YEARLY STATUS REPORT - 2020-2021

Part A	
Data of the Institution	
1.Name of the Institution	MANIPAL ACADEMY OF HIGHER EDUCATION
• Name of the Head of the institution	LT. GEN. (DR). M. D. VENKATESH
• Designation	VICE CHANCELLOR
• Does the institution function from own campus	Yes
• Phone no. of the Vice-chancellor	0820 2922615
• Alternate phone No.	
• Mobile no (Vice-chancellor)	7760393030
• Registered Email ID (Vice-chancellor)	vicechancellor@manipal.edu
• Address	manipal.edu Madhav Nagar, Manipal
• City/Town	Udupi
• State/UT	Karnataka
• Pin Code	576104
2.Institutional status	
• University	Deemed
• Type of Institution	Co-education
• Location	Semi-Urban

• Financial Status	**Private**
• Name of the IQAC Co-ordinator/Director	**DR. SANDEEP S SHENOY**
• Phone No.	**0820 2922422**
• Alternate phone no.	**0820 2922825**
• Mobile No:	**9880368390**
• IQAC e-mail ID	**iqac@manipal.edu**
• Alternate e-mail	**compliance@manipal.edu**
3.Website address	**www.manipal.edu**
4.Whether Academic Calendar prepared during the year?	**Yes**
• If yes, was it uploaded in the Institutional Website?	www.manipal.edu

5.Accreditation Details

Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	**B+**	**Nil**	**2002**	**01/10/2002**	**30/09/2007**
Cycle 2	**A**	**3.30**	**2016**	**11/07/2016**	**10/07/2021**

6.Date of Establishment of IQAC	**03/06/2013**

7.Provide the list of Special Status conferred by Central/ State Government- UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/ Department/Faculty	Scheme	Funding agency	Year of award with duration	Amount
Welcomgroup Graduate School of Hotel Administration	**Limca Book of Records**	**Limca Book of Records**	**2020**	**Nil**
Kasturba Medical College, Manipal	**Recognized laboratory for Covid-19 testing**	**Indian Council of Medical Research**	**2020-21**	**Nil**

		(ICMR)		
Kasturba Medical College, Manipal	Expension of antimicrobial stewardship (AMSP) and infection control program (ICP) of ICMR in secondary care hospitals	Indian Council of Medical Research (ICMR)	2020-21 (2 yrs)	14.98
Kasturba Medical College, Manipal	Young Diabetes Registry (YDR) & YDR Cohort Phase-III	Indian Council of Medical Research (ICMR)	2020-21 (3 yrs)	13.82
Kasturba Medical College, Manipal	Fertility preservation in cancer affected prepubertal girls: experimental approaches to address the cryo-susceptibility of immature oocytes in relation to the ovarian age	Indian Council of Medical Research (ICMR)	2020-21 (3 yrs)	46.42
Kasturba Medical College, Manipal	Investigating the crosstalk between primary cilia and autophagy in	Indian Council of Medical Research (ICMR)	2020-21 (3 yrs)	12.38

	chondrogenes is and its modulation by Fibroblast growth factor (FGF) signaling in FGFR3 related skeletal dysplasias in vitro			
Kasturba Medical College, Manipal	Developing a model for real time analgesia for drug delivery by assessing nociceptive chemical mediators	Indian Council of Medical Research (ICMR)	2020-21 (3 yrs)	8.97
Kasturba Medical College, Manipal	Scrub typhus: Clinico-epidemiological analysis, humoral immune response and Molecular Characterization of Orientia tsutsugamushi	SERB, New Delhi	2020-21 (3 yrs)	45.83
Kasturba Medical College, Manipal	Effectiveness of a healthcare governance model on the utilization of health	Indian Council of Medical Research (ICMR)	2020-21 (2 yrs)	5.58

	care services amoung PVTG in Udupi District: A cluster randomized controlled trial			
Kasturba Medical College, Manipal	Structure based design and evaluation of inhibitors against phos phodiesteras es for enhancing sperm motility and early embryo development and to reduce gamete and embryo toxicity	SERB, New Delhi	2020-21 (3 yrs)	21.20
Kasturba Medical College, Mangalore	National Council of Educational Research & T raning--Towa rds the ERIC Research grant to Ms. Malavika	National Council of Educational Research & T raning--Towa rds the ERIC Research grant to Ms. Malavika	2021 (3 yrs)	7.09
Kasturba Medical College, Mangalore	ICMR NEW DELHI	ICMR NEW DELHI	2021 (1 yr)	10.09
Kasturba Medical	DST -CSRI,New	DST -CSRI,New	2021 (3 yrs)	40.75

College, Mangalore	Delhi	Delhi		
Kasturba Medical College, Mangalore	ICMR NEW DELHI	ICMR NEW DELHI	2021 (1 yr)	34.21
Kasturba Medical College, Mangalore	Melinda Gates Foundation U.S.A. through CMC Vellore Association ,Tamilnadu	Melinda Gates Foundation U.S.A. through CMC Vellore Association ,Tamilnadu	2020 (2 yrs)	4.88
Kasturba Medical College, Mangalore	IBRO	IBRO	2020 (1 yr)	1.30
Manipal College of Dental Sciences, Mangalore	ITI	International Team for Implantology	2021 (2 yrs)	0.88
Manipal College of Dental Sciences, Mangalore	ITI	International Team for Implantology	2021 (2 yrs)	0.35
Manipal College of Dental Sciences, Mangalore	SERB	Govt of India	2021 (1.5 yrs)	1.375
Manipal School of Life Sciences	Investigating metabolic reprogramming in stroke as a consequence of homocysteine	SERB, DST, Government of India	2020 (3 yrs)	10

	induced bidirectional activation of neutrophils and platelets			
Manipal School of Life Sciences	Crosstalk between metabolism and innate immune responses during steady state and emergency granulopoiesis in Type 2 Diabetes: Implications in combating infections	DBT, Government of India	2020 (3 yrs)	24.05
Manipal Institute of Virology	ranslational Research Consortia TRC for Chikungunya Virus	BIRAC, GOI	2020-21 (4 yrs)	57.38
Manipal Institute of Virology	Research Grant	BIRAC, GOI	2020-21 (4 yrs)	22.12
Manipal Institute of Virology	Research Grant	DBT	2020-21 (4 yrs)	34.08
Manipal Institute of Virology	Research Grant	ICMR	2020-21 (3 yrs)	10.56
Melaka Manipal Medical College,	Research Grant	ICMR	2021 (3 yrs)	9.54

Manipal				
Melaka Manipal Medical College, Manipal	Research Grant	DST	2020 (3 yrs)	10.50
Manipal School of Architecture and Planning	Effect and Impact of Changing Climate trends on Built Heritage of Madikeri	INTACH (Indian National trust for Art and Cultural Heritage) Research Scholarship 2020	2020 (1 yr)	2.40
Manipal School of Architecture and Planning	Gram panchayt spatial development Plan - Uppunda and Shankarnarayana in Udupi District	Ministry of Panchayati Raj, Govt of India	2020 (6 months)	5.00
Department of Commerce	Export and Commerce Promotion (Modernisation)	Directorate of Industries and Commerce	2020 (1 yr)	1.5
Manipal Institute of Technology	Collaboration Research Scheme	UGC-DAE Consortium for Scientific research, Government of India, Bombay	2020 (3 yrs)	1.35
Manipal Institute of Technology	Research Grants for Scientists /Faculty	VGST, Govt of Karnataka	2020 (1 yr)	3.00

(RGS/F)				
Manipal College of Nursing	Research Grant	Public Healh Foundation of India	2021 (1 yr)	1.92
Manipal College of Nursing	Research Grant	ICMR, New Delhi	2021 (3 yrs)	24.40
Manipal College of Nursing	Research Grant	ICMR, New Delhi	2021 (1 yr)	3.08
Manipal College of Nursing	Research Grant	DST, New Delhi	2021 (2 yrs)	10.65
Manipal College of Nursing	Research Grant	ICMR, New Delhi	2021 (3 yrs)	8.96
Manipal College of Nursing	Research Grant	ICMR, New Delhi	2021 (1 yr)	3.48
Manipal College of Nursing	Research Grant	ICMR, New Delhi	2021 (2 yrs)	5.56
Manipal College of Nursing	Research Grant	ICMR, New Delhi	2021 (2 yrs)	7.13
Manipal College of Nursing	Research Grant	ICMR, New Delhi	2021 (1 yr)	1.76
Manipal School of Information Sciences	Grant Agreement	European Commission	2021 (3 yrs)	2 998 312.50 Euro
Department of Languages	Polish Language and Culture	NAWA	2020	Nil

8.Is the composition of IQAC as per latest NAAC guidelines	Yes

• Upload latest notification of formation of IQAC	View File	
9.No. of IQAC meetings held during the year	**1**	
• Have the minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website	**Yes**	
• (Please upload, minutes of meetings and action taken report)	View File	
10.Did IQAC receive funding from any funding agency to support its activities during the year?	**No**	
• If yes, mention the amount		

11.Significant contributions made by IQAC during the current year (maximum five bullets)

Online NAAC SSR compilation and submission for the third cycle of accreditation

Online AICTE approval applications compilation and submission for Manipal campus and Bengaluru campus

Compilation and submission of application for grant of ex post facto approval for establishment of Off campus center at Jamshedpur

Compilation and submission of data for India Ranking 2021 by NIRF, which resulted in 7th Rank for our University under University category

Compilation and submission of data for QS World University Ranking 2022, which resulted in 701-750 rank for our University in the world

12.Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year

Plan of Action	Achievements/Outcomes
Add 7 New Programs	16
Add 600 students to the existing number of 8802	- 233 (Med. and Dental admission still not completed)
Increase the bursary amount to Rs. 40 Cr by 2022	Rs. 46.33 Cr (FY 2020-21)
Have 100 percent of the theory examinations using e-pads and online marking	Achieved 100%
Provide accommodation for additional 500 students over next one year	Achieved 476 additional seats
Add 3 more interdisciplinary courses in the next one year	8
Add 15 specialized centers encompassing all faculties over next one year	10
Increase the no. of PhD scholars to 1800	1564
Increase PhD guides by 4 percent	0.5%
Improve the score for citation to 4.3	3.2
Achieve an increase in Field Weighted Citation Impact to 0.92 in next one year	0.93
Add 5 new ventures	19
Increase research publications with international co-authorship by 2 percent	+6.2%
Add 2 more structured courses by year 2021	Nil
Increase the international undergraduate admissions by 0.5 percent of the total undergraduate students next year	Achieved

Increase the international postgraduate admissions by 2 percent of the total postgraduate students next year	Achieved
Enable an additional 2 courses to have the option of offering joint degrees in the next year	2
Have an additional 100 students opt for outbound Semester Abroad programme in 2021	187
Increase the proportion of students in top 10 percentile from 34% to 42% over the next 5 years.(Current year target +2%)	20%
Additional 4 programs to be accredited next year	1
target additional 300 institutions collaborating with MAHE for research publications over next one year	+588
Add 945 co-authored publications with international collaborators by next one year	+995
Increase the research spend from current level by 2 percent over the next one year	+0.69%
Have 640 new doctoral enrolments next year	394
Have 5500 publications by next one year	3065
Have Graduation of additional 2 ventures next year	+3
Increase the no. of new patent applications to 60 next year	27
Commercialize additional 3 technology in next one year	2
Add 125 more international	+81

partnerships over the next one year	
Support am additional 2% of faculty to attend international scientific meet in the next year	+9.71%
Increase in interns for traineeship and leadership development by 20 year on year	Inbound – 22 Outbound – 39
Increase the international undergraduate admissions by 0.5% of the total undergraduate students next year	6.75%
Increase the international postgraduate admissions by 2% of the total undergraduate students next year	1.25%
Offer 2 additional twinning programs next year	3
Have at least 40% of the programs to facilitate Semester Abroad option	43.62%
Have an additional 100 students opt for inbound Semester Abroad programme in 2021	15
Increase in International faculty by 1% of total faculty by 2021	1.6%
Have international exposure for additional 0.5% of total domestic faculty in next one year	0.46%

13.Whether the AQAR was placed before statutory body?	No

- Name of the statutory body

Name	Date of meeting(s)
Nil	Nil

14.Does the Institution have Management Information System?	**Yes**

- If yes, give a brief description and a list of modules currently operational

1. Student Lifecycle Management system is a solution developed to automate the entire process which a student undergoes during his or her tenure in the University

2. Academic Management System for monitoring the teaching and learning process

3. Performance Analysis System for the faculty performance evaluation

4. Manipal Solution for People Management

5. Financial Accounting System

6. Purchase and Inventory System

7. Hostel Management System

8. Library Management System

9. Online attendance, Online feedback,Administrative procedures including finance, Student admission, Student records, Evaluation and examination procedures, Research administration, etc

10. Patient Management System, Employee Self Service, Biometric attendance system for all the staffs etc

Extended Profile

1.Programme

1.1 Number of all Programmes offered by the Institution during the year	**272**

File Description	Documents
Data Template	[View File](#)

2.Student

2.1 Number of students during the year	**26065**

File Description	Documents
Data Template	[View File](#)

2.2 Number of graduated students during the year	**6931**

File Description	Documents
Data Template	[View File](#)

3.Academic

3.1 Number of full-time teachers during the year	**2822**

File Description	Documents
Data Template	[View File](#)

3.2 Number of sanctioned posts during the year	**2861**

File Description	Documents
Data Template	[View File](#)

4.Institution

4.1 Total expenditure excluding salary during the year (INR in lakhs)	**94337**

File Description	Documents
Data Template	[View File](#)

Part B

CURRICULAR ASPECTS

1.1 - Curriculum Design and Development

1.1.1 - Curricula developed and implemented have relevance to the local, national, regional and global health care needs which are visible in Programme Outcomes (POs), and Course Outcomes (COs) offered by the University, as per the norms of the Regulatory Bodies.

