Chairperson / HOD the problems, if any.
- Counsel the students so that they do not feel neglected.
- Make the student understand about his/her responsibilities in the school.
- Inculcate a sense of belongingness and pride within the student.
- Bring to notice of the Chairperson / HOD if any good suggestion is put forth by the student.
- Identify the strengths and weaknesses of the student and keep a record for reference.
- If required, give feedback to concerned teachers after discussion with the student.
- Identify the kind of peer pressure.
- Encourage brainstorming discussions.
- Encourage students to self-evaluate.
- Tell students exactly what the school expects them to do, and make sure that student requirements and 'ground rules' are properly adhered to.
- Monitor the overall performance of the student.
- A monthly mentor report has to be submitted to the office.

In addition to the above, University has its system of involving corporate executives and alumni in the mentoring process.
Annexure 5.1: Alumni Mentoring-Lead The Way

5.1.2 Apart from classroom interaction, what are the provisions available for academic mentoring?

Non-classroom activities have a significant role to play in student learning and development. NMIMS belief is that non-classroom activities should be given as much weightage as classroom learning. The non-classroom activities help in developing collaborative learning, team working and leadership skills. Some of the major non-classroom activities undertaken under faculty guidance are participation in contests and challenges organized by companies and organizations like L'Oréal, KPIT, CFA Institute USA, Google and NASA. In addition to these, students also participate in debates, Moot Court, Paper Reading and events organized at the city level like Kala Ghoda. All these events are mentored by the faculty.

Various associations like E-Cell, Corporate Interaction Cell and DebSoc provide lot of learning for students with panel discussion, MUN, Business Plan Presentation at the school level.

5.1.3 Does the university have any personal enhancement and development schemes such as career counselling, soft skill development, career-path-identification, and orientation to well-being for its students? Give details of such schemes.

The University has adopted multipronged approach for student development. Some of the major initiatives are given below:

Soft Skill Development: By 2012 it was apparent that one of the most important skills which were getting ignored specially in Science and Engineering programs were soft skills. Even the various studies done by industry chambers like FICCI and CII had pointed out this deficiency among the engineering graduates.

Management graduates were found to be lagging in the skills of conceptualization, problem solving and decision making, execution and interpersonal skills. A study on Management Education by Srikant M. Datar, David A. Garvin and Patrick G. Cullen at the Harvard Business School mentioned that the management students were found lagging in the above mentioned skills.

In response to these studies, initiatives at the curriculum and pedagogy level were taken by NMIMS. In the Business School for example, the communication module now included OralCommination, Managerial Written Communication and Negotiations. Also corporate etiquette workshops are organized for the management students.

The soft skill module offered to Science, Pharmaceutical Science, Engineering, Architecture and undergraduates at Commerce and Economic have inputs in the areas of Communication, Written Communication, Presentation andresume writing.

175

Career-path-identification and orientation: Industry leaders, guest speakers from the industry and career counsellors are invited by NMIMS to prepare students for different roles. The Business School organizes each year events like Paragana and Industry Business School Summit. For both these events, industry leaders are invited to share their experiences. Also they orient the student community to the changes occurring in the workplace, future of job and the new skill set required by the industry.

NMIMS also invites Alumni to council students on what to expect in the industry and the career. They often share their stories. NMIMS also has specialized sessions on resume writing and preparing for personal interview.

Aptitude test is conducted for the engineering students. This helps in council and preparing students for different roles in the industry.

5.1.4 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?

Yes, The University has a tie up with various banks for assisting with educational loans. The details are also displayed on NMIMS website.

5.1.5 Does the university publish its updated prospectus and handbook annually? If yes, what are the main issues / activities / information included / provided to students through these documents? Is there a provision for online access?

NMIMS declares all the relevant information regarding the Schools, their departments, programs conducted, evaluation methods, faculty available in the Schools/departments etc. on its website for the benefit of students and parents.

It also has its brochure giving all the details such as History of NMIMS, Recognition and Achievements of different Schools of NMIMS, Faculty profile and Curriculum Development courses, Industry-Institute Partnership, International Collaborations, Student activities, Social endeavours, Infrastructure, Scholarships and information on off campuses.

On joining, students of various Schools are also given the Student Resource Book- a handbook which disseminates information regarding the academic calendar, course outlines of courses, examination guidelines and evaluation pattern, other than general rules and regulations of NMIMS. The SRBs also contain School-specific information. This is also uploaded on NMIMS website.

In Focus

Student Resource Book

The Student Resource Book is to guide students on rules and regulations of University. The student Resource Book is a vital part of the link between students and University. It has all information that students need for their effective and smooth interaction with the university and all the facilities within.

NMIMS ensure clarity and transparency in communication with student. The soft copy of Student Resource Book is given to all students. The same is also uploaded on NMIMS website and Blackboard. The Dean of the school and their team explains the contents of this book to all students during orientation program and also by visiting to each class thereafter. The students are encouraged to ask questions to clarify their doubts especially on Attendance and examination guidelines.

The Student Resource Book has been divided into three parts:

1. Part I - University information – Guidelines and Rules & regulation
2. Part II - School specific details for effective and smooth interaction with the school
3. Part III - Annexures.

The broad areas covered in Student Resource Book are :

1. Academic Guidelines
2. Interdisciplinary offering of course
3. Examination Guidelines
4. Library Guidelines
5. Placement Guidelines
6. Use of Computing facilities guidelines
7. Resources available at NMIMs – Psychologist and a counselor/ Mentor
8. Feedback Mechanism
9. Interface with Accounts Department
10. Guidelines for Awards/ Scholarship/ Dean's List
11. Safety guidelines
12. Academic Calendar
13. Course structure
14. Student Exchange program
15. Various forms – Applying for Leave/ Student exchange program/application for migration certificate etc.

There is a Student Undertaking on the last page for students to submit to academic office which ensures that students have read the guidelines and understood its contents.

5.1.6   Specify the type and number of university scholarships / freeships given to the students during the last four years. Was financial aid given to them on time? Give details (in a tabular form) for the following categories: UG/PG/M.Phil/Ph.D./

Diploma/others (please specify).

In NMIMS, there is a Financial Assistance Scheme for full time students. Merit based assistance is given to students through a process of application and scrutiny. Every year scholarship of Rs. 25,000/- per month is provided to full time doctoral scholars. Tuition fee waiver (up to an extent of 25%) is given on a case to case basis by a committee appointed for a purpose.
Details of scholarships given to students are mentioned below:

Table 5.1: Details of Scholarships

Sr. No.	Categories	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16
		Rs.	Rs.	Rs.	Rs.
1	UG	8,10,000	7,56,000	8,56,000	-
2	PG	11,99,000	1870000	14,60,000	14000
3	Diploma	-	61000	80,000	-
4	Ph.D	-	900000	900000	900000
	Total	**20,09,000**	**35,87,000**	**32,96,000**	**9,14,000**

5.1.7 **What percentages of students receive financial assistance from state government, central government and other national agencies?**

The students of NMIMS have availed national scholarship under the below mentioned schemes. A total of 44 students have applied under these schemes in the last two years.
- Central Sector Scheme Of Scholarships For College And University Students - Department Of Higher Education
- Merit-Cum-Means Scholarship For Professional And Technical Courses Cs - Ministry Of Minority Affairs
- Post Matric Scholarship Schemes Minorities CS - Ministry Of Minority Affairs
- Prime Minister's Scholarship Scheme For Central Armed Police Forces And Assam Rifles

All the scholarships offered by UGC are available for students to apply. The students also apply for funds from sponsored trusts. Over and above, NMIMS University also gives scholarships on a case to case basis.

5.1.8 **Does the university have an International Student Cell to attract foreign students and cater to their needs?**

NMIMS has separate International office. NMIMS have active student exchange programs with many universities spread across Europe, USA and Australia. In 2016 we had hosted 23 students from different countries at our campus for semester abroad program through the exchange agreements. We have sent 15 students on semester abroad program form the Business School to Europe and USA.
Academic Collaboration: NMIMS School of business management has launched business analytics course in collaboration with University of South Florida from academic year 2015-16.

Masters abroad: Mukesh Patel School of Engineering and Technology Management(MPSTME) in collaboration with Stevens Institute of Technology offers a masters abroad program for selected undergraduate students.

Technology Incubation:MPSTMEis engaged with Tumour Trace LTD UK for technology incubation of a disruptive invention of Serbia University funded by United Nation Centre for Peace.

5.1.9 Does the university provide assistance to students for obtaining educational loans from banks and other financial institutions?

Yes, The University has a tie up with various banks for assisting with educational loans. The details are also displayed on NMIMS website.

5.1.10 What types of support services are available for
- **Overseas students**

  The following support services are available to overseas students.

  i. Airport pick up
  ii. Hostel accommodation if they wish to stay in hostel
  iii. Assistance in finding other accommodation
  iv. Orientation program
  v. Assistance in other day-to-day activities
  vi. Help provided to understand Indian culture

- **physically challenged / differently-abled students**

  A student who may have a permanent or temporary physical disability may apply to the Examination office of NMIMS for appointing a scribe for writing examinations. A grace period of time is allowed for such students for the examination. The university has well laid out policies for handling the examinations smoothly for such students. Also, the learning disability students are given permission to use a writer.

  Ramps have been provided. The library has special software, namely SUPERNOVA, for the visually challenged persons

- **SC/ST, OBC and economically weaker sections**

  All programs of NMIMS are open to students irrespective of their social or/and financial status. NMIMS is one of the institutions recognized by the Government of India for scholarships to SC/ST students. However, Diploma in Textile Technology course is offered at one of our campuses which is specially aimed at providing job oriented skills to the economically weaker sections in that area.

- **students participating in various competitions/conferences in India and abroad**

  For motivating the students to go abroad for taking part in various competitions, the University sponsors their travel and competition fees. Attendance waiver for students who represent the department / University is also considered as per the present policy by the Dean.

- **health centre, health insurance etc.**
  There are 2 doctors on available on campus during the day. Also, NMIMS University has a tie-up with Nanavati Hospital.

- **skill development (spoken English, computer literacy, etc.)**
  Soft skill is a part of the syllabus and it is made compulsory as a non-credit course. We have a communication department that caters to the need of all the departments. Placement department also conducts soft skills / workshops as an activity every year in every department.

- **performance enhancement for slow learners**
  Special efforts are made to bring slow learners in line with the rest of the students. Student-teacher interaction is given high priority on a day-to-day basis. There are mentoring programs for slow learners. Students of UG and PG have been assigned faculty mentors whose role is to help the slow learners. Students have interaction with mentors from time to time. Slow learners are also given personal guidance, tutorials and extra practical training.

- **exposure of students to other institutions of higher learning/ corporates/business houses, etc.**
  The department arranges for seminars and workshops every year which gives them an opportunity to interact with students of other institutes. They are also encouraged to participate in many national and international events.

- **publication of student magazines**
  Newsletters and magazines are managed by student groups in various departments. Spandan magazine is one such magazine which gives all the details of the events of the University.

5.1.11 Does the university provide guidance and/or conduct coaching classes for students appearing for Civil Services, Defence Services, NET/SET and any other competitive examinations? If yes, what is the outcome?

Students are assigned faculty mentors who provide guidance to students appearing for external examinations. This is in addition to facilitate intelligent choice making regarding selection of courses, help in identification of resources needed by all students. Students meet their faculty mentor regularly as per their convenience and availability.

5.1.12 Mention the policies of the university for enhancing student participation in sports and extracurricular activities through strategies / schemes such as:
- **additional academic support and academic flexibility in examinations**
- **special dietary requirements, sports uniform and materials ∗ any other (please specify)**

Though basically a professional University, NMIMS has been following a policy of encouraging students to participate in numerous sports activities. Adequate sports material is made available to them for playing their respective games. Sports- in- charge are appointed at various Schools.

At SBM, one week is especially dedicated to Sports – "Arcadia". It is an intra B-School event. Not only is everyone given a chance to participate but talent scouting is also undertaken during the event. The event gives everyone a fair chance to prove their mettle and gives an opportunity to represent the School in future events in a transparent manner. The Sports enthusiasts are given a lot of facilities to practice and fine-tune their talent.
To encourage Sports, a students and faculty Committee has been constituted in each School.

Every school has a budgeted amount which is spent on hiring the ground, buying sports accessories, participation entry fee and awards are given for intra-school competition.

5.1.13 Does the university have an institutionalized mechanism for students' placement? What are the services provided to help students identify job opportunities, prepare themselves for interview, and develop entrepreneurship skills?

The University has a dedicated placement cell which is responsible for pre and post placement activities
NMIMS facilitates employment to all the registered participants of its full time Programs. To groom students for placement, preparatory interview sessions are held regularly by the school alumni. To help student's placement, the placement office is at University level headed by Director of placements. There is also a dedicated placement office at each school headed by Deputy Director Placement along with executives having professional experience. A Committee comprising the officials from the Placement Office, Program Chairpersons & Faculty members select students across programs to form the Student placement committee. The student committee members assist in reaching out to companies & in the area of operations so that the entire placement process happens smoothly.   The Placement Office handles placements of the programs at their school.

 The Mission of the Corporate Relations and Placements Office is to facilitate and foster mutually beneficial relationships between the corporate world, students and the School, to build strategic partnership for internships and recruitments, to compete more effectively and to provide   opportunities for high caliber students. The Placement Office assists the full time students in internships and placements.

The Dean of the School chairs the placement committee, with program chairpersons and the administrative head of the placement department as members. Placement Guidelines are developed for Pre Placement Talk, Resume preparation for both first and second year students, Summer Internship and for final placement - Lateral and Executive Placements, Pre

placement offers (PPO) and Pre Placement interviews (PPI). The placement office of the School facilitates the process of placements by creating an interface between recruiters and students. Placement is an important activity for the Business school.
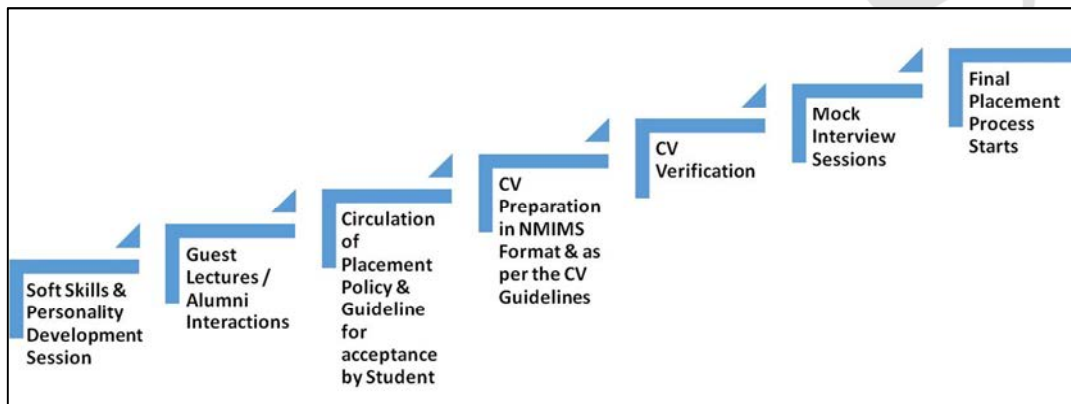
Figure 5.1: General process followed to support students before the start of campus placement process:
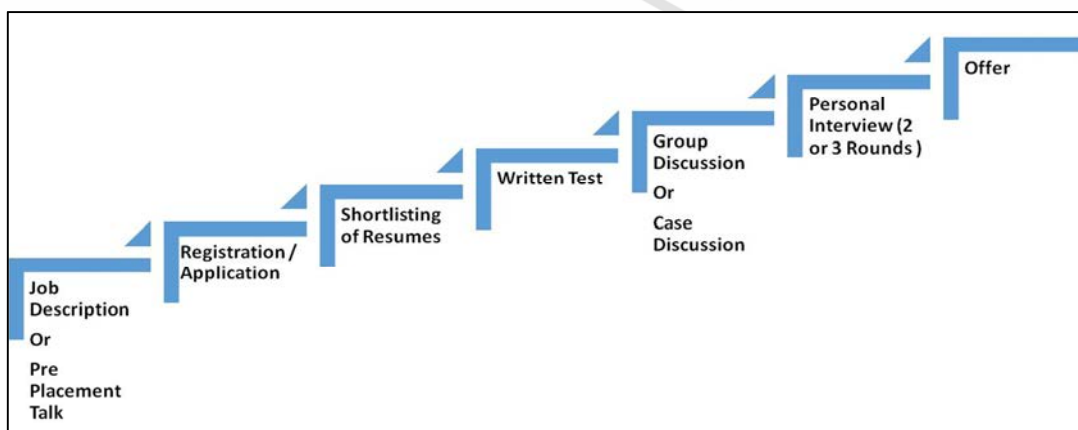

Figure 5.2: General process followed by Companies to select students

In addition to final placement, the placement cell also facilitates the students for summer internship, TIP (Technical Internship Placement), MIP (Management Internship Placement) the placement cell conducts various sessions like Campus connect, Campus to Corporate to groom them for the industry specific needs.
The placement cell conducts aptitude tests, group discussions and personal interviews so that the students are ready for the placement needs.

