MANIPAL ACADEMY OF HIGHER EDUCATION, MANIPAL

(Established under Section 3 of UGC Act, 1956)

Annual Quality Assurance Report (AQAR)

2016-17

Submitted to

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

Bengaluru - 560 072 India

Part – A

AQAR for the year *(for example 2013-14)* | 2016-17

1. Details of the Institution

1.1 Name of the Institution | MANIPAL ACADEMY OF HIGHER EDUCATION (MAHE), MANIPAL

1.2 Address Line 1 | "manipal.edu"

Address Line 2 | MADHAV NAGAR

City/Town | MANIPAL, UDUPI

State | KARNATAKA

Pin Code | 576104

Institution e-mail address | registrar@manipal.edu

Contact Nos. | 0820-2922323

Name of the Head of the Institution: | DR. H. VINOD BHAT

Tel. No. with STD Code: | 0820-2922615

Mobile: | 98450 69081

Name of the IQAC Co-ordinator: | Dr. Sandeep S Shenoy

Mobile: | 9880368390

IQAC e-mail address: | iqac@manipal.edu

1.3 NAAC Track ID | KAUNGN10065

(For ex. MHCOGN 18879)

OR

1.4 NAAC Executive Committee No. & Date:

(For Example EC/32/A&A/143 dated 3-5-2004.
This EC no. is available in the right corner- bottom
of your institution's Accreditation Certificate)

EC(SC)/16/A&A/1.2 dated 11/07/2016

1.5 Website address:

www.manipal.edu

Web-link of the AQAR:

https://manipal.edu/mu/about-us/naac/iqac-mahe/aqar-2016-17.html

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1st Cycle	**B+**		**2002**	**2002 -2007**
2	2nd Cycle	**A**	**3.30**	**2016**	**2016- 2021**

1.7 Date of Establishment of IQAC : DD/MM/YYYY **03/06/2013**

1.8 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC (*(for example AQAR 2010-11submitted to NAAC on 12-10-2011)*

  i. AQAR 2013-14 submitted NAAC on 21/05/2016
 ii. AQAR 2014-15submitted NAAC on 21/05/2016
iii. AQAR 2015 -16 submitted NAAC on 20/02/2017

1.9 Institutional Status

University State ☐ Central ☐ Deemed ☑ Private ☐

Affiliated College Yes ☐ No ☐

Constituent College Yes ☐ No ☐

Autonomous college of UGC Yes ☐ No ☐

Regulatory Agency approved Institution Yes ☐ No ☐
(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education ☑ Men ☐ Women ☐

Urban ✔ Rural ☐ Tribal ☐

Financial Status Grant-in-aid ☐ UGC 2(f) ☐ UGC 12B ☐

Grant-in-aid + Self Financing ☐ Totally Self-financing ✔

1.10 Type of Faculty/Programme

Arts ✔ Science ✔ Commerce ✔ Law ☐ PEI (Phys Edu) ☐

TEI (Edu) ☐ Engineering ✔ Health Science ✔ Management ✔

Others (Specify) **Allied Health, Communication, Regenerative Medicine, Architecture, Nursing, Hotel Management, Life sciences, Information Sciences, Natural Sciences, Humanities.**

1.11 Name of the Affiliating University *(for the Colleges)* | **Not applicable** |

1.12 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University | **As a Deemed University by Central Govt.** |

University with Potential for Excellence	--	UGC-CPE	--
DST Star Scheme	--	UGC-CE	--
UGC-Special Assistance Programme	--	DST-FIST	✔
UGC-Innovative PG programmes	--	Any other (*Specify*)	TIFAC-CORE
UGC-COP Programmes	--		

2. IQAC Composition and Activities

2.1 No. of Teachers	15
2.2 No. of Administrative/Technical staff	5
2.3 No. of students	3
2.4 No. of Management representatives	1
2.5 No. of Alumni	8
2.6 No. of any other stakeholder and Community representatives	1

2.7 No. of Employers/ Industrialists   1

2.8 No. of other External Experts   1

2.9 Total No. of members   26

2.10 No. of IQAC meetings held   Bi- annual

2.11 No. of meetings with various stakeholders: No. 2   Faculty 2

   Non-Teaching Staff /Students 2   Alumni 2   Others 2

2.12 Has IQAC received any funding from UGC during the year? Yes ☐   No ✓

   If yes, mention the amount   NIL

2.13 Seminars and Conferences (only quality related)
   (i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

   Total Nos. 94   International 3   National 6   State 12   Institution Level 73

   (ii) Themes

Sl. No.	Themes
1	Creating Quality Culture through awareness
2	Capacity Building through continuous training
3	Developing Quality workforce
4	Regulatory Compliances
5	Risk Management
6	Continuous quality improvement through Leadership
7	Tools and techniques of Quality Assessment
8	Research and Innovation in Academics
9	Curricular Innovation and Pedagogical Requirement

2.14 Significant Activities and contributions made by IQAC
   ➢ Created a quality culture
   ➢ Self-Evaluation by Internal audits/academic audits
   ➢ Enabled to prepare SWOC in alignment with academic and administrative objectives.
   ➢ Enhanced Pedagogic innovation and thereby student academic outcome
   ➢ Identified critical inputs for ranking, accreditation and awards

As a result MAHE has achieved following Ranking, Accreditation and Awards:

- Ranked No. 17 in India and No. 200 in Asia in QS University Ranking ASIA 2016.

- Ranked No. 101 in QS University Ranking BRICS 2016.

- Ranked 18 in Overall and ranked 30 under University Category in NIRF 2017

- Excellence in Internationalization award in FICCI Conference 2016.

- Ranked No. 1 Private Deemed University in India by THE WEEK – HANSA Survey 2016.

- Ranked No. 2 in India under the Suburban category in UI GreenMetric Ranking for Global Universities 2016.

- Ranked No. 1 with overall 4 Stars (out of 5 stars) in Karnataka State by Karnataka State University Ranking framework – an initiative of Karnataka State Higher Education Council (KSHEC), Department of Higher Education, Government of Karnataka, in the 'Established University' (10+ Years) Category. Rated 5 stars Under the criteria "Infrastructure".

- Kasturba Hospital, Manipal an associated teaching hospital of Kasturba Medical College (Constituent Unit of MAHE),Manipal is NABH Accredited hospital.

- Ten Engineering, One Hotel Management & One Pharmaceutical Sciences course are NBA Accredited.

Academic / Evaluation Reforms

- Innovative practices in Student Assessment - Examination using e-Pad.

- Evidence Based Practice in the curriculum.

- Choice based curriculum implemented in few programmes.

Research Reforms

- Encourage constructive research & dissemination practices.

- Research Policy , intellectual property rights , Academic dishonesty, Committee on publication ethics.

- Subscription with indexing agencies like Thomson Reuters, JGate, Springer, Scopus(Elsevier), SciFinder.

Concentrate on productive research

- Offer logistic, financial, academic and staff support.

- Research Incentives.

- PRAISE Policy for students.

- Amendment to the policy on conference facilities.

Significant Activities / Contributions by Institutional Level IQAC at Major Institutions

Kasturba Medical College (KMC), Manipal

- The IQAC has conducted biannual department audits and provided suggestions on areas of improvement for the individual departments.
- Sensitization of all staff/ conducting regular meetings

Kasturba Medical College (KMC), Mangalore

- Streamlining the quality processes in the respective departments.
- Adherence to time table, examination time lines and feed-back are monitored and discussed.
- Research output is captured in the form of conference presentations, research grants and paper publications in Scopus indexed journals.
- Various quality related activities like organising talks and workshops related to academic and research development was also conducted.
- Conducted the Academic Audit which looked into the processes of the curriculum delivery.
- Induction Training was also conducted by the IQAC and all new faculty to the institute underwent induction programme within a month of their joining the institute.

Manipal Institute of Technology (MIT), Manipal

- The academic performance of all departments reviewed and suggested steps to improve overall teaching learning process.
- Monitors the activities throughout the year, makes suggestions and incorporates the remedial measures
- Interaction with Heads and faculties of each department for maintaining and sustaining quality teaching learning process.
- Framing of quality objectives for institution and departments (programme outcomes). Action plan, monitoring and assessment of quality objectives.

Manipal College Of Dental Sciences (MCODS), Mangalore
- Workshop on Outcome Based Education
- A webinar on " What After BDS "
- Workshop on Emergency Skills for Dentists,
- Workshop on Research Methodology, Epidemiology, Biostatistics and Ethics
- Webinar on Current Scenario of Dentistry in USA

Manipal College Of Pharmaceutical Sciences (MCOPS), Manipal
- MAPS of MCOPS received Member in Association (MiA) from the International Pharmaceutical Students' Federation (IPSE) during August 2016
- Initiated Winternship for 11 students
- 14 students visited foreign universities for Internship
- Research Orientation by Innovative Communication Club

Manipal College Of Dental Sciences (MCODS), Manipal

- A fire mock drill training program for all the staff and interns was organized on 12th July 2017 by IQAC in association with Department of Fire safety, Kasturba Hospital, Manipal. A total of 119 staff and students have participated in the program. The training program involved a brief outline on the different type of fire extinguishers and their uses followed by mock drill along with the demonstration on the use of fire extinguisher

2.15 Plan of Action by IQAC/Outcome

Based on the Vision and Mission of the University, a plan of action is chalked out by the IQAC in the beginning of the year which is translated into measurable quality and environmental objectives and the outcome achieved is reviewed in the Management review meetings on a bi-annual basis .

Quality Objectives, Targets and Achievement Status

Excellence in education, health care and research leading to a place in the top 100 Universities in Asian Rankings

1. **Enhancing Academic Reputation**:

I. Quality of intake

#	Quality Objective	Target	Achievement Status
1	Cut off ranking at admission level	Better as compared to previous year	Cut off ranking for almost all the branches in BTech (except for ICE, Civil & PMT) was better as compared to previous year For MBBS, BDS since the admissions were based on NEET All India Rank this year and last year it was based on MAHEOET, the same cannot be compared.
2	Diversity of students	Better representation as compared to previous year	Better representation in 2016 as compared to 2015 (No. of Indian States/UT: 2015 - 35 2016 - 36) (No. of Countries: 2015 – 29 2016 - 29)
3	Increase in number of applications, National and International	Higher as compared to previous year	National 2015 -1,36,884 ; 2016 – 1,43,399 International 2015 – 2204; 2016 – 2665
4	Student Ratio UG: PG: PhD benchmarked with top Universities in the world	Baseline data is yet to be finalised	MAHE ratio is 22:10:1

2. - Academic

#	Quality Objective	Target	Achievement Status
1	Declaration of results on time	Within a month of conduct of exams	Results are declared on time
2	Conduct of exams as per academic calendar	As per calendar	Conducted as per calendar
3	Student attrition rate	Reduce as compared to previous benchmark	2015: Lowest: 0%; Highest: 5.32%; Avg: 2.12%
4	Enhance Student Progression		
i.	Percentage of eligible students progressing to higher levels	Improve compared to previous benchmark	2015: 84.23% 2016 : 84.46% (Achieved)
ii.	Percentage of eligible Students placed.	5 % increase every year over the previous 3 years average	2015: 89% 2016 : 72 %

5	Number of students involved in social responsibility projects and extension activities	Improve on previous benchmark	All constituent units have achieved the target.
6	Graduation rate	% of students completing the programme on time, target can be 1% better than average of previous three batches	All constituent units have achieved the target 2015: Avg.: 88.09% 2016: Avg : 88.98%
7	Introduction of new programmes	At least 20 new programmes compared to previous year	2015: 19 2016: 8

3. Service delivery Process:

#	Quality Objective	Target	Achievement Status
1	Student feedback of faculty	Minimum of 3 on a scale of 5	Achieved
2	Student feedback on infrastructure	Minimum of 3 on a scale of 5	Achieved
3	Student feedback on academic program	Minimum of 3 on a scale of 5	Achieved
4	Patient feedback on services	Minimum of 3 on a scale of 5	Kasturba Hospital Manipal –OP- 4.36, IP – 4.23 KMCH – Mangalore – 4.75 Dr. TMAP H Udupi- OP – 4.3, IP – 3.6 Dr. TMAP H Karkala – OP – 4.52, IP 4.47
5	Faculty student ratio as per statutory and regulatory requirements	As applicable	Maintained

II. Enhancing Research Output:

#	Quality Objective	Target	Achievement Status
1	Number of publications in National and International, Indexed journals with impact factor per faculty (indexed by Scopus)	Minimum 5% increase every year	2015: 0.46 2016: 0.40
2	Enhance Quality of Publication		

a	Increase in Average Journal Impact factor by 0.2 every year.	By 0.2 every year	2015: 0.4 2016: 0.85 (Achieved)
b	Increase in Average H index by 2.0 per author every year.	By 2.0 per author every year.	2015: 74 2016: 77 (Achieved)
4	Amount of research grants received	5% increase every year	2015: Rs. 2665.35 Lakhs 2016: Rs. 2362.33 Lakhs (Apr- to Aug 2016 – increased by 171.32%)
5	No of patents applied for	At least one patent more than the previous year	2015: 3 2016 : 10 (achieved)
6	Number of Ph D registrations	At least 5% increase every year	2015: Technical: 78+ Health Science: 103 = (Total – 181) 2016 : Technical: 78+ Health Science : 106 = (Total –184)
7	Number of faculty with Terminal degrees.	Increase by 5 % every year	1363 (Calender Year) 1390 (Calender Year)

III. Increasing focus on Internationalisation

#	Quality Objective	Target	Achievement Status
1	Number of International students in UG and PG programmes	5% increase	2015**:** UG – 1869; PG –54 2016 : 1846 (UG + PG)
2	Number of incoming and outgoing exchange students in UG and PG programmes (includes IAESTE, AIESEC, Study Abroad programmes, interns etc.)	10% increase	2015: Inbound: UG: 214, PG:31 (Total: 245) Outbound: UG:107; PG: 1 (Total: 108) 2016 :Inbound : UG: 479 & PG :415 (Total 894) Outbound : UG :247 & PG : 174 (Total : 421- includes above 3 months and below 3 months)
3	Number of Collaborations with Foreign Universities	At least 10 per year	2015: 55 2016 : 59
4	Number of International faculty	Increase by at least two per year	2015: 08 2016: 11 (includes 3 part time faculty)
5	Transnational mobility of faculty	At least 10 per year	2015: 07 2016 :08

IV. Enhancing Employer Reputation

#	Quality Objective	Target	Achievement Status
1	Number of companies participated in campus	5 % more than previous year	2015: 190 2016: 201

#			
	placements		
2	Number of Fortune 500 companies participating in campus placements	5 % more than previous year	2015: 32 2016 : 35
3	Percentage of Alumni Registered with University	From existing 8.3%to 50% by end of 2015	2015 : 16079 2016 : 22889
4	Number of Industry Collaborations	At least 5 per year	2015: 7 2016 : 12
5	Facilitating Alumni reunions	At least one by all institutions	About 13 meets - Achieved

V. Training:

| #	Quality Objective	Target	Achievement Status
1	Ensure continual enhancement of knowledge/skills of teaching faculty	Attend at least one professional development programme and a minimum of 10 hours of training every year	2015: 1411 (Apr. to Dec. 2015) 2016: 5151 (Faculties attended at an average of 2 per faculty)
2	Ensure continual enhancement of knowledge/skills of non-teaching staff	To be provided with at least 2 hours of training every year	2015: 4779 (Non – Teaching staff covered under Gender Sensitization Programme) 2016: 1466 (soft skill training for non teaching staff)

EMS Objectives:

#	Quality Objective	Target	Achievement status
1	6% reduction in per capita electricity consumption year on year for the next 3 years	6% reduction for the next 3 years	Refer (Fig. 1) below
2	2% reduction in per capita potable water consumption year on year for the next 3 years	2% reduction for the next 3 years	Refer (Fig. 2) below
3	To be ranked within the top 20 Universities globally under the suburban category in the UI Green metric World University Ranking by 2017	--	--

Projected electrical units saved due to adoption of energy saving methods

Fig. 1

Percentage units saved

Fig 2

Achieved 27% per capita reduction – last 5 years
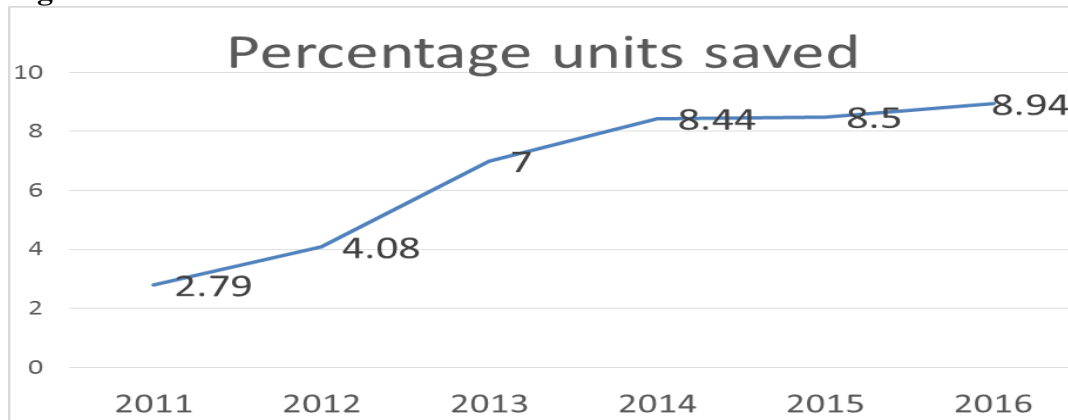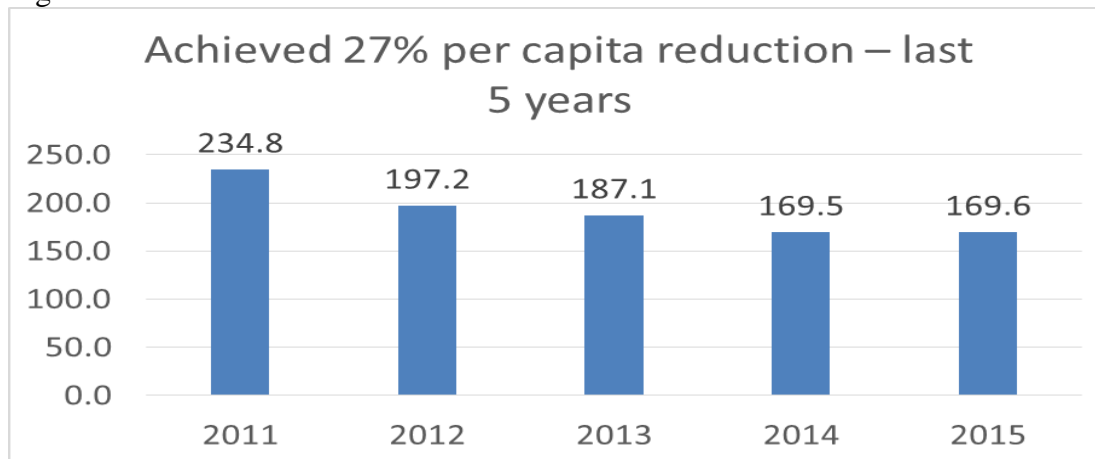
2.15 Whether the AQAR was placed in statutory body   Yes [✔]   No [ ]

Management [✔]   Syndicate [ ]   Any other body [ ]

Provide the details of the action taken

Based on the inputs provided by the IQAC and the Management following actions were initiated by respective functional departments

International Affairs & Collaboration
- Identification of some good Foreign Universities as Strategic partners for the star programs of our University.
- Delivered short term training programme ' Doing business in India' to students of University of Applied Sciences ,Utrecht,the Netherlands
- USF Program in public health to be conducted in March 2017.
- Successful BBSRC grant application with University of Aberdeen
- Immersion program with Global Leadership Forum
- Erasmus application with University of Tampere

Registrar Evaluation
- To prepare a process document for granting autonomy for institutions in terms of evaluation and also to monitor the performance of the college after granting the same.
- Examination on e-Pad (Paperless exam) was initiated .

Foreign Admissions
- Development of a tracker for monitoring over stay of foreign students over and above the validity of their visa period and inform police accordingly.

Placement
- Initiated discussions with HR with a target to get 45 Fortune 500 companies for placements

Admission (National & International):
- As a part of Teenovators 2016, Special Principal's Conclave was organized at the University which saw participation of 36 school principals from across the country
- Webinar sessions for the International students was initiated for the first time which had tremendous response

HR:
- Capture of attendance of employees through bio-metric device was initiated .

Directorate of Research:
- Manipal Research Colloquium 2017 was organized between April 4 – 6, 2017
- MAHE Bio Incubator proposal submitted to government of Karnataka.
- Cataloguing young researchers under 40 years based on their field of interest
- Grants Management Office was set up to encourage and monitor grant application and receipt.
- Manipal Dialogue was initiated to invite high profile speakers to the campus
- Benchmarking MAHE research outcomes with reputed global universities.
- Journals to be initiated : MJHP (Manipal Journal of Health Professionals), MJLM (Manipal Journal of Laboratory Medicine), MJCE (Manipal Journal of Clinical Epidemiology),MJHM| (Manipal Journal of Holistic Medicine), MJHCMR (Manipal Journal of Health care Management & Research)
- To concentrate on inter institutional and interdisciplinary research work

Student Affairs:
- Student Support Centre was set up.
- Student Grievance Redressal portal was initiated
- Student Clinic Application was developed.

Student finance:
- Suggested to bring the certificate courses under the purview of the Student Information Systems.

- Moving towards a cashless campus.
- Integration of the Student finance in the Student Life Cycle Management
- Health Science allotment to be made online
- Staff Medicare to be tagged with ID cards instead of issuing regular paper Medicare
- New admissions will be through Online payment mode or RTGS mode.

ISD:

- Student Life Cycle Management(SLCM) Software - implemented for MIT – to Go live in July, 2017 – Under Stabilisation Period
- Student Life Cycle Management(SLCM) Software implementation for rest of the MAHE Institutions – Planned and Budgeted
- CallPoll App for MIT integrated with SLCM – Roll out planned
- Lecture capture Solution - Impartus for Class Rooms in KMC, Manipal (6 Nos) and MCODS, Manipal (4 No.s) – Planned
- Edunxt LMS for KMC, Mlr, MCODS, Mpl and Mlr , MMMC Dental and SOM, Manipal – Planned and WIP
- Virtual Class Room Project at MIT, Manipal – completed in Feb, 2017
- Implementation of GST related Changes in Purchase and Inventory System and Financial Accounting System – completed – Under Stabilisation Period. Also completed the Integration Process.
- Online Vehicle Registration Portal – completed - April, 2017
- Developed NAAC Observation Monitoring portal
- Online Hostel Allocation Software – implemented for MIT Hostels –to the rest of the Institutions attached (FOA, DOC, SOC in the current year)
- Atom Payment Gateway was Integrated for online payments. During June, 2017 Paytm Payment gateway has been integrated in SIS, Hostel Portals. The HDFC Payment Gateway Integration is under testing.
- Conference Portals have been developed for online registration and payment for various conferences and events
- MAHE Admissions (Indian and Foreign) Software has been migrated to ASP.net platform and hosted in Data center, ISD, MAHE – April, 2017
- PhD Student Online Document Submission Portal - Completed – To be Tested and implemented
- PMS (Patient Management Systems) Software has been implemented in MCODS, Manipal during April, 2017. Also in Center for Sports Science and in SSC (Student Support Center)
- The New HIS software (UBQ Medics) has been rolled out in Karkala & Attavar Hospital – WIP- will be completed in August, 2017
- KOHA - New Library Management Software for 12 libraries of MAHE has been planned and PO has been released during March, 2017 – WIP.
- Reliance Jio 4G Network implementation has been completed in KH, Manipal and MIT Campus and in MAHE Health Science campus – WIP
- ION Wi-Fi Network - Working Fine. Regular monitoring and Review meetings are conducted
- IP Telephony for the University Bldg. – Planned
- Training on Microsoft Office365 Platform for Officials and Faculty-completed in Feb, 2017
- Student Online Document Submission Portal - Completed – To be Tested and implemented

Alumni

- Manipal Entrepreneurs Summit
- Engagement of Alumni for support in getting Internships/Placements for students and also in Curriculum Development

Part – B

Criterion – I

1. Curricular Aspects

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	13	1	14	14
PG	164	5	169	169
UG	56	1	57	57
PG Diploma	17	0	17	17
Advanced Diploma	-	-	-	-
Diploma	2	-	2	2
Certificate	15	1	16	16
Integrated PhD	1	-	1	1
Others	13	-	13	13
Total	**281**	**8**	**289**	**289**
Interdisciplinary	26	-	26	26
Innovative	26	-	26	26

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options

Programs governed by regulatory bodies follow the curriculum as prescribed by them and incorporate flexibility by offering elective / open options within the limits as permissible by the regulatory bodies. Credit system is introduced for 100 percentage of the Technology, Management and Communication programs and 15 percentage of the health sciences programs. Most of the programs which are in the credit system are gradually progressing towards incorporating the requirements of the Choice based credit system. KMC Mangalore has started integrated teaching (which are inter-disciplinary in nature) for some of the subjects which allows for decompartmentalisation between subjects.

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	133
Trimester	4
Annual	127

1.3 Feedback from stakeholders* Alumni ✔ Parents ✔ Employers ✔ Students ✔
(On all aspects)
       Mode of feedback: Online ✔ Manual ✔ Co-operating schools (for PEI) ☐

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

Kasturba Medical College, Manipal
- The syllabi is as per the regulatory body. In the Dept. of Library Sciences under KMC Manipal - syllabus has been revised to create high quality workforce in Library Information Systems.