As an Institution of Eminence, MAHE offers more than 270 programs in the diverse domains of health sciences, technology, management, art, design, humanities and social sciences, which aimat grooming afuture generation of competent professionals. The program and course outcomes are defined keeping in mind the healthcare requirements of the country and the world. The curriculum development and review process occurs through the curriculum conclaves conducted on a regular basis involving various stakeholders including students, faculty, experts from academia and industry, alumni andemployers. The curriculaof many programs were developed with major inputs from industries like Philips, IBM andErnst and Young. The curriculum is aligned with the expectations of the regulators and addresses the constantly evolving local, national, regional and global healthcare needs. MAHE, having within its fold three medical colleges which have implemented the CBME curriculum as per NMC guidelines,has made a direct contribution to healthcare needs at all levels for nearly 70 years.These collegeshave trained thousands of doctors who are spread across the world and continue to serve the health care needs of the society.

MAHE's two dental colleges are consistently ranked at the top in the country, which is a testimony to the program objectives, their delivery, their innovations and their strict adherence to regulatory norms. As one of India's premier nursing institutions, MCON has been continuallyproducing nursing graduates of top caliber who form an important cog in the wheel of healthcare, not just locally but globally as well.

The numerous allied health programs offered by MCHP, help in training graduates right from physiotherapy to renal replacement and dialysis therapy, thereby filling the gap in requirement of such personnel in healthcare setups. The MSc. program in Clinical Virology creates professionals trained to work efficiently with equal ease both in a laboratory and in a public health and industry setting.

MAHE has catered to the healthcare needs of the society through an

interdisciplinary approach, creating unique healthcare solutions. Pharmacy graduates have contributed immensely to the Pharma industry and research. The Biomedical Engineering program worksclosely with the clinical disciplines of the medical colleges of MAHE.

The MSc. Dietetics and Nutrition program enhances knowledge and skills in nutrition, diet therapy and research. The program enables students to get hands on training in hospital, clinical and community nutrition in close association with dietitians and clinicians.

The MSc. Geology program trains students in analysing the impact of environmental pollutants. The programs at MSLS help in developing a crucial human resource – graduates trained in advanced skills in areas including molecular biology and genome engineering, capable of addressing healthcare concerns at both local and global levels, armed with multidisciplinary knowledge and research experience. PSPH, across its various programs, offers its students tremendous field exposure, training in public health research, knowledge on academic writing and publishing, and builds their capacities to respond to public health issues across the spectrum.

File Description	Documents
Curricula implemented by the University	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-1---curricular-aspects/qualitative-metrics/1-1/1-1-1/111-curricula-implemented.html
Outcome analysis of POs, COs	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-1---curricular-aspects/qualitative-metrics/1-1/1-1-1/111-outcome-analysis.html
Any other relevant information	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-1---curricular-aspects/qualitative-metrics/1-1/1-1-1/111-curriculum-conclave-reports.html

1.1.2 - Number of Programmes where syllabus revision was carried out during the year

43

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	[View File](#)
Details of the revised Curricula/Syllabi of the programmes during the year	[View File](#)
Institutional data in prescribed format (Data Template)	[View File](#)
Syllabus prior and post revision of the courses	[View File](#)
Any other relevant information	**No File Uploaded**

1.1.3 - Provide a description of courses with focus on competency/ employability/ entrepreneurship/ skill-development offered either by the University or in collaboration with partner Institutions / Industries during the year

The fundamentals of MAHE as a university rest on inculcating in its graduates the competencies delineated in the courses they choose, imparting skills that make them employable, and inspiring entrepreneurial inclinations that would make them potential employers. MAHE has also been a frontrunner in collaborating with a plethora of partner institutions, foreign universities and industry leaders in order to place its graduates leagues ahead of others.

MBBS programs at MAHE produce doctors who work in both government and private sectors, both in India and abroad. A significant attempt is made in the competency-based undergraduate curriculum of MBBS to provide the orientation and the skills necessary for life-long learning to enable holistic care of the patient. Our dental colleges house state-of-the-art equipment and technology to train the undergraduate and postgraduate students in competencies laid out by the DCI thereby making the graduates employable in India and abroad and promoting entrepreneurial skills so that they are well equipped to establish their own practices.

Adequate exposure to sophisticated equipment in the laboratories and hands on experience through various technical clubs ensure development of technical competencies in the engineering programs at MIT. The Metaphysics and Epistemology modules at the Department of Philosophy impart unique competencies to students by means of a comparative perspective towards the world and its cognition. The MSc Clinical Virology program is carefully crafted to addresses the dearth of trained virologists in the country.The BSc Animation course at MIC aims at skills training to meet the high demand in

Animation, Film, Television, VFX, Advertising and Gaming Industries. MSLS offers niche programs and its PGD program is recognized by the Life Sciences Sector Skill Development Council (LSSSDC) which is aimed at improving employability.

MAHE lays great emphasis on imparting entrepreneurial skills to its students, either by overt competency in some of the programs or by various associations with professional bodies, industry and other universities. The MBA programs at MIM have students studying entrepreneurship in the second year of their specialization.A unique endeavour of MAHE is the DST sponsored business technology incubator [MUTBI] that nurtures interested students to become entrepreneurs, and has already established scores of start-ups.The Manipal-Government of Karnataka Bioincubator, an initiative by MAHE and Government of Karnataka, facilitates entrepreneurship among researchers, faculty and students by providing an incubation platform to propel innovative ideas towards product commercialization.

Most institutions under MAHE pride themselves on unique academia-industry collaborations targeted to benefit the students. The two-year post-graduate program by the Department of Data Sciences collaborates with the pharmaceutical industry to train its graduates in design, management, and analysis of clinical trials data.

MAHE's strength lies in breaking the traditional silos and bringing together wider disciplines to produce graduates who gain unique competencies. Our industry-academia alignment, regular interface and continuing-education programs all aim at enhancing employability by the way of creating a graduate who is competent, skilled, employable, and capable of creating employment for others.

File Description	Documents
List of courses having focus on competency/ employability/ entrepreneurship/ skill-development	View File
MOUs with Institutions / Industries for offering these courses (Initiated during the year?)	View File
Any other relevant documents	No File Uploaded

1.2 - Academic Flexibility

1.2.1 - Number of Programmes in which Choice-Based Credit System (CBCS)/Elective course system has been implemented, wherever provision was made by the Regulatory Bodies (Data for the preceding academic year)

1.2.1.1 - Total number of Programmes where there is regulatory provision for CBCS – elective course system

211

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	View File
Institutional data in prescribed format (Data Template)	View File
University letter stating implementation of CBCS by the Institution	View File
Structure of the program clearly indicating courses, credits/Electives as approved by the competent board	View File
Any other relevant information	No File Uploaded

1.2.2 - Number of new Degree Programmes, Fellowships and Diplomas introduced by the University across all Faculties during the year (certificate programmes are not to be included)

1.2.2.1 - Number of new Degree Programmes, Fellowships and Diplomas introduced by the University during the year

44

File Description	Documents
List of the new Programmes introduced during the year	View File
Minutes of relevant Academic Council/BoS meetings for the year	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	No File Uploaded

1.2.3 - Number of interdisciplinary courses under the Programmes offered by the University during the year

1.2.3.1 - Number of courses offered across all programmes during the year

4562

File Description	Documents
List of Interdisciplinary courses under the programmes offered by the University during the year	View File
Minutes of relevant Academic Council/BoS meetings	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	View File

1.3 - Curriculum Enrichment

1.3.1 - Institution integrates crosscutting issues relevant to Gender, Environment and Sustainability, Human Values, Health Determinants, Right to Health Issues, Emerging demographic changes and Professional Ethics in the curricula

A university education is not merely to gain knowledge in the domain one gets admitted to, but to grow holistically as an individual who contributes meaningfully to society at large. Cross-cutting issues of gender, environment sustainability, professional ethics, human values, health determinants, right to health issues and emerging demographic changes are given due importance in programs at MAHE.

Our medical schoolsalign their tenets of implementing cross-cutting issues in medical education with those required by the statutory body. This is achieved through a dedicated one month exclusive "Foundation Course", as part of the Attitude, Ethics and Communication (AETCOM) module, at the beginning of the MBBS program, to orient and sensitize the student to the various identified areas.

The ethics component of AETCOM provides students with the understanding that clinical competence, communication skills and sound ethical principles are the foundation of professionalism. It also provides understanding of the consequences of unethical and unprofessional behaviour, values of honesty, integrity and respect in all interactions. Professional attributes such as accountability, altruism, pursuit of excellence, empathy, compassion and humanism are addressed. It is aimed to inculcate respect and sensitivity towards gender, race, culture, regional and language diversities.

MMMC integrates crosscutting issues relevant to Human Values, Health

Determinants and Professional Ethics in the curriculum throughPersonal and Professional developmentmodule. At MIV, emerging demographic changes and Professional Ethics are integrated through course modules such as emerging viral diseases and public health response, research methods and ethics; geographic information system, and medical entomology.

In MCON, Community Health Nursing, a course in an undergraduate program, addresses the risk factors of diseases under 'agent, host, and environment' and discusses ways to reduce risk factors by environmental sanitation and waste management. Health determinants like housing, clean drinking water, food and nutrients, sanitation, access to health care and transportation are covered in detail in the curriculum.

Module on environmental engineering at MIToffers knowledge to the students on how human activities significantly hamper the functioning of the Earth's environment as a whole. In, DOP, the philosophical debates and discourses offer rationally persuasive insights, thus enabling learners to understand the multi-perspectivity of truths by listening, examining and contemplating.

At MIT, elective courses for various B.Tech and M.Tech programs touch on the important crosscutting issues like environment and sustainability, Human values, Cross-cultural sensitivity, Right to Health and Professional Ethics. At DOL, one of the six thematic clusters of study, heritage and sustainability (others being literature, cultural diplomacy, intercultural communication,research and projects), merits special focus on cross-cutting issues within the program. MA in Geopolitics and International Relations covers various aspects of sustainability in sectors such as energy and transportation, and also analyses India's positions and policies on environmental issues, including disasters and climate change. It also covers other issues such as food and water security. The subject environmental science is offered in many institutions for the students to get a worldview on environmental issues. MA in European Studies offers courses on feminist and cultural perspectives in research.

File Description	Documents
List of courses that integrate crosscutting issues mentioned above	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-1---curricular-aspects/qualitative-metrics/1-3/1-3-1/1-3-1-list-of-courses-that-integrate-cross-cutting-issues.html
Description of the courses which address Gender issues, Environment and Sustainability, Human Values, Health Determinants, Right to Health Issues, Emerging demographic changes and Professional Ethics in the Curricula	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-1---curricular-aspects/qualitative-metrics/1-3/1-3-1/1-3-1-description-of-courses-which-address-cross-cutting-issues.html
Any other relevant information	**No File Uploaded**

1.3.2 - Number of value-added courses offered during the year that impart transferable and life skills

File Description	Documents
Brochure or any other document related to the value-added course/s	View File
List of value-added courses (Data Template -5)	View File
Any other relevant information	View File

1.3.3 - Number of students who successfully completed the value-added courses during the year

1.3.3.1 - Number of students who successfully completed the value-added courses imparting transferable and Life skills offered during the year

15075

File Description	Documents
List of students enrolled in value-added courses (Data Template 5)	View File
Any other relevant information	**No File Uploaded**

1.3.4 - Students undertake field visits / research projects / Industry internship / visits/Community postings as part of curriculum enrichment

MAHE lays immense focus on experiential learning and thus majority of theprograms have students learning by field visits, working on research projects, doing internships in industry, and working closely with the community. All these beyond the classroom learning activities help groom an all rounded graduate at MAHE.

The health science programs at MAHE lead the way when it comes to engaging with the community and serving people. Six Rural Maternity and Child Welfare (RMCW) homes in Udupi are managed by the Department of Community Medicine, KMC Manipal, where students are posted for sixweeks in a semester (III& VII) where they interact with the people and try to understand their health issues and the socioeconomic factors that contribute to it. MBBS students of KMC Mangalore in 3rd semester are posted for community diagnosis in the Department of Community Medicine for a period of onemonth. During this posting they visit Kateel village which is situated 21 kilometres away.