5.1.14 Give the number of students selected during campus interviews by different employers (list the employers and the number of companies who visited the campus during the last four years).
The figure below gives an overview of placements for various programs for the year 2015-16.
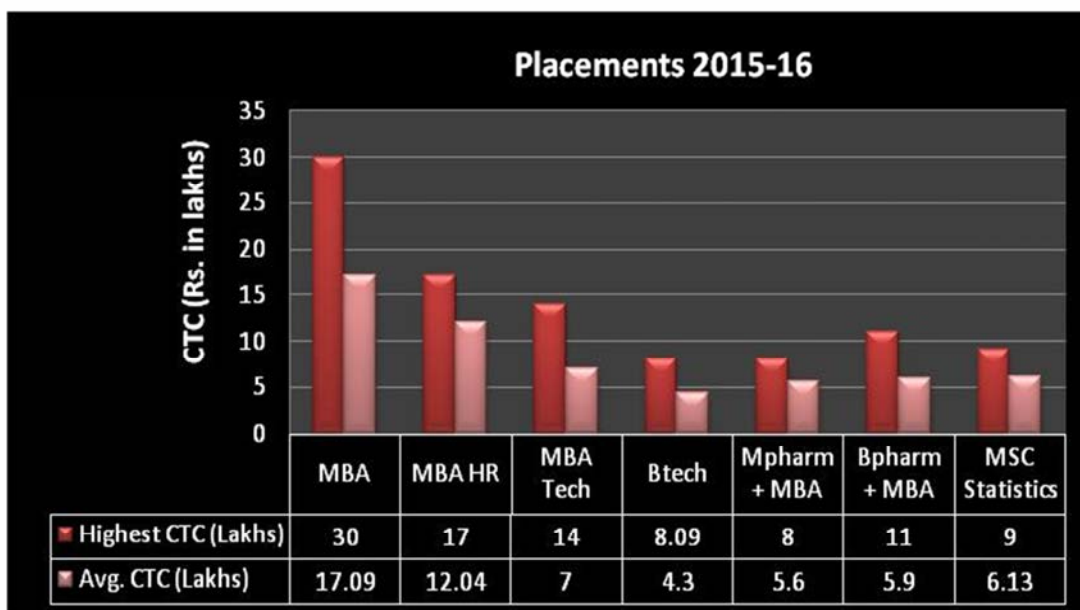
Figure 5.3: Placements 2015:16

Table 5.2: Placements

2015-16	Batch	Placed+ Opted Out
MBA	508	508
MBA HR	57	57
MBA Tech	335	319
Btech	407	393
Mpharm + MBA	51	51
Bpharm + MBA	70	70
MSC Statistics	25	25

Table 5.3: Some of the companies that visited the University for Final Placements are mentioned below:

- **School of Business Management:**

3 M	Credit Suisse	Hero MotoCorp	Loginext	Shell
91 Springboard	CRISIL	Honeywell	Mahindra Logistics	Shopclues
Abbott	Crompton Greaves	HPCL	Marico	Shortlist Professionals
Accelya Kale	Cummins	HSBC	Marsh India	Siemens
Accenture	D E Shaw	HT Media	Maruti	SNC Lavlin
Aditya Birla Fin Services	Dabur	Hughes Comm	MCKC	SocieteGenerale
Afcons	DBS	HUL	Media.net	Sony
Agrotech Foods	*DCM Sriram*	IBM	Metro Cash & Carry	Spandana Spoorty Fin
Amazon	D'décor	ICICI Bank	Michael Page	SRF
Amway	Deloitte	ICICI Pru AMC	Microsoft	SSA Global

183

Asian Paints	Directi	ICICI Securites	Mindtree	Standard Chartered
Aspiration Cleantech Ven.	Dr.Lal Path Lab	ICRA	MotilalOswal	Star Convonix
Assemblage Entertain	Droege Group	IDBI Capital	Mynd Solutions	Sun Pharma
ATC Tires	Dronahq	Idea	Nomura	Sutherland Global
Axis Securities	EMA Partners	IIFL	Novo Nordisk	Swadhaar Information
Bajaj Corp	EMC^2	Indus Valley	Paytm	*Syntel*
Bajaj Finserve	Emcure	Intellect Design	Perfetti	Takshashila Consulting
Barclays	EY	*Invesco*	Pidilite	Textron
Birla Sun Life	FeDex	IOCL	Piramal	Titan
BirlaSoft	Focus Adventures	IQR Consulting	Prime Focus	Tresvista
Bloomberg Quint	FRR Forex	ITC	Purple Talk	Vedanta
Britannia	Gartner	J P Morgan (CAU)	PWC	Virtusa Polaris
BSH Home Appliances	GE - CLP, FMP, DTLP	J P Morgan CDP	Quest Global	VITO
Cadila	Genpact	Janalakshmi	QwikpikTec (Yum Lane)	VMware
Capgemini	Givaudan	JLT	Raymond	Vodafone
Capillary Tech	Godrej & Boyce	Kotak Group	RBL	Welspun
Cartesian Consulting	Google	*KPIT*	RIL	Whirlpool
Casio	GS	KPMG	Safari	Wildcraft
CBC	Gulf Oil	L&T	SAP	Wipro
Cerebrus Consulting	HCCB	L&T LTT	SBI	WorldlineePayment
Cisco	HCL	L'Oreal	SBI Cap	Writer Information
Citi Group	*HCS*	LAVA International	Schneider Electric	Yes Bank
Colpal	HDFC Bank	LinkCXO	SecureNow	

- **School of Engineering and Technology Management:**

Alepo	Centrum	Hansa Research	Kotak Bank	Reliance Comm
Axis Bank	Crisil	HDFC Ltd	LG	Reliance JIO
Axis Risk Consulting	D & B	Hpe	Madison	Reward Port
Barclays	Daikin	ICICI Bank	M&M	S & P Global
BASF	Direct I	ICICI Securities	Mahindra Finance	Sapiens

BDO	DSP BlackRock MF	Idea	Mu Sigma	SBI Life
Berger	Edelweiss	IG Petrochemicals	Nielsen	Smollan
Bizongo	EY	Jaro Education	Odessa	TATA AIG
Capital First	Future First	JLL	Omkar Realty	Voylite
Cedar	Galaxy Surfactants	Johnson Control	Playsimple	Welspun
Reckitt Benckiser	Zycus			

- **School of Pharmacy & Technology Management:**

Alembic	GlaxoSmithKline	JnJ	Sequent
Aramuc	Glenmark	Jubilant Generic	Southside HC
Alkem	Grandview	Macleods	Shalina Healthcare
Cadila	Inzpera,	Meyer Organics	SundyotaNumandis
DHL Supply Chain	Quintiles	Neilsen	Torrent
Fab Tech	Kantar Health	Novo Nordisk	Zuventus

5.1.15 Does the university have a registered Alumni Association? If yes, what are its activities and contributions to the development of the university?

A dedicated NMIMS Business School Alumni Association is registered under section 25 of the companies Act, 1956 with the objective to promote fellowship, communication and cooperation among the alumni. Insights and Suggestions of the Alumni is taken during development of Curriculum, new trends in the industry, arranging Guest Lectures, Summer Internships and the Placement Season.

Be it Marketing, Finance, Capital Markets, Banking, Human Resources, Strategy Formulation or Information Technology, NMIMS through its vigorous learning environment and intellectual think tank of invaluable mentors has groomed its students to be the game changers that they are today. NMites are equipped with unwavering focus and proactive attitudes.

Some of the **distinguished Alumni** include the members listed below,

Ms.Kaku Nakhate, *President and Country Head, Bank of America,*
Ms.Aruna Jayanthi, Global *BPO Head, Capgemini,*
Ms.Avani Davda, MD*, Godrej's Nature Basket,*
Ms. Deena Mehta, *MD, Asit C. Mehta Investment Interrmediates Ltd. (1st woman director of BSE),*
Mr. Rajesh Relan, *Head, Bancassurance-Asia, Metlife Asia Limited,*
Mr. Vijay Chandok, *Executive Director, ICICI Bank Limited,*
Mr. Raghu Iyer, *CEO, Rising Pune Supergiants,*
Mr.Vikas Bahl, *Producer, Screenwriter and Director (Co-founder of Phantom Films and Director of the movie, 'Queen' and 'Shaandaar'),*
Mr. Kalpen Parekh, *CEO, IDFC Asset Management Company,*

Mr. Aashish P. Somaiyaa, *MD & CEO, MotilalOswal Asset Management Company,*
Mr. Nitin Rakesh, CEO *and President of Syntel, Inc.,*
Mr. Jagdish Mahapatra, Chief *of Channels & Alliances - Asia Pacific at Intel Security*

The Alumni cell has 15000+ Members all over the world. The alumni relation cell of NMIMS strives to strengthen ties between NMIMS and its esteemed alumni community. The cell has undertaken numerous initiatives to ensure that a strong bond is maintained between the institute and the alumni. The primary focus of the cell's activities is to foster effective alumni - institute interactions.

The cell conducts a plethora of activities every year like the Grand Alumni Meet, International Alumni Meet, The Alumni Chapter, A Round Table Conference, Coffee Meets and number of seminars and workshops. It releases e-newsletter every month called "Aluminous" and has strengthened the network with the alumni through various social networking platforms. The Alumni cell under the guidance of Alumni Association has launched "Lead the Way" a mentorship program with an aim to enhance the interaction of the alumni with students. On the occasion of the Grand Alumni Meet 2015, the cell launched Déjà Vu annual magazine.

The Alumni Cell invites speakers to share their experiences with the new batch of students every year during the orientation week. The cell involves the alumni in the admission process by having the alumni as panellists during the GD-PI process.
Business School Alumni continue to make news. Ms. Avani Davda the youngest CEO in India who became the CEO of Tata Starbucks was awarded Distinguished Alumnus Award by MBA Universe.com. Avani graduated from NMIMS in 2001. Capgemini named Aruna Jayanthi as its Global CEO.

In addition to this, Mukesh Patel School of Technology Management and Engineering, School of Pharmacy and Technology Management, School of Economics and school of commerce have alumni associations of their graduates. Each of them has a database of their students who graduated in the last few years i.e. from the time their first batch graduated.

5.1.16 Does the university have a student grievance redressal cell? Give details of the nature of grievances reported. How were they redressed?

NMIMS has the following Grievance Redressal Cells:
1) Grievances regarding evaluation
2) Women's Grievance Cell
3) Ombudsman
4) Anti-Ragging Committee
5) Grievance redressal Cell

Student's Grievance Redressal Cell:
- Dr. Meena Chintamaneni, Registrar – Chairperson & Member Secretary

- Dr. Paritosh Basu, Sr. Professor (Finance), SBM - Member
- Prof. Amita Vaidya, Associate Dean, SAMSOE - Member
- Mr. Anirudh Bhatt, Assistant Professor, SOL - Member
- Prof. Dhirendra Mishra, Assistant Professor (Mechanical), MPSTME - Member
- Ms. Pallavi Rallan, Assistant Professor, ASMSOC – Member
- Dy. Registrars concerned

Grievances regarding evaluation:
NMIMS has in place a mechanism of Redressal of grievances of redressed for the students regarding evaluation for the students. Under this mechanism, a student can obtain photocopy/ies (Rs.500/- per subject) of his/her answerbook/s. On receipt of the photocopy/ies, the student can put up his/her Grievance (Rs.1000/- per subject in which he/she has to specify clearly – question-wise – his/her points of objection to the evaluation done, with his/her justification. On receipt of the application, the same is placed before the 'Grievance Redressal Committee' (members of which are the Dean of the School and two subject experts). On-going through the application of the student and the answer book/s, the Committee makes specific recommendations in writing, whether the contentions of the applicant has any merit which justifies reassessment or otherwise. The decision of the Committee is final and binding on all concerned.   If the Committee is of the opinion, that reassessment is required, the related answer book/s is/are sent to an external examiner for revaluation. The marks awarded by such external examiner/s in revaluation are final and binding on the student applicant and the original examiner.
*Apart from this, th*e student can also apply for verification of his/her answer book (Rs.250/-) per subject in which only totalling of marks is verified.

Composition of the Exam grievance RedressalCell :
- **Mrs.Sangita Kher, I/C Dean, ASMSOC – Chairperson**
- Dr.ParitoshBasu, Sr. Professor (Finance), SBM – Member
- **Dr. V. Addepalli – Associate Dean & Sr. Professor – SPPSPTM**
- **Dr. Archana Bhise – Professor (EXTC) – MPSTME**
- **Mr. Sunil B.Mantri,Chief Administrative Officer, Sadhana Education Society and (Evaluation Expert nominated by the Chancellor)**

Women's Grievance Redressal Cell:
 There is SVKM's NMIMS University's Women Grievance Redressal Cell (Prevention of Sexual Harassment) constituted in 2009.The Central Govt. & State Govt.has given directions for the same, which have been included. The govt. has given directives and has been duly implemented in our bye laws.
These Directions extend and apply to all the students and employees of the campus, off-campus, schools, departments and faculties of SVKM's NMIMS University.   These directions also extend and apply to all the offices and authorities of the SVKM's NMIMS University. These directions also extend and apply to all the offices and authorities of the SVKM's NMIMS University.
These Directions will apply to all cases and/or complaints or allegations of sexual harassment (i) By a student against a co-student/ an employee (ii) By an employee against a student/ another employee, (iii) By a member of the management against a student or an employee.

187

These Directions will also apply in respect of all cases and/or allegations of sexual harassment (i) By a student, employee or a member of management against a third party or outsider (ii) By a third party or an outsider against a student, employee.

The committee is constituted in each school comprises of the Chairperson / Head of the department, one lady member (from faculty or staff), and two more members of the school. The committee address all related issues and recommend action to the Dean and the University. On approval by the Vice Chancellor appropriate action will be initiated by the school.