Kasturba Medical College, Mangalore
- The syllabi is as per the regulatory body. In 2014, horizontal integration was started in the preclinical and para clinical subjects. In 2016, innovative methods of learning like PBL, CBL, Vertical Integration and handouts was introduced in pre and para clinical subjects. Vertical integration involving the Clinical subjects has been introduced. Small group teaching which was taken for Pre and para-clinical subjects has been introduced across the clinical subjects. Training on learning Management system was given to faculty and E pad for exams were introduced.

School of Allied Health Sciences (SOAHS), KMC- Manipal
- All undergraduate programs at SOAHS are semester and credit-based from 2016-17 academic year
- Minor and major revisions have been made after discussion in Board of Studies. Board of Studies is conducted separately for programs such as physiotherapy and speech and hearing. A common Board of Studies exists for all other programs.
- External review of syllabi done
- Board of Studies meets twice in a year
- Syllabus of new programme B.Sc. (Exercise and Sports Sciences) was approved in 54th Academic Senate.
- Revision of curriculum of BASLP as suggested by the RCI was approved in 56th Academic Senate.
- Conversion of annual M.Sc (NMT) program to choice based semester program from academic year 2017.

School of Life Sciences, KMC - Manipal
- Approved CBCS regulation, credit distribution, relative letter grading system and syllabus for B.Sc. Biotechnology course (BoS, June 2016 & June 2017), for M.Sc. Medical Biotechnology, M.Sc. Molecular Biology and Human Genetics and M.Sc. Bioinformatics programs (BoS, June 2017)
- Approved students exchange program in BioHealth Computing at University of Grenoble-Alpes for II Year M Sc. Medical Biotechnology & M Sc. Molecular Biology & Human Genetics students & approved Certificate course in Bioinformatics (BoS, June 2017)
- Implementation of make-up examination for B.Sc. Biotechnology students within 4 weeks from the date of announcement of results (BoS, June 2017)

School of Management, MIT- Manipal
Department of Commerce
- Revision of syllabus for BBA and B.Com programs, with change in credits per subject and for entire program

- Introduction of Open electives (Offered by Department of Commerce / constituent institutions / Centres of MAHE)
- A few subjects will be delivered through MOOCs platform
- Mapped the UG syllabus with globally recognized professional courses such as ACCA and CIMA
- New specializations offered at the PG level: M.Com (Banking Technology) and M.Com (Professional)

School of Communication, MIT- Manipal

- Additional electives plus new specialisation subjects has been added to the B.A Media & Communication syllabus

School of Information Sciences, MIT -Manipal

- Changes in syllabus of ME (Medical Software) ,ME (Big Data and Data Analytics), ME (VLSI Design)   by addition, merging ,deletion of subjects .
- ME (Embedded Systems and Instrumentation) ,ME (Automotive Embedded Systems) – To provide eased exit option, subjects are brought in line with ME (Embedded Systems)
- Inclusion of Electives in II Semester ME Study Abroad Programs (to be taught in ESIGELEC, France)
- ME (Automotive Embedded Systems) & M.Sc. (Automotive Embedded Systems) ,few electives were added.

1.5 Any new Department/Centre introduced during the year. If yes, give details.

Sl. #	Name of the Center	Objectives/ Aims
1	Centre for Gandhian and Peace Studies	a. To organize seminars & conferences , talks & workshops, courses & programmes, cooperation & collaborations ,activities & events , developing library , database and archives , research & publications
2	Student Support Centre	a. Early identification of barriers to academic success and providing adequate corrective measures to help students realize their potential and develop self esteem b. To offer practical and constructive support in adjusting to a new environment as well as social or personal challenges that are specific to their age group and circumstances. c. To treat mental and physical disabilities as not merely a pathological problem but as a more complex situation that requires the care of specialists who offer constant support through long periods of treatment

		and recovery
		d. To help the combat the general social taboos associated with anxieties and depression on campus, and to foster a positive outlook among students.
		e. To establish the university campus as a student- Friendly safe space that is sensitive to physical and mental disabilities.
3	Centre for Virtual Reality	The Objectives of the center will be pursued in three stages Year I a. Develop Cardiology Module : 3D Reconstruction and visualization of soft tissues and organs. b. Develop gamification models and virtual reality environments for cardiology medical education. Year II a. Develop Neurology Module : 3D reconstruction and visualization of relevant soft tissues and organs. b. Develop Laproscopic Procedures module : Create soft tissues and organ libraries and virtual environments for training in simple laparoscopic procedures. Develop software tools for simulation and interaction. c. Architectural Model : Visualization and manipulation of building elements in real estate setting. Year III a. Develop surgical Module : Create a virtual surgical environment for teaching and developing complex open surgical procedures along with surgical assessment techniques. b. Design force sensitive haptic tools with tactile feedback to perceive and interact with models in the environment. c. Heritage site models : Develop virtual reality resources for visiting and engaging with various heritage sites in the region and state.

		d. Identify areas of industry and academic collaboration and hereby applying for national and international funds for socially relevant projects.
4	Indo-German Centre for Applied Research and Academic Exchange	a. To strengthen bilateral research, pedagogy and exchange programmes and develop joint dual degree programs and exchange programs
5	Centre for Asian Studies	a. To promote research on pertinent themes and help bridging the difference on contentious issues impacting India and Asia b. To strengthen the bilateral exchanges in the field of education and create a seamless situation where there should be a free flow of ideas and dissemination of information.
6	Centre for Polish and Central European Studies	a. To conduct research on geopolitics Poland and central Europe with a focus on socio-economic cultural and diplomatic domensions. b. To promote exchange of faculty members and students and pursue research on mutually agreed research themes for a better understanding. c. To introduce new interdisciplinary special short courses on contemporary Poland and central Europe d. To organize seminars, conferences and highly specialized lectures on themes relating to contemporary Poland and Central Europe
7	Multimedia Resource Centre	a. To develop and produce audio – visual /multimedia educational and research related content. b. To foster Syndication of Inter – disciplinary expertise. c. To disseminate the resources within and beyond the University.
8	Centre for Advanced Dental Education	a. To conduct lectures and workshops for the dental students and Practitioners b. To create a self-sustaining Centre for short term dental courses at the institution .

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
2218	1026	613	459	120

2.2 No. of permanent faculty with Ph.D.

538

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
251	87	12	17	3	7	65	38	331	149

2.4 No. of Guest(G) and Visiting (V)faculty and Temporary(T) faculty

G 129		V 269		T 0

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended	557	612	441
Presented	498	477	157
Resource Persons	49	156	102

2.6 Innovative processes adopted by the institution in Teaching and Learning:

Sl. No.	Institution	Innovative Process
1	Kasturba Medical College, Manipal	Conduct of Clinical Pathophysiology and Therapeutics and Diagnostic Reasoning (CPPT) by international faculty. Small group teaching was emphasized. Various small group teaching methods like seminar, tutorial, case based learning, problem based learning and team based learning was introduced. **Dept. of Statistics :** <u>Learning Resources</u> • The Department is equipped with state of the art computational facility and in possession of packages namely SAS, STATA, SYSTAT, SPSS, R, nMaster, Epi Info, Review Manager and EndNote. • The Department has a statistical consultancy center to independently provide consultations for all levels

		of biomedical researchers of the University. • The Department conducts regular training on statistical softwares like SAS, SPSS, STATA and R for making students industry ready. **Dept. of Public Health** • Problem based learning, Hands on field Experience, Field Exposure visits, Short term research, Role play case study, Video case discussions (Skype), Journal Discussions, E-Learning, Webinar etc. • Foundation Program, collaborative program with Maastricht University is a techonolgy enabled program delivered through e-learning platform. Student Semester program with Maastricht University. • Student taking up exchange programmes. • Médecins Sans Frontières - India is collaborating with Manipal Academy of Higher Education to initiate the Global Health and Humanitarian Medicine programme, a webinar Programme
2	Kasturba Medical College, Mangalore	Integrated classes, Problem based learning, Competency Based learning, Case Based learning, Flipped class, Modified Flip Class, Crossword, Interactive panel discussion and Broken classes have been adopted. Small group teaching has been introduced in Pre and Paraclinical subjects. Both Vertical and horizontal teaching classes are being conducted in pre, para clinical subjects and clinical subjects.
3	School of Allied Health Sciences, KMC - Manipal	• Dept. of HIM - Microsoft 365 platform for Teaching/ Learning • Dept. of MLT - Integrated case Studies • Dept. of Clinical Psychology - Started Student panel discussion for the Seminars presented by MPhil Students, during the departmental Academic program. • Dept. of Optometry - Benchmarking the current teaching standards and methods to European standards through OCULUS ERASMUS project for lifelong learning. • Dept. of Physiotherapy – Flipped classroom • Dept. of Respiratory Therapy – Simulation based learning • Dept. of Speech and Hearing – Lectures and webinars by adjunct faculty
4	School of Life Sciences, KMC - Manipal	• Teacher guardian for first year students • Coaching for slow learners

5	Manipal College of Nursing, Manipal	• Innovative teaching learning methods are adopted, e.g.: Team based learning, concept mapping, PBL, EBP projects, Small Group discussions, exhibition, field visit.
6	Manipal College of Pharmaceutical Sciences, Manipal	• Surprise test, Psychomotor skills oriented practical exercises • Clerkship/ Case studies • Experiments using WinNonlin software • E-Pad examination system, Macro and micro academic management system, • Student information systems • Online attendance/ marks • Strict adherence to examination schedules, • Good teacher awards
7	Manipal College of Dental Sciences, Mangalore	• Outcome based curriculum • OSPE and OSCE • Case Based Learning • Teacher Guardian mentorship
8	Manipal College of Dental Sciences, Manipal	• Treatment based learning: Treatment based learning approach in clinical teaching from 2016 onwards to 3rd year students and Interns where they have to present their own cases in terms of applying theory to clinical work. It includes a thorough discussion on the cavity preparations and techniques, materials and rationale on pulp protection and restoration. It is targeted to improve critical thinking amongst students. As explaining individual case chairside to all the student becomes tedious, it could be considered as an alternative method of clinical teaching. • Health education Models: third and final year BDS students involve in preparing the health education models and flipcharts, which are used for increasing the awareness of population about oral health and diseases
9	Manipal Institute of Technology, (MIT) - Manipal	• PG Students are recognized and are given the responsibility of Teaching Assistants to help students in academics on regular basis. Placement training is also held to benefit students sitting for placement by faculty. Students are encouraged to do projects and produce research papers as outcome for which incentive will be awarded from college. Students are also encouraged to participate in experiential learning projects. • Implementing various innovative pedagogies in the teaching process through use of audio-visual aids, think-pair strategy, brain storming and small group discussions

		• Faculty advisor scheme (for higher semester students), where each faculty member monitors a set of students. The students can approach the faculty advisor regarding their academic problems. Faculty advisor forms an interface between his /her students and the faculty • Preparing students for improving their understanding on core courses through Placement Mentoring Sessions. The current final year students and Alumni are included to mentor 2nd and 3rd year students • Mentors are assigned for all UG and PG students to orient them towards teaching- learning and research. • Demonstration through site visits as a part of Teaching Learning Process. **Dept. of Atomic & Molecular Physics** • Mini projects to 1st , 2nd and 3rd semester PG students • Dedicated research project in the 4th semester of the course
10	Faculty of Architecture, MIT - Manipal	• Integrated teaching methods • Live labs • Hands on training Workshops • Interaction with industry experts and alumni • guest lectures • group discussions & studies • study tours/case studies as course requirement
11	School of Management, MIT - Manipal	• Online course management software used by all faculty members. Online cases from Harvard Publishers purchased, Paraphrasing workshop conducted for all students. • Industry visits, Guest lectures, mentoring through Teacher guardian
12	School of Communication, MIT - Manipal	• am plus students experimental newspaper, TV news production, documentary production video and audio, organising and managing events, class presentation, class seminars, RTI filing drive
13	School of Information Sciences, MIT - Manipal	• Industry Sponsored labs & State of the art teaching facilities • Industry standard hardware and software laboratories • Opportunities to work on industry defined mini-projects • Industry relevant curriculum • Opportunity to study abroad • Fast-track training programs • All subjects with associated labs & seminar by all students in I & II semester.
14	Welcomgroup graduate	• Faculty Exchange Programs through Academic

	school of Hotel Administration, Manipal	collaboration agreements.
		• Student and Faculty Research and Research publications.
		• Skills training for unemployed youth from the local community through Manipal City & Guilds.
		• Sommelier program from the International Sommelier Guild (ISG) with its two levels of wine fundamentals certifications.
		• Community Outreach Programs.
		• Up-close and personal with industry experts.
		• Organization of Food Festivals.
		• Continuous internal evaluation process for culinary programs.
		• Examinations conducted on E-pads, an electronic device provided instead of paper for summative assessments.
		• Webinars with subject experts
		• Field visits, Expert demonstrations, student presentations, Off-campus activities, Clinical exposures
		• On-the-job training at Fortune Inn Valley View (ITC's hotel group) for real life exposure to guests

2.7 Total No. of actual teaching days during this academic year

No. of actual teaching days based on the guidelines of UGC and applicable statutory body governing the programme, is in the range **180 – 302 days** .

2.8 Examination/ Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

Following Examination /Evaluation reforms are initiated during 2016-17
University Level:

1. Revaluation following the paper seeing
2. Digital examination /evaluation using e-pad devices initiated in more institutions.

At Constituent Unit Level :

Sl. No.	Institution	Examination/ Evaluation Reforms
1	Manipal College of Nursing, Manipal	• Answer key is prepared during the question paper preparation and based on the answer key evaluation is done by subject teachers. • E-pad exam is introduced for all the first year students' during the academic year 2016-17. E-pad exam evaluation is done onscreen and student paper viewing facility is done onscreen.
2	Manipal College of	• Descriptive Theory Examination

	Dental Sciences, Manipal	• Multiple Choice Questions • OSCE & OSPE
3	Manipal College of Dental Sciences, Mangalore	• Paperless Sessional and University Examination Using E Pad
4	Manipal Institute of Technology, Manipal	• Periodic assignments were given to the students where it is required to be submitted by the students with in the stipulated time, subsequently corrections were carried out and evaluated assignments were given back to the students • Internal assessment test (sessional) were conducted as per institution timetable twice a semester. • Final exam (end sem.) conducted as per centralized timetable from institution. • Assignment evaluation: out of 10 marks • Sessional Test: 20 + 20= 40 marks • Final exam: out of 50 marks • Through continuous evaluation of students through in-semester tests (two sessional tests, quizzes, assignments and end semester examination • Continuous evaluations of students will be done through assignments, tests and end semester examination. • Students are evaluated relatively on a grade scale of 10. Every theory subject will have 50% of in-semester marks (continuous evaluation) and 50% of end semester marks. A minimum of 18 marks out of 50 is necessary in the end semester exam to obtain the credit for the course. • The student performance in each theory course is evaluated out of 100 marks, of which 50 marks are for in semester assessments and 50 marks are for end semester assessments. In semester assessment in theory courses is based on periodic tests, assignments, quizzes, case presentations, seminars etc, which shall be defined by the course instructor. • The student performance in the laboratory courses is also evaluated out of 100 marks and is based on in semester assessment out of 60 marks and end semester examination for 40 marks. • The performance of the student in a course is reflected in the Letter Grade awarded • Introduction of Two compulsory sessional test • Assessment techniques comprise of tests, assignments, quizzes and exams. Semester exam questions are set to target different course objectives. Student performance is then mapped to different course outcomes and an analysis of the same reveals the extent to which course outcomes

		are met. Necessary changes are then implemented accordingly. • Tests are the preparations for the end semester examination and are conducted in the same manner, except for the duration, which is one hour against that of three hours for the examinations. Two tests will be conducted in each semester and the contents will be announced in the beginning of the semester while course plan is distributed to the students. • Continuous Evaluation, inclusion of MCQ in the Sessional Question paper.
5	Manipal Center for Philosophy & Humanities, Manipal	• Term Paper & Thesis Writing

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

Total no. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop are **550**

2.10 Average percentage of attendance of students – **85-90%**

2.11 Course/Programme wise distribution of pass percentage:

COURSE	Total Appeared	Distinction %	First Class %	Second / Pass Class %	Total Pass %
Certificate course in Panchakarma	07	57.13	42.87	0.00	100.00
M.Sc. Yoga Therapy	05	--	--	100.00	100.00
M.Sc. Nanoscience and Technology	04	--	--	--	100.00
M.Sc. Photonics	11	--	--	--	100.00
M.Com (Logistics and Supply Chain)	87	--	--	--	100.00
PG Diploma (Logistic & Supply Chain)	06	--	--	--	33.33
BBM (Logistics and Supply Chain)	25	--	--	--	76.00
BBM (Financial Market)	29	--	--	--	89.66
BBM (Professional)	27	--	--	--	85.19
BBM (e-Banking and Finance)	24	--	--	--	100.00
Master of Library & Information Science	10	--	--	--	100.00
M.Sc Biostatistics	16	--	--	--	100.00
Master of Public Health	41	--	--	--	100.00

Master of Social Work	29	--	--	--	100.00
Master of Hospital Administration	28	--	28.57	57.14	85.71
M. A. (ID)	05	--	--	--	80.00
M. Arch. (UD & D)	12	--	--	--	75.00
Executive M. Arch	10	--	--	--	60.00
B. Des. (FD)	02	--	--	--	100.00
B.A. (ID)	03	--	--	--	100.00
B. Arch.	153	--	--	--	99.35
B.Arch. (ID)	01	--	--	--	100.00
M.D. Anatomy	02	--	--	100.00	100.00
M.D. Anaesthesiology	19	--	--	100.00	100.00
M.D. Biochemistry	02	--	--	100.00	100.00
M.D. Community Medicine	04	--	--	100.00	100.00
M.D. Dermatology, Venereology & Leprosy	04	--	--	100.00	100.00
M.D. Forensic Medicine	01	--	--	100.00	100.00
M.D. General Medicine	42	--	--	83.33	83.33
M.D. Hospital Administration	03	--	--	66.67	66.67
M.D. Immunohematology and Blood Transfusion	02	--	--	100.00	100.00
M.D. Microbiology	03	--	--	66.67	66.67
M.D. Paediatrics	18	--	--	88.89	88.89
M.D. Pathology	16	--	--	100.00	100.00
M.D. Pharmacology	08	--	--	87.50	87.50
M.D. Physiology	01	--	--	100.00	100.00
M.D. Psychiatry	04	--	--	75.00	75.00
M.D. Radiodiagnosis	11	--	--	90.91	90.91
M.D. Radiotheraphy	03	--	--	100.00	100.00
M.D. Respiratory Medicine	02	--	--	100.00	100.00
M.S. General Surgery	17	--	--	52.94	52.94
M.S. Obstetrics & Gynaecology	20	--	--	95.00	95.00
M.S. Ophthalmology	08	--	--	100.00	100.00
M.S. Orthopaedics	16	--	--	81.25	81.25
M.S. Oto-Rhino-Laryngology	07	--	--	100.00	100.00
DPM (Psychiatry)	03	--	--	100.00	100.00
D. Ortho (Orthopaedics)	04	--	--	50.00	50.00
D.O. (Ophthalmology)	02	--	--	100.00	100.00
D.M.R.D. (Radio Diagnosis)	02	--	--	100.00	100.00

D.L.O. (Oto-Rhino-Laryngology)	03	--	--	100.00	100.00
D.G.O. (Obstetrics & Gynaecology)	05	--	--	100.00	100.00
D.D.V.L. (Dermatology, Venereology & Leprosy)	02	--	--	100.00	100.00
D.C.H. (Child Health)	05	--	--	80.00	80.00
D.A. (Anaesthesiology)	09	--	22.22	77.78	100.00
D.C.P. (Clinical Pathology)	03	--	--	100.00	100.00
Advancec Training in Creative Medicine	01	--	100.00	0.00	100.00
M. Phil. Psychiatric Social Work Part - II	02	--	--	100.00	100.00
M. Ch. Cardio Vascular and Thoracic Surgery	01	--	--	100.00	100.00
DM Gastroenterology	01	--	--	100.00	100.00
DM Nephrology	02	--	--	100.00	100.00
DM Neurology	02	--	--	100.00	100.00
DM Cardiology	02	--	--	100.00	100.00
M. Ch. Urology	03	--	--	100.00	100.00
M. Ch. Neuro Surgery	02	--	--	100.00	100.00
M.Sc. (Medical)	38	7.89	36.84	39.47	84.21
M.Sc. Clinical Embryology	06	--	50.00	50.00	100.00
M.Sc. In Genetics Counselling	02	--	--	100.00	100.00
MBBS	477	1.68	49.27	35.22	86.16
MDS-Conservative Dentistry and Endodontics	09	--	--	100.00	100.00
MDS-Oral and Maxillofacial Surgery	06	--	--	100.00	100.00
MDS-Oral Medicine and Radiology	06	--	--	100.00	100.00
MDS-Oral Pathology and Microbiology	04	--	--	100.00	100.00
MDS-Orthodontics and Dentofacial Orthopaedics	08	--	--	100.00	100.00
MDS-Pedodontics and Preventive Dentistry	06	--	--	100.00	100.00
MDS-Periodontology	09	--	--	100.00	100.00
MDS-Public Health Dentistry	05	--	--	100.00	100.00
MDS-Prosthodontics and Crown & Bridge	09	--	--	100.00	100.00
BDS	204	1.47	73.04	22.06	96.57
M.Sc. Nursing	22	--	--	100.00	100.00
M.Phil Nursing	07	--	--	100.00	100.00
B.Sc. Nursing	104	--	--	88.46	88.46
PB B.Sc. Nursing	14	--	--	92.86	92.86
M.Pharm	96	96.88	3.13	0.00	100.00
Pharm D.	33	--	--	100.00	100.00

Pharm D (PB)	02	100.00	--	0.00	100.00
B. Pharm	71	--	--	--	70.42
M.Sc. Regenerative Medicine	07	--	--	100.00	100.00
M.Sc MRP	08	25.00	75.00	0.00	100.00
M.Sc. HHIA	05	--	--	--	60.00
M.Sc Health Informatics (M.Sc. HI)	05	--	--	100.00	100.00
M.Sc. Cardiac Catheterization and Interventional Technology	01	--	--	100.00	100.00
M.Sc Clinical Psychology	21	--	--	--	100.00
MPT	42	7.14	61.90	28.57	97.62
M.Sc (Exercise & Sports Science)	13	--	--	--	100.00
Master of Optometry	05	--	80.00	20.00	100.00
MOT	08	--	50.00	50.00	100.00
M.Sc. Echocardiography	01	100.00	--	0.00	100.00
M.Sc. Medical Imaging Technology (MIT)	08	--	--	100.00	100.00
M.Sc. Renal Replacement Therapy and Dialysis Technology (RRT & DT)	04	--	50.00	50.00	100.00
M.Sc. MLT	07	42.86	42.86	14.29	100.00
PGDNMT	09	--	33.33	44.44	77.77
MASLP	33	--	18.18	81.82	100.00
M.Sc. Respiratory Therapy (RT)	07	--	71.43	0.00	71.43
M.Sc. Perfusion Technology	01	--	--	--	100.00
M.Sc MRP	02	100.00	--	0.00	100.00
M.Phil Clinical Psycology	08	--	--	75.00	75.00
B.Sc. CVT	19	10.53	31.58	42.11	84.21
B.Sc. HIA	14	--	--	--	100.00
BASLP	54	5.56	44.44	40.74	90.74
BPT	54	5.56	40.74	46.30	92.59
BOT	17	5.88	41.18	35.29	82.35
B.Sc. RT	30	--	33.33	43.33	76.67
B.Sc. Medical Laboratory Technology (BMLT)	29	27.59	41.38	13.79	82.76
B.Sc. Perfusion Technology	13	--	--	--	100.00
B.Sc. RRT & DT	17	29.41	11.76	41.18	82.35
B.Sc. NMT	02	--	--	0.00	0.00
B.Sc. MRT	10	--	30.00	70.00	100.00
B. Optometry	07	--	--	--	100.00
PG Diploma in Corporate Communication	01	--	--	--	100.00

MA (Media & Communication)	40	--	--	--	97.50
BA Journalism and Communication	112	--	--	--	89.29
B.Sc Animation	04	--	--	--	100.00
PG Diploma Programme in cellular & Molecular Diagnostics	19	--	--	--	100.00
M.Sc. Bioinformatics	09	--	--	100.00	100.00
M.Sc. Medical Biotechnology	12	--	--	100.00	100.00
M.Sc. Molecular Biology & Human Genetics	18	--	--	100.00	100.00
B.Sc. Biotechnology	28	--	--	100.00	100.00
MBA	118	--	--	--	100.00
MBA (Healthcare Management)	20	--	--	--	100.00
MBA (Global Business)	07	--	--	--	100.00

Note :
- There is no bifurcation of classes of results for Medical Degrees like MD, MS, MCh , some of the Medical MSc and diploma courses .
- For some courses, grading system is followed, hence bifurcation of classes are not available.

Welcomgroup Garduate School of Hotel Administration

Title of the Programme	Total no. of students appeared	Distinction %	I %	II %	III %	Pass %
Bachelor of Hotel Management	62	-	-	-	-	100
M.Sc. DAN	42	-	-	-	-	100
M.Sc.HTM	28	-	-	-	-	96.42
BA in Culinary Arts	43	-	-	-	-	100
Post Graduate Diploma in Culinary Arts	11	-	-	-	-	100

Note : Results are announced in Grading System, hence there is no bifurcation of Classes.