A field visit to the Primary Health Centre is organized every year for the BDS students during their clinical posting at the Department of Public Health Dentistry of MCODS, Mangalore. Every year the faculty and postgraduates of the department of Pedodontics and Preventive dentistry at both our dental schools, MCODS Manipal and MCODS Mangalore, organize school dental health education programmes.

Nursing students make field visits as part of their community health nursing curriculum. The college has adopted three nearby villages where the students make regular visits accompanied by faculty and collect data about health indicators, give health education, conduct morbidity clinics and provide family care.

Engaging in research projects as a comprehensive way of learning is the mainstay in many of MAHE's programs. The postgraduate students in MD/MS/Super speciality programmes of KMC Manipal and KMC Mangaluru, as well as most other PG programs in MAHE have to mandatorily submit a dissertation/ thesis work as a partial fulfilment of their course. The final semester in MSc. Clinical Virology is dedicated to research projects wherein there isa provision to complete their project work at a foreign institute under the mobility grant.

The undergraduate and postgraduate engineering students are required to undergo internships in the industry to get acquainted with the industry ecosystem while being a student.

At MIC, students undertake summer industry internships in print and broadcast media companies, advertising, PR, production houses, animation and designing companies. The students of the Communications programs work on a research project as a part of the curriculum.

The Industry-Academia link is well established at MAHE and many institutions have incorporated that into their curricula, paving the way for a structural feature. At MSLS, students of Post-Graduate Diploma (Cellular and Molecular Diagnostics) undertake industry internships in the second semester. MPH and MSW students of PSPH have observational field visits every week on a designated day during all three semesters. The students identify governmental and non-governmental organisations and get hands on training internships.

File Description	Documents
List of Programmes and number of students undertaking field visits / research projects / internships/Industry visits/Community postings during the year	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-1---curricular-aspects/qualitative-metrics/1-3/1-3-4.html
Any other relevant information	Nil

1.4 - Feedback System

1.4.1 - Mechanism is in place for obtaining structured feedback on curricula/syllabi from various stakeholders Students Teachers Employers Alumni Professionals	A. All 4 of the above

File Description	Documents
Stakeholder feedback report as stated in the minutes of the Governing Council/Syndicate/ Board of Management	View File
URL for feedback report	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-1---curricular-aspects/quantitative-matrics/1-4/1-4-1/1-4-1-stakeholder-feedback-reports.html
Sample filled-in Structured Feedback forms by the institution for each category	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	No File Uploaded

1.4.2 - Feedback process of the Institution may be classified as:	A. Feedback collected, analyzed and action taken on feedback and such documents are made available on the institutional

File Description	Documents
URL for stakeholder feedback report	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-1---curricular-aspects/quantitative-matrics/1-4/1-4-1/1-4-1-stakeholder-feedback-reports.html
Action taken report of the University on feedback report as stated in the minutes of the Governing Council/ Syndicate/ Board of Management	View File
Any other relevant information	View File

TEACHING-LEARNING AND EVALUATION

2.1 - Student Enrollment and Profile

2.1.1 - Due consideration is given to equity and inclusiveness by providing reservation of seats to all categories during the admission process

File Description	Documents
Number of seats filled against seats reserved (As per Data Template)	View File
Copy of letter issued by state govt. or and Central Government Indicating the reserved categories to be considered as per the state rule (in English)	View File
Final admission list published by the HEI	View File
Admission extract submitted to the state OBC, SC and ST cell for the year	View File
Initial reservation of seats for admission	View File
Any other relevant information	View File

2.1.2 - Student Demand Ratio, applicable to programmes where State / Central Common Entrance Tests are not conducted

File Description	Documents
Institutional data in prescribed format (Data Template)	View File
Document relating to Sanction of intake	View File
Extract of No. of application received in each program	View File
The details certified by the Controller of Examination or Registrar evaluation clearly mentioning the programs that are not covered under CET and the number of applications received for the same	View File
Any other relevant information	No File Uploaded

2.1.3 - Student enrollment pattern and student profile to demonstrate   national/international spread of enrolled students from other states and countries

2.1.3.1 - Number of students from other states and countries during the year

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18003
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File Description	Documents
List of students enrolled from other states and countries during the year	View File
E-copies of admission letters to the students enrolled from other States / Countries	View File
Copy of the domicile certificate/passport from respective states / countries	View File
Previous degree/ Matriculation / HSC certificate from other state or country	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	View File

2.2 - Catering to Student Diversity

2.2.1 - The Institution assesses the learning levels of the students after admission and organises special programmes for advanced learners and slow performers. The Institution: Adopts measurable criteria to identify slow performers Adopts measurable criteria to identify advanced learners Organizes special programmes for slow performers and advanced learners Follows protocols to measure students' achievement	A. All of the Above

File Description	Documents
Methodology and Criteria for the assessment of Learning levels Details of special programmes	View File
Details of outcome measures	View File
Proforma created to identify slow performers/advanced learners	View File
Consolidated report to Dean academics /Dean student's welfare on special programs for advanced learners and slow learners for the year	View File
Any other relevant information	View File

2.2.2 - Student - Fulltime teacher ratio (data for the preceding academic year)

2.2.2.1 - Total number of students enrolled in the specified year

26065

File Description	Documents
List of students enrolled in the preceding academic year	View File
List of full-time teachers in the preceding academic year in the University (with Designation and Highest Qualification)	View File
Any other relevant information	**No File Uploaded**

2.3 - Teaching- Learning Process

2.3.1 - Student-centric methods are used for enhancing learning experiences by

MAHE places a strong focus on student-centric methods for enhancing learning. In both adherence to pedagogical frameworks laid by regulatory bodies like recently introduced AETCOM models for medical schools like KMC Manipal & KMC Mangaluru, and, in innovative approaches like hands-on training of students of dentistry in Cone Beam Commuted Tomography (CBCT) for 3D images or bedside learning for PharmD students of MCOPS, the pedagogical principles adopted by our institutions encompass student-centric methods to facilitate learning. In all the endeavors that our constituent institutions take, the needs of our millennial learners are at the center. All institutions of MAHE lay stress on experiential learning. If the

students at MIT design formula cars, solar cars, all-terrain vehicles and mini-satellites, MCON has scenario-based learning, students at WGSHA run a restaurant and undertake entrepreneurial ventures, students of department of media at MIT host Chalchitra – an international film festival, students at MIC come out with a weekly newspaper with the university campus abuzz with multitude of such student focused activities. The avenues for experiential learning, both formally as part of the curriculum and informally in a vibrant university atmosphere at Manipal, are immense. Problem Based Learning (PBL), Case Based Learning (CBL, Self-Directed Learning (SDL) learning modules, small group teaching are a mainstay in almost all our constituent institutions. Over the many years that these tools have been used, they have been tailored made based on emerging evidence. Few initiatives that make MAHE stand out of the rest include medical humanities, professional and personal development (PPD) that our medical schools like KMC Manipal and MMMC undertake. Student research has been given great importance in various institutions of MAHE. Be it a long-standing Mentored Student Program (MSP) at MMMC or Manipal BioMachines by Biomedical Engineering department at MIT or Faculty Assisted Study and Training Program (FAST) at WGSHA or Urban Design stakeholder consultations by MSAP, most of our institutions have student research weaved into their curriculum. Over the years these activities has resulted in ushering undergraduates into the world of research, in fruition of research undertaken culminating in publications and thereby making learning activities student centric. As an offshoot of the emphasis laid on student centric learning, with numerous projects that students undertake, with myriad student clubs that exist in our institution, a large number of student have been presenting their work as posters in national and international conferences; a sizeable number of students are undertaking project work in laboratories and institutions of national repute; quite a few of them bag grants from national science funding agencies; many of them visit foreign countries for short term projects; plenty of them win awards and laurels; and ultimately exhibit, what providing facilities, mentoring and support can do when the baton of learning is placed in the hands of students.

File Description	Documents
List of student-centric methods used for enhancing learning experiences during the year	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-2--teaching-learning---evaluation/2-3-1.html
Any other relevant information	View File

2.3.2 - The Institution has provision for the use of Clinical Skills Laboratory and Simulation-Based Learning The Institution: 1. Has Basic Clinical Skills Training Models and Trainers for clinical skills in the relevant disciplines. 2. Has advanced patient simulators for simulation-based training 3. Has structured programs for training and assessment of students in Clinical Skills Lab / Simulation centre 4. Conducted training programs for the faculty in the use of clinical skills lab and simulation methods of teaching-learning	A. All of the Above

File Description	Documents
Geotagged photographs of clinical skills lab facilities, clinical skills models, patient-simulators	View File
List of training programmes conducted in the facilities during the year	View File
List of clinical skills training models	View File
Proof of Establishment of Clinical Skill Laboratories	View File
Proof of patient simulators for simulation-based training	View File
Report on training programmes in Clinical skill lab/simulator Centre	View File
Any other relevant information	No File Uploaded
Institutional data in prescribed format (Data Template)	View File

2.3.3 - Teachers use ICT-enabled tools for effective teaching and learning process, including online e-resources

MAHE has always been at the cutting edge of use of ICT-enabled tools and electronic resources in teaching-learning activities. If there is one transformational ICT change that MAHE has made and is extremely proud of, it is the complete shift of all examinations into an electronic mode by use of E-pad, and as a positive fallout, removing use of massive amount of paper. As a university policy, all faculty members are given laptops, which are then replaced every 6 years. All our classrooms are equipped with LCD projectors, few of them have smart boards and interactive white boards. Faculty members use audio-visual tools to impart knowledge. While PowerPoint presentations and the likes have made their way since decades now, the university in its teacher training programs, which is mandated for all newly joining faculty members, ensures that extensive sessions on good practices and optimal use of ICT tools are conducted. High quality audio and video devices are provided to faculty members and in our classroom facilities. MAHE understands the need for high quality internet, easily accessible and thus all our campuses are Wi-Fi enabled providing seamless internet for all ICT activities. In the realization that students learn at different pace, MAHE made an effort to capture the teaching activities in classroom and incorporated in its pool of ICT tools a lecture capture management system - Impartus Lecture Capture. With installment of high definition cameras in classroom, thousands of hours of learning material have been made accessible to our students, to support asynchronous learning and help them revisit the lectures at their own pace and place and convenience. When the Covid-19 pandemic disrupted regular classroom activities, MAHE seamlessly switched to MS Teams where all regular classes and assessments are being conducted currently. This e-platform is also being used for day-to-day meetings and non-academic activities. MAHE prides itself for its library resources. Our health sciences and technical libraries house thousands of resources, even individual institutions have library facilities with large number of journal subscriptions both physical and electronic. Department of Library Science regularly conducts awareness workshops to create awareness among faculty members regarding availability of these e-resources. Students too have digital access to thousands of books and journals through our central library facilities. Learning Management Systems (LMS) are used by many institutions of MAHE. MIM, Department of Computer Applications, MIT, uses Moodle and KMC Mangalore uses EduNxt. Where there is a need, advanced ICT tools are available for teaching-learning activities. Like the department of design has Computer Aided Design (CAD) with printers, MSLS has its own server

with access to bioinformatics databases, all departments at MIT use licensed software like Matlab, Aspen and the Avionics laboratory has flight stimulator. MAHE has been at the top in use of ICT tools and has a vast array of e-resources and it has been a mainstay in our teaching-learning activities since many decades now and we ensure that we stay ahead of the curve in this domain.