Women Grievance Redressal Cell:
- **Prof.SangitaKher, I/C Dean, ASMSOC - Chairperson**
- **Dr.Ketan Shah, Associate Professor and HOD, MPSTME – Member**
- **Ms.KarunaBhaya, Finance Officer – Member**
- **ShriNileshMohile, CAO, SVKM – Member**
- **Ms.SeemaRawat, Assistant Professor, SBM – Member**
- **Dr.MeenaChintamaneni, Registrar – Member Secretary**
- **Majlis Legal Center - NGO representative**

Ombudsman: An ombudsman is appointed as per AICTE regulations. The Ombudsman shall exercise power to hear grievances of those who are not satisfied with decision of NMIMS Grievance Redressal Committee. The Ombudsman would be required to dispose cases within one month of the receipt for speedy redress of grievances. On conclusion of the proceeding, the Ombudsman shall pass such order, with reasons for such order, as may be deemed fit to redress the grievance and provide such relief as may be desirable to the effected party. Mr. Justice S. S. Parkar has been appointed as Ombudsman at NMIMS University.

5.1.17 Does the university promote a gender-sensitive environment by (i) conducting gender related programs (ii) establishing a cell and mechanism to deal with issues related to sexual harassment? Give details.

Yes, the university has strict norms to address any instances of sexual harassments. The university has a dedicated cell which looks into the issues with utmost significance. Also, there is a special committee to cater to grievances specific to women.
Sexual harassment on campus or outside campus is unlawful, as well as unethical, and are not tolerated. All issues in this regard are dealt with utmost urgency and stringent action aretaken against those involved. As per high court order a committee has been formed to look into all such complaints.
Sexual Harassment Internal Complaints Committee:
1. Prof. Sangita Kher, I/c Dean, ASMSOC– Chairperson
2. Dr. Ketan Shah, Associate Professor & HOD, MPSTME -Member
3. Ms. Karuna Bhaya, Finance Officer- Member
4. Shri Nilesh Mohile, Chief Administrator, SVKM- Member
5. Ms. Seema Rawat, Assistant Professor, SBM- Member
6. Dr. Meena Chintamaneni, Registrar – Member Secretary
7. Majlis Legal Centre- NGO representative

Seminars are conducted to spread awareness about gender sensitization. Students make short films and documentary and the best one is appreciated by displaying on the University day.

5.1.18 Is there an anti-ragging committee? How many instances, if any, have been reported during the last four years and what action has been taken in these cases?

The University and school has policies on curbing the menace of ragging within & outside the premises is framed as per the UGC Regulation 2009, AICTE regulation 2009 & The Maharashtra Prohibition of Ragging Act, 1999

Ragging of fellow students in any form is strictly prohibited inside and outside the campus. Any student/s found guilty of ragging and/or abetting ragging, whether actively or passively, or being a part of a conspiracy to promote ragging, is liable to be punished as per the rules. Ragging often ends up in sexual or physical harassment for the victim. The institute maintains a zero tolerance policy towards ragging. All issues in this regard are dealt with utmost urgency and stringent action aretaken against those involved. To help students, committees have been formed at School level and University level. An Anti-Ragging Committees has been set up in the School.
As per UGC notifications all students are filling online submission of undertaking on https://antiragging.in
Refer Annexure 5.2:Anti-Ragging Committee

5.1.19 How does the university elicit the cooperation of all its stakeholders to ensure the overall development of its students?

At NMIMS, there is involvement of all stakeholders which ensures overall development of students. There are various committees at University and school level which has members from Trust, Industry experts, Vice Chancellors, Deans' Head of the departments, faculty, and student bodies. Ever year there is a periodic review of curriculum and other facilities. As per the requirements the changes are updated.

NMIMS has always believed in excellence and innovation in education. NMIMS continued to make efforts to keep its curriculum in line with the industry expectations and has been focused on building skills in technical, managerial and interpersonal relations. It also focuses on developing socially sensitive and ethical managers, technocrats, entrepreneurs and business leaders.
Faculty members employ the full-range of innovative and interactive teaching methodology in the classroom. Program design & structure is continuously reviewed. Course outlines and detailed syllabi for all courses are prepared in advance and given to the students. The outlines include the Program learning goals, learning objectives, the evaluation criteria and the session plan with reading requirements and reference books.
Throughout the academic schedule, lots of emphasis had been given to the conduct of various workshops. Various skill building activities are introduced

to enhance experiential learning as Simulation games, SPSS, motivational training, moot court, soft skill, workshops, studios, filed trips, study tours, training at hospitals, teaching via various state of art labs etc.

Students learn almost as much if not more by way of non-classroom activities as they do through class interaction. Some of these activities are Out-bound training, Cultural Immersion, We Care, Field trips, Industry Visits, Hospital Visits, Studio Visits etc. Such activities (both class room and non-class rooms) are aimed at breaking ice among individuals, developing various skills like interpersonal behavior, problem solving, leadership, observation, discovery, soft skill, analytical, social sensitivity, team building etc.

The following is the brief account of the best practices followed by NMIMS which helps students overall development:

- Focus on Emerging Needs of India like Entrepreneurship & Family Business, Intellectual Property, Sustainability Mgmt, Automation Technology, Artificial Intelligence etc.
- Project methodology and Industry sponsored courses are a part of the programs. Industry is invited to design courses and same is conducted by their executives
- Simultaneously, training within the industry along with the conduct of the program and case methodology are important changes in pedagogy
- Focus on Nano medicine Stem Cell & cancer research
- Creative Writing, Motivation, Lateral Thinking and Leadership Skills.
- Unique peer learning and self-learning program through case methodology, group work /projects / presentations and Interactive Class Sessions.
- Introduction of a 5% component of lectures in each course to be preferably taken by industry experts. This seeks to increase the industry-academia interface.
- The institution encourages students to present research work at National/International Conferences.
- Feedback is collected from the students, employers and other stakeholders.
- Sports and Cultural activities are encouraged
- Corporate projects secured via Industry Institute Partnership Cell (IIPC) to encourage the students to work on short term assignments with companies all year round along with their regular School schedules which gives them an exposure to their domains of interest in the corporate sector.
- Alumni Round-Table sessions help students connect with illustrious alumni of NMIMS and learn from their experience.
- Periodic seminars, workshops and guest lectures help the students stay abreast with the latest trends in the industry and aligns their thinking with the way thought-leaders shape the business environment.
- 'We Care' program initiated as mandatory activity for students wherein the Friday of every week is dedicated to visiting NGOs and helping them streamline their management practices.

- Initiation of the Dean's list – an honor conferred upon top 10% students by rank in each of the full-time programs to encourage academic excellence.
- Dedicated Sports Week to highlight talent in sporting activities
- Efficient liasioning between 13 functional cells and the apex body – the Student Council – to drive down autonomy to students by encouraging student driven activities on campus.

5.1.20 How does the university ensure the participation of women students in intra- and inter-institutional sports competitions and cultural activities? Provide details of sports and cultural activities where such efforts were made.

University encourages women participation in all extra and co- curricular activities. Women students are active members in various cells at university. Women participation has been majorly in Football, badminton, table tennis, basketball, volleyball, business quizzes, design competitions, paper presentations, drama, stage shows to name few

5.2   Student Progression

5.2.1   What is the student strength of the university for the current academic year? Analyse the Program-wise data and provide the trends for the last four years.
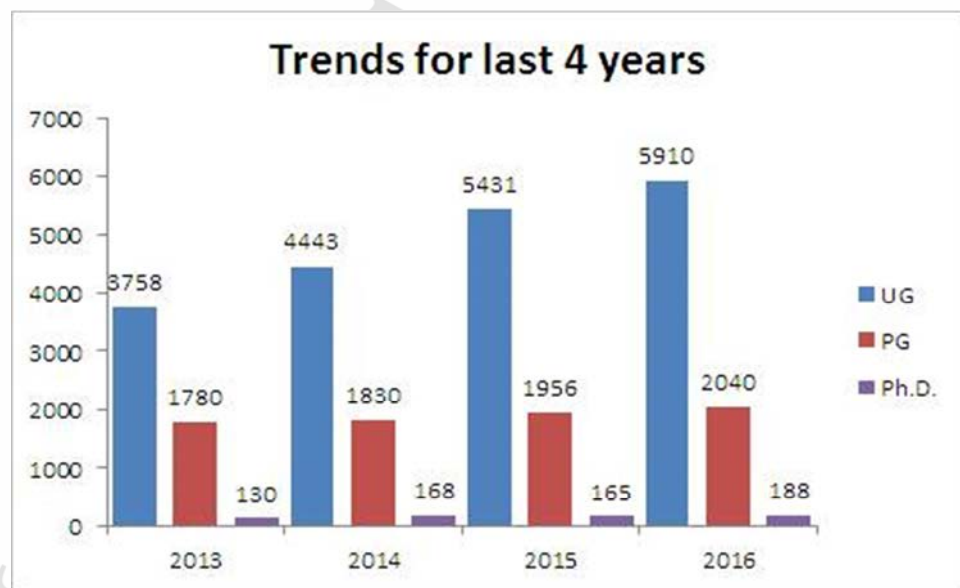
Figure 5.4: Student Strength

This figure gives the intake for the Academic Year 2016-17 along with the data for the last 3 years. It is very evident that the admitted students for the UG programs have almost doubled over the last four years.

5.2.2   What is the program-wise completion rate during the time span stipulated by the university?

The program-wise completion rate during the time span stipulated by the university is given in Table No. 5.4 below:

Table 5.4: Program-wise completion rate

Sr. No.	Level of Program	Academic Year	No. of students admitted in the Year	Academic Year	No. of students admitted (Lateral Entry)	Academic Year	No. of Students Graduating in Minimum stipulated time	% age
1	UG 3 Years	2011-12	327	-	-	2013-14	269	82.26
2	UG 3 Years	2012-13	324	-	-	2014-15	294	90.74
3	UG 3 Years	2013-14	326	-	-	2015-16	303	92.94
1	UG 4 Years	2010-11	548	2011-12	121	2013-14	444	81.02
2	UG 4 Years	2011-12	624	2012-13	95	2014-15	480	76.92
3	UG 4 Years	2012-13	720	2013-14	76	2015-16	659	91.53
1	UG 5 Years	2009-10	258	-	-	2013-14	244	94.57
2	UG 5 Years	2010-11	370	-	-	2014-15	330	89.19
3	UG 5 Years	2011-12	482	-	-	2015-16	435	90.25
1	PG 2 Year	2012-13	813	-	-	2013-14	759	93.36
2	PG 2 Year	2013-14	786	-	-	2014-15	768	97.71
3	PG 2 Year	2014-15	949	-	-	2015-16	922	97.15
1	PG 3 Years	2011-12	111	-	-	2013-14	105	94.59
2	PG 3 Years	2012-13	99	-	-	2014-15	96	96.97
3	PG 3 Years	2013-14	77	-	-	2015-16	58	75.32
1	PG(Int) 5Yrs	2009-10	15	-	-	2013-14	15	100.00
2	PG(Int) 5Yrs	2010-11	5	-	-	2014-15	5	100.00
3	PG(Int) 5Yrs	2011-12	5	-	-	2015-16	5	100.00

192

5.2.3 **What is the number and percentage of students who appeared/ qualified in examinations like UGC-CSIR-NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central / State services, Defense, Civil Services, etc.?**

Approximately around 10% students appear every year for the various competitive exams like CAT/ TOEFL/ GRE/ GMAT/ GPAT/ GATE/ CET.

5.2.4 **Provide category-wise details regarding the number of Ph.D./ D.Litt./D.Sc. theses submitted/ accepted/ resubmitted/ rejected in the last four years.**

The details are as follows:

Table No. 5.5: Ph.D. theses submitted:

Theses	AY - 2012-13	AY - 2013-14	AY - 2014-15	AY - 2015-16	Total
Accepted	15	10	12	6	43
Revision and/or Resubmission	13	16	13	19	61
				Total	104

Theses Submitted as on Nov 2016: **27**

5.3 Student Participation and Activities

5.3.1 List the range of sports, cultural and extracurricular activities available to students. Furnish the program calendar and provide details of students' participation.

NMIMS provide holistic learning experience to develop managerial capabilities of its students. The Schools have well defined processes in place to help students develop their leadership and decision-making skills. It encourages student participation in various extra-curricular and co-curricular activities. It also rewards teamwork and outstanding performance in different activities including sports.

NMIMS has a plethora of clubs and committees dedicated to providing the students with means to express their talents. A number of events are organized by the student run clubs under the guidance of faculty in charge student activities, like PARAGNA - the flagship business fest of NMIMS SBM, Euphoria - the annual cultural fest, etc. Students participate in a number of co-curricular activities. Such an engagement facilitates overall grooming and the school encourages all these co-curricular activities and actively supports them. Every student club is assigned to a faculty in charge and the faculty provides guidance and mentoring support to the student clubs. The student council releases a **quarterly E-Magazine of student activities LANDMARK** under the guidance of their faculty in charge.

Every academic year brings laurels in terms of student participation in various inter and intra college events, contests and B-Fests at both national and international

events. They compete with top B-Schools at national & international level and participate under the guidance of faculty mentors.

The students take active part in various club activities. In addition to this, the school conducts a talent hunt every year to bring out the best talent in the school, so that such students can represent the school in various inter-collegiate festival across the country. SOC national festival ''VAAYU'' puts the management skills of the students to test.

Refer Annexure 5.3

5.3.2 Give details of the achievements of students in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. during the last four years.

The details are as follows:

Table No. 5.6: Student Achievements

Levels /Year	2012-13	2013-14	2014-15	2015-16
State	8	10	12	2
National	238	359	399	370
International	35	29	10	48
Inter/Intra collegiate	132	126	146	180

5.3.3 Does the university conduct special drives / campaigns for students to promote heritage consciousness?

NMIMS developed community extension program to work on the issue of water harvesting and conservation. With the objective of increasing the water table in the draught prone region of Shirpur taluka, District Dhule, NMIMS worked on a strategy and plan since 2006 which has led to an increase in the water table of the region, enhancing the agricultural productivity and providing potable drinking water round the clock to the 70,000 residents there. The Shirpur pattern of water conservation has also got government patronage. Government of Maharashtra (GoM) brought out a Government Resolution (GR) on 9 May 2013 to replicate the Shirpur model all over Maharashtra.

An initiative of the Balwant Sheth School of Architecture is the organization of the Rural Studio. The objective of this studio is to deploy students, graduates and faculty to various parts of the country and understand the possibilities for architecture, to intervene and better the conditions of various built typologies that maybe linked with health, education and community development.

- This is done through study trips to rural pockets in Maharashtra and to understand the peculiarities of the communities in the region in relation to demographics, employment, health and education. Formal reports are prepared to understand the role of architecture in community building/strengthening projects.

- Based on the reports prepared, proposals such as a primary school, a rural healthcare center, a community center will be pitched to the concerned authorities for implementation. One of the sites identified is Shirpur, Maharashtra.

To sensitize students towards social issues and provide them with an opportunity to apply managerial tools relevant to community engagement *We Care* is a unique, student-motivated initiative which aspires to heighten and implement the societal values of the students. Through **partnering with local non-for-profit organizations** and engaging in meaningful group volunteer projects, *We Care* provides opportunities for students to gain both knowledge and management tools relevant to corporate citizenship and community engagement.

To institutionalize its social commitment the University instituted the 'Social Enterprise Cell' on 1st January, 2005 which was subsequently upgraded as Center for Sustainability Management & Social Entrepreneurship on October 1, 2011 with the vision of sensitizing the students, faculty members, alumni, corporates and human service organizations to continuously respond to the changing social realities through the development and application of knowledge for creating a sustainable society that protects and promotes the dignity, equality, social justice and human rights for all.

5.3.4 How does the university involve and encourage its students to publish materials like catalogues, wall magazines, college magazine, and other material? List the major publications/ materials brought out by the students during the last four academic sessions.

The University encourages students to publish newsletters and other materials. There are various student bodies who are extensively involved in this regard.