School of Information Science

Title of the Programme	Total no. of students appeared	Distinction %	I %	II %	III %	Pass %
ME (Medical Software	7	-	-	-	-	100
ME (VLSI Design)	15	-	-	-	-	93.3
ME (Embedded	36	-	-	-	-	91.7

Systems)						
ME (Embedded & Wireless Technology)	10	-	-	-	-	100
ME (Computing Technologies & Virtualization)	9	-	-	-	-	100
ME (Big Data & Data Analytics)	17	-	-	-	-	94.1
ME (Embedded Systems & Instrumentation)	8	-	-	-	-	87.5
ME (Automotive Embedded Systems)	9	-	-	-	-	100
M.Sc. (Information Science)	14	-	-	-	-	71.4

Note : Results are announced in Grading System, hence there is no bifurcation of Classes.

Dept. of Virus Research

Title of the Programme	Total no. of students appeared	Distinction %	I %	II %	III %	Pass %
MSc Clinical Virology	7	-	-	-	-	100

Engineering programs: Undergraduate

Title of the Programme	Total no. of students appeared	Division				
		Distinction	I %	II %	III %	Pass %
Bio-Medical Engineering	30	-	-	-	-	80.00%
Chemical Engineering	62	-	-	-	-	100.00%
Civil Engineering	168	-	-	-	-	93.45%
Computer Science and Engineering	220	-	-	-	-	98.64%
Electrical and Electronics Engineering	149	-	-	-	-	90.60%
Electronics and Communication Engineering	221	-	-	-	-	92.76%
Industrial and Production Engineering	55	-	-	-	-	89.09%
Mechanical Engineering	247	-	-	-	-	90.69%
Printing Technology	19	-	-	-	-	68.42%
Information Technology	113	-	-	-	-	91.15%

Instrumentation and Control Engineering	74	-	-	-	-	91.89%
Biotechnology	24	-	-	-	-	100.00%
Mechatronics	75	-	-	-	-	94.67%
Aeronautical Engineering	59	-	-	-	-	93.22%
Automobile Engineering	55	-	-	-	-	87.27%
Computer and Communication Engg.	103	-	-	-	-	95.15%

Postgraduate- MTech & MCA

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
Bio-Medical Engineeing	14	-	-	-	-	100.00%
Computer Science and Engineering	24	-	-	-	-	100.00%
Construction Engineering and Management	18	-	-	-	-	88.89%
Digital Electronics& Advanced Communication	25	-	-	-	-	92.00%
Energy Systems and Management	16	-	-	-	-	100.00%
Engineering Management	18	-	-	-	-	100.00%
Structural Engineering	25	-	-	-	-	100.00%
Computer Aided Analysis and Design	18	-	-	-	-	100.00%
Control Systems	18	-	-	-	-	100.00%
Manufacturing Engineering & Technology	18	-	-	-	-	100.00%
Network Engineering	18	-	-	-	-	100.00%
Software Engineering	18	-	-	-	-	100.00%
Printing Technology	3	-	-	-	-	33.33%
Microelectronics	18	-	-	-	-	94.44%
Power Electronics Systems and Control	17	-	-	-	-	100.00%
Astronomy and Space Engineering	10	-	-	-	-	100.00%
Industrial Bio-Technology	6	-	-	-	-	100.00%
Computer Science & Information Security	18	-	-	-	-	100.00%
Chemical Engineering	5	-	-	-	-	100.00%
Environmental Engineering	18	-	-	-	-	100.00%
Industrial Pollution & Control	3	-	-	-	-	100.00%

Advanced Thermal Power and Energy System	18	-	-	-	-	100.00%
Master in Computer Applications (MCA)	58	-	-	-	-	93.10%
Industrial Automation and Robotics	16	-	-	-	-	100.00%

Results are announced in Grading System, hence there is no bifurcation of Classes.

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

University IQAC – Evaluative Process

Sl. #	Institution	Evaluative Process
1	Manipal Academy of Higher Education, Manipal	• A survey is conducted to understand the effectiveness of LMS in being student centric and meeting their learning requirements.

Individual college IQAC- Evaluative Process

Sl. #	Institution	Evaluative Process
1	Kasturba Medical College, Manipal	• Student feedback on teachers and infrastructure obtained periodically. • Seminars and conferences for teaching faculty to inspire their quality of teaching. • Medical education unit through which IQAC periodically conducts sessions to explore avenues to enhance teacher effectiveness through professional skill development training programmes. • Department audit by trained Auditors twice a year. • Analysis of Results, Research output, Performance of students, and teachers analysed in Core committee meeting and board of studies
2	Kasturba Medical College, Mangalore	• The departmental coordinators monitor the adherence to classes, innovative teaching learning methods, lesson plan. Student feedback on curriculum is also taken so that any suggestions which can be acted upon are deliberated and implemented. Faculty feedback on facilities is also taken. Academic processes are also audited and deliberated upon in the IQAC meeting. Any actionable points are discussed in the respective departmental meeting.
3	School of Allied Health Sciences, KMC - Manipal	• Biannual audit • Discussion in IQAC meetings • IQAC members suggest input for academic programs and thereby the departments

		incorporate those suggestions. Subsequently, monitoring occurs during the audit
4	School of Life Sciences, KMC - Manipal	• Every subject has a teaching schedule drawn. Every class is registered through an online attendance. • Students provide feedback on faculty and services. Every student is monitored and evaluated via internal assessment examinations, seminar presentations and assignments.
5	Manipal College of Nursing, Manipal	• Every month departmental meetings are conducted and the progress of teaching and learning is discussed. Any deviation from regular planned activity is rectified. Every month faculty meeting is held during which the progress and evaluation of the students are discussed. Feedback given by the students is communicated to the faculty during these meetings and need for improvement is stressed
6	Manipal College of Dental Sciences, Manipal	• IQAC conducts two periodic internal audits; one in the month of July and one in the month of January. During the audit each department and other locations are audited for the delivery of various services as per the stated departmental procedures. Any deviations in the processes are noted and brought to the notice of all concerned to take necessary action. Any processes and deviations requiring intervention or in puts are discussed in the management review meeting
7	Manipal College of Dental Sciences, Mangalore	• Audit of the department twice in a year by the trained Auditors • Analysis of Results, Research output, Performance of students and Teachers analysed by the Core Committee • Faculty sent to Teaching learning workshop conducted by University
8	Manipal Institute of Technology, Manipal	• All the faculty members are asked to enter the day to day activities in the "Academic Management System-AMS" and the same is monitored. • Course coverage is monitored. • Audits are done to see all the activities are done on time. • Feedbacks are studied, and improvements are suggested in IQAC meetings

		periodically
9	Faculty of Architecture, MIT - Manipal	The conductance of classes as per the course plan/lesson plan are monitored by the class committee chairpersons (CCC) who report to the Academic Co-ordinator, and to the Director. • Improvement in academic quality • Monitoring academic process • Enhancing academic and industrial interaction • Initiatives of newer teaching methods • Interaction with alumni for academic purposes. • Hands on workshops • Total Quality Management practice to improve academic standards
10	School of Management , MIT - Manipal	• Course Coordinator and Director monitor the teaching learning process, Teacher Guardian process
11	School of Information Sciences, MIT - Manipal	**Contributions:** • Conduction of workshops and guest lectures to students • Workshops for faculty members **Monitoring/ Evaluation:** • Conduction of periodic IMS internal audit twice in a year • Review of internal audit by Management Representative from Department of Quality, MAHE , External audit by TUV, Bengaluru.
12	Welcomgroup Graduate School of Hotel Administration, Manipal	• IQAC conducts regular academic audits twice in a year to monitor the teaching and learning processes

2.13 Initiatives undertaken towards faculty development

Faculty / Staff Development Programmes	*Number of faculty benefitted*
Refresher courses	433
UGC – Faculty Improvement Programme	64
HRD programmes	190
Orientation programmes	385
Faculty exchange programme	14
Staff training conducted by the university	622

Staff training conducted by other institutions	337
Summer / Winter schools, Workshops, etc.	945
Others	290

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	748	6	6	0
Technical Staff	445	20	15	0

<p align="center">**Criterion – III**</p>

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

Initiatives in sensitizing /promoting research climate

i.   *Enhancing Interdisciplinary Research Collaborations*
   a.   Half yearly meeting with the Research Advisory Council
   b.   Networking through Interdisciplinary Research Advisory Group
   c.   Prepare a calendar for need based training modules
   d.   Facilitate research for community

ii.   *Increase the quantum of grants and quality of publications*
   a.   Enhance collaborative research proposal submission
   b.   Encourage the faculties to apply for joint research
   c.   Target research publications in Scopus Journals
   d.   Aim for targeted research grants

iii.   *Activities to promote excellence in research*
   a.   Incentivise researchers based on the quality of research papers
   b.   Higher incentives for researchers with multiple publications and publications in top journal percentiles by SNIP
   c.   Recognize and reward the top researchers of Manipal Academy of Higher Education.
   d.   Vice chancellor interacts with and offers MAHE support to researchers who get their maiden grants

iv.   *Facilitate Innovation, Technology Transfer and Commercialization*
   a.   Support Innovation and Entrepreneurship
   b.   Initiate patent filing and technology transfer
   c.   Establish reward mechanism for granted patents
   d.   Raise awareness about prior art search and scout patentable IPs

Research Outcomes based on above initiatives
   i.   As per the recommendation of the Research Advisory Council Cataloguing of young researchers below the age of 40 years is under progress.

   ii.   To concentrate on research of national importance, an internal survey on priority research areas is completed.

   iii.   Networking through Inter Disciplinary Research Advisory Group has resulted in nearly 30 c*ollaborations*

   iv.   Two centres, namely, The Centre for Vaccine Studies and Transdisciplinary Centre for Qualitative Research were commissioned to support research for community

v. Workshops including Bibliometric and Scientometric analysis, Grant writing and Utilization of Library Resources have been organized by the Directorate of Research

vi. In terms of the quantum of research grants, the University was successful in getting external research funding close to 27.5 crores for three quarters

vii. The publication in Scopus Journals have increased from 1082 in the year 2015 to 1655 in the year 2016.

viii. There are 3 publications, which has an impact factor of more than 10

ix. The publications in top citation percentiles has gone up from 7.2% to 10.5%

x. To enhance student research, Summer School was organized by MAHE-SRF

xi. The University H Index has gone up from 82 – 86

xii. To recognize top researchers of Manipal Academy of Higher Education, 6 new Dr. TMA Pai Endowment Chairs were awarded and 10 renewed.

xiii. Featured publication of the month and impact grant of the month is being displayed on the notice board of both the HS and TS library.

xiv. To support innovation and entrepreneurship, a new faculty entrepreneurship policy is rolled out.

xv. From the Technology Transfer Office, there are about 21 patents filed this year.

Research Activities

Events /Training

i. Student Research Forum of various constitutive institutions organized events like CREST (Collaborative Research Engagement for Students with Talent) and RISE (Research and Innovation for Students to Excel).

ii. World Intellectual Property (IP) Day was organized on April 26. This year the theme of World IP day was Digital Creativity.

iii. Manipal Research Colloquium was organized on April 04-06, 2017 with nearly 350 participating in this annual research event. There are about 113 oral presentations and 212 poster presentations.

iv. A Summer Training program was conducted between July 2 and July 10, 2016.

v. 2nd International Conference on Healthcare and Technical Research (ICHTR 2016); from December 7-8, 2016, total 49 papers were presented during this event.

vi. Innovation day held at the Innovation Centre on December 19, 2016   allowed the faculty and students to showcase their talent and innovations with outstanding innovations suitably rewarded.

Workshops and CMEs organized

#	CME / Workshop	Resource Persons	Date, Place	Participants
1	Research in Siddha	Dr. R.S. Ramaswamy, Director General, CCRS (Ministry of AYUSH, Govt. of India)	04/07/2016 MCOPS, Manipal	30
2	Interaction with researchers	Dr. Soorya Narayana Varambally, Scientist of the university of Alabama school of medicine, Birmingham	13/07/2016 FAIMER, MAHE	30
3	Summer Training 2016	DoR and MAHE-SRF	02/07/2016 – 11/07/2016 Interact and MIT, Manipal	127
4	Research Awareness Program (RMS Grant Module; Bibliometric & Sciencetometric Study; IPR)	Directorate of Research	06/08/2016 KMC, Mangalore	65
5	Research Awareness Program (Bibliometric & Sciencetometric Study; IPR, awareness of CIMR certificate courses)	Directorate of Research	24/08/2016 Interact Hall, KMC	260
6	Awareness program on Springer Nature databases	Directorate of Research	19/11/2016 MCPD, Manipal	30
7	Half day awareness program on Bibliometric and Scientometric study	Directorate of Research	20/09/2016, MIT Manipal	60
8	Half day awareness program on Bibliometric and Scientometric, DoR policies, Scival	Dr. yogendra nayak, Mrs. Sheeba Pakkan, Dr. Satish Shenoy, Dr. Manthan	24/09/2016 WGSHA	30
9	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	30/09/2016 MMMC Board Room	60
10	Awareness program on Grant Writing, Publiication and Research Policies	Ms. Sheeba Pakkan, Dr. Rekha Shenoy, Dr. Yogendra Nayak	03/11/2016 LH 1 of SOC	50
11	The use of scientometric tools, Interdisciplinary Research Collaboration, Grant Writing	Ms. Sheeba Pakkan, Dr. Rekha Shenoy, Dr. Asha Kamath	15/11/2016, MCODS, Manipal	25

12	International Conference on Healthcare and Technical Research (ICHTR 2016)	Directorate of Research and MAHESRF	07/11/2016 Interact	82
13	Awareness program on SciVal	Shekar Reddy	17/11/2016 Sir MV Hall, AB2, MIT	94
14	Awareness program on Erasmus Mobility and Capacity Building Grants	Dr N Udupa, Dr Raghu A R, Dr Neeta Inamdar, Dr Arushi Jain	30/11/2016 Interact	110
15	2nd International Conference on Healthcare and Technical Research (ICHTR-2016)	Team DoR and MAHE-SRF	07/12/2016 – 08/12/2016 Interact	127
16	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	03/01/2017 P G CAD Lab(Technical)	35
17	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	09/01/2017 MCON Board Room	48
18	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	10/01/2017 Medical Education Unit	46
19	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	11/01/2017 Medical Education Unit	54
20	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	14/01/2017 MCON Board Room	54
21	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	16/01/2017 Medical Education Unit	42
22	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	17/01/2017 Medical Education Unit	34
23	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	18/01/2017 MCON Board Room	26
24	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	19/01/2017 Medical Education Unit	15
25	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	20/01/2017 Medical Education Unit	18
26	Awareness program on Quality Publication and Publication and Authorship ethics	Ms. Sheeba Pakkan, Dr Arun Maiyya, Dr. Yogendra Nayak	21/01/2017 Interact	40

27	Awareness program on Quality Publication and Publication and Authorship ethics	Dr Raviraj Adhikari, Dr. Yogendra Nayak	23/01/2017 MIT Library Auditorium	
28	Awareness program on Quality Publication and Publication and Authorship ethics	Ms Sheeba Pakkan, Dr. Yogendra Nayak	27/01/2017 KMC, Mangalore	50
29	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	10/02/2017, MMMC, Manipal	75
30	Science Communication Workshop	Dr. Ajay Pillai, Dr. Madhankumar and Dr. Sarah Iqba	13/02/2017 SOLS, Manipal	75
31	Interactive session on SciVal and Scopus	Mrs. Sheeba Pakkan	17/02/2017 MMMC, Manipal	75
32	Manipal Research Colloquium -2017	Directorate of Research	04/04/2017 – 06/04/2017 , Interact, Manipal	310
	Student Research Poster Competition (SRPC 2017)	DoR and MAHE-SRF		
33	FulBright Information Seminar	S. Lalitha Nagesvari,	13/04/2017, Interact, Manipal	102
34	Awareness Program on Publication and Patents	Dr Satish Shenoy, Dr Santhosh K V Ms Sheeba Pakkan	09/05/2017, MIT, Manipal	49
35	Awareness Program on Publication and Patents	Dr Satish Shenoy, Dr Santhosh K V & Ms Sheeba Pakkan	10/05/2017, MIT, Manipal	39
36	Interactive session with Dr Amardeep Heer	Dr Amardeep Heer	29-Jun-17 FAIMER	22

3.2   Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	6	103	24	135
Outlay in Rs. Lakhs	304.59	14917.08	1975.38	11314.21

3.3   Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	26	315	94	172
Outlay in Rs. Lakhs	214.81	2442.31	482.32	1453.57

3.4   Details on research publications

	International	National	Others
Peer Review Journals	808	707	-
Non-Peer Review Journals	-	-	-
e-Journals	-	-	-
Conference proceedings	140	1	-

3.5 Details on Impact factor of publications:

Range	0.03-11.00
Average	2.10
h-index	86
Nos. in SCOPUS	1655

3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant Sanctioned Rs in lakhs	Received Rs in lakhs
Major projects	2016-17	**Annexure 1**	12,576.08	4,827.57
Minor Projects	2016-17		1,644.88	742.91
Interdisciplinary Projects	-		-	-
Industry sponsored	2016-17		27.90	27.90
Projects sponsored by the University/ College	2016-17		200.00	115.95
Students research projects *(other than compulsory by the University)*	2016-17		100.00	144.94
Any other(Specify)			601.17	601.17
Total	2016-17		**15,150.03**	**6,460.44**

3.7 No. of books published i) With ISBN No. [36]   Chapters in Edited Books [15]

ii) Without ISBN No. [-]

3.8 No. of University Departments receiving funds from

UGC-SAP [1]   CAS [-]   DST-FIST [2]

DPE [-]   DBT Scheme/funds [5]

DST [8]   UGC [-]

3.9 For colleges   Autonomy [-]   CPE [-]   DBT Star Scheme [-]

INSPIRE [2]   CE [-]   Any Other (specify) [-]

3.10 Revenue generated through consultancy   Rs. 46,77,94,848.00

3.11 No. of conferences   organized by the Institution

Level	International	National	State	University	College
Number	24	31	1	11	4
Sponsoring agencies	23	27	1	2	3

Sponsoring Agencies

International	National	State	University	College
AIST	ICMR	SBCI	Thermofisher	Partially sponsored by MAHE
ICMR	Corporates		Pharmacology update	Received from dept fund
MAHE	Striker Medex			CME
DBT	DST			
DST/SERB	Tissue Engineering			
MCI	Stem Foundation			
CPCON ICHEOR	SORM , MAHE			
CPCON	Sri Raghavendra Biotechnologies			
DST	International Stemcells Services Ltd.			
NBHM	ICREST Stem Cell Research & Applications			
INSA	Maastricht University			
CSIR	St. John's Medical College & Hospital			
IEEE	Novartis			
IEEE Communication Society,	UNM School of Medicine			
Institution/MAHE	Project ECHO			
IEEE Communication Society,	Bigtec			
SBI	Bosch			
Higginbothams	UE Lifesciences			
Indian Association for Asian & Pacific Studies (IAAPS)	Philips			
Syndicate Bank	Vaatsalya			
Vijaya Bank (National Bank)	Syndicate Bank			
SPIE	G. Shankar Family Trust			
FirstSource Laboratory Solutions LLP	Philips (Main Sponsor)			
	Laser Spectra Services			
	AERB			

	BRNS			

3.12 No. of faculty served as experts, chairpersons or resource persons 440

3.13 No. of collaborations International 80 National 93 Any other 4

3.14 No. of linkages created during this year 52

3.15 Total budget for research for current year in lakhs(Rs) :

From Funding agency 6,199.55 From Management of University/College 5,037.35

Total 11,236.90

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	21
	Granted	1
International	Applied	-
	Granted	1
Commercialised	Applied	1
	Granted	-

3.17 No. of research awards/ recognitions   received by faculty and research fellows Of the institute in the year

Total	International	National	State	University	Dist	College
223	70	51	10	18	1	73

3.18 No. of faculty from the Institution
who are Ph. D. Guides 94

and students registered under them 180

3.19 No. of Ph.D. awarded by faculty from the Institution 138

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF 114   SRF 41   Project Fellows 16   Any other 36

3.21 No. of students Participated in NSS events:
University level - State level -
National level - International level -

3.22 No. of students participated in NCC events:
University level 52 State level 30
National level - International level -

3.23 No. of Awards won in NSS:

University level	-
State level	-
National level	-
International level	-

3.24 No. of Awards won in NCC:

University level	2
State level	15
National level	-
International level	-

3.25 No. of Extension activities organized

University forum	8
College forum	477
NCC	8
NSS	-
Any other	11, VSO

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility

Sl. No	Institution	Extension Activities & Institutional Social Responsibility
1	Kasturba Medical College, Manipal	• Participation in national health programmes of the government • Conduct of camps at various places involving various departments of the hospital • Conduct and participation in blood donation camps • VSO organized camps for patients and activities for fund raising for poor students • Radio/TV shows, articles in newspapers by faculty on health related issues **Dept. of Virus Research** • Rabies Day Awareness Rally **Dept. of Public Health** • Stakeholder Analysis and Capacity building in Risk Communication • Volunteer Services under VSO • Social activities and visit at MANSA, Roshini Nilaya, ASARE capacity building of PHC - Malpe
2	Kasturba Medical College, Mangalore	• "Stop The Violence Against The Doctors" Campaign • Prevention of Road-Traffic Accidents Initiative • Anti-Tobacco/No Smoking Campaign • Environment Day Campaign • Visit to orphanages, old age homes, paediatric wards of Govt. Wenlock • Hospital and HIV/AIDS homes. • VSO Activities • SPICMACAY • Road Safety Campaign • Anti tobacco/No smoking Campaign • Earth Day • Swachhta Hi Seva

		• Swachhta Pakhwada • Stroke week Campaign
3	School of Allied Health Sciences, KMC - Manipal	• Department of Occupational Therapy participated in Vaidya Medical Camp, organized by SCIO foundation, Manipal Chapter at MIT, Manipal on 12th September, 2016, 5th February, 2017 and 26th February 2016 at various places. 811 individuals benefitted. They were screened for lifestyle and fall risk. • Department of Occupational Therapy conducted, "ASHA: Teacher Sensitization Program for Learning Disability" in Udupi district, in association with Department of Education, Udupi District, Government of Karnataka and Rotary International, Dist.3182, on 5th and 6th October, 2016. • Department of Physiotherapy conducted 30 Diabetic foot screening camps through Udupi District as part of a World Diabetic Federation project and 09 community level awareness and screening camps. • Dept of Renal Replacement Therapy and Dialysis Technology - World kidney day - Awareness on kidney disease and obesity at KH New OPD reception area on 9th March 2017. • Dept. of Optometry has undertaken community eye screening camps both independently and collaboratively. As a team, various sectors and age groups of society have been reached, from school children to the elderly. The active research initiatives, awareness programme conducted among the schools and education institutes have created a channel for regular eye care services among school children and students. Voluntary organizations such as Rotary club, Lions club, Volunteer Service Organizations, Community Medicine unit, Dept of Ophthalmology, few independent NGO's, non-profit organizations such as SCIO, REDX and self-sponsored groups operating in and around Manipal, Udupi district have been assisting in organizing eye screening camps both among the children and adult population in the society. Extended community outreach activity is continuously been rendered through 7 Rural Maternity & Child Welfare Centre along coastal Karnataka Rotary TMA Pai Hospital, Karkala and other peripheral centres. • Dept. of Speech and Hearing - Hearing Screening camps conducted at special schools and speech and language screening at normal schools.
4	School of Life Sciences, KMC - Manipal	• Science Day residential program for a week, culminating in a science exhibition for public, including school students (Feb 2017) • Student forum organised lectures on a range of topics by external experts • Student Council visited and donated essentials to old age home and orphanage • Workshops and demonstrations arranged for students from schools and colleges in the state • Donated masks to traffic police in and around the region, as part of Daan Utsav
5	Manipal College of Nursing, Manipal	• Students have a health and social welfare committee through which social service activities are organized regularly. • Nursing students and faculty members are members of Voluntary