File Description	Documents
Details of ICT-enabled tools used during the year for teaching and learning	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria2/233/n--2-3-3/2.3.3-List_of_ICT_tools.pdf
List of teachers using ICT-tools	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria2/233/n--2-3-3/2.3.3%20List%20of%20teachers%20using%20ICT-tools.xlsx
Any other relevant information	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/aqar-criterion2/233%20ICT%20tools%20used%20by%20faculty%20(2).xlsx

2.3.4 - Student: Mentor Ratio (preceding academic year)

Total number of mentors in the preceding academic year	Total number of students in the preceding academic year
1967	26065

File Description	Documents
Details of fulltime teachers/other recognized mentors and students for the year	View File
Allotment order of mentor to mentee and records of mentors and mentees meetings for the year	View File
Copy of circular pertaining to the details of mentor and their allotted mentees	View File
Approved Mentor list as announced by the HEI	View File
Log Book of mentors	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	View File

2.4 - Teacher Profile and Quality

2.4.1 - Number of fulltime teachers against sanctioned posts during the year

2822

File Description	Documents
List of fulltime teachers and sanctioned posts for the year (Certified by the Head of the Institution)	View File
Position sanction letters by competent authority	View File
Appointment letters of faculty during the year	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	**No File Uploaded**

2.4.2 - Number of fulltime teachers with Ph.D./D.Sc./D.Lit./ DM/M Ch/DNB in super specialities /other PG degrees (like MD/ MS/ MDS etc.,) in Health Sciences for recognition as Ph.D guides as per the eligibility criteria stipulated by the Regulatory Councils during the year

2.4.2.1 - Number of fulltime teachers with Ph.D/D.Sc./D.Lit./DM/M Ch/DNB in super specialities / other PG degrees (like MD/ MS/ MDS etc.,) in Health Sciences for recognition as Ph.D guides as per the eligibility criteria stipulated by the Regulatory Councils. During the year data to be entered

1231

File Description	Documents
List of fulltime teachers with Ph.D/D.Sc./D.Lit./DM/M Ch/DNB in super specialities / other PG degrees (like MD/ MS/ MDS etc.,) in Health Sciences for recognition as Ph.D guides as per the eligibility criteria stipulated by the Regulatory Councils and the number of fulltime teachers for the year	View File
Copies of Guide-ship letters or authorization of research guide provide by the competent authority	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	View File

2.4.3 - Teaching experience of fulltime teachers in number of years (preceding academic year)

12

File Description	Documents
List of fulltime teachers including details of their designation, department, total number of years of their teaching experience	View File
Experience certificate of fulltime teacher	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	**No File Uploaded**

2.4.4 - Number of teachers trained for development and delivery of e-contents / e-courses / video lectures / demonstrations during the year

2822

File Description	Documents
List of teachers trained for development and delivery of e-contents / e-courses / video lectures / demonstrations during the year	View File
Reports of the e-training programmes	View File
Certificate of completion of training for development of and delivery of e-contents / e-courses / video lectures / demonstrations	View File
Web-link to the contents delivered by the faculty hosted in the HEI's website	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/aqar-criterion2/244%20e%20contents%20developed%20by%20the%20faculty.xlsx
List of e-contents / e courses / video lectures / demonstrations developed	View File
Any other relevant information	View File
Institutional data in prescribed format (Data Template)	View File

2.4.5 - Number of fulltime teachers who received awards and recognitions for excellence in teaching, student mentoring, scholarships, professional achievements and academic leadership at State, National, International levels from Government / Government-recognized agencies / registered professional associations / academies during the year

118

File Description	Documents
Institutional data in the prescribed format/ Data Template	View File
Certified e-copies of award letters (scanned or soft copy)	View File
Any other relevant information	View File

2.5 - Evaluation Process and Reforms

2.5.1 - Number of days from the date of last semester-end/ year- end examination to the date of declaration of results during the year

2.5.1.1 - Number of days from the date of last semester-end/ year- end examination to the date of declaration of results in the year

12049

File Description	Documents
List of Programmes and dates of declaration of last semester-end and yearend examination results	View File
Reports from Controller of Exam (COE) office/ Annual reports mentioning the relevant details	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	**No File Uploaded**

2.5.2 - Total number of student complaints/grievances about evaluation against total number appeared in the examinations during the year

422

File Description	Documents
Certificate from Registrar / Controller of examination / Data on student grievances from the office of the Registrar (Evaluation)	View File
Minutes of the grievance cell / relevant body	**No File Uploaded**
List of complaints / grievances during the year	View File
List of students who appeared in the exams during the year (Data template)	View File
Any other relevant information	View File

2.5.3 - Evaluation-related Grievance Redressal mechanism followed by the Institution. The University adopted the following for the redressal of evaluation-related grievances.	**1. Double valuation/Multiple valuation with appeal process for re totalling/revaluation and access to answer script**

File Description	Documents
Provide links to the examination procedure and re-evaluation procedure developed by the Institution and duly hosted in the Institution's website	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria2/253/Examination%20&%20Revaluation%20procedures%20for%20website%20verified.pdf
Report of the Controller of Examination/ Registrar evaluation regarding the Grievance Redressal mechanism followed by the Institution	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	No File Uploaded

2.5.4 - Reforms in the process and procedure in the conduct of evaluation/examination; including Continuous Internal Assessment to improve the examination system. Describe examination reforms implemented by the University during the year with reference to the following within 100 - 200 words

With more than 400 academic programs on offer, Manipal Academy of Higher Education (MAHE) has its courses governed by numerous regulatory bodies like MCI, DCI, PCI, NCI, COA, AICTE and UGC. While adhering strictly to the laid examination and evaluation norms, examination reforms at MAHE has been a continuous process. MAHE has pioneered many innovative practices such as on screen marking (OSM), e-pad examination, digital verification of certificates and nationwide online entrance tests. MAHE introduced OSM in 2014, one of the first universities in the country to do so, where evaluators marked using scanned copy of the answer scripts. In a phenomenal move, MAHE introduced paperless exams in 2015 and since then all theory exams are conducted using electronic writing pads (e-pad). This facilitates evaluation of each answer script simultaneously by a group of evaluators as well as makes it easier to evaluate all scripts question-wise bringing in uniformity. OSPE & OSCE which has successfully been part of examination processes in various institutions have also been digitized in many. E-pads also facilitates capturing difficulty level of questions, biometric authentication of candidates, encryption of question papers, decryption just prior to start of exam, strict adherence of exam duration, digital tabulation of marks and does away with distribution and collection of papers. MAHE has initiated providing autonomy in assessment to some of the constituent units/institutions for the conduct of examination as per an approved standard operating procedure. This decentralisation improves accountability, sense of

ownership and operation efficiency to a great extent. Office of Registrar-Evaluation audits the process periodically. Periodic external audit of examination process is also carried out. Full academic transparency for the learner and academic data is made available to all stakeholders with the help of a custom made Microsoft Dynamics based ERP called 'Student Life Cycle Management System' with finance gateway integrated. SLCM also allow students to apply for the "paper seeing" and revaluation by making the necessary payment online. As per the UGC guidelines, MAHE has introduced "revaluation on request" since 2016. During the last five years, most of the institutions of MAHE reformed their curriculum from conventional system to choice based credit system (CBCS) and converted their academic cycles from annual to semester. From 2019 batch onwards, competency based medical education (CBME) is being implemented for MBBBS program. Learning Outcome Based Education Framework (OBE) is implemented in all applicable programs and computation of attainment of PEO, PLO and CLO are being initiated. I.E. to E.E. ratio followed in majority of courses stand at about 50:50 ratio. Online platforms are also being used for conducting MAHE entrance examinations nationwide. Right from the student registration, fees payment, slot selection, writing the examination, analysing the scores and preparing the rank list are all through this transparent and fully automated system. MAHE permits online verification of Certificates and Transcripts by both internal and external stakeholders. The latest addition to this process is the initiation of uploading the student marks cards and degree certificates to National Academic Depository.

File Description	Documents
Details of examination reforms implemented during the year	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/aqar-criterion2/254%20Examination%20reforms%202020-21.pdf
Any other relevant information	No File Uploaded

2.5.5 - Status of automation of Examination division using Examination Management System (EMS) along with approved online Examination Manual Options (Choose an applicable option):	A. Complete automation of entire division & implementation of Examination Management System (EMS)

File Description	Documents
Snapshot of EMS used by the Institution	View File
Copies of the purchase order of the software/AMC of the software	View File
The present status of automation., Invoice of the software, & screenshots of software	View File
Annual report of examination including present status of automation as approved by BOM / Syndicate / Governing Council	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	No File Uploaded

2.6 - Student Performance and Learning Outcomes

2.6.1 - The Institution has stated learning outcomes /graduate attributes as per the provisions of Regulatory Bodies which are integrated into the assessment process and widely publicized through the website and other documents Provide details of the stated learning outcomes for each programme / course as stipulated by the appropriate Regulatory Body and the methods followed by the Institution for assessment of the same within 100 - 200 words

Adherence to regulatory body guidelines vis-à-vis learning outcomes and graduate attributes is given utmost importance at MAHE. The adherence is reinforced by assessment methods which are well aligned with these outcomes. The learning outcomes in the form of Program Education Objectives (PEO), Program Outcomes (PO), Course Outcomes (CO), of all institutions are well delineated, posted on the university website for all stakeholders to be aware of it. There is elaborate mapping of COs to POs. The graduate attributes or qualification descriptors are listed and described for clarity.

Our nursing college, MCON has in 2019 oriented its curriculum and assessment in lieu with guidelines of the Indian Nursing Council (INC), the national statutory body that regulates nursing curriculum in order to have uniform standard of nursing education in the country. MCOPS states in great detail 16 course outcomes for their BPharm course and that is the mainstay in all our institutions.

Not only adherence to the laid guidelines but also any change

brought about by regulatory bodies are quickly adopted and the system adapted to. When Medical Council of India brought about the curriculum changes, our medical schools at Manipal and Mangaluru designed the Outcome Based Education (OBE) modules and assessment system for programme objectives (PO) and course outcomes (CO) or for that matter the implementation of Attitude, Ethics and Communication (AETCOM) competencies that have been recently introduced.

The process for designing program curriculums is meticulous, scientific, holistic and cooperative. In MIT, curriculum design takes inputs from faculty, industry, alumni and students. Department faculty council and administrative bodies like Department Curriculum Committee, Board of Studies and academic council then in a consultative fashion fine tune any change in curriculum.

The various Centers of Excellences under MAHE follow best practices in designing learning outcomes for the programs they administer and delineate graduate attributes. All assessment modalities are in line with that recommended by regulatory authorities. All MAHE, institutions follow both summative and formative assessment to test for cognitive, psychomotor and affective domains in learning outcomes. The assessment designs are again let known to all stakeholders by the way of having it on our website, informing students and parents during orientation and during other orientation sessions that deal with examinations.

Assessment methods include weekly quiz, class tests, sessional examination, end semester examination, assignment and presentation to name a few. In some novel assessment methods employed by our institutions, Department of Design has a review and feedback from industry experts for portfolio development subject, MMMC factors in undergraduate research, etc.

A lot of detailing has gone into constructing Outcome Based Education Framework for all institutions under MAHE. From a broader view of what qualities a graduate of our institution should possess to attributing competencies to hundreds of learning objectives of scores of subjects, our institutions have laid a clear path for our major stakeholders – our students.

File Description	Documents
Relevant documents pertaining to learning outcomes and graduate attributes	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-2--teaching-learning---evaluation/2-6-1.html
Methods of the assessment of learning outcomes and graduate attributes	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-2--teaching-learning---evaluation/2-6-1.html
Any other relevant information	**No File Uploaded**

2.6.2 - Pass percentage of final year students in the year

2.6.2.1 - Number of final year students of all the programmes, who passed in the university examinations in the year

6931

File Description	Documents
List of Programmes and the number of students appeared and the number of students passed in the final year examination for the year	View File
Institutional data in prescribed format (Data Template)	View File
Link for the annual report of examination results as placed before BoM/ Syndicate/ Governing Council for year	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/aqar-criterion2/262%20List%20of%20Programs_%20the%20number%20of%20students%20appeared_%20passed%20in%20the%20final%20year%20examination%20(2016-21).pdf
Any other relevant information	View File

2.7 - Student Satisfaction Survey

2.7.1 - Online student satisfaction survey regarding teaching learning process

File Description	Documents
Any other relevant information	View File
Database of all currently enrolled students (Data Template)	View File

RESEARCH, INNOVATIONS AND EXTENSION

3.1 - Promotion of Research and Facilities

3.1.1 - The Institution has a well-defined Research promotion policy and the same is uploaded on the Institutional website

Research and innovation helps not only in advancement of knowledge but addressing challenges faced by community. Apart from industry that works to identify solutions for the problems faced human beings in general, education institutions are considered crucible where new knowledge is created. The knowledge emanating from educational institutions in the form of research is widely disseminated in various forms including scientific publications, presentations at conferences, protection through intellectual property and developing products. Manipal Academy of Higher Education (MAHE) has been at the forefront of imparting quality education in the country. Apart from being an educational institution, MAHE has laid great emphasis on research advancement in recent years. In order to support research and development activities of MAHE among its stakeholders such as faculty members, research scholars and students, MAHE has well-established research promotion policy in place thereby providing comprehensive information and holistic approach to promote research among its constituent units. MAHE has added about 60000 sq ft of research, innovation and incubation facilities in the last five years. In the last five years, the momentum or research increase and MAHE spent about INR 250 cr on research related activities thereby enabling faculty members to immerse in basic and applied research.

In order to strengthen research at MAHE, Directorate of Research was established with following Vision, Mission and Objectives.

In order to fulfil the objectives listed above, MAHE, through its Directorate of Research, has takenproactive steps resulting in improved performance of research, which is evident from the significantimprovement in the number of research publications in Scopus indexed journals and research grantsreceived from national and international funding agencies. MAHE also encourages research publications through a research incentive scheme, which is unique and encourages researchers to publish their researchin high quality

journals with good impact factors.

Additionally, MAHE offers, seed funding to carry out research in the form of seed money and intramuralfunding, which has substantially increased in the past few years. Apart from seed funding, MAHEdisseminates research activities of the university through the following means:

Going a step further, Manipal Academy of Higher Education became the first university in the country tosign an open access agreement with SpringerNature for an amount close to 3 cr INR , wherein the cost ofArticle Processing Charges (APC) would be absorbed by MAHE thus, facilitating researchers to publish inopen access journals.