In School of Commerce in-house magazine" ONLOOKER" is a platform for students to contribute to active discussions by putting forth their opinion regarding a topic. It is a student's magazine that encourages participation by contributing articles in areas of one's interest viz. National & International Affairs, Sports, Business and Economics, Science & Technology, Cultural, Fashion, Entertainment and Comics.

THE ONLOOKER distinguishes itself from other conventional means of print media by the feature that it does not provide information in the form of a report, but as an outlook of an individual who takes the initiative to highlight a current issue. The magazine aims to inculcate a habit of being updated with the latest subject matter around the globe, as well as effectively being able to communicate one's vision vis-à-vis a topic.

In school of Architecture a bi-annual newsletter is currently underway at the DRP Cell. It will be released at the end of the current semester in October 2016.

The BSSA blog is a comprehensive database of the School's calendar. It features current events, lectures, exhibitions, workshops and studio life at BSSA.

The Sarla Anil Modi School of Economics has a periodic newsletter 'Scroll of Thoughts' which is published every Semester.

The School of Pharmacy publishes quarterly newsletter "PTM – Newsletter". This includes Pharma News, Articles, Interview of Industry Icons, Research data, faculty, students & Alumni achievements, stakeholder's feedback & campus related news. This newsletter is also circulated to stakeholders & on social media platforms.

5.3.5 Does the university have a Student Council or any other similar body? Give details on its constitution, activities and funding.

NMIMS aims for all round development of students. From academic year 2016, NMIMS has established student council at University level named as NMIMS University Student Council (NUSC)

The primary objective of creating Student Council at University level is to assimilate and integrate the students from all the constituent schools across various campuses in Mumbai and other locations and to provide the students a platform to harness their creative activities in an integrated manner. The NUSC is to promote collective and constructive leadership within student community

At each school, the Student council, being the apex body organizes various activities with the help of the other cells. At Business school, There are 16 student bodies in total, with 4 core cells and 5 functional Cells and 7 Interest Based Cells along with the student council to keep students engaged in activities apart from their regular academic work and to network and to showcase their talents.

Over the years, NMIMS students have participated in many prestigious Corporate Competitions like Mahindra War Room, KICC, BrandStorm and many others organised by leading corporates.

The students also get to attend the seminars and Workshops of eminent personalities which are held all-round the year.

MANAN, Augustus, Paragana - the business fest, Euphoria – the cultural fest and TEDx NMIMS are some of the most looked upon events that enrich the experience of students community. These provide a platform for the students to showcase their talents and nurture them.

Apart from them, we also have events and competitions conducted by the various student-run

Cells which keep the students active throughout the year.

The student activities are 50% funded by University and 50% funding is raised by students via sponsorship.

Refer Annexure 5.4

5.3.6 Give details of various academic and administrative bodies that have student representatives on them. Also provide details of their activities.

NMIMS provides holistic learning experience to develop managerial capabilities of its graduates. It has well defined processes in place to help students develop their leadership and decision making skills. It encourages student participation in various

extra-curricular and co-curricular activities. It also rewards team work and outstanding performance in different activities including sports.

NMIMS SBM has a plethora of clubs and committees dedicated to providing the students with means to express their talents. A number of events are organized by the student run clubs under the guidance of faculty in charge student activities, like PARAGNA - the flagship business fest of NMIMS SBM, Euphoria - the annual cultural fest, etc. Students participate in a number of co-curricular activities. Such an engagement facilitates overall grooming and the school encourages all these co-curricular activities and actively supports them. Every student club is assigned to a faculty in charge and the faculty provides guidance and mentoring support to the student clubs. The following cells facilitate student development under the mentorship of the respective faculty in charges.

- Student Council
- Placement Cell
- Industry-Institute Partnership cell
- Social Responsibility Forum
- Alumni Relations Cell
- Nepathya cell (Cultural cell)
- Finomenon cell (Finance cell)
- SummIT (IT) Cell
- Not Just Marketing cell
- HRUDAY Cell
- Mantavya cell (Literary & Quizzing cell)
- Entrepreneurship cell
- Optumiz cell (Operations cell)
- Adverb cell (Advertising & Media cell)
- Ecolibria cell (Economics cell)
- Department Advisory Board (DAB)

At SAMSoE, students are involved in the decision making at every stage. This is done through students' representation in various bodies that address academic and non-academic issues. Some of the bodies with students' representatives are:
- 1 Students Council
- 2 Quality Cell
- 3 Placement Cell
- 4 Clubs and Associations:
  - ➢ Literary Club
  - ➢ Movie Club
  - ➢ Performing Arts
  - ➢ Debating & MUN
  - ➢ Sports Club
Community & Social Service

At SPPSPTM: - **Student representation in various bodies**

- Class representatives are appointed each year. They act as a bridge between the students and school.

197

- Student provide inputs for revision / updation of syllabus. Opinion of meritorious students (topper) is also taken into consideration for revision of curriculum by Board of Studies
- Student Bodies are formed to organise Annual Fest of the school namely Isthmus & Urja. The student's bodies also manage School social responsibility forum KSHAMATA, sports event – Excalibur, students Placement committee, Alumni activities.
- Students also represent the school in various Professional bodies like IPA – SF and events at state and national level like Rx Fest.

Q - Any other information regarding Student Support and Progression which the university would like to include.
The additional information is mentioned as below:

Incubation Center

The center mission is to give shape to brilliant ideas of passionate entrepreneurs through seeding, nurturing and promoting entrepreneurship. The vision is to create an ecosystem that will foster and support innovation and knowledge and technology based entrepreneurships leading to the creation of wealth and social value through successful ventures. Some of the ventures are Frapp, Shining Armour Web Design and Social Media and Pipes App.

Design Studios

At NMIMS' School of Architecture, design studios are a process driven endeavour. Advanced Technology Studios are introduced to understand intuitive and applied structure and the nature of materials. Awareness of Climate, Culture and Socio Economic patterns are analyzed through a series of structured Study Trips. Innovative courses on Advance construction and structures, Graphics and publication techniques, Cinema Process & Product were introduced

Interdisciplinary offerings of courses

The interdisciplinary approach is a completely new concept, which is in line with international academic system. The interdisciplinary approach of selection of courses across different streams enables students to get the knowledge of other domain and to ensure all-round development of students emerging out of different programs

In academic year 2015-16, the interdisciplinary offering of courses was offered as a pilot project to students of SBM, MPSTME and BSSA. The master list of courses under interdisciplinary is built from courses offered by different schools like Management, Engineering & Architecture. The PG students from all schools are allowed to choose 1-2 courses from master list as a credit course.

Integration

Integration Challenge allows students to display leadership by converting their ideas into reality. Through this mechanism, the school seeks to provide a supplement to the case study methodology used in the classroom by introducing students to live complex business issues existing in emerging economies such as ours. The students are required to integrate their learnings across different functional domains using principles of design thinking to offer innovative and probably disruptive solutions to the owners of the business issue. As part of the challenge, students are required to grasp the nuances of the business problem/opportunity, conduct primary market research, talk to consumers, go out in the field, refine their ideas and present their solutions.

Phase I: Introducing the Integration Challenge problem
This Phase entails the partner organization to send its team of Managers to NMIMS campus to present the live business problem/opportunity they face to the students. Participating companies are Marico, LRN Consultants and a few others.

Phase II: Incubation
This phase involves the groups of students carrying out primary research, sourcing information, generating alternatives and designing the solution.

<u>**Soft Skills**</u>
Soft skills are an integral part of the curriculum. Some modules as part of their curriculum, while others have held 'Employability Program' workshops to facilitate placements for their students. Soft skills training is a mix of role plays, activities, games, interactions, video recording, replaying the video for feedback, out bound programs, and micro growth labs.

<u>**Industry Participation in Curriculum Planning, Support and Development**</u>
Industry Institute Partnership l is an effort to give the students of NMIMS an exposure to the Business world by developing symbiotic relationship with corporate. This is primarily achieved by broadening the student - industry interface through Corporate Projects, Panel Discussions, IIPC mentoring partnership program and Consulting Solutions. In order to make the program industry responsive, NMIMS invites industry personnel in their various Boards/committees

<u>**Feedback**</u>
Feedback is an on-going process and is taken through blackboard and ensures privacy for the students. The feedback provides a comprehensive understanding of how the course was delivered in the term. The feedback is tabulated, analyzed and shared with the faculty, HOD's and higher authorities. Informal feedback is also collected occasionally by the Dean during the term. This helps in continuous improvements in the institutions. The feedback from academic peers & employers is taken to ensure that the students are intellectually & technologically well-qualified to work in modern corporate world and modern industries. At the end of every term Vice chancellor personally visit to each school and interact with students.

<u>**Student evaluation and learning process**</u>: Achievements of student learning outcomes are periodically being measured through various direct &indirect assessment tools, a range of pedagogy to enhance the learning experience of the students. This include class participation, case discussions, Role plays, simulations, web based exercise, discussion forums, guest sessions, videos & films, management games etc
The total points for each course (with maximum what can be assigned) are divided in various components which may include the following:
- Class-participation/Review (books /reports/articles) (not more than 20 points weightage)
- Quizzes / Class test / Surprise test / Assignments (not more than 30 points weightage)

- Group /individual assignments / presentations / decision sheets / term papers / project reports (not more than 30 points weightage)
- Mid-term examination (not more than 30 points weightage & not less than 20 points Weightage)
- Trimester-end Examination (not more than 50 points weightage and not less than 35 points weightage)

It is necessary for every course to have at least 4 evaluation components out of 6 components.

End-term examination is a compulsory component. Mid-term examinations are compulsory for compulsory courses in full time programs.

NMIMS has been awarded Atal Incubation Centre by NITI Ayog in March 2017, /the objective of this to provide facilities for incubating business ideas. These facilities will be open to all students of NMIMS and the local community.

CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1   Institutional Vision and Leadership

6.1.1   State the vision and the mission of the university.

Vision

To be a globally admired University.

Mission

Emerge as a centre of excellence best in class in India and Asia and yearning to be the best in the world 2030. This vision will be achieved by

a.   Promoting faculty scholarship at the global level;
b.   Benchmarking academic programs and processes with the best in India, Asia and the world;
c.   Creating a global learning experience through a mix of student and faculty community from the world market;
d.   Developing institutional level partnership with one of the top 100 global universities recognized for its academic and research excellence.
e.   Strengthening the bond with industry and community or social organizations at a global level.
f.   Pursuing the agenda of innovation across all Schools and Faculty.

6.1.2   Does the mission statement define the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, the institution's tradition and value orientations, its vision for the future, etc.?

NMIMS vision and Mission statement has evolved over a period of time. This evolution is based on institutions unique characteristics, strengths and the environmental context which has changed from 1981, when it was established as a Management School in India. The changes in the external and internal environment have influenced modification in the vision and the mission Statement. However, the purpose of the institution that of providing quality education at affordable price was always kept in mind. NMIMS has today come to be defined as an excellent and credible institution of higher education and undoubtedly as one of the leaders in management education. NMIMS ethos is to be innovative, responsive to the environmental changes and promote entrepreneurial culture. The institution's various programs and processes, faculty appointments and the leadership reflect this ethos. All programs of NMIMS Mumbai are targeted at the growing aspirational India. The demographic structure of India shows an upwardly mobile population. It also shows India becoming more and more aspirational. Economic growth has further fuelled these aspirations for better standards of living. It is in this context that NMIMS believes that the educational needs in this market can served best by offering innovative programs in multiple disciplines at Bachelor and Masters' level. The demographic structure also shows a

growing women population in India and women emerging important player in the economic activity. In order to respond to this change, NMIMS has made appropriate changes in its admission policy to attract women students and has also evolved programs, especially targeted to the women segment, especially the middleclass women. Another area relates to inclusive education, and institutions response to the social challenges. In order to make education inclusive, NMIMS offers financial assistance to those who are not able to afford education. Also to make our graduates socially sensitive, the University has mandated that all students across all programs will have to necessarily undergo internship in social sectors.

The vision and mission of each school is in alignment with the vision and mission of the university and the aspirations of the students and the society it serves.

6.1.3   How is the leadership involved

∗   **in ensuring the organization's management system development, implementation and continuous improvement?**

The   IQAC plays a key role in advising the Board on academic, administrative, financial and infrastructure issues.

The development of the management systems is a continuous process. These processes are developed considering stakeholder feedback from time to time. It also reflect the changes in the regulatory framework from time to time. The management systems and the changes therein are approved by the Board of Management.

The Board authorises the Vice Chancellor to implement the management systems who in turn delegates the task to the Deans, Campus Directors, Registrar, Controller of Examination and the Finance Officer. The University has implemented the ERP (SAP) for its administrative, finance and academic management functions. This ensures that an integrated perspective is available to the leadership and changes if any can be made in the real time.

Academic systems which are essential for the University functioning have evolved and have been continuously fine tuned over a period of time, on the basis of stakeholder feedback and at the same time learning from other best and next academic systems in India and the world. Benchmarking is an integral part of the management system development and continuous improvement. Benchmarking is not restricted to academic systems only. The university also looks at other industries /sectors which have had similar objective for a particular process.

The University's leadership at all levels continuously interacts with the stakeholders. Stakeholders here are categorized as external and internal. The external stakeholders are the industry, social organizations, society and the regulators, and the internal are the faculty, staff, parents and the Parent Trust. The interaction with all the stakeholders is at the highest level. In the context

of the School the interaction with the stakeholder is by the Dean, while at the University level the interaction is by the Vice Chancellor especially with reference to the external holders. The internal stakeholders are in communication with the Registrar, Pro-Vice Chancellor and the Vice Chancellor. These interactions have helped in making our programs, systems and processes stronger.

The University undertakes HR, Academic Review as well as process reviews of each School every Semester / Trimester. Based on the inputs received from the students and the faculty, steps to improve the delivery of programs and processes are taken. This ensures that the implementation is smooth and at the same time continuous improvement takes place.

∗in interacting with its stakeholders?
As mentioned above, University leaders regularly interact with both external and internal stakeholders. Two of these most significant external stakeholders are industry and regulatory agencies. Vice Chancellor and Deans regularly interaction with them to understand these concerns and future scenario. Students and their parents regularly interact with Deans and Registrar. Vice Chancellor interacts with parent body and Board of Management. PVC/Registrar and Deans also interact with them from time to time.

∗in reinforcing a culture of excellence?

The University strives to reinforce culture of excellence in administrative and academic processes by continuously reviewing and introspecting. This is reflected in all activities of the university ranging from admission to examination.

The Board of Management continuously emphasizes the need to excel and out-perform the earlier performance on several parameters like teaching, research, placement, social connect, faculty competencies etc. The Deans' Council is a forum in which the VC communicates the Board's directions and urges all Deans to out-perform, surpass expectations and create a new standard of performance. The VC also urges the institution to identify the benchmark and perform accordingly.

∗in identifying organizational needs and striving to fulfill them?

The Planning and Monitoring Board and other bodies at the university as well as schools undertake regular reviews of the organizational structure and emerging needs. Once the needs are identified, the IQAC and the Planning and Monitoring Board proposes a comprehensive plan for consideration and approval of the Board.

6.1.4 **Were any of the top leadership positions of the university vacant for more than a year? If so, state the reasons.**

No. None of top leadership position of the University were vacant for more than a period of six months.

6.1.5 Does the university ensure that all positions in its various statutory bodies are filled and meetings conducted regularly?

Yes. The University continuously strives to fill positions except for the ones which have to be nominated by Government of India University Grants Commission. It also ensures that once the nomination is made, meetings are held as per pre announced calendar. It may be noted that calendar of meeting dates of Board of Management, Academic Council/Finance Committee, IQAC and Planning and Monitoring are announced in March for the subsequent academic year.