		Service Organization of MAHE.
		• Each department organizes an average of 4 to 5 outreach programme as a part of their curriculum; which includes special camps, school health programmes, awareness programmes, and national day celebrations every year.
		• Faculty and students are actively involved in conducting regular health education in the clinical setting, community and school like, lactation counselling, psychoeducation, breast feeding, diabetes clinic, hemophilia etc.
		• Faculty and students are actively involved in Blood donation camps, Eye Camp, Dental camp etc.
		• Monthly two Morbidity clinics are conducted by Community Health Nursing department at Athrady and Marne Villages.
		• Students visited the slums and educated children and adults on various health related issues.
		• Helped the needy migrants in terms of food , stationary items to children and clothing
6	Manipal College of Dental Sciences, Manipal	• College procured and installed cone-beam computer tomography for the patient services and for research purpose. Honourable minister Mr. Prakash Javdekar, Union mister for HRD inaugurated the facility.
		• Dental rural camps (293) throughout the year in and around Manipal have been organized and a total of 13725 patients were screened and provided treatment.
		• The college has adopted Varamballi village to make to Tobacco free and regular tobacco cessation programs are being organized to achieve the goal.
		• The student's council of the college organized a awareness programs on AIDS and Cancer among the general public.
		• Department of periodontitics celebrated Oral Hygiene day and provided Free dental check up to the patients on 1st August 2016.
		• Department of Pedodontics and Preventive dentistry initiated an innovative infant oral healthcare specialty clinic which aims to educate the expectant mothers and preparing them for the oral health care of newborn.
		• College is also actively involved in the School Dental Health Program to bring about awareness on oral health care at various schools in Udupi district.
		• The college has organized a Summer camp for underprivileged children at MIT Auditorium, Manipal
		• Department of Public health dentistry conducted free dental screening and tobacco cessation awareness camp for Milk Dairy employees in Bhramavar. The dental check-up was done for around 200 employees and oral prophylaxis and restorations were done.
		• Department of Prosthodontics and Crown and Bridge in collaboration with Government of Karnataka is actively involved in Danta Bhagya Yojane and delivered free dentures to edentulous patients
7	Manipal College of Dental Sciences, Mangalore	• Treatment of Patients through Satellite clinics • School camps • Active participation in Social Activities (Visit to Bhalikashram,

| 8 | Manipal College of Pharmaceutical Sciences, Manipal | • Blood Donation Camp
 • Pulse Polio and Immunization
 • Diabetes Camp
 • Drug Safety- Patients Counselling Drive
 • Walkathon on Awareness of Diabetes
 • Daan Utsav |

(Prashanth Nivas, White Doves)

| 9 | Manipal Institute of Technology, Manipal |

Sl. No	Date	Name of event
1	08-08-2016	Book distribution on rain water harvesting
2	15-08-2016	Independence Day
3	15-08-2016	AZADI'70- Yaad Karo Kurbani
4	20-08-2016	Vidhya carrier counselling
5	Sep-16	Swatcha Bharath Abhiyan
6	12-09-2016	Vaidya Medical camp
7	Oct-16	Daan Utsav
8	Oct-16	Cleanliness drive
9	02-10-2016	Blood donation camp
10	31-10-2016	Provenance
11	31-10-2016	Rashtriya Ekta Diwas
12	12-11-2016	Student contact program (External)
13	01-12-2016	Celebration of Indian Constitution day
14	22-01-2017	Old age home with Scio
15	26-01-2017	Cloth Distribution Drive
16	26-01-2017	Blood Donation Camp
17	07-02-2017	Share your Laptop
18	21-02-2017	Matrubhasha Divas
19	27-02-2017	Book Donation Drive
20	24-03-2017	Yoga Mat distribution
21	30-03-2017	Medical Camp and Adolescent talk
22	02-04-2017	Kite-festival, Tarang - Organized by VSO-MAHE & Manipal Institute of Technology
23	18-04-2017	VITA-Vocational Instruction and Training Academia
24	30-04-2017	Seminar on Water Conservation - Organized by Civil Engineering

| 10 | Faculty of Architecture, MIT - Manipal | • Sensitivity towards the society by extending hands special children in & around Manipal.
 • Social re-union for the specially abled and mentally challenged children.
 • Local community interaction through live studio projects based in the neighbourhood. |
| 11 | School of Management, MIT - Manipal | • Conducted the National Conference on Women Empowerment-Create, Nurture and Transform on 06 Jan 2017.
 • Seminar on General Awareness and Wealth Creation Strategies in Current Market Scenario": The Centre for Advanced Research in |

		Financial Inclusion in association with Bajaj Capital and DSP Black Rock Mutual Funds organized a seminar on 11 Feb 2017 • Celebrated Matribhasha Diwas in the SOM Library on 21 Feb 2017 • Conscendo 6.0– International Management Fest – The premier intercollegiate management fest organized by the Dept. saw its sixth edition being successfully organized. Eight colleges across the country competed in this prestigious event. • International Women's Day – Avyaya **-** On March 8th, 2017 , International Women's day was celebrated in a grand manner by Department of Commerce in coordination with Welcome graduate School of Hotel and School of Communication. During the celebration, around 500 students attended the function with few entertainment programmes. It was colourful and vibrant event • Economic Exhibition – VINYASA**,** an ecconmic exhibition was organised on 18ᵗʰ February 2017. • Alumni Meet – SAMMILAN **-** On April 8th, 2017 , first Alumni meet was organized by Department of Commerce. The celebration was highly cheerful and unforgettable event wherein old students and new students met. Around 200 students attended the function with few entertainment programmes. Director - FOFALIA GROUP was the chief guest. It was memorable event. • Dandiya Night: The advent of the festival season was celebrated with 'Dandiya'. The function kicked off with rocking numbers for different Dandiya dance formations to revel the crowd. • Onam Celebration: In order to create awareness of each state's culture and tradition, Onam was celebrated in the Department.
12	School of Communication, MIT - Manipal	• Namma Angadi
13	School of Information Sciences, MIT - Manipal	• DaanUtsav 2016: Lunch Distribution for gardeners of MAHE, hosted by SOIS and ICAS • Kite Festival 2017, Organised by VSO, Convener: Nandish S, SOIS • Digital Financial Literacy Campaign Program for Ancillary workers of MAHE, Manipal on 6ᵗʰ January 2017, Organized by School of Information Sciences in association with Volunteer Services Organization. • Financial support for 3 students (for one student complete college fees and for other two students NEET exam fees)
14	Welcomgroup Graduate School of Hotel Administration, Manipal	• Beach tourism promotional activities : 3 • Hirebettu school outreach programme: 14 • Training and empowerment of SHG: 2 • Adoption of vulnerable families in community for improvement of overall nutritional and health status-12 • Growth monitoring in Anganwadi centres - 2
15	Manipal Center for Philosophy & Humanities, Manipal	• Hombelaku sale • Swachatha abhiyan

<div align="center">

Criterion – IV
</div>

4. Infrastructure and Learning Resources
4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	684.876 acres	78.98 acres	Trust	763.85 acres
Class rooms	411	-	Own funds	411
Laboratories	319	-	Own funds	319
Seminar Halls	156	-	Own funds	156
No. of important equipments purchased ($\geq$ 1-0 lakh) during the current year.	8144	651	Own funds	8795
Value of the equipment purchased during the year (Rs. in Lakhs)	67668.80	9147.84	Own funds	76816.64
Others	-	-	-	-

4.2 Computerization of administration and library

Faculty, staff and students have access to computer, internet and Wi-Fi facility throughout the premises. Library resources are easily accessible through intranet as well as internet, providing access to thousands of online journals, books, databases and other resources. Online attendance record is available for every student via secure login. Student feedback on faculty and services is administered online at the end of every term

- Library is fully automated using Easylib Software.
- All documents are barcoded
- E-prints software is used for digital library
- Installed Patient Management System
- University website
- Purchase and Inventor
- ESP – HR
- Employee Self Service
- RMS Portal
- Student Information System
- E learning
- Library portal
- EduNxt Software
- Telephone Directory
- KH info Hospital Intranet
- Event Management System
- DOC-Synergy Event Calendar
- Employee management software
- Online journals and catalogue
- Research management system
- E-PAC & O-PAC packages are available to the students for library catalogues.
- EZProxy was introduced thus enabling faculty and post graduates to access the libraray's digital resources from any part of the world (not necessarily only from the institution's network)
- Implemented KOHA Software at Public Library (Nehru Library)

4.3 Library services:

Kasturba Medical College, Manipal

	Existing		Newly added		Total	
	No.	Value (Rs)	No.	Value(Rs)	No.	Value(Rs)
Text Books & Reference Books	67544	5,82,53,362.50	1717	52,71,481.83	69261	6,35,24,844.33
e-Books	9126	11,54,246.00	3630	4,77,002.00	12756	16,31,248.00
Journals (Print)	274	4,26,66,342.00	4547	3,01,97,303.00	255	7,28,63,645.00
e-Journals (Online)	1207				6028	
Digital Database	12	1,47,63,864.00	1	1,76,61,498.00	13	3,24,25,362.00
CD & Video	828	CD's received along with books at no extra cost	39	CD's received along with books at no extra cost	867	-
Others (specify)	-	-	-	-	-	-

Manipal Institute of Technology, Manipal

	Existing		Newly added		Total	
	No.	Value(Rs)	No.	Value(Rs)	No.	Value(Rs)
Text Books	94498	43043506.96	2050	2409742.00	96548	45453249.00
Reference Books	12382	2626500.00	15	162503.00	12397	2789003.00
e-Books	28373	4250162.00	7763	2939018.00	36136	7189180.00
Journals	-	46701264.00	312	5486271.00		52187535.00
e-Journals	2450	63500906.00	300	14788208.00	2750	78289114.00
Digital Database	6	2566841.00		2903162.00	6	5470003.00
CD & Video	CD 5900	312591.00	CD 300	(CD's received with books at no extra cost)	6200	312591.00
Others (specify) NPTEL Lectures	-	150000.00	-	-	-	150000.00

Kasturba Medical College, Mangalore

	Existing		Newly added		Total	
	No.	Value(Rs)	No.	Value(Rs)	No.	Value(Rs)
Text Books	30738	2,24,61,172.31	910	32,01,319.00	31736	2,56,62,491.31
Reference Books			88			
Journals	139	60,70,512.00	205	75,01,797.00	344	1,35,72,309.00
e-Books	53,210	1,62,23,477.00	-	2,35,55,993.00 It will Comes under Package		2,35,55,993.00 It will Comes under Package
e-Journals	3135		4688		4688	
Digital Database	6		10		10	
CD & Video	70	-	11	Complimentary	81	Complimentary

Others (specify)	-	-	-	-	-	-

Manipal Center for Philosophy & Humanities, Manipal

	Existing(July-2010 to June 2016		Newly added (July-2016 – June 2017)		Total	
	No.	Value(Rs)/ USD	No.	Value(Rs)/ USD	No.	Value(Rs)/ USD
Text Books	5374	35,68,792.67	2174	500070.60	7548	4068863.27
Reference Books	-	-	-	-	-	-
e-Books	-	-	-	-	-	-
Journals (Jan-Dec)	-	914768	-	240625	-	1155393
e-Journals	-	-	-	-	-	-
Digital Database	1	$19393.82		$2222.0	1	$21615.82
CD & Video	42	13,634	23	9339	65	22973
Others	-	-	-	-	-	-

School of Management, MIT - Manipal

	Existing		Newly added		Total	
	No.	Value(Rs)	No.	Value(Rs)	No.	Value(Rs)
Text Books	16446	65,78,358	1932	9,62,402	18378	75,40,760
Reference Books	831	-	18	-	849	-
e-Books						
Journals (Jan-Dec)	18	46,440	-	-	18	46,440
e-Journals	-	-	-	-	-	-
Digital Database	7	33,48,757	-	-	7	33,48,757
CD & Video						
Newspapers & Magazines	8+8	40,000	-	-	16	40,000
Project Reports	2625	-	293	-	2918	-

Welcomgroup Graduate School of Hotel administration, Manipal

	Existing		Newly added		Total	
	No.	Value(Rs)	No.	Value(Rs)	No.	Value(Rs)
Text Books	11015	57,25,093.90	299	2,22,989.94	11317	59,48,083.84
Reference Books	787	-	03	13,974	781	13,974
e-Books	-	-	-	-	-	-
Journals	54	4,56,732.06	-	-	54	4,56,732.06
e-Journals	2248	-	-	-	2248	-
Digital Database	1	3,14,946.00	-	-	1	3,14,946.00
CD & Video	667	514625.00	32	CD's of college events	699	514625.00
Others (specify)	-	-	-	-	-	-

Manipal Center for Natural Sciences, Manipal

	Existing		Newly added		Total	
	No.	Value(Rs)	No.	Value(Rs)	No.	Value(Rs)
Text Books	353	5,56,640.28	05	10,890.98	358	5,67,531.26
Reference Books	46	3,42,323.38	03	24,441.68	49	3,66,765.06
e-Books	16	Complementary			16	Complementary
Journals	13	1,55,675	-	-	13	1,55,675
e-Journals	22	33,62,914	-	-	22	33,62,914
Digital Database	03	44,81,411	-	-	03	44,81,411
CD & Video	18	13,114.59	-	-	18	13,114.59
Others (specify)	18(Project report)1 Phd Thesis, 3 News Papers	-	-	-	18(Project report)1 Phd Thesis, 3 News Papers	-

School of Communication(SOC), MIT - Manipal

	Existing		Newly added		Total	
	No.	Value(Rs)	No.	Value(Rs)	No.	Value(Rs)
Text Books	12268	27 Lakhs	82	85000	12350	2785000
Reference Books	275	4,12500	5	7680	280	420180
e-Books	31	NA(free of cost)	4	NA	35	NA
Journals	56	3 Lakhs	NA	NA	56	3 Lakhs
e-Journals	6	NA(compliment to print)	4	NA	10	NA
Digital Database	4	5.6lakhs	-	-	4	5.6 Lakhs
Audiovisual materials	664	535000	111	15000	775	555000
newspapers	13	50000	-	-	13	50000
thesis	715	-	66	-	781	-

Dept. of European Studies, SOC- MIT –Manipal

	Existing		Newly added		Total	
	No.	Value(Rs)	No.	Value(Rs)	No.	Value(Rs)
Text Books	5760	4457012.00	454	589310.00	6214	5046322.00
Reference Books	180	234985.00	09	9120.00	189	244105.00
e-Books						
Journals	07	260648.00	08	255928.00	15	516576.00
e-Journals	01	-*	04	-*	05	-*
Digital Database	-	-	-	-	-	-
CD & Video	-	-	-	-	-	-

| Others (specify) | - | - | - | - | - | - |

* As these journals are "Print+online" journal subscription, there is no extra cost for online access

Dept. of Geopolitics & International Relations, SOC – MIT - Manipal

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	2100	1391325.00	162	142219.5	2262	1533544.5
Reference Books	-	-	-	-	-	-
e-Books	-	-	-	-	-	-
Journals	11	79389	1	1000	12	80389
e-Journals	-	-	-	-	-	-
Digital Database	4	258191	-	-	4	258191
Thesis	52	-	10	-	62	-
News Papers/magazines	2+2	7997	-	-	2+2	7997

School of Regenerative Medicine, Bangalore

	Existing		Newly added		Total	
	No.	Value(Rs)	No.	Value(Rs)	No.	Value(Rs)
Text Books	514	22.93 lakhs	-	-	514	22.93 lakhs
Reference Books	225	-	-	-	225	-
e-Books	-	-	-	-	-	-
Journals	-	-	-	-	-	-
e-Journals	4	3.47 lakhs	-	-	4	3.47 lakhs
Digital Database	-	-	-	-	-	-
CD & Video	20	-	-	-	20	-
Others (specify) Thesis books	143	-	-	-	143	-

Public Library (Nehru Menorial Library)

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	9520	---	1527	20807.25	11045	4,06,532.90
Reference Books	-	-	-	-	-	-
e-Books	-	-	-	-	-	-
Journals, Magazines	15		-	14640	15	14,640.00
e-Journals	-	-	-	-	-	-
Digital Database	-	-	-	-	-	-
CD & Video	-	-	-	-	-	-
Others (specify)	-	-	-	-	-	-

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	*Internet*	Browsing Centres	Computer Centres	Office	Depart-ments	Others
Existing	12632	2993	All desktops are having internet connectivity		181	896	8438	124
Added	251	149			05	17	78	2
Total	12883	3142			186	913	8516	126

4.5 Computer, Internet access, training to teachers and students and any other programme for technology up gradation (Networking, e-Governance etc.)

1. Migration of all University email ids to Microsoft Office365 Cloud – Completed
2. Virtual Class Room Project at MIT – Completed
3. Lecture Capture Solutions at 10 Class Rooms at KMC, Manipal - Completed
4. Student Life Cycle Management on Microsoft Dynamics ERP Platform for MIT, Manipal - Completed
5. E-learning on Edunxt Platform for KMC, Manipal - Completed

4.6 Amount spent on maintenance in lakhs:

i) ICT   Rs. 1331.66 lacs

ii) Campus Infrastructure and facilities   Rs. 6604.15 lacs

iii) Equipment's   Rs. 2756.88 lacs

iv) Others   Rs. 3104.64 lacs

Total: Rs. 13797.32 lacs

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

Sl. No.	Contribution of IQAC in enhancing awareness
1	Student Orientation programme at the beginning of the academic programme
2	At the beginning of every academic year, the students are provided with an updated prospectus and handbook published by institution annually
3	Timely announcements of upcoming events, projects, and notices are displaced in notice board kept at vantage points.
4	Groups emails are sent to students and parents wherever necessary
5	Teacher guardians create awareness for newly joined students
6	Reviewing and ATR on the feedback
7	Counselling to the students those who are weak academic performers
8	Health and Social Welfare committee- Sick students
9	Class Coordinator and co-coordinator for monitoring the day to day curricular activities of the class
10	Subject coordinator for coordinating each subject
11	Clinical supervision in each of the clinical area
12	Faculty generated fund to support financially weak students
13	Senior nursing faculty as warden to hostel
14	Judiciary committee – to monitor the discipline prefect system
15	Annual proficiency awards
16	Evening tutorials for 1st year B.Sc Nursing students and also for academically weak students
17	Alumni meeting
18	Orientation to Ethical Issues and Guidelines on Research
19	Quarterly E News Letter
20	The institution publishes its updated academic handbook and academic calendar every year. The book includes information about the institute, list of teaching and non-teaching staff, details about undergraduate and post graduate programmes, rules and regulation of the college and its library, internal assessment and the pattern of evaluation, the tutorial system, hostel facility etc
21	The institution facilitates students to avail scholarship & other financial assistance from state government, central government and other authorities
22	Enrichment of library by adding new books and journals.
23	Builds a culture of social responsibility through extension activities by students.
24	Grievance Redressal Cell is working for student support
25	Provides latest information and communication tools like Wi-Fi Campus, Internet Facility etc.
26	Keeps updating the information on the website on regular basis.
27	Teacher guardian system for monitoring the progress of the student in attendance, studies and extracurricular activities and provide necessary counselling and support
28	Various committee for students – Anti-ragging, condemnation, disciplinary & grievances and redressal committee
29	Student feedback on Faculty
30	Complaint/Suggestion box
31	Student Information System for maintaining student records

32	Training and placement of final year Students in reputed companies for practical training
33	Guest lecture by alumni and experts from industry
34	Educational tours
35	Student exposure to various forums
36	Providing guidance for Dissertation and providing guidance for projects
37	Seminar in each semester for all the students
38	Conduction of fast track courses for the first semester students on industry standard hardware & software
39	Industry defined mini-projects
40	Internship placement support for second year students
41	Study Abroad Program opportunities
42	Workshops and invited talks on current trends
43	Orientation to Ethical Issues and Guidelines on Research
44	Quarterly E News Letter
45	Teacher Guardian Mentorship
46	Financial support for attending International conferences
47	Endowment awards , Travel Fellowships

5.2 Efforts made by the institution for tracking the progression

Sl. No.	Institution	Efforts made by the institution for tracking the progression
1	Kasturba Medical College, Manipal	• Student Information System for tracking the students progress in academics, attendance and other related issues. • Teacher guardians offer academic guidance to students, recommend them for counselling, if necessary, and also meet/communicate with parents of their mentees to update them on their progress. The teacher guardian maintains a record in which he/she updates details of academic performance and curricular progress. • Biometric attendance to monitor attendance of students to classes. • Department identify students with poor attendance / academic performance – communication sent to Dean.
2	Kasturba Medical College, Mangalore	• The teacher guardian assists in tracking the progress made by the students. Parents are informed if the students are not performing optimally and special classes are held if required to help the poor performers. The parents are also informed by email at periodic intervals, if a student is lacking attendance in any subjects
3	School of Allied Health Sciences, KMC - Manipal	• Teacher guardian system, mentoring / counselling • Student Information System portal to communicate the progress of the students
4	School of Life Sciences, KMC - Manipal	• Teacher-guardian for every student, Regular feedback to students and parents (during the program) • Faculty in touch with students regarding their progression • Alumni cell and coordinator, contact via emails (after graduation)

5	Manipal College of Pharmaceutical Sciences, Manipal	• Continuous rapport through email • Feedback from students
6	Manipal College of Dental Sciences, Manipal	• Each department monitors students attendance on a monthly basis • Students with shortage of attendance and slow learners are counselled • Online attendance of lectures, practicals and clinicals on a daily basis with an access to students and parents • End posting exams, day to day assessment of clinical work of students, seminars, etc.
7	Manipal College of Dental Sciences, Mangalore	• Test and Sessional Exams • Minor Research projects to advanced learners • Online attendance marking with access to students and parents • Financial support to present research papers in conferences • Student exchange program with International Universities • Counselling service • Academic, Sport and Cultural competitions at College, University, and National level
8	Manipal College of Nursing, Manipal	• Through the Alumni Cell graduates are contacted for tracking of their achievements • Every year alumni meet is conducted and alumni are invited to participate • Contacting all the Alumni for registration in Alumni Portal to update the progress of Alumni's
9	Manipal Institute of Technology, Manipal	• Through AMS-Academic Management System by checking attendance and student performance in Internal and External assessments. • Through continual assessment of curriculum delivery throughout the semester vide assignments, internal class tests, in semester examinations etc. • Interim reviews for Projects and Seminars
10	Faculty of Architecture, MIT - Manipal	• Student Information System • Class committee meetings • BOS, Employer feedback of training batch
11	School of Management, MIT - Manipal	• Regular Internal Audits, Management Review Meetings for discussing program issues. • Teacher Guardian Monitoring System • Participation and performance of students in academic, Cultural and Sports competition at Department, University & National level.
12	School of Communication, MIT - Manipal	• Through Alumni cell
13	School of Information Sciences, MIT - Manipal	• Continuous internal assessment and evaluation system includes theory tests, lab tests, theory assignments and lab assignments.

14	Welcomgroup Graduate School of Hotel Administration, Manipal	• Class Committee meetings are held at regular intervals • Elected student council empowered with monitoring of student progression • Online attendance and progress reports • Qualitative feedback about students' progress • Awards and Recognitions including Gold medal for meritorious students • Different scholarships (ITC Fellowship & Endowment) based on academic performance of students

(Top of page: • Seminars, mini-projects and internship projects.)