MAHE's Intellectual Property Policy that covers protecting research and innovation, facilitates filingintellectual property in the form of patents, designs, copyrights, and trademarks by absorbing the filing andprosecuting cost is aimed at encouraging a culture of research among the members. Intellectual PropertyPolicy, which falls under the overall ambit of Research Promotion Policy, has substantially improvedintellectual property filing in recent years.

File Description	Documents
Minutes of the meetings of Governing Council/ Syndicate/Board of Management for the year related to research promotion policy adoption	View File
Document on Research promotion policy	View File
Any other relevant information	View File

3.1.2 - The institution provides seed money to its teachers for research (amount INR in Lakhs)

29.43

File Description	Documents
Sanction letter of seed money to the faculty	View File
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View File
List of teachers receiving seed money and details of seed money received (Data Template)	View File
Any other relevant information	View File

3.1.3 - Number of teachers awarded national/international fellowship/Financial support for advanced studies/collaborative research/conference participation in Indian and Overseas Institutions during the year

386

File Description	Documents
Certified e-copies of the award / recognition letters of the teachers	View File
List of teachers and their national/international fellowship details (Data Templates)	View File
Any other relevant information	View File

3.1.4 - Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the year

141

File Description	Documents
List of research fellows and their fellowship details	View File
E copies of fellowship award letters	View File
Registration and guide / mentor allocation by the Institution	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	View File

3.1.5 - University has the following facilities Central Research Laboratory / Central Research Facility Animal House/ Medicinal plant garden / Museum Media laboratory/Business Lab/e-resource Studios Research/Statistical Databases/Health Informatics Clinical Trial Centre Any other facility to support research	A. Any 5 of the Above

File Description	Documents
Videos and geo-tagged photographs	http://cif.manipal.edu/Instruments.aspx
List of facilities provided by the University and their year of establishment (Data Template)	View File
List of the facilities added in the current academic year	No File Uploaded
Any other relevant information	View File

3.1.6 - Number of departments with recognition by ICMR-CAR, DST-FIST, DBT, MCI, DCI, PCI, AICTE, AYUSH, NACO, WHO, NIH etc. and other similar recognitions by national and international agencies, (excluding mandatory recognitions by Regulatory Councils for UG /PG programmes)

3.1.6.1 - The Number of departments with recognition by ICMR-CAR, DST-FIST, DBT, MCI, DCI, PCI, AICTE, AYUSH, NACO, WHO, NIH etc. and other similar recognitions by National and/or International agencies

26

File Description	Documents
E-copies of departmental recognition award letters	View File
List of departments and award details (Data Template)	View File
Any other relevant information	View File

3.2 - Resource Mobilization for Research

3.2.1 - Grants for research projects /clinical trials sponsored by Non-Government sources such as industry, corporate houses, international bodies, endowments, professional associations, endowment-Chairs etc., in the Institution during the year

180

File Description	Documents
E-copies of the grant award letters for research projects sponsored by nongovernment organizations	View File
List of project and grant details (Data Template)	View File
Any other relevant information	View File

3.2.2 - Grants for research projects/clinical research project sponsored by the Government funding agencies during the year

1731

File Description	Documents
E-copies of the grant award letters for research projects sponsored by government agencies	View File
List of projects and grant details (Data Template)	View File
Any other relevant information	**No File Uploaded**

3.2.3 - Ratio of research projects/clinical trials per teacher funded by Government/Industries and Non-Government agencies during the year

3.2.3.1 - Number of research projects/clinical trials funded by Government /industries and non-government agencies during the year

311

File Description	Documents
List of research projects and funding details (Data Template)	View File
Supporting document/s from Funding Agencies	View File
Copy of the letter indicating sanction of research project funded by Govt./Non-Govt agency and industry including names of teachers and amount in INR	View File
Any other relevant information	View File

3.3 - Innovation Ecosystem

3.3.1 - Institution has created an ecosystem for innovations and entrepreneurship with an Incubation centre, entrepreneurship cell

Manipal Academy of Higher Education, Manipal strongly believes supporting innovations for its stakeholders viz faculty, research scholars, staff and students. In its endeavor to create a holistic approach to address the need for nurturing ideas that could contribute to the betterment of society, an enabling ecosystem is established. The innovation and entrepreneurship ecosystem provides one stop solution to innovators and entrepreneurs with an advantage of all facilities being available in a single campus.

The entrepreneurship cells of constituent institutions organize events to instill the culture of entrepreneurship among faculty and students. The entrepreneurship cells work closely with the incubators and innovation center for providing required guidance on innovations and start up formation.

To complement the facilities leading to innovations that motivates many students and faculty to create their own start-ups. These start-ups are incubated at the state of the art incubation facilities. The Manipal Universal Technology Business Incubator (MUTBI) is one of the 54 incubation centers, established in 2010, by National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology (DST), Government of India.

Some of the start-ups incubated at MUTBI have pioneered products such as practice-based learning model for secondary schools, 3D Printers, paper pens and pencils. Low cost Product prototypes have

been developed for water generator, telescope, dental implants and a software for cloud enabled environment monitoring system for health.

The incubator facilitates the entrepreneurial support by providing required infrastructure to the incubates in the form of office space, personal computers and internet connectivity as well as common infrastructure like conference rooms and teleconferencing facilities. In addition to physical and common infrastructure the start-ups can avail other services like the network of mentors and experts. The incubator also organises events and meetings with industry leaders, to facilitate networking of companies so that they may showcase their technologies.

Some notable start-ups aided by the incubators include:

Fracktal Works Pvt. Ltd. (www.fracktal.in) (Founders: Varada Vijay Raghav and Rohit Asil)

Fracktal works offers following services:

Product & service offerings in rapid prototyping

Developers of a high resolution, affordable FDM type 3D printer series

Biomedical instrumentation developing EEG headsets for applications in the field of brain wave mapping & analysis.

Optiqur Oral Healthcare (Dr Kumar Siddharth and Dr Divya Mishra)

Manufacturers of Dental product.

Firexit Software Pvt. Ltd. (Vatsal Ambastha and Priti Ambastha)

Video game development for web and mobile platforms.

Porting and publishing services for multi-platform games.

File Description	Documents
Geotagged photographs of the facilities and innovations made	View File
Any other relevant information	View File

3.3.2 - Workshops/seminars conducted on Intellectual Property Rights (IPR) Research methodology, Good clinical Practice, Laboratory, Pharmacy and Collection practices, Research Grant writing and

Industry-Academia Collaborations during the year

Workshops and seminars are being organized to increase awareness among the faculty, research scholars and postgraduate students of MAHE.

Intellectual Property Rights refers to the legal rights granted with the aim to protect the creations of the intellect. Intellectual property in law protects patents, copyright and trademarks, which enable people to earn recognition or financial benefit from what they invent or create. Workshops are held by university experts regarding the awareness and processes of these. Even experts are called from different agencies to brief the researchers about IPR.

Research methodology is how a researcher systematically designs a study to ensure valid and reliable results that address the research aims and objectives. The newly appointed faculty are briefed about research methodology in the orientation program at the outset. They are also imparted with the knowledge of research ethics so that the research is carried ethically from the point of conception of an idea to publishing a paper. Experts from different indexing agencies also hold webinars and sessions for the faculty regarding nuances in etc.

Good clinical practice governs how clinical research trials of human subjects must be conducted. The training regarding protecting rights, welfare, and safety of study participants, assuring quality and validity of study data and results is given to all the researchers who carry clinical trials. The researchers are made aware of the standard operating procedures (SOPs) in conducting clinical research. Workshop and training sessions are held on Good laboratory practices, good pharmacy and collection practices. Ethics committee members are also trained at regular intervals so that they are updated with the latest guidelines.

For a research university getting external grants is vital. The university facilitates and encourages the researchers to apply for national and international grants. The training regarding grants writing is being provided. Senior faculty acts as mentors and train the junior faculty in grant writing. External experts are also training our researchers about the nuances of grant writing skills. Grants office keeps the researchers updated with grant calls regularly. Researchers have an access to Mendeley portal to know about different grant calls across different disciplines.

Collaboration with industry is critical for academia to create scientific knowledge and obtain industrial data. In turn, collaboration with universities is crucial for organizations in joint, scientific-based research projects in order to develop solutions for production-sourced problems. The researchers from MAHE are collaborating with various industry partners and this is being facilitated by liaison officers of the university. MAHE. The post graduate students are send for training to different industries to get training and expertise. Many faculty researchers are pursuing joint collaborative research with industrial partners. The university provides support to all the researchers who collaborate with industry.

File Description	Documents
Reports of the events	https://manipal.edu/content/dam/manipal/mu/documents/mahe/Research/Training%20Programs%20on%20IPR.pdf
List of workshops/seminars on the above conducted during the year	https://manipal.edu/content/dam/manipal/mu/documents/mahe/Research/Training%20Programs%20on%20IPR.pdf
Any other relevant information	View File

3.3.3 - Number of awards / recognitions received for innovation / discoveries by the Institution/teachers/research scholars/students from recognized bodies during the year

3.3.3.1 - Total number of awards/recognitions received by the Institution/teachers/research scholars/students from recognized bodies during the year

63

File Description	Documents
E-Copies of award letters (scanned or soft copy) for innovations with details of awardee and awarding agency	View File
Link to appropriate details on the Institutional website	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-3---research--innovations---evaluation/quantitative-metrics/3-3/3-3-3.html
Institutional data in prescribed format (Data Template)	View File

3.3.4 - Number of start-ups incubated on campus during the year

3.3.4.1 - Number of start-ups incubated on campus during the year (a startup to be counted only once)

19

File Description	Documents
Registration letter	View File
E- sanction order of the University for the start-ups on the campus	View File
Contact details of the promoters	View File
List of start-ups- details like name of the start-up, nature, year of commencement etc (Data Template)	View File
Any other relevant information	**No File Uploaded**

3.4 - Research Publications and Awards

3.4.1 - The Institution has a stated Code of Ethics for research, the implementation of which is ensured by the following Research methodology with course on research ethics Ethics committee Plagiarism check Committee on Publication guidelines	**A. All of the Above**

File Description	Documents
Institutional code of Ethics document	View File
Course content of research ethics and details of members of Ethics Committee	View File
Copy of software procurement for plagiarism check	View File
Minutes of the relevant committee meetings for the year with reference to the code of ethics	View File
Details of committee on publication guidelines	View File
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	View File

3.4.2 - The Institution provides incentives for teachers who receive state,national or internationalrecognitions/awards. Options: Career Advancement Salary increment Recognition by Institutional website notification Commendation certificate with cash award	A. All of the Above

File Description	Documents
Policy on Career advancement for the awardees	[View File](#)
Policy on salary increment for the awardees	[View File](#)
Snapshots of recognition of notification in the HEI's website	[View File](#)
Copy of commendation certificate and receipt of cash award	[View File](#)
List of the awardees and list of awarding agencies and year with contact details for the year	[View File](#)
Incentive details (link to the appropriate details on the Institutional website)	[View File](#)
Institutional data in prescribed format (Data Template)	[View File](#)

3.4.3 - Number of Patents/ Copyrights published/awarded/technology-transferred during the year

3.4.3.1 - Total number of Patents/ Copyrights published/awarded/ technology-transferred during the year

40

File Description	Documents
List of patents/Copyrights and the year they were published/awarded	[View File](#)
E- copies of the letters of award/ publication of patent/copyright/ technology-transferred	[View File](#)
Technology transfer document	[View File](#)
Institutional data in prescribed format (Data Template)	[View File](#)
Any other relevant information	No File Uploaded

3.4.4 - Number of Ph.D/ DM/ M Ch/ PG Degree in the respective disciplines awarded per recognized PG teacher of the Institution during the year

3.4.4.1 - Number of Ph. Ds /DM/M Ch/PG degrees in the respective disciplines awarded per recognized PG teacher of the Institution during the year

655

File Description	Documents
List of PhD/DM/M Ch candidates with details; like name of the guide, title of the thesis, year of award, award letter etc	View File
Web page for research in the Institutional website.	https://manipal.edu/mu/directorate-of-research.html
Institutional data in prescribed format (Data Template)	View File
Any other relevant information	View File

3.4.5 - Number of research papers per teacher in the approved list of Journals in Scopus / Web of Science/ PubMed during the academic year

File Description	Documents
List of research papers by title, author, department, name and year of publication and Scopus/Web of Science/PubMed list ref. No: (Data Template) /link	View File
Names of the indexing databases	View File
Any other relevant information	No File Uploaded

3.4.6 - Number of research papers per teacher in the approved list of Journals notified in UGC-CARE list during the academic year

3.4.6.1 - Number of research papers in the approved list of Journals notified on UGC website during the year

2489

File Description	Documents
List of research papers with title, author, department, name and year of publication and UGC list ref. No: (link)	https://ugccare.unipune.ac.in/Apps1/User/WebA/CAREList
Names of the indexing databases	View File
Any other relevant information	View File

3.4.7 - Number of books/ chapters in edited volumes and papers in National/International conference-proceedings published per teacher and indexed in Scopus/Web of Science/ PubMed UGC-CARE list during the year

File Description	Documents
List of books and chapters in edited volumes / books published (Data Template)	View File
List of names of publishers: National/ International	View File
Any other relevant information	View File

3.4.8 - Bibliometrics of the publications during the calendar year based on average Citation Index in Scopus/ Web of Science

2819.5

File Description	Documents
List of the publications during the year	View File
Any other relevant information	View File

3.4.9 - Provide Scopus/ Web of Science – h-index of the Institution for the academic year

22

File Description	Documents
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View File
Any other relevant information	**No File Uploaded**

3.5 - Consultancy

3.5.1 - Institution has a policy on IPR and consultancy including revenue sharing between the Institution and the individual, besides a training cum capacity building programme for teachers, students and staff for undertaking consultancy

Manipal Academy of Higher Education (MAHE), Manipal has IPR/Consultancy policy that is applicable for employees, faculty members, staff (permanent and temporary), visiting scholars, fellows, research scholars, and students associated with MAHE, but not limited to, those who are directly under the University payroll and/or receive assistance in the form of fellowships, scholarships, honorarium, either from MAHE or from outside government and private institutions and agencies. The IPR policy broadly covers following domains of IP.