6.1.6 Does the university promote a culture of participative management? If yes, indicate the levels of participative management.

Yes, the University does actively promote a culture of participative management.
Following are the organizational structures that enable participative management in decision making:

1. **Faculty Council:** Each School has a Faculty Council or its equivalent, where all matters relating to academics and administration are discussed and decisions taken. The Faculty Council is constituted by the respective Deans. Each faculty member is also assigned an administrative role within their Schools. They also manage key university functions like admissions, student, discipline and examination.

2. **Board of Studies:** The Board of Studies of each department has the concerned faculty participating in it along with the industry and academic experts.

   i. The Composition of Board of Studies is as follows:
   b. Dean of the School - Chairman
   c. Head of Department
   d. All Professors of the Department
   e. Three teachers (Associate Professor / Asst Professor), nominated by the Head of the Department.
   f. Not more than four persons to be nominated by the Vice Chancellor – for their expert knowledge including those belonging to the concerned profession or industry.

3. **Academic Council:** The total number of Academic Council Members is 38 and of these 16 are faculty members. In addition to the above, faculty is also involved in planning and strategic development for their School.

4. **Board of Management**: There are 15 members in Board of Management, of which, 3 are faculty members nominated by the Vice Chancellor. In addition, there are two Deans on the Board.

5. **Dean's Council:** A committee of all Deans / Heads of schools chaired by the Vice Chancellor is constituted to monitor the progress in their respective schools and address concerns if any. Any policy to be implemented is

deliberated and finalised in the Dean's Council. This enables the University to constantly adopt healthy policies and resolve issues by participative and constructive discussions.

6.1.7 **Give details of the academic and administrative leadership provided by the university to its affiliated colleges and the support and encouragement given to them to become autonomous.**

NMIMS is Deemed University under section 3 of UGC. The university does not have any affiliated college.

6.1.8 **Have any provisions been incorporated / introduced in the University Act and Statutes to provide for conferment of degrees by autonomous colleges?**

Not applicable.

6.1.9 **How does the university groom leadership at various levels? Give details.**

The University has a system of identifying leaders in all schools at the departmental level. Such individuals are assigned the roles of the head of the department or Associate Deans and, based on their performance, they are appointed as the Deans and Directors of the school. Likewise appointment of individuals to the position of the PVC, Registrar and functionaries in the administrative department are carried after a due process. In addition to such a search, the Annual Leadership Conference ensures that individuals, who are selected as Associate Deans or Deans and senior faculty, understand not only university perspective but participate in planning, systems developments, program development and institution development. The Leadership Conference is generally chaired by the Chancellor and Vice Chancellor. Further, individuals identified as leaders in the university are encouraged to participate in Leadership Conferences outside the University and programs like Fulbright Fellowship. This ensures continuity of leadership in the institution.

Every School has a structure which helps in grooming leaders and efficient functioning and governance at various levels. (Flowchart)
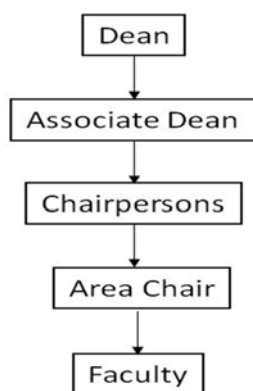
Several training programs are conducted to inculcate leadership skills for each individual involved in the structure depicted above. The management always requests the Deans and senior leaders to identify second and third line of leaders to ensure smooth transition as and when required.

6.1.10 Has the university evolved a knowledge management strategy? If yes, give details.

Yes. The university systematically plans usage of data and its dissemination at different levels. This is feasible because of implementation of ERP (SAP) system.

The data gathered is used for strategic planning. For example the marketing department uses the admission data for reaching out to locations which the university has not reached, while the exam section uses it for different purposes like evaluation, redressal and grievance handling and understanding of domains which require additional inputs.

Each year, the Board is presented the following reports:

1. Admission Report which captures the demographic profile of the students, their education background and the geographies from where they come.
2. Academic Report from the Academics department presents the status of the conduct of academic programs, innovations during the year in the academic program and pedagogy and the skill building initiative undertaken by the schools in different programs
3. Research Reports which highlights institutions progress on research front and therefore present detail of publications in national and international journals, Scopus, Index citations if any, Patents booked, monographs and work in progress. It also presents data on Ph.D, students in the university and research award won by the faculty or the students.
4. Examination Report present the data on the student progression as also the total number of examinations conducted by the university,CGPA details and how well the students has acquired knowledge which is tested through the examination pattern.
5. Placement Report
   This report gives data on students, placements and internship details. It also gives information on roles, companies and sectors in which students are placed.

   All these reports enable the IQAC and university leadership to plan for the subsequent year and take steps for making continuous improvement as well as quality assurance.

6.1.11 How are the following values reflected in the functioning of the university?

- Fostering global competencies among students

To develop global competencies among the students, NMIMS uses global cases, simulations, overseas internships and Student Exchange Programs. Further, the institution has setup labs and workshops which have the latest globally used software.

- Inculcating a sound value system among students.

This is one of the most challenging task. In order to develop the values of integrity, rigour, respect and gender sensitivity and excellence, NMIMS has a Student Resource Book which lays out the institution expectations from students when they are on the campus and outside the campus. The institution also communicates to the students a zero tolerance policy towards plagiarism, cheating, copying or using any unfair means to graduate. It also communicates to them the attendance policy and the emphasizes the need to continuously adhere to attendance rules. This assures rigor and also develops the value of time. The Student Resources Book is also displayed on the Website. In addition, Student Councils act as a peer group to carry forward the agenda of instilling values in student group.

To ensure that the Indian values system is imbibed, university has introduced courses beyond curriculum that highlight the importance of values in professional as well as personal lives. This helps the students in progressing through the career in a smooth manner. Faculty is regularly apprised of the university's vision & mission and the importance of imbibing values while delivering courses and programs.

- Promoting use of technology

Recognizing the interests of millennial in active learning University has used technology extensively in its programs and processes. Black Board Learning Management System (BBLMS), forms the backbone of program delivery. Faculty members are actively involved in project based learning delivery and flipped classrooms. The BBLMS also facilitates on line tests, blogs and quizzes. The university also engages students from other campuses through video conferencing facilities so that they get the benefit of instruction from outstanding teachers who are sought after. The university not only uses technology for program delivery but also for all processes and functions like Student life cycle management (SLCM), examination, library, accounts, admission and HR. The data generated is also analyzed to improve processes and systems using analytics tools.

- Quest for excellence

The University strives for excellence in all it endeavors. It has developed its model of excellence which is based on the `Baldrige Model of Higher Education'. This model considers :
1. Building excellence in admission process
2. Making and delivering excellent academic programs
3. Faculty excellence
4. Human Resource
5. Excellence in building relationship with corporate

Model of Excellence
In specific terms some of the steps that have already been taken relates to creating rigour and transparency in admission, academic programs and

processes and evaluation processes. It is also engaged in Faculty Development on a continuing basis and developing faculty systems which are responsive to the needs of the individual faculty. Benchmarking on a continuing basis and learning from the benchmarked institutions has also helped NMIMS climb the ladder of excellence.

Accreditation by national bodies like NBA, international bodies like SAQS and ratings by CRISIL ICRA are evidence of NMIMS pursuit for excellence.

6.2 Strategy Development and Deployment

6.2.1 Does the university have a perspective plan for development? If yes, what aspects are considered in the development of policies and strategies?

Yes. The University has a perspective plan which spells out following factors:-

- Vision and mission
- Teaching and learning
- Research and development
- Community engagement
- Human resource planning and development
- Industry interaction
- Internationalisation
- Expansion / growth

The strategic plan called the Strategic Plan 2020 is shown in Annexure 6.1. The strategic plan considers the change drivers and defines the vision and mission for the institution. It also spells out the goals and the action plan to achieve the goals. This action plan is in education, research and publication, faculty, student development , globalization and community development.

6.2.2 Describe the university's internal organizational structure and decision making processes and their effectiveness.
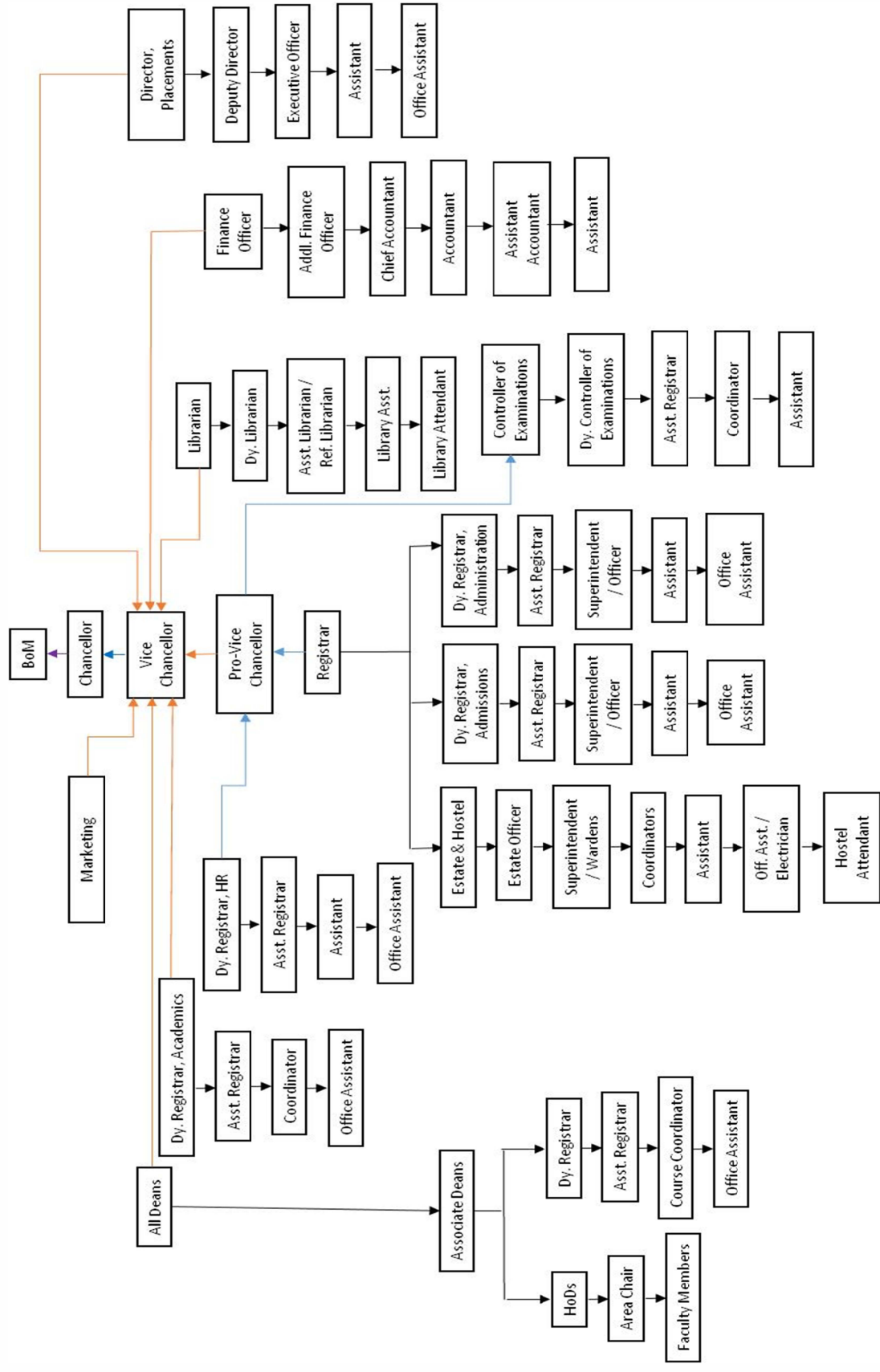
Refer Figure 6.1 below

Figure 6.1: Organizational Structure

University follows participative decision making process. At the School level faculty participates through various committees and taskforces. In addition, there are some committee like Foreign Travels Approval Committee and Library Committee which also have nominees of the Chancellors. Both these committee are Chaired by the Vice Chancellor.

Most of these committees are effective in achieving their objectives.

6.2.3 Does the university have a formal policy to ensure quality? How is it designed, driven, deployed and reviewed?

Yes, the University has a policy to ensure quality in all its programs and processes. One of the priorities of the University is to get its programs and schools accredited at national and international level. Towards this end, accreditation committee has been constituted in the School of Business Management, MPSTME and SPTM, Quality cells exists in all other schools. The School of Economics has a very active quality cell where the students are involved.

In addition to the above, University has an active IQAC which meets at least twice a year.

Further, following steps have been taken by the University to enhance quality:
1) Periodic faculty and staff meetings to discuss issues relating to quality enhancement.
2) Setting up of the IQAC at the University level and a similar Quality Assurance Cell /circles in each School.
3) Sharing of data on performance with all concerned individuals and departments- both administrative and academics.
4) Implementation of SAP – an ERP system to ensure consistency in quality in all the endeavours.
5) Academic information system which captures data on a number of sessions not held and the reasons thereof. This helps in reviewing the progress of the program during the term. This information is shared with all the stakeholders including the Chancellor and the Board of Management.
6) The Black Board Learning Management System also enhances the academic Quality as it ensures consistency in quality of material and pedagogy used by faculty for various subjects.
7) Focus on competency development for both faculty and staff.
8) Invariably all Board discussions focus on quality enhancement in all University Operations

6.2.4 Does the university encourage its academic departments to function independently and autonomously and how does it ensure accountability?

Yes. Independent and autonomous functioning of academic departments is encouraged through the policy of delegation and sharing of well defined expectations. Accountability of the departments is ensured by defining the

duties, roles and responsibilities of every individual. The academic department monitors delivery of programs on a day to day basis.

6.2.5 **During the last four years, have there been any instances of court cases filed by and against the institute? What were the critical issues and verdicts of the courts on these issues?**

The university has faced few court cases related to attendance and actions taken on disciplinary grounds.

6.2.6 **How does the university ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder-relationship?**

The university has well defined processes for grievance redressal. Grievance redressal committees have been constituted at the University and School level. Generally the attempt is to resolve the grievance within a week or 10 days' time.

The University has appointed a retired High Court Judge as Ombudsman.

Each year grievances are analyzed. The grievance analysis has shown that the majority of cases arise from failure of students to attendance policy and unfair means in the examination. To minimize these cases, students are continuously educated on both these matters.

To prevent sexual harassment at work place the institute has constituted a committee to examine all such cases and recommend to the Vice Chancellor action required.

These include
       a. Unfair means committee for exam related issues and grievance redressal
       b. Women issues
       c. Attendance issues
       d. A retired High Court Judge as Ombudsman to resolve issues resulting due to admissions, disciplinary issues etc. . ……

These measures ensure that natural justice prevails and the stakeholders are given justice.

6.2.7 **Does the university have a mechanism for analyzing student feedback on institutional performance? If yes, what was the institutional response?**

At the end of each Academic year the University collects the feedback on institutions performance on academic, examination, placement and reputation building. This feedback is tabulated and shared by the Dean with the Vice Chancellor. Some of the major responses in the last four years relate to strengthening the academic delivery, expanding the pool of corporate recruiters, engaging the student community through social networks, discussion forums and blogs and infrastructure improvement.

6.2.8   Does the university conduct performance audit of the various departments?

Yes the university conducts Performance Audit of each department on a six months basis. The review includes several parameters like results, research output, delivery process, etc. These issues are then discussed at length and addressed at appropriate levels.

6.2.9   What mechanisms have been evolved by the university to identify the developmental needs of its affiliated institutions? NA

The university does not have an affiliated institution but it continuously identifies the development needs of it's constitute schools in terms of infrastructure, technology and faculty.