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
16745	4444	282	595

(b) No. of students outside the state — 15008

(c) No. of international students — 838

	Men			Women	
	No	%		No	%
	12536	57		9530	43

Last Year						This Year			
General	SC	ST	OBC	Physically Challenged	Total	General	SC/ST/OBC	Physically Challenged	Total
19114		**1755**		**1**	**20870**	**22066**	**-**	**-**	**22066**

Demand ratio **1:20** (Average of all courses)

Dropout % : Lowest: **0%**; Highest: 5.3**%**; Avg: **2.12%**

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

Sl. No.	Institution	Student Support Mechanism	No. of students benefited
1	Kasturba Medical College, Mangalore	The examination pattern has MCQ and students are trained to answer the MCQ. Moreover, students are taught in the course itself as to how answer the competitive exams. Pre and Para Clinical have introduced OSPE in their examination which helps evaluate skills. Analytical MCQs and OSPE help the students to prepare not only for	Not Available

		Indian competitive exams, but also the foreign ones like USMLE/ PLAB. Separate coaching classes for entrance exam by faculty is not permitted as per University rules. Institute also arranges for successful students to share their experiences and interact with the junior batches to help them in their preparation.	
2	Manipal College of Pharmaceutical Sciences, Manipal	Arranged coaching classes for GPAT examination	80
3	Manipal College of Dental Sciences, Mangalore	All Sessional exams are conducted by including the component of Multiple Choice Questions in line with National Competitive exam pattern	400
4	Kasturba Medical College, Mangalore	The examination pattern has MCQ and students are trained to answer the MCQ. Moreover, students are taught in the course itself as to how answer the competitive exams	
5	School of Management, Manipal	Special sessions / training / workshops conducted in order to appear for the competitive examinations Mentoring and counselling students for 'study abroad programs' with our partnering foreign universities Conducting Final Examination under Epad.	582

6	Manipal Institute of Technology, Manipal	Done at the institution level, with the support of Student Welfare cell, Education Technology cell and placement cell
		• Student Welfare cell:
		  o Organizes coaching for various competitive examinations for students through various agencies like IMS, The Princeton Review, TIME etc.
		• Education Technology cell:
		  o Organizes special classes in personality development skills
		  o Organizes various foreign language classes, and lectures in soft skills.
		  o Arranges training on facing the interviews and group discussions.
		  o Coordination of QEEE classes
			400
			
			250

	• Placement cell**:** to carry out the placement
	   o Arranges collaboration between industry and academic and thereby promotes industry institute partnerships.
	   o Consistently high quality of placements has been achieved through the cell.
	   o Established a long lasting and fruitful relationship with industries
	   o Arranges workshops on how to face the interviews and choice of campus
	   o Wide publicity is given for the competitive exams and skill development is provided through the Guest lecturers in core and allied chemical engineering subjects by academic and industrial experts
	   o Conduct Placement Training Class for UG and PG students in the department
	   o Aptitude (Logical Reasoning)
		976

5.5 No. of students qualified in these examinations

NET	8	SET/SLET	2	GATE	372	CAT	36
IAS/IPS etc	1	State PSC	-	UPSC	-	Others	205

5.6 Details of student counselling ~~and career guidance~~
Counselling

1	No of students counselled by Student Counsellors (MAHE)	1253
2	No of students counselled by Student Counsellor(Student Support Centre)	47
Total		1300

No. of students benefitted   1148

5.7 Details of campus placement

Institution	On campus			Off Campus
	Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
KMC, Manipal	3	20	4	-
MCON, Manipal	4	218	150	25
SOAHS, KMC - Manipal	11	106	12	94
MCOPS, Manipal	26	86	58	32
SOIS, MIT - Manipal	49	118	113	5
SOM, MIT - Manipal	44	94	60	35
SOC, MIT - Manipal	27	100	100	-
WGSHA, Manipal	14	42	42	09
MIT, Manipal	171	1648	976	31 (process is going on)
FOA, MIT - Manipal	NIL	NIL	NIL	148 (internship)
Dept. of STATISTICS, KMC - Manipal	2	10	5	4
Dept. of COMMERCE, SOM –MIT - Manipal	9	103	69	11
TOTAL	**360**	**2545**	**1589**	**246+148**

5.8 Details of gender sensitization programmes

1. Sensitized the HOIs on the need for gender sensitization workshops
2. Thereafter carried out multiple sessions in all the constituent colleges

5.9 Students Activities
5.9.1   No. of students participated in Sports, Games and other events

State/ University level | 17570 | National level | 2569 | International level | 40 |

No. of students participated in cultural events

State/ University level | 11534 | National level | 1317 | International level | 42 |

5.9.2   No. of medals /awards won by students in Sports, Games and other events

Sports: State/ University level 93   **National level** 9   **International level** 2

Cultural: State/ University level 147   **National level** 51   **International level** 1

5.10 Scholarships and Financial Support

SI	TYPE OF SCHOLARSHIP	# STUDENTS	Sum of Scholarship Amount Rs
1	AGE SCHOLARSHIP	117	17,20,123
2	AGE SCHOLARSHIP (FOR POLYTECHNIC STUDENTS)	117	2,13,66,650
3	AICTE SCHOLARSHIP	320	5,44,23,000
4	FREESHIP/MCM SCHOLARSHIP	152	3,51,65,800
5	KONKANI SCHOLARSHIP	936	2,09,29,833
6	MCM SCHOLARSHIP (BSc Nursing)	99	45,67,500
7	MERIT STUDENTS (BDS, Mangalore)	1	8,27,727
8	MERIT STUDENTS (BDS, Manipal)	8	55,87,156
9	MERIT STUDENTS (SOIS, Manipal)	11	7,08,000
10	SAGES	522	11,93,17,546
11	INT SUBSIDY ON EDU LOAN (for Konkani speaking & SAGES students)	36	5,70,592
12	STAFF CHILD/SPOUSE SCHOLARSHIP	350	5,27,75,350
	Grand Total (A)	**2,669**	**31,79,59,276**
	Private bodies		
1	G SHANKAR FAMILY TRUST	13	2,95,750
2	KUNDAPURA MOHAN & LATA BHANDARKAR SCHOLARSHIP	9	3,25,000
3	KADAMBI SCHOLARSHIP	2	60,000
	Total (B)	**24**	**6,80,750**
1	**GOVT BODIES (C)**	**307**	**61,30,993**
	Total (A +B + C)	**3,000**	**32,47,71,019**

5.11   Student organised / initiatives

Fairs   : State/ University level 35   **National level** 8   **International level** 4

Exhibition: State/ University level 33   **National level** 2   **International level** NIL

5.12   No. of social initiatives undertaken by the students 118

5.13   Major grievances of students (if any) redressed: 4

<div align="center">

Criterion – VI

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6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

Vision

Global leadership in human development, excellence in education and healthcare

Mission

Be the most preferred choice of students, faculty and industry.

Be in the top 10 in every discipline of Education, Health sciences, Engineering and Management.

6.2 Does the Institution has a management Information System

Yes. Following information sytems are available for various functions

- SIS- a Student Information System for managing the student profiles.
- AMS- Academic Management System for monitoring the teaching and learning process
- PMS- Performance Analysis System for the faculty performance evaluation
- HR Management System
- Financial Accounting System,
- Purchase and Inventory System,
- Hostel Management System,
- Library Management System
- Online attendance
- Online feedback
- Administrative procedures including finance, Student admission, Student records, Evaluation and examination procedures, Research administration, etc
- Patient Management System,
- Employee Self Service, Biometric attendance system for all the staffs etc..

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

Following activities related to curriculum development were implemented across constituent units:

KMC Manipal

- Board of Studies meeting conducted twice a year to upgrade curriculum, examination pattern, teaching methodology
- Subject Expert from other University included in the BoS
- Student Representative included in the BoS
- Separate Board of studies for each Pre, Para and Clinical departments, PG and Super specialty departments
- Feedback from students

Dept. of Statistics, KMC – Manipal

- Curriculum is based on the research needs and the need of the employers to make them industry ready

- Training in SAS by alumni, for industry oriented learning
- Seminar(s) and Journal presentation every semester, for learning beyond books and to keep them updated with recent advancements
- Hands on experience for statistical consultation
- Could establish link with one of the best international organization in Evidence based health care, The Cochrane Collaboration, could start its public health group branch for South Asia at Manipal

KMC Mangalore
- The Curriculum for the Medical UG and PG is determined by the MCI. Curricular reforms can be adopted only for Curriculum delivery. Curricular reforms are deliberated in the curriculum committee meetings and then discussed in Board of studies meetings. As and when the need is felt changes are done with respect to addition or deletion of a few topics.
- Each BOS (Preclinical, Para clinical and Clinical) meets regularly to the strategies for curricular improvement and approves it. Student representatives are present in BOS. The Institution has appointed Assoc Dean for Academics, Quality and compliance, who guides and oversees the implementation of the approved changes. Recently the Curriculum committee was reconstituted as per the specification of the regulatory body.
- In the year 2015, small group teaching was introduced across the Para clinical subjects and continued in 2016.
- Vertical Integration was introduced in second MBBS in the year 2016. Also OSPE was conducted across the pre and Para clinical subjects.
- Feedback on curriculum is taken. Any difference in score of 0.2, the departments need to send the root cause analysis to the MEU and take corrective/ remedial measures

SOAHS, KMC - Manipal
- Conduct of BOS meetings
- Discussion in department meetings
- Student and faculty feedback
- Inputs from stakeholders
- External reviews + review by international experts

SOLS, KMC - Manipal
- Identify current areas of relevance and update the curriculum periodically
- Moved towards Choice-based credit system for all courses
- Introduction of new courses of futuristic relevance

MCOPS Manipal
- Courses and contents development at dept. level
- Evaluation at Board of Studies (BoS)
- Ratification in academic senate

MCON Manipal
- Regular curriculum committee meeting was held in May 2017 to discuss the regulation in the reprint of B.Sc Nursing syllabus.

MCODS Mangalore
- Yearly twice Board of Studies meeting to upgrade curriculum, Examination pattern, Teaching methodology
- Inclusion of Subject Expert in the BoS from other University
- Inclusion of Student Representative
- Separate Board for each subject/year
- Feedback from students and experts

MCODS Manipal
- Regular Board of studies meetings are held at university level to review the academic progress of the student, curriculum delivery and student feedback on various aspects of the academic program

FOA, MIT - Manipal
- Feedback from Alumni, Industry and Employers in curriculum development.
- Board of Studies

SOM, MIT - Manipal
- Feedback from guests from Industry, Alumni, Board of Studies, and Employers.
- Curriculum is designed as per the industry requirements (as suggested by our industry partners). The subjects are aligned as per the globally recognized curriculum of ACCA and CIMA. Partnering foreign universities are also consulted to facilitate student and faculty exchange.

SOIS, MIT - Manipal
- Curriculum developed based on the industrial requirements (feedback from Alumni who are working in industry)

WGSHA Manipal
- A systematic and regular review of the curriculum is conducted twice during the Academic year and changes are incorporated after due approval at the Board of Studies and the Academic Senate of the University..

6.3.2 Teaching and Learning
Following activities related to Teaching and Learning were implemented across constituent units:
KMC Manipal
- ICT enabled teaching, didactic lectures, discussions, seminars, quiz contests, Integrated teaching, Case Based Learning, SDL, TBL
- Academic calendar prepared and given to students
- Course outline and syllabus given to students in the form of Soft copy
- Conduct of - Clinical Pathophysiology and Therapeutics and Diagnostic Reasoning by international faculty.
- E-learning platform - PowerPoint presentation of lectures uploaded by faculty; submission of assignment by students; multiple choice questions for practice.
- Impartus – lectures viewed by students
- Faculties were encouraged to attend pedagogic workshop

Dept. of Virus Research, KMC – Manipal
- Active involvement of students in ongoing departmental training workshops in order to enhance both theoretical and practical learning
- Involvement in routine clinical case discussions and scientific meetings

Dept. of Statistics, KMC - Manipal
- MSc Biostatistics students spends minimum 8 weeks internship and works on an independent project and complete it by end of the fourth semester.
- Equipped with state of the art computational facility and in possession of packages namely SAS, STATA, SYSTAT, SPSS, R, nMaster, Epi Info, Review Manager and EndNote.
- Department being a statistical consultancy center, students assist faculty in providing consultations for all levels of biomedical researchers of the University, hence receive hands-on experience.
- Conducts regular training on statistical softwares like SAS, SPSS, STATA and R for making students industry ready.
- Technical and financial support to the students to attend / conduct workshop / conference/ training Programmes etc…
- Hands on experience for statistical consultation
- Exposure to Industry (internship & project for selected students) in the fourth semester keeps them industry ready
- Support and encouragement to students for paper presentation in conferences
- Training by alumni with experience in industry for industry oriented learning
- Seminar(s) and Journal presentation every semester, for learning beyond books and be updated with recent advancements

KMC Mangalore
- The institution has a Medical education unit which is very active and conducts a number of Faculty development programmes which benefit the faculty and help them improve their instructional methods.
- In the last year, institution has been successful in introducing newer teaching methodologies (integrated teaching, PBL, Flip classroom) and innovative methodologies (use of crossword, jumble, case scenario discussions, Think pair, share, quiz). Small group teaching in the form of tutorials, seminars, table teaching, bedside clinics etc. are implemented successfully.
- In present period, 15.3% of classes had innovation introduced which is increased by 5.17% as compared to last year.
- Learning outcome, Teaching method and content is specified in lesson plan which the faculty prepare before a scheduled class. At the end of each semester a teacher teaches, an anonymous student feedback is collected online and the findings are communicated to the faculty, for them to reflect and review their teaching methodologies.
- Slow learners are regularly monitored and counselled and helped to improve.
- To facilitate the MCI directive of small group teaching and Vertical Integration, MEU conducted workshop on SGT and Integrated teaching. MEU also facilitates the FAIMER Fellowship.
- In 2017, MEU conducted Basic MET workshop, Orientation programme for PGs and Workshop for Learning Management System and E Pad.

SOAHS, KMC - Manipal
- Subject experts attend teaching-learning workshops. Use of advanced teaching methods such as problem based learning, flipped classrooms, webinars by adjunct faculty, simulation based learning and integrated case studies.

MCOPS, Manipal
Teaching methods adopted for UG program
- Classroom , Demonstrations of experiments, Psychomotor skills oriented practical exercises, Tutorials, Project works, Internship
Teaching methods adopted for PG program
- Classroom, Seminars, Design and execution of experiments, Project works on research problems , Psychomotor skills oriented practical exercises , Clerkship/ Case studies , Experiments using WinNonlin software
Methods of monitoring of the programs objectives and learning outcomes
- Academic calendar, Macro and micro planning for academic delivery and evaluation, Mentor-mentee system , Internal quality assessment, Mentoring in research activities, Counselling

MCODS Manipal
- Teaching and learning activities are planned at the beginning of the year and the process of timely delivery is evaluated through internal audits. Student learning is evaluated through planned internal assessment and the slow learners are counselled.

MCON Manipal
- Innovative teaching learning method are adopted, e.g: Team based learning.

MCODS Mangalore
- Outcome based Curriculum. ICT enabled teaching, didactic lectures, discussions, slide seminars, quiz contests, Objective Structured Practical Examination (OSPE), Objective Structured Clinical Examinations (OSCE), Objective & descriptive type theory exams, Case Based Learning and Viva-voce
- Academic calendar prepared and given to students and strictly adhered
- Course outline and syllabus given to students in the form of Hand Book/Soft copy

MCPH Manipal
- Regular internal assessment of courses, modules and teaching
- Semester-based term papers that are evaluated on quality of research and writing
- Development of syllabi by faculty individually and in conversation
- Courses taught in modules
- Thematic pedagogic standards
- Class presentations on themes, research and prescribed readings list

MIT Manipal
- Offering online courses through Coursera platform

FOA, MIT – Manipal

- Industry-academia interface for practical knowledge, Integrated learning system, innovative teaching methods, hands on workshops, field trips, case studies, study tours, interaction with alumni, guest lectures.

SOM , MIT - Manipal
- Learning Management System adopted
- Online quizzes, Skype guest talks, industry academia interface for practical knowledge, feedback of IQAC incorporated in teaching
- Class room sessions, discussions, case-Lets, Case Studies, Video-Clippings, Presentations, group discussions form part of teaching and learning. Use of technology in teaching, such as LCD projectors, Audio-visual aids and Digital class rooms, access to online databases and journals facilitate learning.

SOC, MIT - Manipal
- Incorporating ICT methods, group seminars and interactive teaching and field visits, film festival and workshops

SOIS, MIT - Manipal
- Faculty members updating knowledge in the latest technologies by organizing and attending workshops, seminars and conferences

WGSHA Manipal
- Teaching/Learning Methodologies: Lectures, Power point presentations, Discussion, Case studies, Student Presentations, Individual tasks/Group work, Videos, Hands on Training, etc.
- Apart from these, the students are encouraged to involve in other research areas of their interest, participate in symposiums and conferences both inside and outside the university, and thereby help build the personal development and the university at large.
- The Institution strives towards Continuous Innovation and updation of the teaching learning process to incorporate best practices of the Industry as well as the Academics.

6.3.3 Examination and Evaluation
Following initiatives related to examination and evaluation were centrally implemented by the University:

> 1. Adopted digital examination/evaluation through e-pad devices
> 2. Revaluation process

Following initiatives related to examination and evaluation were implemented across constituent units:

KMC Manipal
Most departments follow
- Objective Structured Practical Examination (OSPE)
- Objective Structured Clinical Examinations (OSCE)
- Written exam - Objective and Descriptive type of Theory questions

- Double evaluation of answer scripts -Evaluation by internal and external examiners as per rules of regulatory body-
- Multiple choice questions – Clinical vignette based questions
- Periodic tests (MCQs/descriptives) in additional to regular sessional exams.
- First year MBBS sessional and final examinations was successfully conducted using epad.

Dept. of Statistics, KMC - Manipal

- We do internal evaluation of the students through sessional examination, seminar / journal presentation (two sessional examination in first three semesters) and through protocol and interim presentation (in fourth semester). Students also permitted to improve internal assessment marks those who scored less than 50% marks in sessional examination.
- Independent evaluation by external members Including all spectrum of learning in evaluation
- Feedback on students' expertise in the subject as well as their suitability for the industry, is obtained from those who hire

KMC Mangalore

- Sessional examinations both theory, practical and viva are conducted in the same format as that of university examinations, at the end of the session and the results are communicated to the students within 15 working days. Students are also permitted to see their answer script and discuss with the faculty on areas of improvement.
- In addition frequent formative evaluations such as table test, end posting viva, PBL presentation evaluations, integrated case scenario solving, logbook evaluations, seminar evaluations and are done to assess the learning outcomes and give feedback to the students. It also helps us to evaluate the teaching methodologies.
- University examinations are conducted and results announced within 10 days of last day of examination. Students who fail to score the minimum required marks will attend improvement classes and reappear for the university exams after 6 weeks (for 1st MBBS) and hence have a second chance to clear the exams.

SOAHS, KMC - Manipal
- E-pads (Digital examinations)
- Faculty Squad – for random checks
- Online Screen Marking system

SOLS, KMC - Manipal
- Plans of examination via e-pads and online evaluation of answer scripts
- To enhance student graduation rate (target: 1% better than average of three previous batches)

MCODS Manipal
- E-pad examination is being implemented both for internal assessment and university examination. Orientation and Training programs in this regard have been conducted.

MCON Manipal
Examination: Sessional examination
- Three sessional exams are conducted per subject
- Question paper pattern – Same as university examination
- Question paper preparation – Prepared by the subject coordinator, scrutinized by the faculty from other department and approved by the HoD and Dean.
- One week prior to the examination question paper will be prepared and it will remain with the subject coordinator. Question papers will be handed over to the invigilators on the day of exam. E-pad examination question paper will be uploaded to e-cloud one week prior to the exam. Question paper will be released for the students at the beginning of exam.
- Invigilation – One invigilator for every twenty five students and exam chief superintendent for each day will be planned and the exam schedule will be prepared one month prior to the examination.

Evaluation: Sessional examination
- Evaluation is done by the faculty within one week after the examination and online answer scripts (E-pad) will be available to the students for viewing answer papers (5 days). Marks will be finalized after clarification from the students. All the E-pad writing students will be informed through email about release of answer scripts for student viewing.

University examination:
UG:
- Two internal examiner will be evaluating the theory paper and practical examinations will be conducted by one internal and one external examiner. Maximum 15 students will be there in one group.

PG:
- One internal and One external examiner will be evaluating the theory paper and for practical one internal and one external examiner will conduct the practical examinations.

Practical examination – feedback is taken from the external examiners

MCODS Mangalore
- Examination dates are strictly adhered to as given in the Academic calendar.
- Continuous assessment of the students through regular sessional exams with 10% weightage as internal assessment in both Theory and Practicals/Clinicals for each subject
- Students with minimum 75% Attendance and 30% Internal assessment only eligible to write University Exam
- All sessional and University exams are Paperless – Using E Pad
- Evaluation is done in most transparent way with Double evaluation by coding the paper
- On Screen Marking (OSM) evaluation

MIT Manipal
- Academic Audit taken up

- initiative has been taken up to enhance the quality of academic process by way of getting the curriculum, course content and assessment audited by senior faculty members who are experts in their domain

FOA, MIT - Manipal
- Progressive evaluation
- Evaluation Systems by employers/industry experts/alumni to measure the overall effectiveness of the students work
- Double Valuation of End Semester Examination

SOM, MIT - Manipal
- A comprehensive evaluation system is in place, where the internal marks is based on performance of students in sessional exams, assignments, presentations and quiz.
- The end semester examinations are conducted through epad devices. Rigorous scrutiny process is followed to ensure the quality of question papers.
- Double evaluation system is followed, to ensure fair valuation. Students are awarded grades (CGPA on course completion)

SOC, MIT - Manipal
- Passing marks in internal assessment made compulsory to appear in external examination.
- Extra classes for students in need of special attention continuation of dual evaluation process.

WGSHA Manipal
- The institution has a process of examination and evaluation with a lot of stress on Continuous Internal Assessment with a smaller component of the End term examination. This enables a timely and regular feedback to the students enhancing their Academic performance. Additionally, we follow autonomous system of examination wherein the Institute is responsible for conducting and as well as declaration of results

6.3.4 Research and Development
Research Promotion

i.   Implementation of revised uniform research policy including intellectual property rights, ethics, academic dishonesty, and plagiarism.

ii.   An annual budget of more than INR 40 crores is earmarked for 2018 –'19

iii. Provision to utilize matching grants, seed money, publication charges and other research promotional activities

iv.   Concerted efforts to share specialized equipment, and establish a central instrumentation facility, library, and innovation hub etc.

v.   Facilitate Academic – Corporate partnerships through tie-up with industry and premier institutions within India and overseas

vi.   Encourage researchers for international training, mobility and career progression through awareness programmes

vii. Identify potential research groups for capacity building in higher education.

viii. Subscription to PURE portal

ix. Continuation of bursary schemes for deserving undergraduate and postgraduate students and research scholars.

x. Invitation to researchers to showcase their research achievements in the Manipal Research Review and Manipal Academy of Higher Education Research E-Bulletin

xi. Benefaction of specialty journals in Medicine, Dentistry, Nursing, Allied Health, Pharmacy, Technology, Management and Engineering

xii. Institute twenty Dr. T M A Pai endowment chair with worth of Rs. Two Crores

xiii. Initiate newer policies to promote student research

xiv. Establish newer centres to promote independent research

xv. Higher incentives for researchers with better volume and quality of publications

xvi. Establishment of grant office underway to facilitate researchers to apply for grants

6.3.5 Library, ICT and physical infrastructure / instrumentation

- On Campus and Off Campus access to Online Journals and online databases have been provided. Library has a computer lab with Internet access.
- User feedback (online) mechanism is introduced
- Ezproxy technology is used for remote access of e-resources of the library
- Staff members are deputed for training programs
- Computer, scanner kiosk, printer, Photocopying Machine.
- New IT tools like Grammarly, turnitin, ezproxy etc. are introduced as quality services

Manipal Academy of Higher Education has an excellent Health Sciences Library, perhaps the best among all Health Sciences Libraries in India. The state of the art library stretching over 1.5 lakh square feet, on five levels is a domain for information seekers; be it students, faculty or researchers. It has the capacity to accommodate 1300 students at a time. Besides the comfortable seating and reading environment, the library is well equipped with modern facilities such as e-learning, access to internet and web resources including online journals and e-books. Library is providing a growing range of databases on the campus network. Access to e-resources subscribed by the library has also been provided for off-campus users. All the library services have been automated on modern line. The library has fully computerized its collection, which could be accessible through OPAC. The library is enabled with Wi-Fi technology and security systems with Closed Circuit Television System (CCTV). There is a separate audio-visual room, computer lab, group study area and private study area in the library. The library has excellent computing infrastructure including 106 PCs, 15 printers, 1 colour laser printer and 8 scanners.   The library has all the facilities for the students to learn. The Health Sciences Library is committed to provide a world-class information support to its users.

- Access to online books
- State of the art instruments and labs
- Centralized classrooms with LCD facilities.

6.3.6 Human Resource Management

- Introducing a new software for talent banking & recruitment
- Introduced a new ERP module for HR & payroll
- Biometric system for timely attendance.
- Emphasis on recruitment of international faculty.
- SMILE – leadership program to develop a pool of leaders within the MAHE to exhibit critical leadership positions across the organisation.
- Deputation of faculty members to premier institutes in the country for pursuing doctoral programmes with salary during the leave period.
- MDPs/FDPs/Guest Lecturers/Talks organized by MAHE & its units/departments for upgradation of knowledge.
- Training & Development programs on skill cum Technology upgradation
- Emphasis on awareness of community welfare and environmental protection
- Recruitment through new technologies (telephonic & video conferencing)
- Reduction of paper consumption by adopting electronic means of communication
- Interview call letters through emails/telephonic calls
- Ample opportunities for conducting research
- Collaborations with reputed public/private/international organisations for professional growth.
- Support for participating in national and international conferences/workshops
- Performance incentives through appraisal system.

6.3.7 Faculty and Staff recruitment

- Introduced a new ERP module for HR & payroll
- Recruitment through new technologies (telephonic & video conferencing)
- Reduction of paper consumption by using computers
- Interview call letters through emails/telephonic calls
- Introducing a new software for talent banking & recruitment
- MAHE has been a pioneer in attracting and acquiring the best in class academic staff from all over the country without any prejudice with regard to Religion, Region, Sex, Caste etc.
- Every recruitment is through Selection Committee chaired by the Vice Chancellor/Registrar along with other members viz. Pro VC, HOI, HOD and Deputy Director – HR.

6.3.8 Industry Interaction / Collaboration

Sl. No	Institution	Industry interaction/Collaboration
1	Kasturba Medical College, Manipal	- Post graduate students posted for 1-2 months internship in industry - Faculty involved in conduct of clinical trials - Faculty involved in conduct of animal studies for product efficacy and safety - Industry grants for research
2	Kasturba Medical	- The Faculty participate in clinical trials conducted by

	College, Mangalore	industry. In 2017, 18 such trials were conducted in collaboration with industries. Besides this, industry collaborated research projects are also encouraged and Department of Microbiology, Pharmacology and Biochemistry, participated such projects and 4 industry collaborated projects are ongoing projects.
3	School of Allied Health Sciences, KMC - Manipal	• Industry collaborations exist for student training during internship
4	School of Life Sciences, KMC - Manipal	• Seek and promote industry collaborations
5	Manipal College of Dental Sciences, Manipal	• The college is actively involved in industry collaboration with Nobel Biocare Ltd and is organizing a certificate course in Oral Implantology. This year a total of two post graduate dissertation projects are funded by Nobel Biocare. In addition, some of the faculty members are involved in research are in collaboration with various industries/companies
6	Manipal College of Dental Sciences, Mangalore	• MOU with International University • Student exchange programme
7	Manipal College of Nursing, Manipal	• Industry representatives address the students prior to campus interview and selection. • Students get direct exposure to the industries during their clinical postings. • External clinical postings. • Informal career guidance by the subject teachers and Class coordinators. • Student participation in Research activities/conferences enhance collaboration.
8	Manipal College of Pharmaceutical Sciences, Manipal	• Interaction with industries through IIPC/CDC activities

9	Manipal Institute of Technology, Manipal	• Continuous Increase in internship and placement for UG and PG programmes.
		• Continuous Improvement in quality of companies visiting for internship and placement.
		  o To register the final year students on the Alumni portal.
		  o Internships for our Master's program with Mr. Jeetendra Nayak, Nagpur.