The University holds the IP wherein University resources are used whereas the author can retain the ownership of the copyright of original work and eligible for financial gain as per the conditions of MAHE. In instances where the patent is owned by the University, the inventor(s) has(ve) the right on such form of the intellectual property till the time protection of such IP is agreed upon by the University and inventor(s). The University reserves the right to initiate discussions on sales/license or technology transfer of patents or other forms of intellectual property, as the case may, and which are deemed suitable for such activity. Upon a successful outcome through sale/license or technology transfer, the revenue sharing from either sale/license or transfer of technology shall be as specified in the royalty terms.

MAHE faculty members are actively engaged in rendering their expertise to industry or an external agency in the form of consultancy. Several such faculty members have been appointed as consultants which cements the credibility of research and faculty expertise. For consultancy, the PI/Consultant/Project Coordinator/Co-Investigator is having a revenue share of 60% in the form of incentive payable to him/her and the balance 40% is retained with the parent institution for re-investing in research activities. The maximum limit of revenue generation for faculty per year is INR 20 lakh. In case of clinical trials sponsored by the Centre of Clinical Excellence attached to the Department of Pharmacology, KMC, Manipal, the institutional share will be divided between the Department of Pharmacology and the parent institution on a 15:85 basis.

File Description	Documents
Minutes of the Governing Council/ Syndicate/Board of Management related to IPR and consultancy policy	https://manipal.edu/content/dam/manipal/mu/documents/mahe/Research/IPR%20Policy%20Extract%20EC%20Meeting%20held%20on%2025.01.2017.pdf
Link to the soft copy of the IPR and Consultancy Policy	https://manipal.edu/content/dam/manipal/mu/documents/mahe/Research/DoR/TTO/Intellectual%20Property%20Policy%20-%20MAHE.pdf
List of the training / capacity building programmes conducted during the year	https://manipal.edu/content/dam/manipal/mu/documents/mahe/Research/Training%20Programs%20on%20IPR.pdf
Any other relevant information	Nil

3.5.2 - Revenue generated from advisory / R&D consultancy projects (exclude Patients consultancy) including Clinical trials during the year

3.5.2.1 - Total amount generated from consultancy during the year (INR in lakhs)

571

File Description	Documents
Audited statements of accounts indicating the revenue generated through consultancy/clinical trials	View File
CA certified copy/Finance Officer Certified copy attested by head of the Institution	View File
List of consultants and revenue generated by them (Data Template)	View File
Any other relevant information	No File Uploaded

3.6 - Extension Activities

3.6.1 - Extension and outreach activities such as community Health Education, Community health camps, Tele-conferences, Tele-Medicine consultancy etc., are conducted in collaboration with industry, Government and Non- Government Organisations engaging NSS/NCC/Red Cross/YRC, Institutional clubs etc., during the year

3.6.1.1 - Number of extension and outreach Programs conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the year

289

File Description	Documents
Photographs or other relevant supporting document	View File
Detailed program report for each extension and outreach program with specific mention of number of students and collaborating agency participated	View File
Description of participation by NSS/NCC/Red cross/YRC, Institutional clubs etc., for the year	View File
Any other relevant information	View File

3.6.2 - Number of students participating in extension and outreach activities beyond the curricular requirement as stated at 3.6.1

10226

File Description	Documents
Reports of the events organized	View File
Number of extension and outreach activities conducted with industry, community health camps etc.., for the year (Data Template)	View File
Geo tagged Photos of events and activities	View File
Any other relevant information	View File

3.6.3 - Number of awards and recognitions received for extension and outreach activities from Government / other recognized bodies during the year

Manipal Academy of Higher Education, Manipal has been at the forefront in reaching out to community through extension and outreach activities. The region has one of the lowest infant mortality rates in the country which is due to the healthcare facilities made accessible by MAHE to people in the region. Manipal

Arogya Suraksha, a Group Family Healthcare scheme, offered by MAHE in collaboration with NGOs not only takes care of inpatient services but also offers a host of concessions and free consultations with the specialist on OP basis. The scheme provides each family with medical facilities of up to Rs 30,000.00 per year in case of in-patient services on a floater basis and unlimited OP facilities at concessional fee which is apart from Personal Accident benefit of Rs 30,000.00 for each member enrolled under the scheme.

- Manipal Arogya Suraksha scheme has a rare distinction of mention in ILO for the bold initiative aimed at mitigating the burden of ever-escalating health care cost and has effectively fulfilled its social obligations.

The Social Welfare Committee (SWC) is the philanthropic wing of the Student Council of Kasturba Medical College (KMC), Manipal empowers Girl child through a special welfare fund "Samsriti"

Manipal College of Dental Sciences, Manipal organizes oral health camps at 5 satellites centers [Udupi, Saligram, Udyavara, Hebri, Hiriyadika] and at 7 schools in and around Udupi district to enhance awareness on oral health. A fully equipped mobile dental van delivers oral health care services at door step. This benefits the local community and facilitates student learning while inculcating service attitude among the students. Besides regular camps, institution has organized over 250 overnight camps in the last five years attending to about 36 thousand patients. MCODS, for its extension and outreach activities in improving oral hygiene received:

- U Sumithra and Ramanath Bhat award for Second Best community outreach program in the country awarded by Indian Association of Public Health Dentistry in the year 2015, and award given by Indian Association of Public Health Dentistry annually to recognize the dental institutions or organizations that organize oral health care awareness programs to the local community.
- Recognition and Appreciation from Government of Karnataka (Department of Collegiate Education) for conducting free dental check-up camp for college students.

Departments of Emergency Medicine, Paediatrics and Community Medicine at Kasturba Medical College, Mangalore developed an innovative concept called Teddy Bear Clinic (TBC) to develop a sense of familiarity with the hospital environment in young children (4 to

7 years old), simultaneously giving them a chance to inculcate a sense of empathy and care. This fun filled and creative measure is an aid to help open their minds to different medical treatment options and build a healthy thought process that puts them at ease while accepting medical care when required. TBC concept received Maanyata Awards at St John's Auditorium Bangalore for innovative approach.

File Description	Documents
Number of awards for extension activities in the year- e-copy of the award letters	View File
List of Government/other recognized bodies that have given the awards	View File
Any other relevant information	No File Uploaded

3.6.4 - Institutional social responsibility activities in the neighborhood community in terms of education, environmental issues like Swachh Bharath, health and hygiene awareness, delivery of free/ subsidized health care and socio-economic development issues carried out by the students and staff, including the amount of expenditure incurred during the year

Manipal Academy of Higher Education (MAHE) has always been in the forefront of creating a positive impact on the society. Various projects are being undetaken where the students and faculty can contribute towards the benefit of the needy in the community.

Manipal Arogya Suraksha Scheme is a comprehensive healthcare facility aimed at providing quality health care at affordable cost. MAHE in association with NGOs and other organizations successfully implemented Manipal Arogya Suraksha Scheme in the year 2005 with a small base of around 6000 people. The member base has grown beyond 4 lakhs now.

Manipal Arogya Suraksha is a Group Family Healthcare scheme which not only takes care of inpatient services but also offers a host of concessions and free consultations with the specialist on OP basis. Additionally, the scheme also compensates for loss of life and disablement due to accident. Manipal Arogya Suraksha scheme has a rare distinction of mention in ILO for the bold initiative aimed at mitigating the burden of ever-escalating health care cost and has effectively fulfilled its social obligations.

ASARE was conceived to lend support to the mentally challenged citizens. MAHE in collaboration with Archana Trust offered to provide a strong sense of support base to those who are unfortunately deprived of the natural mental growth due to varied reasons. ASARE aims to help the mentally challenged regardless of the degree or type of the disability, caste, creed, race or religion, community, economic, or social background. The objective is to create a better world for the specially abled people and instill in them the belief that attitude is the biggest need for progress and every obstacle could be overcome with a strong will. The inmates of ASARE are encouraged and trained in various vocational activities such as making of envelopes, paper bags, arecanut plates and greeting cards.

RMCW (Rural Maternity and Child Welfare) Homes provide maternal and child health services. A network of 7 homes are managed by Department of community medicine, Kasturba Medical College, Manipal. These centres play a substantial role in providing MCH services to the local population.

The centres are equipped with a labour room, a ten bedded postnatal ward, a small laboratory and a minor OT round the clock maternity services are available at the centres. As many as 1200 deliveries are conducted in these centres every year.The clinics provide antenatal, postnatal services and care of under-fives inclusive of growth monitoring, immunization, treatment of illness etc. Besides these, family planning services such as tubectomies and IUD insertions are carried out routinely at these centres.

File Description	Documents
Geotagged photographs of Institutional social responsibility activities	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-3---research--innovations---evaluation/quantitative-metrics/3-6/3-6-4.html
Link for additional information	https://manipal.edu/mu/important-links/social-impact.html
Link for additional information	Nil

3.7 - Collaboration

3.7.1 - Number of Collaborative activities for research, faculty exchange, student exchange/ Industry-internship etc conducted during the year

3.7.1.1 - Total number of Collaborative activities for research, faculty exchange, student exchange during the year

701

File Description	Documents
List of Collaborative activities for research, faculty exchange etc.., (as per Data Template)	View File
Certified copies of collaboration documents and exchange visits	View File
Link with collaborating Institution's website	https://manipal.edu/mu/about-us/international-collaboration/partner-university.html
Any other relevant information	No File Uploaded

3.7.2 - Presence of functional MoUs with Institutions/ industries in India and abroad for academics, clinical training / internship, on-the-job training, project work, student / faculty exchange, collaborative research programmes etc., during the year

3.7.2.1 - Number of functional MoUs for faculty exchange, student exchange, academics, clinical training, internship, on-the-job training, project work, collaborative research programmes etc., during the year

323

File Description	Documents
E-copies of the functional MoU's with institution/ industry/ corporate house, Indicating the start date and completion date	View File
Institutional data in prescribed format	View File

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 - Physical Facilities

4.1.1 - The Institution has adequate physical facilities for teaching –learning, skills acquisition etc.

- **With a promising, potent blend of academic experience and clinical exposure, the students opting for medical, dental and**

paramedical programmes at MAHE are certain to receive an enriching and immersive learning environment. This is credited, in large part, to the plethora of infrastructural facilities, being used innovatively to cater to their needs.

- MAHE's medical colleges are attached to much-revered teaching hospitals, which provide hands-on clinical exposure to the students. Mangaluru campus was established in 1955 and has the honour of being the first college in the country to be established under a public-private partnership model (District government hospitals -Government Wenlock and Lady Goschen Hospitals). This has spawned diverse clinical exposure and community outreach, which provide additional clinical experience to students. Both combined, cater to the training requirements of an undergraduate MBBS programme and over 70 postgraduate programmes. The Manipal campus, in addition, offers super speciality programmes across 10 disciplines. These hospitals are equipped with state-of-the-art diagnostic and therapeutic departments, enabling exposure to a wide range of medical and surgical ailments. MTMC, Jamshedpur is linked to the excellent hospital infrastructure and clinical facility as a part of the consortium agreement.

- Undergraduates are rotated in all the wings of the hospital in their cumulative 4.5 years of the programme. Postgraduates are rotated in various subspecialty departments for additional training, with hands-on training by experts in their respective fields. In order to foster a more enriching experience with respect to case discussion and teaching modules, the individual departments are equipped with standard audio-visual aids such as LCD facility, Wi-Fi, smart classrooms and video-recording facilities. Each department has a permanent library. Few have also initiated interaction web series with distinguished alumni, to establish connectivity and collaborations.

- With an emphasis on collaborations, the medical colleges have engaged in multiple MoUs with national and international universities for student exchange programs, research and academic purposes. The advanced learners are offered clerkships and short-term electives, thus broadening the horizons of learning.