6.2.10 Does the university have a vibrant College Development Council (CDC) / Board of College and University Development (BCUD)? If yes, detail its structure, functions and achievements.

Not Applicable. Planning and Monitoring Board performs similar functions.

6.3   Faculty Empowerment Strategies

6.3.1   What efforts have been made to enhance the professional development of teaching and non-teaching staff?

The University makes exhaustive efforts to enhance the professional skills of the teaching and non-teaching staff. As far as faculty is concerned, the University conducts faculty development programs in their respective domain as well as innovative pedagogical techniques. This enhances the delivery of the programs. For non-teaching staff, regular programs are conducted to improve their competencies in application software like SAP, MS-Office, etc. as well as soft skills.

Further the faculty is encouraged to enroll for Ph.D. programs in identified institutions and Universities. On completion of the course, they are reimbursed the fees and also promoted to the next grade. Faculty with accepted papers are encouraged to participate in the nation and international conferences.

6.3.2   What is the outcome of the review of various appraisal methods used by the university? List the important decisions.

The University conducts review and appraisal at all levels. At the faculty level, a continuous feedback is given to the faculty members to improve their delivery, content and assessment methods. Their continuous improvement is also tracked. For the leadership at NMIMS, retreats are conducted to appraise them of the vision, mission and goals set by the University so that there is unison in thought in attaining excellence in all aspects.
For non-teaching staff, short term training programs are conducted to enhance

their skills and competencies based on the training needs analysis.

Faculty and staff appraisals is an integral part of the university functioning. The appraisal is on technical, interpersonal skills, knowledge and their ability to deliver as per the university expectations. The appraisal in the past have yielded the following:

a) Some faculty members who have outperformed have been promoted to the next level or have been offered financial or non-financial incentives.

b) Those who have had an average level of performance, have been counseled which is led to their improvement in their subsequent performance appraisal.

c) The faculty members whose appraisal is below the expected level, have been given the time to improve or asked to leave.

The same holds good for the staff members.

Annual Awards to the staff is based on their appraisals
One of the important outcome of the appraisal was the performance of the faculty in research. In order to improve institution performance on research and encourage the faculty, Research Promotion Policy was introduced by the Board. The Research Promotion Policy provides for seed money, incentives for publication in various journals, facilitation for filing of applications for Patents and incentives on the grant of a Patent.

Another important outcome of the appraisal was the Faculty Development Program in pedagogy. The institution has held FD program on its campus and also sponsored faculty to Harvard and other universities and corporates

6.3.3 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have benefitted fromthese schemes in the last four years? Give details.

In addition to the normal benefits of gratuity, provident fund, phone bills reimbursements, residential facility if required, etc., the University provides medical insurance to all its employees, their spouse and 2 kids up to an amount of Rs. 1 lakh. Apart from this, the University also reimburses the yearly medical bills of the employees up to a certain amount as prescribed in the bye-laws. The senior executives are also provided annual medical check-ups. The University also provides pension to superannuated employees who have served the University for more than ten years.

6.3.4 What are the measures taken by the University for attracting and retaining eminent faculty?

Following initiatives are be taken by the University for attracting and retaining eminent faculty:

1) Source faculty from leading research and academic institutions in a more aggressive manner.
2) Recruit from the graduating students in the doctoral programs of the leading U.S. and European Universities at the annual research meets in management and different functional areas of management and technology.
3) Connect with the doctoral programs of leading Indian, U.S. and European Universities.
4) Source faculty from leading science and technology institutions, both in the government and private sector.
5) Create a faculty development program for new faculty, especially those who have just completed their Masters' program and have a research bent of mind. This will help to create a pool of potential faculty.
6) Provide a mentorship and assistance program for faculty within the NMIMS University system.
7) The class feedback of faculty members in each subject taught by them should be a minimum of 7 on a 10 point scale or 3.5 on a 5 point scale.
8) Performance incentive and recognition for excellence in teaching with a minimum score of 9 on a 10 point scale or 4 on 5 point scale will be put in place.
9) Performance incentive for outstanding research as evidenced by publication in 'A' category national and international journals, books published by leading global publishers like McGraw Hill is also being put in place.
10) To encourage international scholarship, faculty is encouraged to participate in international conferences in their own subject areas. However, these conferences have to be double blind reviewed conferences.
11) Transparent and objective faculty performance evaluation system is in place for all annual promotions and increments and confirmation. Incentives are announced based on this evaluation system.
12) A clear career path is charted for all faculty members.

6.3.5 Has the university conducted a gender audit during the last four years? If yes, mention a few salient findings.

Yes. The University has conducted a gender audit at staff as well as student level. Gender diversity is maintained at the teaching and non-teaching levels. It was found that in the management programs, the gender diversity was not adequate. Therefore, since the last one year, the University has resolved to maintain at least 30% female students in the admission process.

6.3.6 Does the university conduct any gender sensitization programs for its faculty?

Yes, the University conducts gender sensitization programs at all levels to ensure that its employees are aware of the necessity to maintain respect and dignity of all women employees at work.

6.3.7 What is the impact of the University's Academic Staff College Programs in enhancing the competencies of the university faculty?

Although the University does not have Academic Staff College, programs are regularly conducted to enhance competencies and skills for staff and faculty.

The development of the faculty competencies has been a part of the many strategic initiatives taken by the University to improve the relevance and quality of its program. The initiative started in 2008 with the SBM faculty training at Harvard Business School. Accordingly, the faculty is nominated each year to Harvard Business School to get an understanding and use experiential learning in delivering of the programs. The impact of this initiative has been a cultural shift at that Business School where Case Method and simulations, field based projects have now become an integral part of the Business School. Case Writing Workshop at ISB and IIM, Ahmedabad has today led to the faculty developing and publishing cases in international journals and databases. Likewise, Engineering Faculty Deployment to BOSCH led to the design of Mechatronics and Faculty Development in Data Analytics at SAS led to the development of programs in Business Analytics, Data Sciences and Applied Statistics.
Nominations to Faculty Development Programs have also ensured a high retention rate of faculty in NMIMS.

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism available to monitor the effective and efficient use of financial resources?

The University has a robust mechanism for planning, budgeting and ensuring that the resources are used efficiently. The exercise of budget planning starts at the School level wherein the requirements for research, infrastructure, other non-recurring expenditures as well as salary, honorariums contingency expenses, etc. are accounted for. The budget is then presented to the Finance Committee and then Planning & Monitoring Board. Finally, the budget is approved by the Board of Management. The Finance Committee is constituted as per the UGC Regulations. The composition and functions of the Finance Committee is as annexed. **Annexure 6.2**

To monitor the effective and efficient use of financial resources, internal and external auditors are appointed. The Finance Committee in all its meetings monitors the use of Financial resources and institution performance on financial targets

6.4.2 Does the university have a mechanism for internal and external audit? Give details?

Yes, the University has a mechanism for internal and external audit. Internal Auditors, M/s. May & Co. and External Auditors, M/s. Kishore A. Parikh & Co. are appointed by NMIMS BoM and confirmed by parent trust SVKM. As stipulated by the statutory body (UGC), the Finance Committee meets thrice a year to:

a) Finalize the budget for the forthcoming academic year
b) Take a mid-term review and make appropriate amendments if required
c) Approve the fee structure
d) Approve the capital expenditure budget
e) Approve the proposed appointment of faculty and staff

6.4.3 Are the institution's accounts audited regularly? Have there been any major audit objections, if so, how were they addressed?

The accounts are audited regularly and there have been no major audit objections raised by the auditors.

6.4.4 Provide the audited income and expenditure statement of academic and administrative activities of the last four years.

Refer Annexure-6.3a, Annexure-6.3b & Annexure-6.3c.

6.4.5 Narrate the efforts taken by the university for resource mobilization.

The various financial resources are generated through fees, MDPs, consultancies and grants from government and non-government organizations. **A pie chart showing sources of revenue is shown in Figure 6.5.**

6.4.6 Is there any provision for the university to create a corpus fund? If yes, give details.

Yes, the University has a provision for corpus fund. A corpus of Rs. 5 crore has already been is created.

6.5 Internal Quality Assurance System

6.5.1 Does the university conduct an academic audit of its departments? If yes, give details.

Yes. The University conducts an external academic audit. This audit aims at evaluating the strengths and weaknesses of all the departments with emphasis on faculty quality, teaching learning process and research. This gives direction to improve on our weaknesses.

In addition to this, an Academic Review of all the Schools after every Semester / Trimester is conducted by the Vice Chancellor. The students and faculty members get an opportunity to put forth their concerns directly to the Vice Chancellor. The issues are basically related todelivery of programs, faculty effectiveness, infrastructure, library resources and evaluation system. Based on the inputs received during the Academic Review, the University takes appropriate and immediate steps to ensure continuous improvement in all its processes and programs.

The University has an Internal Quality Assurance Cell (IQAC) which reviews the processes as a part of the Quality Assurance mechanism. The reports of the IQAC have been forwarded to the NAAC regularly. The constitution of the IQAC is shown in **Annexure 6.1.**

6.5.2 **Based on the recommendations of the academic audit, what specific measures have been taken by the university to improve teaching, learning and evaluation?**

Based on the inputs received during the Academic Review and the IQAC recommendations, several measures have been taken, few of which are listed below:
1) Improving academic delivery to meet the aspirations of students and introduce active learning methods
2) Encourage and widen the usage of Blackboard Learning Management System
3) FDP to train the faculty on the learner Centric Pedagogy
4) Change in the internal evaluation assessment processes

6.5.3 **Is there a central body within the university to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?**

The University has set up a central academic section which reviews the academic processes at each school on a monthly basis. **The structure of the unit comprises eight personnel - Deputy Registrar, Assistant Registrar and Coordinator.** The section prepares an academic review report which is presented to the Board on a regular basis for review and further direction.

6.5.4 **How has IQAC contributed to institutionalizing quality assurance strategies and processes?**

The IQAC at the University reviews the Quality Assurance (QA) processes instituted at the department level. Each department in turn has a well laid out quality control (QC) as well as QA processes as part of the accreditation as well as the internal review processes. These processes run across all functions ranging from admissions, SLCM, examinations, academic delivery etc.
As a result of these processes many strategies have evolved and have been institutionalized and are now a part of the processes.

a. Curriculum review to ensure outcomes through DAB and BoS – B.Tech. IT Board changing the delivery and evaluation of the Computer Programming course.
b. Administrative processes like SLCM, monitoring of pending lectures, attendance etc.
c. Examination processes like factorisation and changes in the evaluation process for continuous evaluation.
d. Change from trimester to semester for all UG programs.

6.5.5 **How many decisions of the IQAC have been placed before the statutory authorities of the University for implementation?**

All decisions with respect to introduction of a course program including the course structure, course outline, eligibility criteria, fees, evaluation process, and passing standards are discussed in the IQAC which is subsequently

deliberated in the Board of Studies of every department and approved by the Academic Council. The IQAC also gives recommendations regarding the infrastructure and the facilities provided for making the environment conducive and more learner centric for the students. Few decisions placed before the statutory authorities are shown in **Annexure 6.2**

6.5.6 **Does the IQAC have external members on its committees? If so, mention any significant contribution made by such members.**

Yes. The IQAC has external members on its committee. The composition of the same is shown in **Annexure-6.1**

- Member from industry: Skill sets required to make students industry ready. They also help in reframing the syllabus through addition or deletion of topics.
- Alumni: Help in networking the organization that they are currently working with the University departments. They also contribute in admission process by being a panel member for personal interviews of the candidates.

6.5.7 **Has the IQAC conducted any study on the incremental academic growth of students from disadvantaged sections of society?**

The University attempts to track the incremental growth of students admitted from the disadvantaged sections through records maintained at the time of admission with the Admission Department and the examination records from the Examination Department.
IQAC suggested that additional coaching in terms of remedial teaching should be given to students from disadvantaged sections of society. Faculty mentoring and peer mentoring is a regular feature in the system which helps students to cope with the regular students.

6.5.8 **What policies are in place for the periodic review of administrative and academic departments, subject areas, research centres, etc.?**

Periodically, reviews of all academic as well as administrative processes are undertaken. The Deputy Registrar/Head of Department makes a presentation on the following points:

Periodically, the Vice Chancellor conducts reviews of all departments like Admission, Administration, Academics, Research, HR, Placements and Marketing.

1. Issues during the month are classified in to:
    a. Resolved
    b. Remaining unresolved
    c. Reasons for remaining unresolved
2. Workload of each individual staff in the department and performance against the planned workload
3. Problems or challenges faced by the department in execution
4. Research committee reviews the progress of research proposals.

CRITERIA VII: INNOVATIONS AND BEST PRACTICES

7.1   Environment Consciousness

7.1.1   Does the university conduct a Green Audit of its campus?

Yes. The University does conduct a Green Audit of its campus and the recommendations given by the auditor have been implemented accordingly.

The Schools promote the idea of clean environment for all. The Schools have been associated with the Swach Bharat Abhiyan initiated by the Prime Minister and has partipated in cleanliness drives at Juhu beach in association with the Cancer Patients Aid Association and at Andheri station in association with the Mukesh Patel School of Technology Management and Engineering (MPSTME).

7.1.2   What are the initiatives taken by the university to make the campus eco-friendly?

- **Energy conservation:** As a matter of policy, it has been suggested by the management and IQAC members that the energy conservation in the campus could be achieved by replacing all the existing lights with LED lights. This has been taken on a priority and has been implemented in all the departments of NMIMS. The outcome of the same has resulted in considerable energy saving and also has benefitted the University by notable reduction in the electricity bill. Understanding the importance of energy conservation, the institute has appointed a dedicated staff member who takes care of switching off the all electrical appliance when not in use. As a part of energy audit, our staff members are made aware of energy conservation by means of lecture, workshop, etc.

- **Use of renewable energy:** The concept of having solar panels for utilizing optimum energy has been introduced in some of the hostels in our other campus and would be very soon installed in our Mumbai campus.

- **Water harvesting:** Rain water harvesting has been provided as a common initiative for all SVKM institutions.

- **Efforts for Carbon neutrality:** The University has adopted a policy of paperless office by adopting Microsoft Outlook for all internal communication and SAP for administrative, accounting, HR and purchase related matters.

- **Plantation:** Plantation drive to a large extent in our University is not possible due to space constraints. However, the undergraduate students take initiative of conducting tree plantation drive and in the NMIMS campus at Shirpur, large number of trees has been planted by the efforts of the University.

- **Hazardous waste management:** Sewage treatment plants have been commissioned in Mumbai campus. The effective discharge of water from the laboratories is done through underground drainage system. The biomedical waste is disposed by a professionally managed organization named Envo-Clean.

  Waste Disposal for Tissue Culture Lab: The liquid waste generated in the lab include the spent liquid aspirated off during media changes which contain cancerous cells that may be infected with human viruses. Hence, it is necessary that these cells are inactivated prior to disposal. Apart from liquid media, various buffers, enzyme solutions, salt solutions are also generated in cell culture lab that need to be discarded in the same manner. These liquids are inactivated using 4% sodium hypochlorite solution before being discarded. The solid waste generated in the tissue culture lab include plastic ware such as serological pipettes, micropipette tips, gloves, centrifuge tubes, micro-centrifuge tubes, tissue culture grade flasks and dishes, which has come in contact with the cell lines are discarded in a bin lined with a red polythene bag. Once this bag is full, it is fastened with rubber-bands, which is then collected by MCGM. All the glassware used in the tissue culture lab are autoclaved, washed with soap water and oven dried.