10	Faculty of Architecture, MIT - Manipal	• Guest Lectures and workshops conducted by eminent industry experts. **Details in Annexure -II**
11	School of Information Sciences, MIT - Manipal	• All courses are started with inputs from industry for curriculum development. • Industry supported labs for teaching and learning. • Industries defined and guided mini-projects and internships. • Visit of industry experts to train faculty and students in

12	School of Management, MIT - Manipal	• Guest talks by industry experts and Skype lectures by experts in different subjects, Campus visit by industry experts/international universities. • Campus visits by corporates, Department has collaboration with almost 20 Universities across different continents. These collaboration explores opportunity for credit transfer, exchange program & Research collaboration.
13	Welcomgroup Graduate School of Hotel Administration, Manipal	• Industry Interaction / Collaboration: Faculty undergo refresher training in various hotels during the vacation period. Industry experts like the General Managers and Chefs are invited for Symposiums to give talks to our students. They are also invited as judges for various competitions. Our Placement Cell interacts with various Hotel Managers for campus recruitment and Industrial training. • The college has a professional collaboration with ITC Limited. It's a industry partnership between ITC and Manipal Academy of Higher Education

6.3.9 Admission of Students

- Publicity drives through Newspaper advertisements.
- Media campaigns
- School contact programs
- Career guidance fairs, educational exhibitions in India & abroad
- "Teenovators" program – a successful nationwide quiz competition for a younger age (8th – 10th Grade) Group from 400 schools, arranged through independent entities with a aim to encourage & develop innovative minds.
- Exclusive MAHE Edu Fest
- Webinar for the applicants

6.4 Welfare schemes for

	Provident Fund, EDLI & EPF Pension scheme
	Gratuity
	Employee State Insurance
	National Pension Scheme
	Medicare Facility to employees
	Medicare Facility to employee dependent parents
	Group Term Life Insurance for social security of family
Teaching	Scholarship on course fee of employees children/spouse studying in MAHE/constituent institutions

	Reimbursement of children educational expenses studying in Manipal Group schools/institutions
	Scholarship for students of Academy of General Education studying at MAHE.
	SODEXO Meal/Gift facility
	MARENA Sports Facility
	Concession in course fee for employee higher education
	Incentives for excellence in teaching & research
	Best Teacher Award
	Seed money for research
	Dr. TMA Pai Gold Medal for outstanding research
	Incentives for preparing e-learning materials
	Reimbursement of subscription fee (subject to limit) of one professional society
	Laptop facility to teaching staff
	Institutional accommodation facility
	Interest subsidy on housing / utility loans
	Valley Club/Faculty Club facility
	Leave Travel concession
	Conference Facility - financial assistance for attending conference / workshops
	Employee Grievance Redressal Committee
	Sports & Cultural activities
Non-Teaching	Provident Fund, EDLI & EPF Pension scheme
	Gratuity
	Employee State Insurance
	National Pension Scheme
	Medicare Facility to employees
	Medicare Facility to employee dependent parents
	Group Term Life Insurance for social security of family
	Scholarship on course fee for employee children/spouse studying in MAHE/constituent institutions
	Reimbursement of children educational expenses studying in Manipal Group of institutions/schools
	Scholarship for students of Academy of General Education studying at MAHE.
	SODEXO Meal/Gift facility
	MARENA Sports Facility
	Concession in course fee for employee higher education
	Institutional accommodation facility
	Employee Grievance Redressal Committee
	Sports & Cultural activities
Students	Student Health Clinic
	Teacher Guardian / Mentoring scheme
	Dedicated support centre for mental wellbeing with clinical psychologists and student counsellors
	Student Grievance Cell / Anti-ragging monitoring Committee/ Internal Complaints Committee / Hostel welfare committee
	Workshops & Awareness Programs
	Student Clubs
	Yoga Classes
	Student Scholarships

6.5 Total corpus fund generated   6527.42 Lakhs

6.6 Whether annual financial audit has been done   **Yes** ✓ **No** ☐

6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	ISO Certification agency M/s TUV Rheinland Pvt. Ltd. B'lore	Yes	Internal Quality auditors certification
Administrative	Yes	-do-	Yes	-do-

6.8 Does the University/ Autonomous College declares results within 30 days?

For UG Programmes   Yes ✓   No ☐

For PG Programmes   Yes ✓   No ☐

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

1. Registration for the examination, Generating hall tickets and sessional mark entry through Student Information System (SIS)
2. Digitization examination/evaluation through e-pad devices.
3. Revaluation process
4. Autonomy in assessment for the selected institutions.

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

1. Autonomy status has been given to few institutions like Manipal Institute of Technology, Welcomgraduate School of Hotel Administration, School of Information Sciences, Dubai campus and Manipal College of Pharmaceutical Sciences.
2. Process has been started to provide autonomy status to other institutions wherever possible.
3. Auditing of autonomy on assessment institutions to continue the autonomy in assessment

6.11 Activities and support from the Alumni Association

Sl. No.	Institution	Activities & Support
1	Kasturba Medical College, Manipal	• Annual alumni meeting is held • Alumni visit departments and deliver guest lectures **Dept. of Statistics, KMC - Manipal** Conducted SAS Training for MSc. Biostatistics students by alumnus • Ms. Ashwini Shenoy (Associate Statistician GSK Pharmaceutical Ltd. Bangalore) – 3rd & 4th September 2016 • Ms. Neha Shrikant Pakhle (Biostatistician, Sciformix, Pune) – 3rd & 4th September 2016 • Ms. Sheril Thomas – Ephicacy, Bangalore – 1st & 2nd October 2016 • Mr. Manjunath Halemane – GE India Exports Pvt. Lt., Bangalore – 1st & 2nd October 2016 • Helping department to place the students for internship **Dept. of Public Health** • Linking of Students E-Mail to Alumni Portal, Alumni Meet was held
2	Kasturba Medical College, Mangalore	• Supported Class of 1987 MBBS, KMC Mangalore reunion at MEU Hall, KMC Lighthouse Hill on the July 22, 2017 at KMC Mangalore. Coordinator – Dr Mujeeb Rehman • Supported Class of 1995, KMC Mangalore reunion at KMC Lighthouse Hill on August 13, 2017. Coordinator – Dr Animesh Jain. • Supported Class of 1977, KMC Mangalore reunion at MEU Hall, KMC Lighthouse Hill on December 09, 2017. Coordinator – Dr Varadaraj Shenoy, Dr Jagannath Kamath. • Supported Class of 1982, KMC Mangalore reunion at KMC Lighthouse Hill on December 22, 2017.

		Coordinator – Dr Sumana Kamath.
		• Supported Class of 1994, KMC Mangalore reunion at KMC Lighthouse Hill on December 23, 2017. Coordinator – Dr Suresh Shetty.
		• Participated in the MAHE Annual Alumni meet at Manipal, December 16, 2017.
		• Supported Class of 1992, MCODS Mangalore at KMC Lighthouse Hill on July 16, 2017. Coordinator – Dr Arathi Rao.
		• Participated in the Interns orientation day February 28th, 2017 at medical education hall, KMC Lighthouse Hill complex, KMC Mangalore to encourage registrations on the Alumni Portal.
		• 250 new Alumni registered on the Alumni Portal
3.	School of Allied Health Sciences, KMC - Manipal	**Alumni Meets** • SOAHS Alumni MEET & SILVER Reunion BATCH 1992 was held on 27th Jan. 2017 • Alumni meet of BPT 94 batch and BOT 95 batch SOAHS manipal organized at SOAHS manipal on 14th Feb 2017. **Alumni Guest lectures** • Department of Medical Laboratory Technology, SOAHS organized an Interactive session with MAHE alumni working in the field of Clinical laboratory sciences and research-ILLUMNE III on 27th March 2017 by Varun CN Senior research fellow (UGC-SRF) National Institute of Mental Health and Neuro sciences Bangalore, Alumni of MAHE, Medical Laboratory technology 2010 batch • Dr. Jaya Shankar Tedla, King Khalid University, Saudi Arabia, Conducted Guest Lecture for Post graduates of Physiotherapy on16th & 17th July 2016 • Dr. Ashokan Arumugam, alumni of SOAHS and PhD awardee from Otago University New eland, currently Post-Doctoral fellow in Sweden, conducted Gust Lecture" Neurodynamic solutions" for Post graduates of Physiotherapy On 1st & 2nd October 2016. He also conducted a guiding session on "PhD Program in Otago University • Mr. Sivalanka Sumansh, Physiotherapist at Gopichand Badminton Academy Hyderabad, Conducted Gust Lecture for Post Graduates on 9th September 2016 • Dr. Anusha currently working as Research Scientist at Callier Center for Communication Disorders, Richardson, Texas delivered a lecture on 'Articulatory Speech Science and Technology' and shared information on forming research questions, applying for projects and receiving grants.
4	School of Life Sciences, KMC -	• Alumni are regularly updated about the activities of their alma mater and opportunities

	Manipal	
5	Manipal College of Nursing, Manipal	• Alumni are attending the university alumni meet every year • Online registration of alumni for better networking • Recognition of alumnus for their contributions
6	Manipal College of Pharmaceutical Sciences, Manipal	• Alumni meet on December 2-3, 2016 in MCOPS • Alumni Meet on December 16, 2016 during 68th IPC HELD AT Visakhapatnam, AP • Alumni meet on February 11, 2017 in MCOPS during MCOPS Annual Day 2017 • Alumni Meet on March 7, 2017in Dubai during DUPHAT Conference
7	Manipal College of Dental Sciences, Manipal	• Department of Conservative Dentistry & Endodontics invited Dr. Prasanth Dhanapal and organized Meet the Experts Seminar series to enlighten on the "Cast Post & Core – An Insight" on January 16, 2017. Similarly, Dr. Ankit Arora delivered a guest lecture on "A Novel Perspective towards maturogenesis" on February 8, 2017. • Dr. Yeshwanth Pulijala, an aluminous of the college and a PhD Researcher in Medical Visualisation from University of Huddersfield, UK visited our college and delivered an informative lecture on "Oculus Surgery" for interns and undergraduate students on 09 January 2017.
8	Manipal College of Dental Sciences, Mangalore	• Alumni meetings conducted regularly • Guest lectures • Alumni awards for meritorious students • Alumni News letter
9	Manipal Institute of Technology, Manipal	• December 2016—alumni meet of the 1991 batch. • The institute is well supported by its alumni contributing as resource persons for technical talks, guest lectures, monetary assistance in building facilities etc
10	Faculty of Architecture, MIT - Manipal	Eminent and established practitioners in the field of architecture, interior design and fashion design from various parts of the country were invited to interact and have extensive individual discussions with students during various academic related activities (studio projects, thesis, dissertation, viva-voce examinations) conducted at various times in the academic year: • Ar. Srinath Adavni, Advani and associates, Bangalore • Ar. Prajosh Kumar, "Options", Mangalore • Ar. Mohammed Nissar, Abuilding Lab, Mangalore • Ar. Sunil Nayak, Sunil Nayak Architects, Mysore • Ar. Venkatesh Rao, Keystone Architects, Bangalore • Ar. Ajay Appachu, Synectics Partners, Bangalore • Ar. Vijay Upadhyay B, Bangalore • Ar. Sudhir Acharya, Hastha Constructions, Bangalore

		• Ar. Dhanprakash, Abuilding Lab, Mangalore • Ar. Sadanand Nayak, Architecture Plus, Mangalore • Ar. Kanchana Pai, Red Earth, Manipal • Ar. Arun Prasad, Arun Prasad and Associates, Architects and Planners, Coimbatore, Tamil Nadu • Ar. Amith Shenoy, Amith Associates, Udupi • Ar. Ashok L P Mendonca, Mendonca Associates, Mangalore The following Architectural firms headed by our alumni who have excelled in their professional practice have given our students the opportunity to do their internship with them: • Abuilding Lab Architects, Mangalore – Ar. Mohammed Nissar & Ar. Dhanprakash • Stapati Architecture, Planning and Interiors, Bangalore – Ar. Tony Joseph • Alex Jacob Architects, Bangalore – Ar. Alex Jacob • Guulshan Roy Architects, Mangalore – Ar. Guulshan Roy • Amith Associates, Udupi – Ar. Amith Shenoy • Ecumene Habitat Solutions Pvt. Ltd., Bangalore – Ar. Satish Desai & Ar. Vasudevan R Kadalayil • Space A.R.T Architecture, Calicut, Kerala – Ar. Vinod Cyriac • Mendonca Associates, Mangalore – Ar. Ashok Mendonca • Synectics Partners, Bangalore – Ar. Ajay Appachu • Gayathri & Namath Associates, Bangalore – Ar. Namith Varma • J & I Architects, Kochi, Kerala – Ar. Joseph John
11	School of Management, MIT - Manipal	• Involved in Institutional and developmental activities like Seminars, Workshops and other programmes • Alumni involved in admission process, curriculum revision and Placements
12	School of Communication, MIT - Manipal	• SOC's 20th year celebration with an all batches alumni meet (1997-2017). Illustrious alumni Mr. Sameer Hashmi (2008 batch), correspondent BBC News, India conducted a session during a students' conducted event- Article-19
13	School of Information Sciences, MIT - Manipal	• Alumni supports for the mini-projects, job and internship placement, guest lectures and training on latest technology • "OpenCV (Open Source Computer Vision) for Image and Data Analytics" on 2nd and 3rd September 2017. By Mr. Bandappa, Senior Software Engineer, KPIT, Bangalore as a resource person • "DJANGO: A Python Based Web Framework" on 18th and 19th February 2017.Resource persons is alumni Mr. Akshay Kumar KA and Mr. Samith Kashyap working as

14	Welcomgroup Garduate School of Hotel Administration, Manipal	• Activities and support from the Alumni Association: WGSHA Alumni relations department is a constituent of Manipal Academy of Higher Education Alumni Department. In the Institution an Alumni meet is organized every year after the Annual day. The Graduating batch and alumni from other years take part in the meet. Manipal Academy of Higher Education organizes Annual Alumni meet in the month of December. Alumni are invited to give guest lectures to various courses they also are invited to judge various competitions. Every year we have a Distinguished Alumnus Award given to outstanding Alumnus selected by the top management of ITC and Manipal Academy of Higher Education.

(continued from: Software Engineer at MINDLOGICX, Bangalore)

6.12 Activities and support from the Parent – Teacher Association

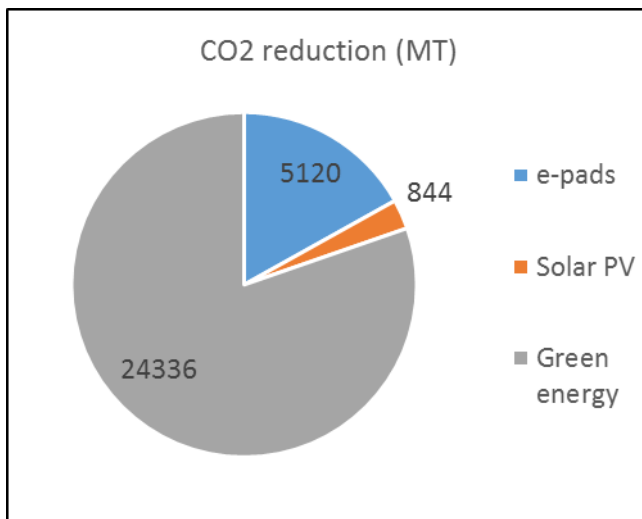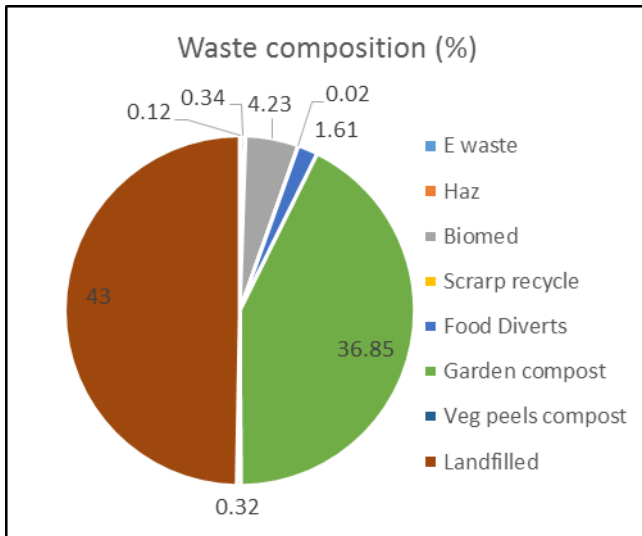| Sl. No.	Institution	Activities & Support
1	KMC, Manipal	• Participated in college activities and gave the feedback for improvement in T & L and student support. • Representation in IQAC & Mentor Cell
2	KMC, Mangalore	• Periodic inputs are taken from the parents and these are used to monitor the progress of the ward. • A parent feedback has been devised and by the year end a feed- back from Parents will be taken
3	MCON, Manipal	• There is no Parent-Teacher Association. However regular communication with the parents/guardian is done. • Teacher Guardian- communicate with the parents regularly • Sessional marks and attendance is sent to the parents regularly
4	SOLS, KMC - Manipal	• Inputs from parents, where applicable, are incorporated to monitor progress of student
5	MCODS-Mangalore	• Participate in college activities and give feedback for improvement in T-L and student support • Representation in IQAC
6	KMC, Mangalore	• Periodic inputs are taken from the parents and these are used to monitor the progress of the ward
7	SOC, MIT - Manipal	• Parent meet during orientation session and parent as resource person

6.13 Development programmes for support staff

1. Conducted Training & Development programs like workshops/seminars, Fire Safety etc.
2. Microsoft office training through certified consultant
3. Communication Skills through professional language teacher
4. Support for Sports & Cultural Activities

6.14 Initiatives taken by the institution to make the campus eco-friendly

MAHE, Manipal is an ISO 9001, 14001 and 50001 certified campus, following a series of voluntary ISO standards on Quality, Environment & Energy Management Systems. The Environment and Energy Policy is our guiding document that enables the University to achieve continual improvement over time. Consistent efforts are made in implementing best practices in the areas of waste management, air quality, green cover, education & research, energy and resource management, solely funded by the administration. Strategies adopted like use of exam pads, an electronic device for examinations replacing conventional answer scripts which has reduced 5120 metric tons (MT) of carbon dioxide equivalent (CDE) emissions which translates to 512 trees saved from being felled. Green energy use in campuses accounts for 50% of total consumption thus reducing 35331 MT of CDE emissions and self-generated solar power prevented 846 MT of CDE emissions into the atmosphere. Efforts towards water management and recycling has helped in sustaining green cover even during water stressed months.

Focus areas:

Waste composition (%)

- E waste
- Haz
- Biomed
- Scrarp recycle
- Food Diverts
- Garden compost
- Veg peels compost
- Landfilled

Values: 0.12, 0.34, 4.23, 0.02, 1.61, 43, 36.85, 0.32

CO2 reduction (MT)

- e-pads — 5120
- Solar PV — 844
- Green energy — 24336

- Well defined waste categories and waste streams

- Segregation at source

- Trained waste collectors

- Defined procedures

- 57% of waste diverted from landfill site

- This ensures environmental safety & Resource recovery

- Green energy procurement along with self-generation has reduced CO2 emissions up to 25,179 metric tons

- Electronic reports across institutions has saved an estimated 700 trees

- Use of examination pads for few institutions saved an estimated 500 trees

- Subsidized rates, for vehicle emission test ensures self-compliance by both staff &

- Endemic and endangered species of tree saplings planted over the last 3 years – 10,000

- Vehicle PUC tested- public and staff /students
    - Diesel – 424
    - Petrol – 7870

- Ambient air quality and stack emissions in check

- Restricted vehicle entry in key areas

Environment related focus:

- No. of courses/ modules = 47

- Research funds = $ 3,51,698

- Scholarly publications = 91

- Events = 31

- Student organizations = 5
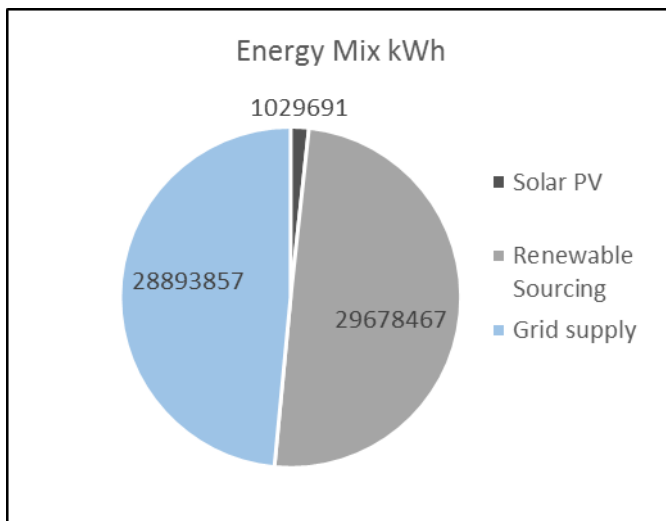
- Use of solar generated power both self and purchased

- 50% of electrical energy is from a green source

- This translates to 25,000 MT of carbon di oxide emissions reduced to the air

- ISO 50001 certification has brought about a structured system with Energy performance indicators defined this improving efficiency
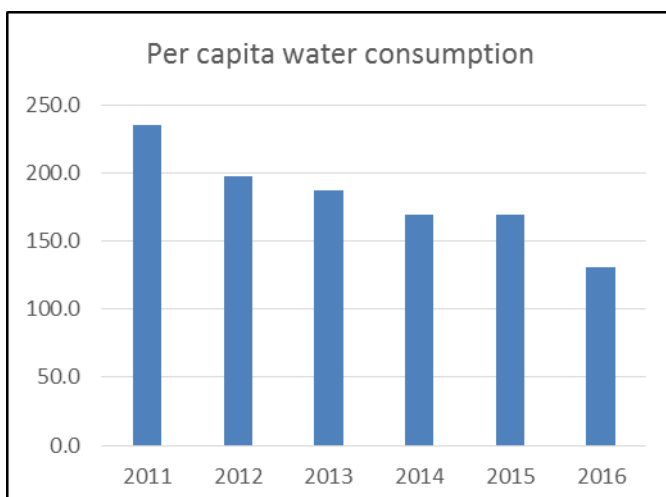
- A new standard of 130 liters per capita was reached last year

- Close to 100% of effluents generated is treated and reused in campus green cover development

- Upgradation of STP by 1 million liters capacity

- Automation and sludge management system as new introduction in STPs

Criterion – VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

Sl. No.	Institution	Innovations Introduced
1	Kasturba Medical College, Manipal	• Successfully conducted the sessional & university examination in E-pad **Dept. of Virus Research** • Upgradation of infrastructure to meet diagnostics requirements towards strengthening the public health. • Rapid detection, diagnosis and surveillance of infectious disease with the turnover time of 24 – 36 hours. **Dept. of Public Health** • Problem based learning, Hands on field Experience, Field Exposure visits, Short term research, Role play case study, Video case discussions (Skype), Journal Discussions, E-Learning, Webinar etc. • Foundation Program, collaborative program with Maastricht University is a technology enabled program delivered through e-learning platform. Student Semester program with Maastricht University. • Student taking up exchange programmes. • Medicines Sans Frontiers - India is collaborating with Manipal Academy of Higher Education to initiate the Global Health and Humanitarian Medicine programme, a webinar Programme
2	Kasturba Medical College, Mangalore	• Biometric Attendance was introduced for students in 2017. All the attendance as well as classes taken are captured in the biometric attendance and students and Parents can view the same in the Student information portal. • Learning management system has been introduced. Faculty of 1st and 2nd MBBS have been trained in the same. All class PPTs are uploaded in the LMS. • E pad use for exams have been extended to 2nd MBBS. All students of 1st and 2nd MBBS answer exams on e pads. The corrections are done online by the faculty on the e pad system. Sessional exam internet facility is provided but for the University exam- only Intranet facility is provided • Induction training was conducted for newly joined Faculty.
3	School of Allied Health Sciences, KMC -	• Conduct of feedback (student and faculty) online. Reduced paper consumption

	Manipal	• Implementation of University's Vision 2020 has increased academic and research output • Advocacy and pedagogy in academics and research
4	School of Life Sciences, KMC - Manipal	• Choice based Credit System introduced for all UG and PG programs • Digital Examinations for all courses • High-end molecular diagnostic methods using NGS, MS
5	Manipal College of Dental Sciences, Manipal	• Department of conservative dentistry and endodontics organized "Meet the Experts" program which involves lectures or training by experts from the respective fields to the students and faculty of the college on recent research in the fields of dentistry
6	Manipal College of Dental Sciences, Mangalore	• Indigenous Patient Management System (PMS) and Orthodontic Patient Management System (OPMS) • Online student and staff feedback • Smart Identity Card for students and staff
7	Manipal College of Nursing, Manipal	• E-pad exam is introduced. • Add on courses on Critical Care Nursing, Emergency Management, Advanced Neonatal Nursing
8	Manipal College of Pharmaceutical Sciences, Manipal	Macro and micro academic management system • Student information systems • Online attendance/ marks • Strict adherence to examination schedules • Good teacher awards • Award for audio visual aid for teaching

9	Manipal Institute of Technology, Manipal	• Introduction of Student Lifecycle Management System – Process Initiated
		  o To automate the process
		  o Lower manual error
		  o Alerts and Communication to the students and parents
		• Academic Audit taken up
		  o Iinitiative has been taken up to enhance the quality of academic process by way of getting the curriculum, course content and assessment audited by senior faculty members who are experts in their domain
		• Encouragement for student publication thro' incentives.
		• Students are participating in experiential learning projects.
		• Teacher guardian scheme for 2nd year students was introduced
		• Student participation in activities such as Hackathon and innovation challenges.