- Medical colleges have a total of 25 large lecture halls with a seating capacity of 200 each and 5 large seminar halls with a seating capacity of 500 each. Each department also houses a demonstration room/seminar hall for academic activities. The simulation laboratory, equipped with a mannequin, offers effective training and research facility. The hospitals are well equipped for advanced and sophisticated surgeries such as

coronary bypass and open-heart surgery, as well as kidney transplantation. The 280-bed cancer research hospital in Manipal (under the Manipal Comprehensive Cancer Care Centre) comprises a ten cluster Tumour Board to provide the best quality care to cancer patients. It is also the first Comprehensive Cancer Care Centre in Coastal and Northern Karnataka. The Manipal Anatomy and Pathology Museum is a treasure-trove of specimens, the largest in India, attracting students and the public alike. The hospitals engage the postgraduates and interns in multiple community health camps, aiding the academic growth of the trainee while inculcating counselling skills simultaneously.

- In a similar vein, the Manipal College of Dental Sciences (MCODS) at both Manipal and Mangaluru campuses also offer dental undergraduate and postgraduate programmes. Innovative modules such as patient simulating phantom-head lab- training for preparing the dental tissues and live streaming of the demonstrations are effective teaching tools. In addition to the modern infrastructure, they also offer a mannequin facility to train students on the intricacies involved in obtaining intraoral radiographs. Students are inducted into community-centred initiatives such as the 'Tobacco-cessation clinic' – involved in identification and counselling of patients with tobacco chewing habits, five satellite clinics at various places to extend the services of oral health care delivery, use of mobile dental vans and field visits.

- The thrust on effective paramedical teaching and training has also been a standout feature of MAHE. The Manipal College of Health Professions (MCHP) has the distinction of being the first institution in India exclusively dedicated to the education of allied health professionals. The institute offers diverse programmes ranging from medical laboratory technology, cardiovascular technology to occupational therapy. Community-based training is offered in various satellite centres affiliated with the hospital, rural health centres, and urban health centres. The interdisciplinary nature of the programmes is a singular feature that aims at an effective learning experience. The Department of Audiology and Speech Language Pathology at KMC, Mangaluru has collaborated with various clinical departments to develop initiatives such as Newborn hearing screening, Dysphagia Lab, Cochlear Implantation, Hearing Aid Clinic, Cognitive-Communication Lab, Language Lab, Voice and Aerodynamic Lab, Nasalence Lab, Augmentative and Alternative Communication (AAC) Lab, and Vestibular rehabilitation Lab. Further, Manipal College of Nursing (MCON) provides students with first-hand experience in gaining

clinical knowledge as they have access to the facilities of KMC, Manipal. Also, the locational advantage of MCON (it caters to the rural community of district- Udupi) enables students to engage with the rural health centres and community projects.

- The attributes of Manipal College of Pharmaceutical Sciences (MCOPS) are multi-pronged. With the objective of clinical exposure, ward rounds and discussion with clinicians at Kasturba Hospital are ingrained into the curriculum for the students of the pharmacy practice department. The institute also houses a Central Animal Research Facility, Manipal-Schrodinger Centre for Molecular Simulations, Centre for Drug Testing, Translational Research Facility for Patient care, Technology Transfers to Industries for Drug Formulations that benefit the society etc., These are a few unique assets that attract students from India and overseas. In the field of life sciences, Manipal School of Life Sciences (MSLS), identified as TIFAC-CORE under vision 2020 in the area Pharmacogenomics, offers the best learning opportunities. For clinicians and patients, it provides timely state-of-the-art, not-for-profit diagnostics facilities through contemporary molecular, cytogenetics and imaging methodologies.

- Emphasis on experiential learning drives students of engineering at Manipal Institute ofTechnology to engage in an array of major student projects ranging from artificial intelligence to rocketry apart from interdisciplinary projects. Exclusive facilities are provided to students, in addition to regular laboratories, outside the classroom to further intellectual curiosity.

File Description	Documents
Teaching- learning and skills acquisition facilities in the Institution	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria4/qualitative/411/Link%20to%20T-L%20&%20Skill%20Acquisition%20Facilities.pdf
Geotagged photographs of the facilities	https://manipal.edu/content/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-4---infrastructure---learning-resources/4-1-1-.html
Any other relevant information	https://assessmentonline.naac.gov.in/storage/app/hei/SSR/102606/4.1.1_1633511745_6453.pdf

4.1.2 - The Institution has adequate facilities to support physical and recreational requirements of students and staff: sports, games (indoor, outdoor), gymnasium, auditorium, yoga centre etc. and for cultural activities

The diversity of the students and the interdisciplinary nature of the campus make MAHE a hub for a plethora of cultural and sports activities. Facilities for Sports and Games

The sports infrastructure at Manipal Academy of Higher Education is broadly categorized as follows:

- **Medical Campus and MIT Campus Sports Facility, Manipal (outdoor facility)**
- **Marena Sports Complex, Manipal (indoor facility of 1,50,000 Sqft – established in 2009)**
- **Medical Campus Sports Facility, Mangaluru (74222 Sqft, established in 2012)**

Outdoor sports facilities include athletic grounds (299134 Sqft – 01 no and 15752 Sqft -01 no), hockey grounds (71070 Sqft -02 nos, 35637 Sqft -01 no), football grounds (97726 Sqft- 02 nos, 40350 Sqft- 01 no,33984Sqft – 03 nos), cricket fields (65m- 02 nos and 45m- 02 nos), tennis courts (04), volleyball courts(04), throw ball courts (04), basketball courts (06), handball courts (03), badminton courts (03), and swimming pool (33.5m – 01 no, 25m – 01 no).

Indoor Sports facilities include basketball courts (02), badminton courts (07), cricket practice pitch (with bowling simulator) (02),

squash courts (06), table tennis (08), boxing ring (01), and gymnasiums (06).

The following Sports and Games Activities are organized every year:

- Intercollegiate tournaments for Men and Women
- Athletics, Basketball, Badminton, Chess, Cricket, Cross Country Race, Football, Hockey,
- Swimming, Squash, Table Tennis, Tennis, Throwball and Volleyball matches and Best Physique
- contests.
- South Zone and Inter Zone Inter-university tournaments
- National and International Conferences on Physical Education and Sports Sciences
- The individual institutions organize sports events: Inter-class competitions/tournaments, All IndiaInter Medical Tournament MIST, and All India Inter Engineering tournament REVELS.

Facilities for Cultural Activities MAHE campus offers a wide range of opportunities for students to engage in cultural activities. Every institute has its own set of student clubs dealing with diverse cultural activities. Apart from the regular seminar Halls with a capacity of 200 constituent units, MAHE has additional facilities. The convention center (established in 2005) an auditorium with a capacity of 4000 in Mangaluru campus, MIT Quadranglein Manipal with a capacity for 3000, and KMC Greens with a capacity for 6000 ensure that the activities cater to all the students of the campus. WGSHA's Chaitya Hall, with a capacity of 400 is an indoor hall for social gatherings, meetings, or dining. KMC's TMA Pai Hall is an auditorium with a capacity of 800. Openair amphitheaters at MIT, Manipal, and at Madhav Vihar offer the theatre enthusiasts a space for experimentation. The Hebbar Gallery and Art Center is a space that nurtures and encourages creative expression and art pedagogy that welcomes cross-disciplinary engagement with artists and other cultural practitioners. The Gangubhai Hanagal indoor stadium at Manipal Centre for Humanities with its up-to-date acoustic-enabled facilities is used as a site for cultural extravagance. Yakshagana Kalakendra, a school for training Yakshagana, a folk art form of the region, offers unique learning opportunities to aspiring artists.

File Description	Documents
Available sports and cultural facilities: with geotagged photos	https://manipal.edu/content/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-4---infrastructure---learning-resources/Sports-and-Cultural-Facilities.html
Any other relevant information	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria4/qualitative/412/Link%20to%20Sports%20Facilities%20-%20Additional%20Information.docx

4.1.3 - Availability and adequacy of general campus facilities and overall ambience

The Manipal Academy of Higher Education (MAHE) is spread across an area of approximately 600 acres and houses the Administrative buildings, Institutional buildings, Hostel blocks for boys(34) and girls(35) in both the medical campus (08+11 boys' blocks and 14+9 girls' blocks) and engineering campus (15 boys blocks and 12 girls' blocks) and also residential dwellings for staff. Kasturba hospital caters to all healthcare requirements of students and staff through the Medicare scheme. The scheme allows access to hospital facilities without the requirement of payment. The Student Clinic in KMC is specially set up to cater to the needs of students. Three large central food courts cater to the dining needs of the campus, apart from various canteens and shops located across the campus. Other amenities like the post offices, banks, ATMs are located in close vicinity of the campus. All areas within the campus are connected with metaled roads, which are well maintained, with adequate signposts. Other major utilities like sewage treatment, greywater treatment plants, potable water treatment plants are centrally located and monitored to ensure seamless operation. In order to cater to the parking of vehicles, a central multilevel car park with a valet facility has been constructed that can house 700 cars and 300 two-wheelers.

The department of general services is responsible for the supervision of estates, security, and maintenance of all support services like ancillary, civil, electrical, HVAC, telecommunication, transportation fleet, plumbing & water supply. The various branches of the department maintain the entire infrastructure and are adept at managing challenges, risks, and crisisto ensure smooth and seamless functioning of the institutions and hospitals in multiple locations.

The general service department is further subdivided into the Civil department which focuses on the repair of buildings, replacement of concrete, plaster, masonry, wood, steel structures, painting, flooring work, roofing, and manholes repairs. Ancillary services work on housekeeping, road cleaning, solid waste and garbage management, facade cleaning, pest control, horticulture, landscaping, and plantations, waste management, and composting. Electrical department maintains 33/11 kV substation & 36 nos.11/0.433 kV substations and performs the critical function of a 24/7 power supply. The uninterrupted backup power supply is ensured through DG sets. The inclusion of green energy is one of the priority areas of focus along with fuel efficiency. Water supply and Plumbing works act on plumbing complaints, supervise and monitor water supply systems, operate and maintain sewage treatment plants and greywater treatment plants. The airconditioning department has 14 central chiller plants with 8,000 standalone equipment operating on the campus. The department contributes to effective cost saving by optimizing the use of resources and efficiency improvement. HVAC systems are upgraded to the best available energy-efficient technology. The telecommunications department enables MAHE to communicate effectively with its constituent units via intercom and cellular services. Maintenance is pro-actively planned to deliver a high standard of service including system upgradation. The transportation fleet ensures safe and secure mobility of University staff, students, and guests.

File Description	Documents
Geotagged Photographs of Campus facilities	https://manipal.edu/content/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-4---infrastructure---learning-resources/General-Campus-Facilities-and-Overall-Ambience.html
Any other relevant information	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria4/qualitative/413/Geotagged%20video%20of%20MAHE%20Campus%20Facility.mp4

4.1.4 - Number of expenditure incurred, excluding salary, for infrastructure development and augmentation during the year

4.1.4.1 - Number of expenditure incurred, excluding salary, for infrastructure development and augmentation during the year (INR in lakhs)

30917

File Description	Documents
Audited report / utilization statements (highlight relevant items)	View File
Details of budget allocation, excluding salary during the year (Data Template)	View File
Any other relevant information	View File

4.2 - Clinical, Equipment and Laboratory Learning Resources

4.2.1 - Teaching Hospital/s, Equipments, Laboratory and clinical teaching-learning facilities including equipment as per the norms of the respective Regulatory Bodies

Creating a conducive ecosystem for active learning for the trainees and effective health care requires detailed infrastructure, customized care delivery and keeping pace with modern technologies. ManipalAcademy of Higher Education(MAHE) had already envisioned and acknowledged these needs, laying a foundation for an environment, where patient care is personalized, yet driven by modern technology.

The teaching hospitals are equipped with NABL-accredited diagnostic laboratories. The services in the scope range from clinical biochemistry, clinical pathology & haematology, clinical microbiology &serology to cytopathology. The laboratories at Kasturba Hospital(KH) Manipal provide accredited services for surgical pathology, immunohistochemistry, medical genetics and transplant immunology. Located strategically in the hospital and college premises, these laboratories provide high-end diagnostics like flow cytometry, immunohistochemistry, tests for inborn errors of metabolism tests, HIV viral load testing, autoimmune disease diagnosis, fully automated system for identification and sensitivity testing for bacteria and fungi, COVID-19 testing facilities and automated blood culture systems. The Pathology laboratory in Manipal provides up-to-date services in oncopathology (as per CAP protocol) and referral services, and it also participates in tumour boards for requisite inputs in cancer care. The laboratory services in Mangalurucampus offer free basic investigations to the government Wenlock and Lady Goschen Hospitals. Both hospitals are active in the implementation of government health initiatives and are recognized centres for NTPC programmes and reference labs designated for HIV Sentinel surveillance and the IntegratedCounselling and Testing Centre for HIV.