  Waste Disposal for Microbiology Lab: Liquid waste generated in microbiology lab contains media and buffers that may contain microbial cells. The liquid waste is autoclaved prior to being discarded. Solid wastes such as solid agar media and plastic ware are also autoclaved before being discarded in a bin lined with red bag. Once this bag is full, it is fastened with rubber-bands, which is then collected by Municipal Corporation of Greater Mumbai as per MCGM guidelines. All the glassware used in the microbiology lab are autoclaved, washed with soap water and oven dried.

- **Cleanliness Drives:** The University promotes the idea of clean environment for all. The School of Science has been associated with the Swach Bharat Abhiyan initiated by the Prime Minister and has participated in cleanliness drives at Juhu beach in association with the Cancer Patients Aid Association (CPAA) and at Andheri station in association with the Mukesh Patel School of Technology Management and Engineering (MPSTME).

- **E-waste management:** The University believes in preventive management and hence has a central policy for maintaining computers and its accessories. This enhances the life of the hardware, thus eliminating the need to upgrade frequently. This contributes to the reduction of e-waste.
  All the computers are upgraded every five years and old computers and accessories are disposed off through an E-waste management agency.

7.2   Innovations

7.2.1   Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the university.

- Innovation in program design:
  i.   Having the advantage of being a Deemed-to-be University gave us the academic flexibility to frame innovative interdisciplinary and multidisciplinary programs and courses. Inter-twining the technical programs with management discipline and also looking in to the needs of professional manpower required by the industry today, programs like MBA Tech. (a blend of B.Tech. and Management) and MBA Pharma Tech. (B.Pharm & Management) were designed as five year integrated programs, the first of its kind in the nation. These programs were further listed in the Section 22 of the UGC as approved nomenclature and the model was so looked in to by AICTE to design five and a half years integrated program, Masters' in Technology Management (MTM). The goal of this program is to develop techno-managers who could effectively manage technology and the shop floor.

  ii. The other innovate program introduced in the University is MBA Law where students would get themselves equipped with additional capabilities for understanding and resolving complex and critical business problems and legal matters with practical business orientation. This program aims to prepare them with necessary knowledge and skill sets of business administration along with enhanced knowledge of business laws both from domestic and global perspectives. It will also provide application orientations to all young lawyers aspiring to excel in corporate and consulting world, with explicit skill sets for business administration and major relevant laws.

  iii. The University in the last academic year introduced B.A. (Hons.) Liberal Arts. It is a leadership development program wherein the emphasis is on experiential learning. The curriculum designed by experts in this field provides broad-based and trans-disciplinary education by offering a wide spectrum of courses in Humanities, Social Sciences, Formal Sciences, Law, Fine Arts and Performing Arts.

  iv. Another innovative program introduced in the University which is very successful for the past 5years is MBA offered in modular format for working executives. Some of its salient features include:
  - A highly flexible curriculum design offering program completion option in a fast-track 15 months or 24 months duration
  - A learner-driven Credit-based E-MBA program which helps one fulfill professional, personal and academic commitments simultaneously
  - Students can register for a module as per one's convenience subject to completion of pre-requisite courses
  - Exams will be conducted upon completion of every 5-6 modules
  - An extremely well-researched syllabi and course offerings, keeping the program leverage high through industry and research oriented approach to curriculum design

- Creatively engaging pedagogy with case-based teaching, maximizing in-class participant engagement
- An opportunity to enhance peer networking and value-added collaborative learning through group work
- An approach to build strategic managerial competencies through insightful core and elective modules providing an opportunity to imbibe the nuances of management through reflection and deliberation
- Enabling a perspective on research through a special dissertation to be submitted during the program
- Specialization available in areas of Finance, Marketing, HR, Information Systems, & Operations to refashion managers well-endowed in a particular functional area
- Dual specialization option available to those who want to specialize in two disciplines
- Core courses designed to help managers hone their general management skills to emerge as generalists with holistic orientation

v. The University introduced B.Sc. in Applied Statistics and Analytics course through School of Science in 2015-16 which is a unique program. The salient features of the program are:
- Curriculum prepared with inputs from eminent academicians and industry leaders, to focus on building skillsets for the growing requirement of data scientists in the industry
- Applied Statistics and Analytics form the core of the curriculum
- Curriculum contains components from Statistics, Economics, Mathematics, Computers and Analytics and emphasis on Experiential learning
- Focused on blending theory with practical and industry application to enhance understanding and learning.
- Hands on experience on using software like MS Excel, RStudio, C++, SQL, Oracle, Scilab, SPSS, SAS Visual Analytics, to solve problems involving analytics
- Regular interaction with Industry leaders to give a holistic picture of importance and application of Analytics in the industry
- Industry projects are part of the curriculum
- Faculty are drawn from a pool of experts from Industry/academia thereby ensuring a balanced and continuous interaction with the industry

vi. The University introduced a 5-Year Integrated M.Sc. in Biomedical Science course through School of Science. This is a full-time program with curriculum designed to cater to the needs of the Biotechnology, Pharmaceutical, Clinical Data Management, Molecular Diagnostics, and Biomedical Industries. The course will provide an understanding of the basic concepts with a holistic view to offer a broad, thorough and intellectually challenging approach in the areas of Science. The focus will be on training the students in both theory and applications of specialized areas. Apart from enhancing their language, communication and computer skills, the course will also aims for holistic development of their personality through training in soft skills and through social involvement.

- **Innovation in research:**
  i. Keeping in view the vision and mission of the University, to maintain quality of research carried out by the students, "Thesis Advisory Committees" and "Project Monitoring Committees" have been constituted for overseeing the work of Ph.D. and M.Sc. students, respectively.
  ii. The School has collaborated with Industry to provide live research projects to M.Sc. Statistics students where they are can work with real case studies and help the Industry come up with solutions that can help in modifying policies for better performance. M.Sc. Biological Sciences and Chemistry students get an opportunity to work in Research Institutions and Industry on funded research projects. This provides students an opportunity to gain industry relevant experience.
  iii. The School is geared to focus on some of the novel emerging areas of innovative research and development in the life sciences and biotechnology space. The SVKM Management has been very supportive and this has resulted in establishment of a state of the art tissue culture laboratory, sophisticated instrumentation, and has also provided funding for research. Our major areas of research are in Stem Cells and Regenerative Medicine, Cancer biology, Phytochemistry and Nanosciences and its applications.
      - Oral cancer is a high incidence cancer in India with 26% of global oral cancer burden contributed by India. We, at SOS are investigating whole genome and transcriptome profile of oral cancer patients using contemporary high throughput systems. Our published research indicated a panel of biomarkers, which might be responsible. Another cancer, pancreatic adenocarcinoma is one of the most aggressive malignancies and has poor recovery. Our published research used a novel approach using allicin, an active constituent from garlic, which showed a promising effect on cancer cells.
      - Our research in Stem cell based tissue engineering demonstrated that stem cells could be converted into liver cells in the laboratory, using three-dimensional polymer scaffolds, thus opening up newer exciting avenues in the treatment of liver diseases. Another aspect of the research was to comprehend basic mechanisms involved during the process of conversion.
      - Since our lifestyle is sustained by energy, our world requires new science, technology and public policy innovations to enhance energy generation for varied applications. The Nano research group at SDSOS has been exploring newer nanomaterials as electrodes for supercapacitors. Nanomaterials based on metal/metal oxides, conducting polymers and supramolecules enable fabrication of energy devices with higher energy and power densities. These supercapacitors are also optimized for longer shelf life and to operate in a wide range of temperatures and electrolytes. In this journey, we have also focussed towards understanding the physicochemical properties of these materials and elucidate the electron transfer mechanisms. These high

218

performance supercapacitors are a breakthrough in new generation energy storage and delivery and, we believe, that they can replace conventional batteries in many applications or can be used in supercapacitor/battery hybrid systems that will extend the lifetime of any device. At SDSOS, the development of supercapacitors is on the cusp of entering the marketplace.

- **Community engagement programs:**
  - **i.** **We Care:** To enhance social sensitivity in students, School of Business Management introduced a program in collaboration with NGOs and government agencies, known as "We Care".

    The We Care project initiated by NMIMS reflects a changing paradigm that acknowledges partnerships between academic institutions and the local community. The "We Care" program is integrated with the MBA program of the University. Students are required to go through modules that help them to understand the structure of the Indian Society, decision making processes and the political system. Students are expected to examine social issues like poverty, gender, literacy, healthcare, immunization, female infanticide and environmental issues that confront policy makers in the country. Students are motivated to develop management solutions that will help NGOs and government agencies develop more effective solutions. The figure below depicts the types of Social Organizations where students worked on various social issues. Other schools of NMIMS are also engaged in community engagement programs.
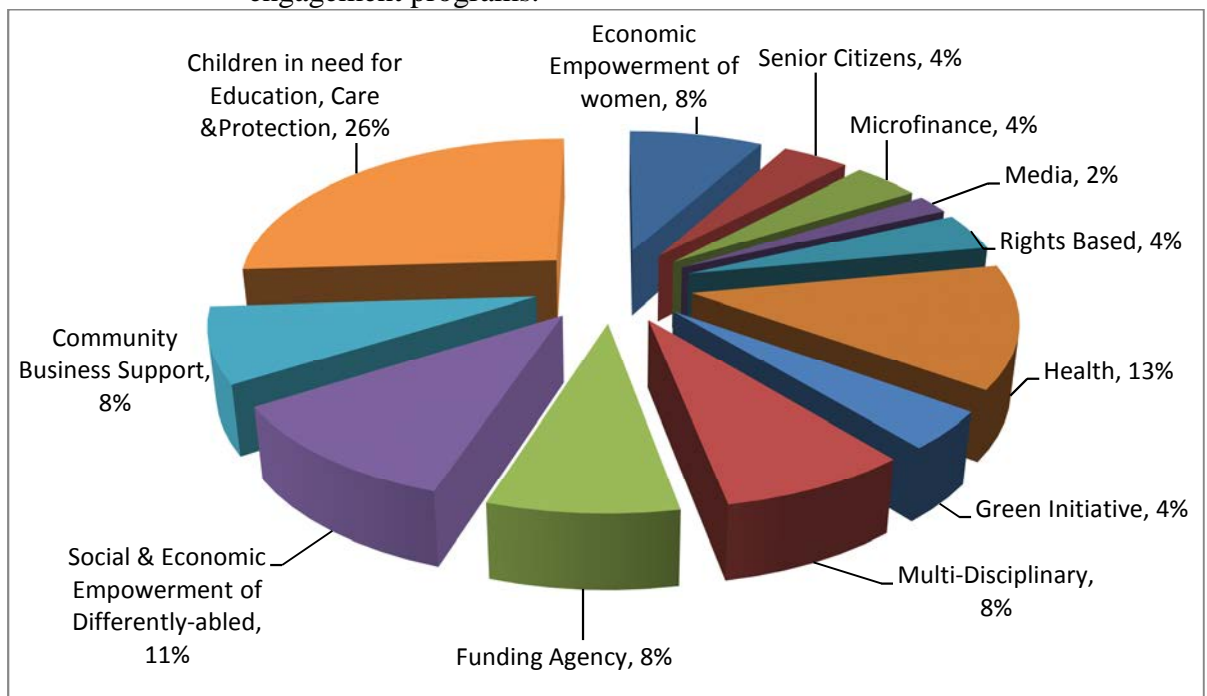
Figure 7.1: Types of Social Organizations

  - **ii.** **Program on Social Entrepreneurship:**
    NMIMS is committed to nurturing and strengthening Social entrepreneurship in India. In this context, in 2006, NMIMS designed and launched a unique Three Year Part Time MBA

Program in Social Entrepreneurship. The part time MBA in Social Entrepreneurship is a comprehensive program for development sector professionals who aspire to excel in an increasingly complex and competitive scenario. The program endeavors to develop strategic orientation and motivation for success with Social conscience. The Part Time MBA in Social Entrepreneurship prepares the students to approach public needs innovatively, with a combination of entrepreneurial practices and Social purposes, through for-profit, nonprofit, and governmental sectors.

iii. Corporate Social Responsibility:

The School of Business Management, NMIMS has incorporated 'Corporate Social Responsibility' as a core subject in the MBA program. This course enables students to examine new ways to address the social, economic, and environmental effects of doing business, while balancing conflicting demands on business. Emphasizing the alignment of Corporate Social Responsibility (CSR) with business strategy, this course helps students to define priorities and strategies to integrate Social Responsibility through core business, and build Social as well as business value.

To enable students to demonstrate the value of social responsibility towards communities, students have formed the Social Responsibility Forum (SRF) through which students, who are socially inclined, undertake Social projects. SRF has developed '*Leaders of Tomorrow*' project to develop and nurture 'Leadership Abilities' amongst adolescent children (Std VIII and IX) who belong to the socially and economically deprived communities. Through this project, students of the second year MBA are required to volunteer in designing and delivering leadership training programs in the adopted school for a period of one year. MBA students handle various sessions related to stress management, confidence building, goal setting, memory development, creative and lateral thinking, public speaking and so on, which aim towards development of personality and leadership qualities. Currently the project is functional at Goklibai School, Vile-Parle (W).

The Social Responsibility Forum (SRF) in partnership with local NGOs, annually organises an NGO festival- 'Sadbhavna' in which students play the role of marketers to provide market support for NGO products. They also promote social issues through activities like panel discussions, competitions and exhibitions.

Exploratory research in the area of Corporate Social Responsibility of Business Enterprises has been carried out for industry associations like 'The Bombay Chamber of Commerce and Industry' and 'Organization of Pharmaceutical Producers in India'.

220

iv. **Disaster Management:**
In the context of recurrent natural and man-made disasters, NMIMS took a proactive step to develop a culture of disaster preparedness and to inculcate steps for disaster mitigation among various stakeholders. The Disaster Management Cell created for the purpose, actively works in collaboration with the Disaster Management & Central Complaint Registration System of Municipal Corporation of Greater Mumbai (MCGM), GOI-UNDP Disaster Risk Management Program, Relief and Rehabilitation Cell, Government of Maharashtra.

The Cell in its role as a Capacity builder regularly undertakes capacity building programs in the areas of disaster management with various stakeholders. After the 26/11 terrorist attacks in Mumbai, the Cell organized the 'Hospital Disaster Preparedness Program' in partnership with New York Presbyterian Hospital, Cornell University and Life Supporters Institute of India. To develop synergy of first responders like Police, Fire Brigade, BMC officials, Hospitals, Civil Defence, the Cell in partnership with Government, NGOs and UNDP organized Mumbai Emergency Management Exercise.

v. **Entrepreneurship Training for Women:**
Since 1992, NMIMS has been active in planning strategies for the development of women in the fields of management and entrepreneurship. To equip and train women in planning, managing and running a business, the School of Business Management offers a 12- week course on 'Enterprise Training Program for Women' since 1992. More than 480 women have been trained under this program and about 40 per cent of them have successfully continued with these businesses till date. Women entrepreneurs have developed their businesses in IT, Recruitment, Catering, Travel & Tourism, Manufacturing Products and other related areas.

- **Integration of technology in all the University processes:**
    i. Admission Process: The admission process for UG and PG programs at NMIMS is by a national level online entrance test. A phenomenal shift from paper pen mode of examination to online entrance test was introduced in the year 2009.
    ii. Partnering with GMAC, NMIMS has made a global brand. Business Schools in India, Africa and China have shown interest in accepting NMAT. Admissions are through a Computer based Admission Test. The ability and aptitude of students are tested while admitting them for a particular program.
    iii. Implementation of ERP (SAP) for all functions of the University like Examination, SLCM, etc.
    iv. Feedback System

221

7.3 Best Practices

7.3.1 Give details of any two best practices which have contributed to better academic and administrative functioning of the university.