10	Faculty of Architecture, MIT - Manipal	Innovative approaches have been introduced & practiced in teaching, learning, evaluation and administration system: • Participatory learning process • Inter professional interaction • Factual situations • Transparency • Flexible academic scheduling • Mentoring faculty & Students • Decentralization • Holistic development
11	School of Management, MIT - Manipal	• Establishment of Centre for Business Analytics • Establishment of Indo-German Center for Applied Research and Academic Exchange (INGAR) • Establishment of Centre for Marketing Advances • Establishment of Centre for advanced research in financial inclusion • MoU with Safeducate Private Ltd. for internship and training programs • Collaborations with Universities in US,Europe • Offering of new specialisations (Professional & Banking Technology) for M Com Program from the academic batch of 2016-17 approved by BoS and Senate
12	School of Information Sciences, MIT - Manipal	• Study Abroad Program (SAP) - Students from Efrei, France came to study four modules. • Opportunity to study/ internship abroad • The industry linkages and practical oriented curriculum • Industry Sponsored labs • Regular workshops and invited talks from faculty, engineers and researchers on current trends to improve skill sets. • The program and subjects are updated frequently based on industry feedbacks. • Internship support for getting 10-12 months internship in an industry for second year. • Fast track refresher courses for the first semester students • Opportunities to work on industry defined mini-projects. • Industry standard hardware and software • Alumni support for curriculum update, conducting workshops and internship placements
13	Welcomgroup Garduate School of Hotel Administration, Manipal	• Herb/ Spice garden projects • Chef Vikas Khanna, a distinguished alumnus of WGSHA, has contributed culinary equipment's and utensils worth $4 million towards the establishment

14	School of Regenerative Medicine, Bengaluru	• Demonstration of equipment with advanced technology
15	Manipal Centre for Phylosophy and Humanities	• Students encouraged to publish their creative thesis as books to encourage high quality thesis

- of a Culinary Museum Faculty and student Research publication.
- Course Structure modified to include MOOCs, program and open electives.
- Summative assessment started on Epad in keeping with environmental awareness (paperless exams)

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year

Please refer Q. no. 2.15 of Part A

7.3 Give two Best Practices of the institution *(please see the format in the NAAC Self-study Manuals)*

Best Practices – 1

1. Title of the Practice
Innovative Practice in enhancing the teaching learning – Academic audit

2. Objectives of the Practice -

➢ To enhance the quality of academic process
➢ To assess the course structure in terms of its relevance and adequacy
➢ To evaluate the specific courses in terms of syllabus and the assessment

3. The Context

To enhance the quality of academic process by way of getting the curriculum, course content and assessment audited by senior faculty members who are experts in their domain.

4. The Practice

Describe the practice and its uniqueness in the context of India higher education. What were the constraints/limitations, if any, faced (in about 400 words)?

Academic audit is conducted for all the Departments of Manipal Institute of Technology. Experts from IIT and similar institutions had been invited for the process. Experts from different domains of the same specialization had given their

opinion about the exiting course content and evaluation which will give us opportunities to enhance it at design and deployment levels.

5. Evidence of Success

In the Curriculum Revision which is being proposed for 2018, suggestions that had come from the academic audit has been incorporated. The features like introduction of MOOCs, the curriculum structure with reduced contact hours and introduction of self-learning components in Curriculum 2018 has come out to be pertinent and reflects to the dream curriculum proposed by MHRD.

6. Problems Encountered and Resources Required

Getting appropriate people with expertise in different areas of specialisation from reputed institutions for the audit is a challenge due to existing busy schedules.

Best Practices – 2

1. **Title of the Practice :**
    Curriculum Conclave at M.I.T Manipal

2. Objectives of the Practice:

- To involve the key stakeholders of the B.Tech program in the curriculum revision process
- To listen to the views and suggestions of the key stakeholders (Students, faculty, experts from industry and academia, and Management/University)
- To discuss the undergraduate engineering curriculum requirements with the experts from industry and academia and to gather their inputs before the formulation of new curriculum

3. The Context:

At M.I.T Manipal, the UG curriculum gets revised once in every four years. In general, in the past, the curriculum revision used to take place in the respective departments. The faculty members, along with the Department Curriculum Committee (DCC) members will design the new curriculum and get the inputs from experts. The modified curriculum undergoes a review at the institution level before submitting to the University for Approval. However, in the last two revisions, a new process is put in place to allow participation of all the stakeholders of the program so that the curriculum can be viewed from various angles by the key stakeholders before embarking on the revision at the department level. The focus is to make curriculum more relevant, competent, and flexible and acceptable without losing its rigor. The idea is to involve the stakeholders in the process, communicate the issues, opportunities, and constraints in one platform and to

gather their inputs for improvement. It is acting as the precursor to the actual curriculum revision.

4. The Practice

Over the years the higher education is becoming more and more learner-centric. The scenario in India also following the global trend. Moreover, as India has entered the Washington accord, it becomes mandatory for Indian engineering education to follow the Outcome Based Education(OBE) model. The National Board of Accreditation (NBA), which represents India, made it compulsory for all the technical education in India seeking for accreditation to implement OBE.

OBE, with a paradigm shift from the input based model, essentially follows learner-centric approach with outcomes as the focus. One important characteristic of OBE is its emphasis on the continuous quality improvement by collecting feedback from the stakeholders at various point in the program. The curriculum conclave is mainly targeted this aspect by involving the stakeholders at the very beginning of curriculum design. The forum serves the purpose of collecting the feedback from the learners who have experienced the curriculum, faculty members who have delivered the curriculum, get suggestions from them and along with getting the inputs and advice from the experts and management, get approval from them for the approach well in advance.

At MIT, looking at the magnitude and diversity of the programs offered, the conclave happens in two phases on two days. In each phase, about 60 students and 30 faculty members from 8 programs participate.

Experts from academia and industry who have credentials in the engineering education and involved in various activities related to engineering curriculum design and delivery are invited to the program. The other participants include representatives from University, MIT administrators and faculty members. Sessions involving presentations, display of posters, group discussions based on the various aspects of curriculum design were included in the event. The advice from the experts and management will be heard in the event by all the participants. The whole proceedings will be observed by the HODs and DCC members, who later will incorporate the outcomes of the conclave into their curriculum.

The Associate Director (Academics) along with the coordinator, education technology cell organizes the event every time the new curriculum revision is taken up at the institute.

5. Evidence of Success

The curriculum conclave held before the design of 2014 curriculum had given valuable inputs. The curriculum designed by incorporating the suggestions and ideas emerged out of the conclave helped to come out with an acceptable and innovative curriculum in 2014. The mini-projects in every semester, the emphasis for laboratory, open electives and minor specialization in a program, etc., were the outcome of curriculum conclave. In 2018 curriculum we would introduce honors, adding more open electives and making room for a semester abroad for students in addition to continuing the best practices of the earlier curriculum.

6. Problems Encountered and Resources Required

Although no major issues were faced in the conduction of the program, holding it in one single program is difficult at MIT owing to the size and number of programmes. We had to conduct it in two phases. The main resources were the experts from industry and academia apart from logistics. It is difficult to get the right kind of people from the respective domain. It is also challenging to get alumni as per our schedule. Maybe stream wise conduction would solve the problem on one side, it increases the number of events and leads to difficulty in consolidation and arriving at a consensus.

Bets Practices – 3

1. Title of the Practice-
Making MIT-Eco-Sustainable Campus

2. Goal
Manipal Institute of Technology has one of the best campuses for economic sustainability. It was successful in reducing per capita water consumption by 20%.
- To introduce green energy mix from zero to 85% by 2020
- To divert wastes from the landfills by the end of 2018 by 50%.
- To become the hub of environmental and educational research

3. The Context
- To reduce Per-Capita Water Consumption by bringing in Technological Interventions
- To reduce the dependence on Conventional Energy Source and shift to non-conventional energy friendly sources.
- To emphasize on Environmental Research
- To manage Campus Waste effectively

4. The Practice
Water Management
MIT on the whole having a broader network is doing its best in approaching water management by Rainwater harvesting which is 32,659 m3/year. Percolation occurs

naturally due to the wide green cover of the plateau of Manipal. Cent percent waste water is reused which comes out to be 5,84,000 m3/year. Interventions like flow restrictors, dual flush system, water level controller are taken into consideration. MIT plans to make use of the grey water by treating them for plants in flush.

Waste Management

The sewage generated on campus is treated up to a tertiary level. With the plant capacity of 2000 m3/day the treated water is used in the green cover development hence producing zero discharge. Plant's distribution network consists of three sumps - 1100 m3 and one OHT- 100 m3 releasing into sprinklers and outlets.

Waste Management

MIT is committed to effectively manage and dispose waste. Typically, there are two kinds of waste generated in the campus. The first, MSW, is utilised in numerous ways. Some of them being, gardens made by filling lands and natural composting, food wastes picked up by the piggeries, vegetable peels used for vermi-composting and recyclables like paper, cardboard, glass, bottles, inert handed over to for recycling.

The biomedical wastes, sanitary wastes from hotels and institutions are handed over to agents fro incineration. Hazardous wastes generated from high-tech labs are handed over to agents for further handling and the same is done for the e-wastes from generated from offices and maintenance.

5. Evidence of Success

Education and Research
- The campus hosts 15 courses related to environment and sustainabilty for students. With research funds of 21.3 lakhs, there have been 26 scholarly publications under this section.

Recognitions
- AICTE -3rd most clean campus in India, Most clean campus in south west region.
- Golden peacock award for environment management 2012, 2013, 2014
- ISO 9001, 14001, 50001 Certified
- UI Greenmetic University Ranking- MAHE –Ranked 67 globally 2nd in India.

6. Problems Encountered and Resources Required
- Manipal was a hard laterite-baron hill which made planting trees and plants a very tedious process. Taking care of the plants later also needed special attention.
- Negotiations with local authorities needed special efforts.

7.4 Contribution to environmental awareness / protection
Awareness is given to staff and students on the need for conservation and measures undertaken. During World environment day students from nearby schools carry out the green march along with placards depicting current issues like global warming, Ozone depletion etc. The heads of Institutions along with the top management and students engage in a tree planting session. This culminates in a formal address by the Universities top management and Institutional Heads.

Trainings are given to all staff members on key aspects like Hazardous / Biomedical / other waste management, University objectives of reduction in paper, water and power consumption etc.

7.5 Whether environmental audit was conducted? Yes [✓] No [ ]

Yes. MAHE is ISO 14001:2015 certified institution and hence, regular Environment Management System internal audit is being conducted by in house certified internal auditors and once in a year an audit is conducted by the certifying agency - M/s TUV Rheinland Co. Pvt. Ltd. Bengaluru

7.6 Any other relevant information the institution wishes to add. (For example SWOT Analysis)

Strengths	Weakness
• Well-structured governance system • Transparent and Robust Admission & Evaluation Process • Self-financed programs delivered at optimal cost • Mentoring/counselling support (Director of Student Affairs) • Curriculum Design and Development Process • Diverse student profile • Promotion of Research • Ranked No. one among private universities for its research publications output by SCIMAGO • Scopus indexed publications and H index rating • Central Quality & Compliance (Q&C) cell –Quality and Compliance • Environmental Cell to monitor compliance to various legal and statutory requirements • Ranked 2nd among Universities as per UI Green metric ranking in Suberban Category in India . • Experienced Faculty with Industry and Academic experience • Recognitions and Rewards to Faculty - India and abroad • Academic processes with continual improvement • Periodic audits	• Limited translation of MoUs into products and processes • Inability to attract significant endowments • Varied examination/evaluation patterns impacts academic flexibility • Being a self-financed university, limits university's capacity to finance large sponsored research projects • Inadequate coordination between constituent units and hence reduced placements • Inadequate commercialization of patents

- State-of-the-art infrastructure
- Well-equipped library
- Extracurricular and co-curricular activities
- Extend consultancy services
- Involvement several social responsibility projects and extension activities
- Several MoUs with industry / academic institutions -India and Abroad
- ISO 9001:2008 certified for Quality Management System (QMS) & 14001:2004 for Environmental Management System (EMS)
- Winner of Golden Peacock Award for Environmental Management System

Opportunities	Challenges
- More academic and industry collaborations - Implement Choice based Credit system - Multi-disciplinary Research - Publications in reputed indexed journals - Explore Consultancy - Move towards paperless administration - Capturing feedback from alumni is in the developmental stage. Efforts are in progress to implement their valuable inputs - Implement technology in core processes - Engage with different stakeholders - Share resources between campuses - Student publications - Cataloguing of young researcher - Greater collaborative research - Commercialisation of patents - Compete in World/Subject rankings	- Increasing cost of education - Compliance to frequently changing regulations - Limitations to change curriculum - Regulated Courses - Competition from increasing number of Universities in India and abroad - Semi-Urban location to attract & retain faculty; Examiners and Industry Experts - Preference of the funding agencies towards government institutions.

8. Plans of institution for next year

1. **Academic Audit in all constituent units starting with Major institutions** namely Manipal College of Nursing -Manipal , Manipal Institute of Technology-Manipal, Kasturba Medical College- Manipal & Mangalore, Manipal College of Dental Sciences, Manipal and Welcomgroup Graduate School of Hotel Administration, Manipal.

2. **Organizing workshop /conference in association with NAAC –** Will be applying for National/International conference on Academic and Administartive audit (AAA) with the following thrust areas.
   - To focus on national and international best practices on criteria, selection of peers/experts, process outcome and continuous quality improvement
   - With discussion themes - Importance and relevance of AAA, Basic requirements to conduct the AAA, AAA – as peer review process, Vison and expertize on AAA, AAA as CQI tool, AAA – as a model of self-reflection, Commitment to Quality education through AAA.
   - Plenary sessions, Paper Presentations with expected outcomes like Best practices on criteria, selection of peers/experts, process outcome and continuous quality, improvement.

3. **To be in the top 200 in QS and THE World University Rankings by 2020**

The above performance can be achieved by continual improvement in various parameters which form basis of both the World Rankings as listed below:

ACADEMIC REPUTATION

To enhance the Academic Reputation Score of MAHE in International Rankings

#	Objective	Plan
1	To recruit and appoint distinguished interna-tional and national faculty	1. Increase the Number of Adjunct Faculty on rolls a) National b) International 2. Increase the number of Visiting Faculty a) National b) International
2	Fostering innovative pedagogy and technology enhanced learning	1. Increase the no of E-learning initiatives 2. Increase the no of innovative pedagogies introduced
3	Encourage and facilitate accreditation	1. Increase the no of academic programmes accredited by National agencies 2. Increase the no of academic programmes accredited by International Agencies
4	Increase academic and research visibility by enhancing collaboration and partnership	1. Increase the no of Academic Collaborations a) National b) International 2. Increase the no. of faculty involvement in Board of Studies/ Examiner ship in top ranked Universities in India and Abroad (Top 200 in QS Asia, Top 800 in THE/QS World University Rankings) 3. Increase the no. of short term faculty exchanges

| 5 | Improve quality of faculty and maintain healthy faculty student ratio | 1. Increase the number of faculty with Terminal degrees
2. Faculty: Student Ratio
3. Faculty :cadre ratio |

RESEARCH

To enhance focus on research through funds, publications and intellectual property

#	Objective	Plan
1	Scopus Indexed publication with Collaboration	Increase the percentage of Publications
2	To facilitate good quality research programs with national and international grants and to meet the research grant targets set by the board of management	No of research grants proposals - 100 Research grant proposals Grant Amount in INR Crores - INR 80 Crores
3	To provide expertise and training to investigators, researchers and PhD Guides	Awareness and training programs - 10
4	To facilitate research publications	Publications - 2500
	Publication per Faculty	Per Faculty - 1
5	To support patent filing activities and Technology Transfer	Patents Applications filed - 10
6	To facilitate good quality research publications	% of publications in top25% percentile of journals by Cite score/SNIP
		Increase in Average H index by 2.0 per author every year.

INTERNATIONALIZATION

To be a globally reputed university in the next five years

#	Objective	Plan
1	Strengthen our collaborative activities both numerically and qualitatively	No. of partnerships to increase every - 1000 institutional collaborations by 2020
2	Promote overseas destinations to our students for better exposure	% of enrolled students - 10% of enrolled students
3	Promote our self as a choice destination there by increasing foreign students on campus	No of foreign students - Increase 10% every year culminating to 2000 students per year by 2020
4	Enhance overseas academic opportunities for faculty	% of MAHE Faculty every year - 10%

5	Foreign faculty on-board on a regular basis	Total faculty to be international – 10%

EMPLOYER REPUTATION

To enhance employer reputation score of MAHE in World Rankings

By increasing

#	Objective	Plan
1	Percentage of eligible Students to be placed (for the applicable disciplines).	% of eligible students placed - 92% by year 2020
2	Number of companies to participate in the campus placements	No of Companies - 200 companies by 2020
3	Number of Fortune 500 companies to participate in campus placements	No of Companies - 50 companies by year 2020
4	Average compensation	CTC - INR 5 lacs per annum by 2020
5	Alumni Engagement through • Registrations on Alumni Portal • Facilitating Reunions	Number of Registrations - 50000 by 2020 Number - At least 6 per year

4. EMS Objectives:

1. Potable water consumption to be maintained at maximum of 130 litres Per capita /day

2. To be ranked within the top 20 Universities globally under the suburban category in the UI Green metric World University Ranking by 2019.

Name: **Dr. Sandeep S Shenoy**

_____

Signature of the Coordinator, IQAC

Name: **Dr. H Vinod Bhat**

_____

Signature of the Chairperson, IQAC

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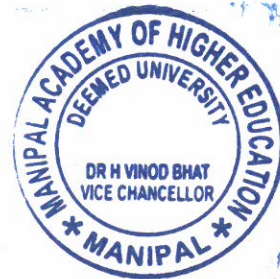
MAHE Research Unit			

3.6 Research funds sanctioned and received from various agencies, industry and others organizations – for the financial year 2016 – 17 (Amount In Lakhs)

Sl. No.	Institution	Name of the Funding agency	Sanc Total Amount	Received Amount
		Major Projects		
1	Kasturba Medical College, Manipal	Programme for appropriate Technology, Washington, USA	499.02	80.78
		Novo Nordisk India Pvt Ltd	70.00	0.71
		Science and Engineering Research Board (SERB)	56.05	26.01
		Regents of the University of Michigan, USA	55.00	55.00
		JPN Apex Trauma Centre, All India Institute of Medical Sciences, New Delhi	52.50	5.00
		Science and Engineering Research Board (SERB)	51.53	21.88
		Ministry of Science & Technology, Department of Biotechnology	50.50	25.02
		Science and Engineering Research Board (SERB)	48.13	12.00
		Merck Serono India	43.79	20.39
		Indian Council of Medical Research (ICMR)	43.19	7.23
		Science and Engineering Research Board (SERB)	41.19	12.94
		Indian Council of Medical Research (ICMR)	38.34	10.10
		Indian Council of Medical Research (ICMR)	37.39	8.34
		Ministry of Health and Family Welfare (Department of Health Research)	35.49	15.53
		Indian Council of Medical Research (ICMR)	33.06	16.23
		Ministry of Science & Technology, Department of Biotechnology, Government of India	32.89	22.39
		Indian Council of Medical Research (ICMR)	28.05	7.41
		Indian Council of Medical Research (ICMR)	26.35	3.95
		Total	**1242.45**	**350.92**
2.	Kasturba Medical College,	Dept of Science & Technology	49.16	4.00

	Mangalore	(DST)		
		Govt of India ,Ministry of Science & Technology ,Department of Science and Technology (DST) ,New Delhi	42.03	30.50
		Indian Council of Medical Research (ICMR)	28.51	28.45
		Karnataka Health System Development & Reform Project (Khsdrp) ,Bangalore	25.00	8.03
		Total	**144.70**	**70.98**
3.	Dept. Of Virus Research, KMC - Manipal	Centers for disease Control & prevention, USA	8161.70	3491.93
		Indian Council of Medical Research (ICMR)	693.91	45.02
		National Institute of Communicable diseases, Directorate General of Health Services	49.08	4.62
		Indian Council of Medical Research (ICMR)	31.48	24.15
		Total	**8936.16**	**3565.72**
4.	Manipal College of Nursing, Manipal	Indian Council of Medical Research (ICMR)	51.20	5.86
		Department of Biotechnology (DBT)	46.19	24.32
		Total	**97.39**	**30.18**
5.	Manipal College of Pharmaceutical Sciences, Manipal	Department of Biotechnology (DBT)	42.32	10.80
		Department of Biotechnology (DBT)	35.72	8.76
		Science and Engineering Research Board (SERB)	33.58	1.00
		Department of Biotechnology (DBT)	31.35	15.36
		Total	**142.97**	**35.92**
6.	Manipal Institute of Technology, Manipal	National Technical Research Organisation (**NTRO**)	313.80	131.09
		DEITy, Hyderabad	81.14	26.28
		Dept of Science & Technology (DST)	47.62	6.77
		Science and Engineering Research Board (SERB)	40.94	3.00
		Total	**483.50**	**167.14**
7.	Manipal Academy of Higher Education, Manipal	Science and Engineering Research Board (SERB)	38.16	4.50
		Science and Engineering Research Board (SERB)	37.40	31.00
		Board of Research in Nuclear Sciences (BRNS)	34.96	23.11

		Board of Research in Nuclear Sciences (BRNS)	27.51	1.92
		Education, Audio-visual & Cultural Executive Agency, Mr Ralf Rahders, Head of Unit A4, Bour 02/17, 1, Avenue du Bourget, 1049, Brussels, Belgium	199.08	199.08
		Total	**337.11**	**259.62**
8.	Dept. of Public Health, KMC – Manipal	Take Solutions Limited	335.00	67.00
		UNICEF, Hyderabad	28.60	6.69
		Board of Research in Nuclear Sciences (BRNS)	25.21	5.91
		Funded by Bill & Melinda Gates Foundation Hough The Inclen Trust International, F-1/5, Second Floor , Okhla Industrial Area, Phase 1 New Delhi-110020	41.99	18.90
		Total	**430.80**	**98.49**
9.	School of Life Sciences, KMC - Manipal	Dept of Science & Technology (DST)	56.00	0.95
		Science and Engineering Research Board (SERB)	54.70	14.00
		Science and Engineering Research Board (SERB)	45.18	15.73
		Department of Biotechnology (DBT)	43.15	26.05
		Department of Biotechnology (DBT)	33.21	11.83
		Indian Council of Medical Research (ICMR)	29.79	14.08
		Board of Research in Nuclear Sciences (BRNS)	28.66	3.07
		Dept of Science & Technology (DST)	26.46	8.68
		Science and Engineering Research Board (SERB)	25.61	8.54
		Total	**342.75**	**102.92**
10.	School of Management, MIT - Manipal	NABARD	27.18	9.45
		Total	**27.18**	**9.45**
11.	School of Regenerative Medicine, Bengaluru	Science and Engineering Research Board (SERB)	45.56	7.00
		Department of Biotechnology (DBT)	39.88	10.52
		Dept of Science & Technology (DST)	32.23	7.00
		CSIR - Central Food Technological Research Institute, New Delhi	28.42	5.50
		CSIR - Central Food Technological Research Institute, New Delhi	25.44	10.78

Sl. No.	Institution	Name of the Funding agency	Sanc Total Amount	Received Amount
		Total	**171.53**	**40.79**
12.	School of Allied Health Sciences, KMC - Manipal	World Diabetes Foundation, Denmark	112.50	54.93
		Jouni Onnela, Icare Finland Oy. 01510 Vantaa, Finland	44.61	4.91
		Science and Engineering Research Board (SERB)	31.91	18.25
		Dept of Science & Technology (DST)	30.52	17.34
		Total	**219.54**	**95.43**
		Grand Total	**12576.08**	**4827.57**

Minor Projects for the year 2016 -17 (Amount in Lakhs)				
Sl. No.	**Institution**	**Name of the Funding agency**	**Sanc Total Amount**	**Received Amount**
1	Faculty of Architecture, MIT - Manipal	Harish perinchery, P D Box 222, PC 217, Salalah, Oman	0.50	0.50
		Sajith Kumar, Marsh Oman LLC/Marsh UAE, PO BOX 197, PC-116, Sultanate of Oman	0.50	0.50
		Shrirang Kolaskar, Dp World, Dubai	0.35	0.35
		Richard Jones(Country manager) & Pradeep kumar Alva(Manager Claims), Cunningham Lindsey Middle East Lid, 37/40 Hatat House, ground Cloor-PO Box 106, Medinat Qaboos 115, Sultanate of Oman.	0.30	0.30
		Ronald Lobo, Australia	0.30	0.30
		Ajay Harilal Tyagi, Country Head, International Container terminal, Bombay	0.25	0.25
		Prakash/Mathew Cherian-EI Sukry Establishment LLC, PO Box 855, Ruwi, PC-112, Sultanate of Oman	0.25	0.25
		Erik Sasz, Head of Operations - TICTS, Tanzania	0.15	0.15
		Krishna Moorthy,PO BOX 369, PC-211, Salalah, Sultanate of Oman	0.15	0.15
		Vinod Medappa, P O Box 460, PC-217, Salalah Sultanate of Oman	0.15	0.15
		Pramod Kumar, Dubai	0.05	0.05
		Total	**2.95**	**2.95**
2.	International Centre for Applied Sciences	University of Queensland, Australia	0.36	0.36
		The Australian national university, Canberra ACT0200, Australia	0.35	0.35
		Queensland University of Technology, 2 George St, Brisbane	0.21	0.21

		QLD 4000 Australia		
		University of Leicester, University Rd., Leicester LEI 7RH, Uniter Kingdom	0.19	0.19
		Total	**1.11**	**1.11**
3.	Kasturba Medical College, Manipal	Indian Council of Medical Research (ICMR)	23.43	3.92
		Science and Engineering Research Board (SERB)	22.14	4.00
		Indian Council of Medical Research (ICMR)	19.71	19.71
		Indian Council of Medical Research (ICMR)	19.19	5.95
		Shantha Biotechnics Limited	19.06	6.68
		Indian Council of Medical Research (ICMR)	18.93	2.87
		Apex Laboratories private limited	18.45	18.45
		Ministry of Science & Technology, Department of Science & Technology, New Delhi	17.60	6.30
		Novartis Healthcare Pvt Ltd	16.59	3.10
		Science and Engineering Research Board (SERB)	16.35	2.00
		Science and Engineering Research Board (SERB)	16.20	9.60
		Indian Council of Medical Research (ICMR)	15.27	4.88
		Indian Council of Medical Research (ICMR)	14.74	14.74
		Ministry of Science & Technology, Department of Science & Technology, New Delhi	14.59	5.52
		Indian Council of Medical Research (ICMR)	14.55	4.42
		Council of Scientific and Industrial Research	10.75	1.13
		Defence R & D Establishment, Gwalior	9.60	5.76
		Fortis Escorts Heart Institute & Research Centre	9.15	1.61
		Alexander von Humboldt - Universtiat munster, Universitatsklinikum-Centrum for Reproduktionsmedizin & Andrologic, Domagkstr-11, Munster	8.17	8.17
		Intel Technology India Pvt Ltd	7.14	3.57
		ICON Clinical Research India Pvt	6.33	6.33

Ltd		
Indian Council of Medical Research (ICMR)	6.07	2.13
India Medtronic Pvt Ltd	6.00	4.50
Philips India Ltd	4.81	4.81
Serum Institute of India Pvt Ltd	4.68	1.85
Indian Council of Medical Research (ICMR)	4.23	2.12
Philips India Ltd, Bangalore	4.23	2.11
Indian Council of Social Science Research (**ICSSR**)	4.14	2.07
Regenerative Medical Services Pvt Ltd	4.10	0.33
Indian Council of Medical Research (ICMR)	4.06	2.03
Max Neeman Medical International Ltd	3.69	0.74
Dr Raymond Houghton, Director New product Development, InBios International Inc, 562, 1st Avenue South Suite 600, Seattle WA 98104, USA	3.34	3.34
Educational commission for foreign Med Graduates, 3624 market Street, Philadelphia, PA 19104	3.24	3.24
Translational Health Science & Technology Institute	2.78	2.78
Philips India Ltd, Bangalore	2.61	2.61
Indian Council of Medical Research (ICMR)	2.12	2.12
Merck Specialities Pvt Ltd, Mumbai	2.00	2.00
Sanofi Synthelabo (India) Pvt Ltd	1.61	1.05
Science and Engineering Research Board (SERB)	1.03	1.03
Ayurwin Pharma Pvt Ltd	0.88	0.63
Philips India Ltd	0.74	0.74
Glen mark Pharmaceuticals Ltd	0.71	0.71
Ram Prasad Sammeta	0.60	0.60
Yashaswi Fishmeal & Oil Company	0.59	0.43
Cadila Pharmaceuticals Limited	0.56	0.18
Directorate of Health & Family Welfare Services	0.50	0.50
Sun Pharmaceutical Industries Ltd	0.50	0.05
Novartis Health Care Ltd	0.45	0.15
Centre for International Co-operation in Science (CICS)	0.20	0.20
Total	**388.41**	**183.76**

4.	KMC Hospital, Attavar	Reliance Life Science Pvt Ltd	2.65	2.65
		Ecron Acunova Ltd	2.00	2.00
		Quintiles Research Pvt Ltd	1.06	1.06
		Sun Pharma Industries Ltd	0.88	0.88
		Icon Clinical Research Ltd	0.86	0.86
		Lamba Therapeutics Research Ltd	0.85	0.85
		Eli Lilly & Co. Pvt Ltd	0.76	0.76
		George Clinical India Pvt Ltd	0.66	0.66
		GEORGE CLINICAL INDIA PVT LTD	0.66	0.66
		George Clinical India Pvt Ltd	0.62	0.62
		JSS Medical Research Pvt Ltd	0.44	0.44
		Quintiles Research Pvt Ltd.	0.37	0.37
		Quintiles India Pvt Ltd	0.26	0.26
		Cliantha Research Pvt Ltd	0.24	1.36
		Quintiles Research Pvt Ltd	0.19	0.19
		Total	**12.50**	**13.62**
5.	Kasturba Medical College, Mangalore	ID FISH Technology INC, USA	16.49	5.55
		Board of Research in Nuclear Sciences (BRNS)	15.11	6.35
		Jiv Dya Foundation, Dallas, TX 75251	13.59	5.02
		Indian Council of Medical Research (ICMR)	10.33	5.39
		Defence R & D Establsihment , Govt of India Ministry of Defence , Jhansi Road ,Gwalior - 474002,DRDE/TC/05414/Proj/TASK-219/16/13.5.2016	9.30	6.00
		Technip Relief & Development Fund, Paris, France	8.04	8.04
		Dept of Science & Technology (DST)	4.23	4.23
		Association of Physicians of India , Karnataka Chapter , API Bhavana, Bangalore-52	2.70	0.90
		Council of Research & Industrial Research (CSIR HRDG)	2.59	2.59
		Wockhardt LTD	1.33	1.33
		Department of Biotechnology (DBT)	1.32	1.32
		CSIR - Centeral Food Technological Research Institute, New Delhi	1.22	1.22
		Govt of India ,Ministry of Science & Technology ,Department of Science and Technology (DST) ,New Delhi	0.66	0.66
		Science and Engineering Research Board (SERB)	0.48	0.48

		Tuberculosis Association of India , New Delhi	0.20	0.20
		Total	**87.58**	**49.24**
6.	Dept. of Virus Research, KMC – Manipal	British Council Division	16.91	0.86
		American Society for Microbiology	2.47	3.07
		Total	**19.38**	**3.93**
7.	Manipal College of Dental Science, Manipal	The Royal College of Surgeons of Edinburgh, Nicolson Street, Edinburgh, EH8 9DW	8.14	8.14
		ISOI, Mumbai	0.50	0.25
		KOYE Pharmaceuticals Pvt Ltd	0.19	0.19
		Total	**8.83**	**8.58**
8.	Manipal College of Nursing, Manipal	Indian Council of Medical Research (ICMR)	7.22	1.61
		Indian Council of Medical Research (ICMR)	4.78	4.78
		Indian Council of Medical Research (ICMR)	1.95	1.95
		Science and Engineering Research Board (SERB)	0.35	0.35
		Total	**14.30**	**8.70**
9.	Manipal College of Pharmaceutical Sciences, Manipal	Science and Engineering Research Board (SERB)	22.76	7.58
		Science and Engineering Research Board (SERB)	19.91	3.00
		Dept of Science & Technology (DST)	19.22	4.00
		Science and Engineering Research Board (SERB)	19.17	1.00
		Science and Engineering Research Board (SERB)	18.80	5.00
		Department of Biotechnology (DBT)	15.30	3.08
		Department of Biotechnology (DBT)	12.10	3.02
		All India Council for Technical Education (AICTE)	11.76	0.13
		Dept of Science & Technology (DST)	10.10	3.49
		Indian Council of Social Science Research (ICSSR)	10.00	4.00
		Dept of Science & Technology (DST)	9.26	3.90
		Dept of Science & Technology (DST)	7.30	3.80
		Biotechnology Industry Research Assistance Council (BIRAC)	7.00	0.61
		Stempeutics Research Pvt Ltd	7.00	1.50

		Dept of Science & Technology (DST)	6.93	3.43
		Nerve24 Technologies Pvt Ltd	5.80	0.81
		Steer Life India Pvt Ltd	4.14	1.21
		Indian Council of Medical Research (ICMR)	3.77	2.38
		Griffith University, Gold Coast Campus, 170 Kessels Road, Nathan, QLD 4111	3.52	3.52
		CSIR - Central Food Technological Research Institute, New Delhi	3.05	1.02
		All India Council for Technical Education (AICTE)	2.50	0.82
		All India Council for Technical Education (AICTE)	1.50	0.78
		IDBR, Bangalore	1.27	0.84
		Dr Vinaja K. IDBR, Bangalore	0.86	0.43
		Mr G L Viswanantha	0.59	0.18
		BLDAE"s College of Pharmacy, Bijapur	0.52	0.25
		Advinus Therapeutics Limited	0.36	0.36
		Dr N D Throat, Materials & Surface Science Institute, University Limerick, Limerick, Ireland	0.26	0.13
		Centre for International Co-operation in Science (CICS)	0.19	0.19
		Centre for International Co-operation in Science (CICS)	0.14	0.14
		Dr Prathibha C K, Utkal University, Orrisa	0.12	0.12
		Total	**225.21**	**60.70**
10.	Manipal Institute of Technology, Manipal	National Technical Research Organisation (**NTRO**)	20.00	20.00
		Vision Group on Science and Technology (**VGST**)	20.00	10.00
		Board of Research in Nuclear Sciences (BRNS)	18.49	3.31
		Board of Research in Nuclear Sciences (BRNS)	17.48	1.04
		Science and Engineering Research Board (SERB)	16.35	3.00
		Korea Institute of Science & Technology	11.37	11.37
		All India Council for Technical Education (AICTE)	9.40	2.82
		UGC-DAE Consortium for	6.40	2.30

		Scientific Research, New Delhi		
		Science and Engineering Research Board (SERB)	4.85	2.09
		Dept of Science & Technology (DST)	3.50	3.50
		36th International Geological Congress Society, New Delhi	1.72	1.72
		UGC-DAE Consortium for Scientific Research, New Delhi	1.25	0.05
		UGC-DAE Consortium for Scientific Research, New Delhi	0.90	0.44
		Science and Engineering Research Board (SERB)	0.77	0.77
		Xinova Confidential, Intellectual Ventures Asia Pte Ltd., USA	0.50	0.50
		Geological Society of India	0.50	0.50
		UGC-DAE Consortium for Scientific Research, New Delhi	0.45	0.45
		UGC-DAE Consortium for Scientific Research, New Delhi	0.45	0.45
		Indian Nation SCI Academy	0.15	0.15
		Karnataka State Council for Science and Technology (KSCST)	0.12	0.12
		Karnataka State Council for Science and Technology (KSCST)	0.06	0.06
		Karnataka State Council for Science and Technology (KSCST)	0.06	0.06
		Karnataka State Council for Science and Technology (KSCST)	0.04	0.04
		Total	**134.80**	**64.73**
11.	Manipal Academy of Higher Education, Manipal	Science and Engineering Research Board (SERB)	23.68	5.70
		Science and Engineering Research Board (SERB)	22.01	4.87
		Dept of Science & Technology (DST)	21.78	7.22
		Science and Engineering Research Board (SERB)	20.50	1.00
		Vision Group on Science and Technology (**VGST**)	20.00	20.00
		Science and Engineering Research Board (SERB)	18.30	11.86
		National Technical Research Organisation (**NTRO**)	13.00	13.00
		Science and Engineering Research Board (SERB)	12.12	2.50
		Indian Space Research Organization (ISRO)	5.72	2.86

No.	College	Agency		
		Manipal Advanced Research Group, MAHE, Manipal -Seminar	2.96	2.96
		Titan Company Ltd	2.07	0.59
		Science and Engineering Research Board (SERB)	1.53	1.53
		Greta Regan, Project Manager, University of Kings College, 6350 Coburg Road Halifax, Nova Scotia, B3H 2AI, Canada	1.49	1.49
		SPIE(Society og Photo-Optical Instrumentation Engineers) is the International Society for Optics & Photonics, Bellingham, WA 98225-6705 USA	1.27	1.27
		Society of Photo-Optical Instrumentation Engineers, (SPIE) PO Box 10, Bellingham, WA, 98227, United States.	0.70	0.70
		Science and Engineering Research Board (SERB)	0.61	0.61
		Educational Audio-visual & Cultural Executive Agency, Erasmus + Bologna Support-Jean MONNET, Office: BOU2, 03/107, Avenue du, Bourget, 1 BE-1049 Brussels Belgium	21.82	21.82
		Aarus University, Europe	0.20	0.20
		Total	**189.75**	**100.17**
12.	Manipal College Of Dental Sciences, Mangalore	Public Health Foundation of India	6.47	3.24
		Sri Kshetra Dharmasthala Rural Development Projects	3.50	1.00
		Narayana Hrudayalaya., Bangalore	1.20	0.46
		APACE LIFE SCIENCES PVT.LTD	0.20	0.20
		Total	**11.37**	**4.89**
13.	Melaka Manipal Medical College, Manipal	Science and Engineering Research Board (SERB)	19.20	9.60
		Indian Council of Medical Research (ICMR)	12.99	3.52
		Indian Council of Medical Research (ICMR)	11.90	11.90
		PCIM&H, Ghaziabad	10.00	6.00
		Board of Research in Nuclear Sciences (BRNS)	5.22	0.15
		Specific Research plan for FeMa care Phd research program	1.73	1.73
		Total	**61.03**	**32.90**
14.	Dept. of Public Health, KMC	UNICEF, Hyderabad	23.68	2.01

	– Manipal	Public Health Foundation of India	13.44	4.04
		Public Health Foundation of India	11.56	3.48
		Robert Bosch Engineering & Business Solutions Pvt Ltd	7.13	7.13
		Dept of Science & Technology (DST)	20.07	9.00
		Indian Council of Social Science Research (ICSSR)	9.00	3.60
		Dept of Science & Technology (DST)	5.90	2.78
		Price Water House Cooper on Behalf DFID, British Commissioner, New Delhi	4.74	4.74
		World Health Organisation, Malaysia	3.20	3.20
		Total	**98.72**	**39.97**
15.	School of information sciences, MIT - Manipal	Brigham & Women's Hospital & Massachusetts general Hospital	16.55	16.55
		Philips India Ltd, Bangalore	0.92	0.92
16.		**Total**	**17.47**	**17.47**
	School of Life Sciences, KMC - Manipal	Indian Council of Medical Research (ICMR)	23.36	0.77
		Science and Engineering Research Board (SERB)	21.80	0.24
		Indian Council of Medical Research (ICMR)	17.90	8.35
		Indian Council of Medical Research (ICMR)	17.41	4.40
		BTFS Govt of Karnataka	17.20	17.20
		Indian Council of Medical Research (ICMR)	15.49	7.75
		Dept of Science & Technology (DST)	14.61	3.90
		Indian Council of Medical Research (ICMR)	11.08	2.48
		Dept of Science & Technology (DST)	9.75	1.75
		Dept of Science & Technology (DST)	6.72	3.22
		Indian Council of Medical Research (ICMR)	5.07	0.62
		Centre for International Co-operation in Science (CICS)	5.02	2.76
		Indian Council of Medical Research (ICMR)	3.90	3.90
		Indian Council of Medical Research (ICMR)	3.90	1.95
		Indian Council of Medical Research	3.90	1.95

		(ICMR)		
		Science and Engineering Research Board (SERB)	1.15	1.15
		CSIR - Centeral Food Technological Research Institute, Mysore	1.08	1.08
		Indian Academy of Sciences, Bangalore	0.84	0.84
		Department of Biotechnology (DBT)	0.82	0.82
		Department of Biotechnology (DBT)	0.34	0.34
		Centre for International Co-operation in Science (CICS)	0.25	0.25
		Centre for International Co-operation in Science (CICS)	0.20	0.20
		The Opticals Society of America , 2010 Massachusetts Ave, NW Washington, DC 20036 USA	0.16	0.16
		Total	**181.93**	**66.05**
17.	School of Regenerative Medicine, Benagaluru	Science and Engineering Research Board (SERB)	21.30	2.00
		Board of Research in Nuclear Sciences (BRNS)	21.01	12.00
		Dept of Science & Technology (DST)	15.98	3.90
		Eyestem Research Pvt Ltd	14.58	14.58
		NCCS, Pune	4.73	3.50
		Cryo-Save India Pvt Ltd	3.44	1.72
		Dept of Science & Technology (DST)	0.07	0.07
		Total	**81.10**	**37.76**
18.	School of Allied Health Sciences, KMC - Manipal	Robert Bosch Engineering & Business Solutions Pvt Ltd	24.14	21.76
		Dept of Science & Technology (DST)	23.90	5.00
		Dept of Science & Technology (DST)	16.38	2.50
		Indian Council of Medical Research (ICMR)	13.39	0.48
		Indian Council of Medical Research (ICMR)	10.87	1.59
		The Royal institution for the Advancement of Learing/ McGill University	8.30	8.30
		Indian Council of Medical Research (ICMR)	7.55	2.82
		JIJI & Anita Vaughese, 4Thurston Lane, Ashland, ma 01721, USA	1.67	1.67
		Science and Engineering Research Board (SERB)	1.19	1.19

			Sanc Total Amount	Received Amount
		Science and Engineering Research Board (SERB)	1.05	1.05
		Total	**108.43**	**46.35**
		Grand Total	**1644.88**	**742.91**

Industry Sponsored				
Sl. No.	**Institution**	**Name of the Funding agency**	**Sanc Total Amount**	**Received Amount**
1	School of Life Sciences, KMC - Manipal	Cyno Medicaments, New Delhi	20.00	20.00
		Enovate Biolife Pvt Ltd, Mumbai	0.15	0.15
		Juggat Pharma, Bangalore	0.19	0.19
		Juggat Pharma, Bangalore	0.20	0.20
		Natural Remedies, Bangalore	0.68	0.68
		Stempeutics Research Pvt Ltd, Bangalore	0.70	0.70
		Stempeutics Research Pvt Ltd, Bangalore	4.97	4.97
		The Managing Trustee, Ayurvidy Trust, Bangalore	1.00	1.00
		Total	**27.90**	**27.90**

Others				
Sl. No.	**Institution**	**Name of the Funding agency**	**Sanc Total Amount**	**Received Amount**
1	School of Life Sciences, KMC - Manipal	Academy of General Education	1.17	1.17
2.	Manipal Academy of Higher Education, Manipal	Manipal Education and Medical Group India Private Limited	500.00	500.00
		D A Prasanna	80.00	80.00
		Rajani Prasanna	20.00	20.00
		Total	**601.17**	**601.17**

Students research projects				
1	Manipal Institute of Technology, Manipal	Aero MIT		6.49
		PARIKSHIT - AAE		9.17
		Solar Mobil MANIPAL		12.38
		Team Manipal Racing 2012-AAE		11.36
		FORMULA MANIPAL 2015		33.09
		ROBOMANIPAL		3.28
		BLITZKRIEG DANCE CREW		10.00
		Student Project-MAHE Support	100.00	19.80
		Formula Manipal Electrical		12.03
		Formula Manipal 2017		3.32
		MANAS Project		7.95
		Ink Makers		0.01
		Mars Rover Project		12.88

		Musical Fountain - Matching Grant		0.34
		Low Cost Accident Prevention System -Student Project		0.12
		MIT Table Top CNC Project		2.35
		Brill Printer project		0.37
		TOTAL	100.00	144.94
Projects sponsored by the University/ College			
1	Manipal Academy of Higher Education, Manipal	Dr Raghuvir pai	200.00	10.00
		Dr John H V Gilbert, Canada (nominated Ciraj)		10.00
		Dr Kiran Chawala		10.00
		Dr Vandana K E		10.00
		Dr Ajay Bailey (nominated Dr Sreekumaran Nair) 2years		5.95
		Dr Ashok Rao		10.00
		Dr Chiranjay Mukhopadhyay		10.00
		Dr Padmalatha Rai S		10.00
		Dr V S Venkatesan, MIT, Manipal		10.00
		Dr Anil Bhat. Dept of Ortho, KMC, Manipal		10.00
		Mr Pradeep G Kini, MIT		10.00
		Dr Madhukar Pai		10.00
Total			**200.00**	**115.95**
		Grand Total	**15150.02**	**6460.44**

Annexure - II

Sl.no.	Name of the visiting Academician	Location	Institution / Organization	Designation
1	Ms. Deepta Sateesh	Bangalore	Dean of the School of New Humanities and Design at SRISHTI, Institute of Art, Design & Technology, Bangalore	Dean
2	Ar. B.H. Rathi	Bangalore	Chairman of Rathi Associates , Bangalore	Practicing Architects
3	Dr.Tathagata Chatterji	Bhubaneswar	Professor at Xavier University , Bhubaneswar	Professor
4	Ms. Usha Parnikar	Baroda	Retd. Teacher, Nagarpalika Shikshan Samithi, Baroda	Retd. Teacher
5	Mr. A. P. Mahesh	Chennai	Regional Director (South Asia), Meinhardt Facade Technology (India) Pvt. Ltd., Chennai	Regional Director (South Asia)
6	Ms. Rachita Mishra	Bangalore	Programme Manager, Urban Community Lab SELCO Foundation, Bangalore	Programme Manager
7	Ar. G Rama Raju	Bangalore	Proprietor and Principal Architect – Origin Architects, Bangalore	Practicing Architect
8	Ar. Mohan Bidikar	Belgaum	Proprietor and Principal Architect – Mohan Bidikar & Associates, Belgaum	Principal Architect
9	Ar. Nejeeb Khan	Bangalore	Founder and MD of KGD-Architecture, Bangalore	Architect
10	Ar. Yeshwant Ramamurthy	Hyderabad	Principal Designer, Studio One, Hyderabad	Principal Designer
11	Ar. Shantesh Kelvekar.	Bangalore	Architect and Landscape Urbanist, Reading Grounds + Ground Research, Bangalore	Architect
12	Ar. Subhas Chandra Basu	Hassan	An expert in the field of Sustainable Architecture and Environmental Design from Hassan	Architect
13	Prof. (Dr.) Antonio A Mascarenhas	GOA	Member, Goa State Bio-diversity Board and Former Scientist, National Institute of Oceanography (NIO), GOA	Former Scientist
14	Ms. Sujatha V Naik	Udupi	Embroidery Expert from Indrali, Udupi	Embroidery Expert

15	Ar. Sathya Prakash Varanasi	Bangalore	An expert in the field of teaching Architecture Design	Architect
16	Ar. Arun Prasad	Tamilnadu	Principle Architect of Arun & Associates, Coimbatore	Architects and Planners
17	Dr. Aditya Mohan Jadhav	Manipal	Associate Professor, Chairperson – Banking and Finance Programs, T. A. Pai Management Institute, Manipal	Associate Professor
18	Ms. Swati Puchalapalli	Hyderabad	Founding partner and director of Terra Viridis, Hyderabad	Director
19	Mr. Rajesh Sahay	Bangalore	Founder of eQube, and a co-founder of Veratatva	Mechanical Engineer
20	Mr. Krishnarao Jaisim	Bangalore	Eminent Architect and the former chairman of the Indian Institute of Architects, Karnataka Chapter	Architect
21	Dr. Mohammed Firoz	Calicut	Eminent Senior Architect and Academician –Assistant Professor in National Institute of Technology, Calicut.	Eminent Senior Architect
22	Mr. H.S. Tandaveshwara	Bangalore	Adjunct Faculty, Faculty of Architecture	Engineer
23	Mr. J. Anandan	Chennai	Chief Architect, L & T, Chennai	Architect

Workshops

| 1 | Clay Art Workshop | Shri. Chandrasekhar Koteshwar, Teaching Assistant, Dept. Of Museology, Faculty of Fine Art M.S. University, Baroda, has conducted the Workshop on 'Clay Modeling' on Friday, 30th Sept. 2016 to Monday 3rd Oct. 2016.to all Interior Design and III Semester B. Arch. students of FOA. This workshop provides an opportunity to express talents which are different from architecture but related to imagination, visualization & creation and also thoroughly explore the possibilities and limitations of material presents through different modes of making. |
| 2 | Glass Etching Workshop | Shri. Sukesh BC Gowda, Freelance Sculptor, #255, Vinayaka Layout, Ullala Main Road, Bangalore, has conducted the workshop on 'Glass Etching' on Friday, 30th Sept. 2016 to Monday 3rd Oct. 2016.to all Interior Design and III Semester B. Arch. students. This workshop provides an opportunity to gain experience in the real world of hospitality industry. Students were allowed to explore in creative field by using glass etching which can act as theme for one of the spaces of Fortune valley Hotel Manipal. |

3	Metal Art Workshop	Y.A Steel Furniture, Udyavara Udupi has conducted 'Metal Art' workshop on 30th September, 1st and 2nd October 2016 to B. Arch students of FOA. This workshop provides an opportunity to gain experience in learning of metal as a material for visual expression. To provide opportunity to enhance and enrich imagination and creativity. To provide opportunity to learn through hands on activity with fun.
4	Wood Art Workshop	Mr.B.Venkataramana Bhatta - Coconut shell Artist and Karkala Wood workshop have conducted the workshop on Wood Art on 30th September, 1st and 2nd October 2016 to the B. Arch. students of FOA. This workshop offers hands-on experience of unique ingenuity & workmanship. The essence of creative domain can be achieved by exploring different techniques, processes; developing creative products; finishing & presenting the product for the concepts evolved.