Best Practice 1: Curriculum Development and Delivery

1. **Title of the Practice**
   Curriculum Development and Delivery

2. **Objectives of the Practice**

The objective of designing dynamic curriculum is to keep pace with the changes happening in the industry and needs of the society. Curriculum which delivers topics relevant to the contemporary and emerging areas are of prime importance. Curriculum is reviewed in a structured way at least twice a year by every department of the University. The curriculum review process provides opportunity to students to develop an overarching perspective of integrating learning across different functional core areas and develop competencies like decision making, problem solving, lifelong learning.

Curriculum Delivery: Diverse pedagogy tools are used to create a learner centric environment. Every department adopts various innovative teaching learning methods to give the student maximum benefit of learning and this outcome based learning focuses more on the experential learning.

Figure 7.2: Teaching learning

3. **The Context**

- The students are drawn from the National pool for undergraduate and post graduate courses. These students have different levels of learning in their parent Institutes from where they do their 12th or their gradation. Major challenge in designing the curriculum is to keep in mind the objective set by the university during curriculum development and the

ability of a student to absorb and assimilate the same after revision. Thus, students having undergone learning across different disciplines in different learning methods adopted by different Universities. It is important for us to reduce variations in their learning methods, and introduce student centered learning process. This is aimed at achieving the graduate attributes for every graduate of NMIMS University. The use of Technology in delivery of lectures is imperative and hence NMIMS has adopted all modern teaching means like

- Role plays, simulations, and web based exercise
- Discussion forums on e-Black Boards
- Guest sessions by industry experts
- Videos and films
- Management games
- Projects/Project presentation
- latest databases
- sophisticated equipments
- instruments etc.

4. **The Practice**

Skills like communication, information literacy and collaboration are intentionally taught, honed and assessed in an integrated fashion, within the context of the class.

Research reports in management education and technology are considered before the curriculum development. For example: in the school of Business management, the curriculum of MBA was reviewed as given: It considered the research Every year, either Industry Rendezvous or round table or faculty workshop is organized. The Industry Rendezvous/Round Table is being attended by many eminent industrialists. The primary goal of this exercise is to develop managers with a global mind set and deep understanding of local environment. Taking into consideration inputs from industry experts and from academicians, each Area carries out an assessment of the course content. The need for the introduction of new courses is discussed, as also the elimination of those courses that have outlived their usefulness.

The process of Curriculum development is structured in a way where every department meets at least twice a year. The composition of BOS includes academicians of Institutions of repute, Industry experts, heads of department, Controller of examination and students. The obsolete courses are suggested to be removed and new emerging topics are introduced. Further, the suggestions given by BOS is presented to Academic council comprising of eminent persons representing academia and Industry. The revised curriculum is implemented from the forthcoming academic year after endorsement from the Board of Management. It is by norms of NMIMS that the 20% syllabus should be revised.

The loop of analyzing whether the exercise of developing curriculum and its revision is relevant.

At the end of each term an integration module has been designed to help students to reflect on their learning and leadership qualities. Program provides opportunities to practice the skills of strategic problem solving and decision making and implementation at regular intervals in true sense, feedback from all stake holders is taken.

Curriculum Delivery: High academic standard isn't enough if they are not implemented through powerful instructional methods.
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Figure 7.3: Curriculum Delivery

All courses have a mix of:
- Lecture mode
- Participative Learning
- Experiential Learning
- Independent learning (at Masters' level and Doctoral level)

Most of the faculty use interactive methods for teaching. The major emphasis is on classroom interaction in terms of cases, simulations, behavioural exercises, management games, film-based discussions, research paper presentations, seminars, debates, group discussions, assignments, quiz/tests/viva and laboratory work. The SBM uses Harvard business cases as an integral part of the teaching-learning process, in addition to business and financial simulations. Business simulations are also used by other schools.

The faculty organizes visits to various research/industrial organizations or corporate to gain knowledge of organizational functioning.

Various multi-media tools such as LCD projectors, internet, Blackboard, e-resources like EBSCO, Science Direct etc. are also incorporated in teaching-learning process.

In some subjects, Seminars and Guest Lectures by subject experts on various core areas are also organized. In fact, at the SAMSOE, a minimum of 5% of the lectures in the Core courses are delivered by industry experts.

Blackboard Learning Management System and databases further facilitate interactive learning.

224

The proportion assigned to pedagogy depends on the nature of the course. For example in BSSA, Digital and hand drawn presentations are the major tools for theory subjects.

5.   Evidence of Success

It is important to note that no 21st century skills implementation can be successful without developing core academic subject knowledge and understanding among all students. Students who can think critically and communicate effectively must build on a base of core academic subject knowledge. For this reason, core academic subjects are a bedrock component IN all our departments.

"Future Ready Students" the primary objective is reflected in NMIMS curriculum. Thus, curriculum development and delivery frames the collaborative efforts between education, business and community leaders to improve teaching and learning, and thus the assessment of the same is analyzed:

Measuring learning outcomes: The attributes are well defined for every graduate at NMIMS. The achievement of these attributes are measured by direct and indirect methods. Rubrics to do so is also developed by faculty teaching the respective courses.

Performance in examination:

The performance of students in the final year examination clearly indicates that the curriculum delivery is very effective.

Table 7.1: Student Performance:

Sr. No.	Name of the School	Overall Pass Percentage
1	SBM	97.85%
2	MPSTME	93.04%
3	SPPSPTM	88.31%
4	BSSA	100%
5	SDSoS	92.86%
6	ASMSoC	96.78%
7	SAMSoE	97.14%

Placement record:

All departments have placement cell which gives a platform to students as well as the Industry. All eligible students are placed successfully and the salary is as given below:

Table: 7.2: Placements

	Rs. In Lakhs Highest CTC	Rs. In Lakhs Avg. CTC
MBA	30	17.09
MBA HR	17	12.04
MBA PM	15	8
MBA Tech	22	7.5
MBA (Pharma Tech)	11	5.9
M.Pharm + MBA II Year	13	6.5
M.Pharm	4	3.1

B.Pharm	4.8	3.7
MSc. Statistics	8	6.13

6. Problems Encountered and Resources Required

Problems encountered during Curriculum development and delivery:

- The task to identify the needs of the student fraternity and expectations of the Industry.
- Implementation of changes in the existing curriculum and the teaching pedagogy raised some resistance from faculty
- Convincing all recruiters about the changed curriculum and new programs across the Industry
- Merging the management curriculum with various specializations. This was done keeping in mind the emphasis given to the domain knowledge
- The benchmarking for some programs where we are the pioneers and in the curriculum development of courses in emerging areas was not available.
- Resources to train faculty on the revised curriculum was very difficult.
- The acceptance by Regulatory bodies to include the new degrees in the approved degrees of UGC.
- The Advanced IT infrastructure required for delivering the same.

7. Notes:

An example of one such process of emergence of new courses and program is explained:

A research report of Prof. Rakesh Khurana of Harvard Business School, articles of Prof. Henry Mintzberg, Prof. David Garvin and others on management education. Also the research reports of McKinsey, AACSB, EFMD and AICTE's Board of Management Studies were also considered. This provided the direction to the discussions on curriculum development of the MBA program. It also provided a perspective regarding the future direction that management education should take and the skills and competencies required for managers in a globalised economy.

a) The need for curriculum development is also assessed through industry research. Key corporate who are major recruiters or market leaders are interviewed to identify the gap in curricula.

For example, before the launch of the MBA Tech program at the Mukesh Patel School of Technology Management and Engineering, feedback was taken from major corporate like Tata Consultancy, Tata Informatics, Airtel, Reliance Communications etc in 2004. The program was once again reviewed with industry experts in 2008 and 2010. Besides, well known national experts, executives from financial services, Information Technology, telecom, chemicals and manufacturing participated in this exercise. Both these reviews led to changes in the curricula. A similar exercise was carried out for the

226

MBA Pharma Tech program at SPPSPTM, which was developed in consultation with Pharma industry. The MBA focus programs in Banking, Capital Markets and Actuarial Science at SBM were developed in consultation with the industry. MBA Capital Market has been developed in consultation with the Bombay Stock Exchange, while Banking has been developed in consultation with ICICI Bank.

b) In addition to the feedback from industry, NMIMS has a system of collecting feedback from its Alumni. This feedback is collected both in a structured and in an informal manner during alumni meetings and alumni visits to the institution. Some of the Alumni who are part of the Visiting faculty, especially in SBM, contribute to the identification of strengths and gaps in the curricula.

Both industry experts and alumni are members of the Board of Studies of different Schools and programs. They are also members of the Academic Council and Board of Management.

c) <u>Current students</u>: Regular feedback from students, as well as the Open House conducted by the Vice Chancellor and the Dean of the respective Schools provides an opportunity to understand the gaps in curricula and delivery aspects. Students are also involved in benchmarking the curriculum with other institutions.

d) <u>Faculty</u>: Faculty is an integral part of the curriculum development and contributes significantly through research and consultancy work.

e) <u>Global partners</u>: NMIMS consults its global partners on the changes in curriculum. For example in 2011, the full time Ph.D. program developed by NMIMS, School of Business Management was sent for comments to the professors at the Case Western University, Yale, Harvard, Emory and Athens University of Economics and Business. It helped in fine- tuning the program and pegging it against international standards.

f) <u>National experts</u>: Just as international partners are consulted, NMIMS also circulates its curriculum changes to well-known national experts from IIMs, IITs, ICT, and other national institutes of excellence in higher education.

The suggestions received from global partners and national experts are discussed in the Faculty Council Meeting of each School. Once they get approved by the Faculty Council and respective Board of Studies, they are taken up in the Academic Council for approval. Once approval is received from the Academic Council, these suggestions are put to the Board of Management for confirmation.

g) Statutory bodies' requirement – NMIMS complies with the requirements of the concerned statutory bodies with regard to teaching hours as also physical resource requirements.

227

After extensive study, a course-curriculum is developed by the faculty, which is then proposed to the Board of Studies. Their recommendations are then submitted to the Academic Council for approval. Only after approval is the syllabus implemented.

An example of this translation of the University's goals and plans is the MBA (Entrepreneurship & Family Business) program.

Best Practice 2: Shared Leadership

1. **Title of the Practice**
   Shared Leadership in Institution Development

2. **Objectives of the Practices**
   The objective of this practice was to provide a sense of centrality to faculty and staff members. In a growing organization the challenge is always to ensure an alignment between the strategy, structure, systems and leadership. To ensure such an alignment, NMIMS created its own model of participative leadership and governance in the faculty and non-faculty system. The objective of this practice was also to integrate the feedback in the evolution of systems, processes and programs. It was also to make an individual feel empowered.
   It also helps to listen to the voices in the institution; especially the dissenting voices and also ensures continuity of the institution, especially from the point of view of leadership.

3. **The Context**
   Faculty attrition and exit interviews of some of the key outgoing faculty resources provided us with the significant feedback on the lapses in decision making and governance at the school or campus level. The same was also true in the case of non-teaching staff members. It was therefore felt that there is a need to create a structure and systems which will ensure better communication and also involvement of all internal stakeholders, especially the faculty and leaders in schools and campuses. Generally, staff councils have been avoided by the heads of the institutions, primarily due to the politicization of the decision making process that may occur. To avoid such a situation, it was felt that Faculty Council in various Schools must have a defined scope of what can be discussed and accordingly a mandate for Faculty Council was prepared to the faculty. Many a time it is felt that University has a top-down decision making process and the voice of the faculty is not heard. This form of governance helped in overcoming feelings.

4. **The Practice**
   Faculty Council
   The Faculty Council at each school was established in 2009 with the stated goal of encouraging faculty involvement and integrating the expertise and collective wisdom of the faculty in attainment of the institutional objective.

   The belief in doing so was that this form of governance would lead to:
   1. Collaborative relationship
   2. Consensus building

3. Achievement of institutional purpose in a win-win mode
4. Consultative approach to problem solving, especially those that affect institutional functioning.
5. Encourage Peer group culture.
6. Assist the leadership both at the School and University level to successfully plan and strategize the future.

The Faculty Council at each school is expected to meet at least twice in one term or semester. The Dean of the School is the Chair of the Faculty Council Meetings. Each Faculty Council elects its own secretary who maintains the record of the discussions and decisions of the Faculty Council. These decisions are considered by the University administration in its policy formulation and administrative orders. To ensure that the Faculty Council does not become a political place, it was communicated to the School that the Faculty Council will discuss the issues in the area of program management, matters relating to the growth of the program, placement of students, library development, research by the faculty and funding support, issues of discipline among students and faculty, improvements in students learning experience, international relations, alumni relations, media relations, schools rankings, faculty workload and manpower planning etc. However, the following were kept out of the preview of the faculty:

1. Any personal issue of faculty;
2. Any matters relating to appointments or severance or departure of the faculty or staff from School;
3. Any matters relating to salary and other benefits.

In the course of the several meetings in different schools, it was observed that discussions in the initial stages was monopolized by seeing a faculty or those who had with the institutions for a longer time. To encourage young faculty members, Deans particularly took interest in calling upon them to share their concerns and views on the agenda.

The issue of faculty interest in the meetings also became a reality after a certain point of time. To overcome such non-interest, faculty members were told that if they did not participate in decision making then they perhaps would have very little reason to complain. However, still the attendance in most Faculty Council Meetings is not more than 60% to 70% of the total faculty in the School.

Faculty involvement in some of the major committees of the School and the University for example books and other knowledge resources are acquired at the school level only after the School's Library Committee recommendations. The Library Committee has faculty members from all departments. Likewise, strategic plan development at the School level is true a faculty consultative process.

On a similar line, a Deans Council was constituted in 2011 under the Chairmanship of the Vice Chancellor. This Council meets every month generally on 2nd Fridays to review academic, administration, research, progress on the strategic plan and discussion on the good practices at the School level. Though, it was decided to create an internal portal for sharing practices among all schools, it could not be done.

Once a month the VC has a tea meeting with Head of the departments and Deans, where the recent developments are discussed.

5. Evidence of Success

Measure of success: The Faculty Council Meetings did help the University administration to respond to their concerns. The evolution of the university research policy, organization of institute –industry business conference on an annual basis, working paper series, and modifications from time to time in academic program and examination rules are some of the examples of how this has helped the university. The research culture is today evolving and increasingly the narrative in the University is changing from classroom contribution to the world of knowledge and many research projects faculty members are able to get funding from government and non-government agencies and number of patents are applied by faculty or group of faculty. Four patents have been granted. The discussion in the faculty group is on; how to improve school's performance over the previous years. The collective leadership therefore is today reflected in the growth of the school and research at the university. School rank, University rank and various awards to faculty and institution are an example of success that NMIMS is able to achieve in development of collective leadership. This was further reinforced by two of the most recent awards to the University:

1. Best Prax Runners-up awards at the Tenth International Benchmarking Conference and Jiangsu Benchmarking Conference held at China.
2. And earlier the national awards on:
   a. Best in Class Leadership Governance at the Global Benchmarking Network 2016 Summit
   b. Award for Leadership
   c. Award for Strategic Planning
3. Also FICCI awarded NMIMS by giving an award for Excellence 2016, `**University of the Year'** in the category of 10 to 30 years old universities.

6. Problems Encountered and Resources Required

The most significant problem encountered was of non-participation by some of the faculty members. This problem is now getting resolved by Deans encouraging younger and non-participating faculty members and also giving them institutional responsibilities like program coordination.

In the context of Deans Council the problem was about maintaining the frequency of the meetings because of the non-availability of Vice Chancellor and Pro Vice Chancellor on every 2nd Friday of the month. This problem is also getting resolved by having the Deans Council Meeting at least once in a quarter.