As leaders in healthcare, KH, Manipal is continually engaged in adapting the latest technologies and expansion. KH hosts four centres: Burns Centre, Infertility Centre, Neonatal ICU and the Centre for nuclear Medicine. Among its vast equipment, the hospital has two PET scan, 1.5 tesla MRIs, 16 SliceBig Bore CT and 64 Slice CT, 15 X-ray machines and 14 Ultrasounds, LINAC, Brachytherapy, TreatmentPlanner, 24 dialysis machines, 24 operation theatres and two Cath labs. Other facilities that make KH unique are the availability of the following advanced centres under one roof: Burns Centre, 32 BedNeonatal ICU, Genetics Clinic, Manipal Assisted Reproduction Centre, Artificial Limb Centre, Dialysisunit with 24 machines, round the clock Radiology Services, Blood Bank, Haemophilia Clinic, Diabetes, Thyroid, HIV Clinics, Intensive Care Units with vital organ function support and bedside/central monitoring systems, and Modular Operation theatres. Further, the Neonatal Intensive Care Unit of KH is of the highest quality. Alternative systems of medicine like Ayurveda and Yoga are offered as separate units KH.

The hospitals have diversified into specific target areas where attention to a specific disease is paramount.KMC Mangaluru possesses a neonatal intensive care unit at the Community Maternal Hospital – providing tertiary care in the region encompassing 8 districts of Karnataka and Kerala. The project was implemented through community funding and is operated by the college. This unit has contributed to the reduction of neonatal mortality in the district up to 5.4 per thousand deliveries in the year 2016, one of the lowest mortality rates in the country. Similarly, KH is associated with Dhwani: Universal New-born HearingScreening Program in Government Lady Goschen Hospital, which is a programme to screen all newborns and children below 5 years in the district for hearing loss. KMC Manipal has initiated 20 centres of excellence phase-wise activities, designed towards innovation and patient-centricity. "Hastha" an app for teachers and parents to screen children with congenital hand deformities, a bioreactor development for ovarian tissue cryobanking in oncofertility, and a WHO accredited centre to provide comprehensive medical care of poisoning cases are some of the ventures towards excellence in healthcare.

The hospitals have accreditations galore to bolster trust in their services. NABH, ISO 9001:2015(QualityManagement System), ISO 14001:2015(Environment Management System) and ISO 50001:2011(EnergyManagement System) have accredited our hospitals. In addition to this, KH, Manipal has achieved the NABH certifications for Nursing services and Emergency Services in 2019. KH has a NABH certifiedEthics Committee to ensure ethical and

transparent research activities.

Hospitals ensure the necessary precautions for the safety of the patients and the workforce. Various committees are in place to monitor the delivery of quality patient care and services like the QualityImprovement Committee, OT Committee, Medical Care Review Committee, Pharmacy TherapeuticCommittee etc. Regular clinical and managerial audits are conducted to ensure adherence to the protocols.

The year 2019 was celebrated as the 'Patient Centricity Year'. Facilities like dining areas renovated emergency Pharmacy, Baby Feeding Pods and Satellite Sample Collection areas are a few of the facilities started.

Manipal-TATA Medical College, Jamshedpur(MTMC) is a premium institution for medical education and training under a consortium initiative between Tata Steel and MAHE Manipal houses 982 beds Teaching hospital.

Manipal College of Dental Sciences(MCODS) at Manipal and Mangalore has 643 dental chairs, state-of-the-art dental equipment, continuing professional development(CPD) rooms with audio-visual aids, phantom head simulation laboratories for preclinical training and access to the newer generation of dental materials.

Manipal College of Pharmaceutical Sciences(MCOPS), Manipal has been instrumental in driving the research wing with laboratories dedicated to cell culture, molecular biology, formulation development, chemical synthesis and herbal drug development. Modern equipment such as the LCMS-MS, FlowCytometer, Auto analyser, Zeta Sizer, Biosafety Cabinets, CO2 Incubators, Inverted Microscope, Fluorescence Microscope, RT-PCR, Western Blot and Electrophoresis units, Protein Purification Systems, HPLC, HPTLC, High-Pressure Homogenizers, Hot Melt Extruder, Tableting Machines, High SpeedHomogenizers, Lyophilizer, Refrigerated Centrifuges, Freezers (-20, -80), Liquid Nitrogen storage etc. area few cited among the equipment and facilities available at MCOPS for pursuing exemplary research.

Manipal College of Health Professions(MCHP), Manipal include the Early Intervention Centre, Parentstraining programme, New-born hearing screening, Dysphagia Lab, Cochlear Implantation, Hearing AidClinic, Cognitive-Communication Lab, Language Lab, Voice and Aerodynamic Lab, Nasalence Lab, Augmentative and Alternative Communication(AAC) Lab, and Vestibular Rehabilitation Lab. The

Department of Audiology and Speech Learning Pathology(ASLP) received grants from various funding agencies such as ICMR, DST, NCERT, Ablenet, and AIISH Research Fund. It has state-of-the-art instrumentation such as the Videokymography, EGI Geodesic EEG system, EMG, Aeroview, VNG, ENG, and Ultrasound. The research initiatives have resulted in collaborations with international agencies.

File Description	Documents
The facilities as per the stipulations of the respective Regulatory Bodies with Geotagged photos	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria4/qualitative/421/4.2.1%20Facilities%20as%20per%20regulatory%20bodies.docx
List of facilities available for patient care, teaching- learning and research with geotagged evidences	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria4/qualitative/421/4.2.1%20Patient%20care%20facilities.docx
Any other relevant information	https://manipal.edu/content/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-4---infrastructure---learning-resources/4-2-1--equipments-and-clinical-teaching-learning-facilities.html

4.2.2 - Describe the adequacy of both outpatients and inpatients in the teaching hospital vis–a–vis the number of students trained and programmes offered (based on HIMS / EMR)

There are a total of seven hospitals functioning under the aegis of the Manipal Academy of HigherEducation (MAHE) at Manipal Mangaluru and Jamshedpur campuses. Kasturba Medical College (KMC), Manipal operates at the teaching Hospital- Kasturba Hospital (KH), Manipal along with Dr TMA PaiRotary Hospital at Karkala and Dr TMA Pai Hospital at Udupi. In addition, MCODS, Manipal provides dental services at Manipal. KMC, Mangalore, works in association with Kasturba Hospital, Attavara and two public hospitals under public-private partnership: Wenlock Hospital and Lady Goschen Hospital.MCODS, Mangaluru provides dental services in the region. Tata Main Hospital (TMH), Jamshedpur, is the attached teaching hospital of MTMC Jamshedpur.

Over five decades, these hospitals have been at the forefront of social service in the region with a singular goal of quality and affordable health care. These hospitals attract a huge number of

patients from multiple sections of society. The 'patient-centric' approach and the commitment to the founder's vision of eradicating ill-health of the region have further ensured that patients of diverse backgrounds seek the hospital for treatment. To match these objectives, the hospitals are equipped with state-of-the-art diagnostic and therapeutic services.

Established in 1961, Kasturba Hospital, Manipal has evolved into a model teaching hospital, currently with2032 beds. Spread over 11, 25, 000 sq. ft., Kasturba Hospital, Manipal caters to an average of 3000outpatients and has approximately 200 admissions each day. KMC Hospital, Mangalore is a 600-bed multidisciplinary specialty centre renowned for its medical expertise, nursing care, and quality of diagnostics. Importantly, association with two Government Hospitals in Mangaluru- Wenlock Hospital and LadyGoschen Hospital, Mangalore-makes the experience of students at KMC Mangalore truly unique. They get an opportunity to experience the healthcare challenges at the community level. Tata Main hospitalJamshedpur provides similar experiences to students and excellent healthcare support in that region.

Both undergraduate and postgraduate students are efficiently posted in OPDs and wards, receiving a holistic environment, where both patient and resource management are ingrained. In addition, there are rotations in the specialty departments such as Cardiology, Neurology, Nephrology, Endocrinology, Infectious Diseases, Cardiovascular Thoracic Surgery, Urology, Paediatric Surgery, Neurosurgery, Plastic surgery and Medical and Surgical Oncology which facilitate a more immersive learning experience.

File Description	Documents
Outpatient and inpatient statistics for the year	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria4/qualitative/422/4.2.2%20Statistics%20of%20IP%20and%20OP%20_%20Template.xlsx
Description of the adequacy of outpatient and inpatient statistics as per the norms of the Regulatory Bodies (critical documents to be verified by DVV)	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria4/qualitative/422/4.2.2.docx
Link to hospital records / Hospital Management Information System	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria4/qualitative/422/Screenshots%20of%20PMS%20Software.docx

4.2.3 - Availability of infrastructure for community-based learning. Institution has: Attached Satellite Primary Health Centers Attached Rural Health Centers for training of students Attached Urban Health Centre for training of students Residential facility for students / trainees at the above peripheral health	A. All of the Above

File Description	Documents
Geotagged photographs of Health Centers	View File
Government Order on allotment/assignment of PHC to the Institution	View File
Documents of resident facility	View File
Any other relevant information	View File

4.2.4 - Is the Teaching Hospital / Clinical Laboratory accredited by any National Accrediting Agency? NABH accreditation NABL accreditation International accreditation like JCI., ISO certification of departments /Institution GLP/GCLP	B. Any 4 of the Above

accreditation.

File Description	Documents
Copies of the Certificate/s of Accreditations	[View File](#)
Any other relevant documents	[View File](#)
Data Template in prescribed format	[View File](#)

4.3 - Library as a Learning Resource

4.3.1 - Library is automated using Integrated Library Management System (ILMS)

One of the most important locations on any university, the library, serves as a nerve centre of academics. Manipal Academy of Higher Education (MAHE), Manipal has the following 15 libraries in Manipal, Mangaluru, Bengaluru, and Jamshedpur campuses.

- SEARCH – The KMC Health Sciences, Manipal
- KMC Central Library, Mangaluru
- MIT Central Library, Manipal
- WGSHA Library, Manipal
- MIC Library, Manipal
- MIM Library, Manipal
- MCNS Library, Manipal
- Manipal Centre for European Studies Library, Manipal
- Manipal Centre for Humanities (MCH) Library,
- ManipalManipal School of Architecture and Planning, Manipal
- Manipal Tata Medical College, Jamshedpur
- Department of Geopolitics & International Relations (IR) Library, Manipal
- MIRM Library, Bengaluru
- Nehru Memorial Library (Public Library), Manipal
- General Library, MIC, Manipal

MAHE has an excellent KMC Health Sciences Library at Manipal. The state-of-the-art library stretching over 1.5 lakh square feet, on five levels is a domain for information seekers. 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. There is a separate audio-visual room, computer lab, group study area and private study area in the library. The other two major libraries of MAHE are – KMCCentral Library, Mangaluru and MIT Central Library, Manipal.

MAHE Libraries have fully computerized their collection and services using EasyLib library management software in the year 2004, then upgraded with Koha Library Management Software in the year 2018. At present, all the collections and services of MAHE libraries have been fully automated on modern lines using Koha library management software. Koha is an open-access ILMS with comprehensive functionality including basic and advanced search options. Koha includes modules for acquisitions, circulation, cataloguing, serials management, flexible reporting with powerful searching, and an enhanced catalogue display. Koha is built using library standards and protocols such as MARC 21, UNIMARC, z39.50 etc. ensuring interoperability between Koha and other systems and technologies while supporting existing workflows and tools. Koha's OPAC, circulation management and self-checkout interfaces are all based on standards-compliant World Wide Web technologies—XHTML, CSS and Javascript—making a truly platform-independent solution.

All libraries are enabled with Wi-Fi facilities and security systems with Closed Circuit Television (CCTV)and Access control. The KMC Health Sciences Library, Manipal and KMC Central Library, Mangaluruwere enabled with RFID technology in the year 2018. KMC Health Sciences Library, Manipal; KMCCentral Library, Mangalore and MIT Central Library, Manipal have introduced EZProxy software, enabling the users to access the library's subscribed e-resources from any part of the world (remote access). The libraries provide various research/project support services such as access to Turnitin(plagiarism check), Grammarly (online grammar and spelling checker), author workshops, literature search service and also access to bibliographical and citation tools (Scopus and Web of Science). Other services offered by MAHE libraries include reference service, current awareness service, circulation, photocopying, inter-library loan/document delivery, computer services, book bank facility, access to question paper archive, display of faculty publications, display of new acquisitions, digital repository (eprints), and training in accessing e-resources.

File Description	Documents
Geotagged photographs	https://manipal.edu/content/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-4---infrastructure---learning-resources/integrated-library-management-system.html
Any other relevant information	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria4/qualitative/431/ILMS%20screenshot.pdf

4.3.2 - Number of books and reference volumes as well as collection of ancient books, manuscripts, Digitalized traditional manuscripts, Discipline-specific learning resources from ancient Indian languages, special reports or any other knowledge resource for library enrichment especially with reference to traditional systems of medicines

The fountain of knowledge is one of the most important locations on any university, often observed as the nerve center of academics. This center, which sends ripples across the other parts of the academic institutions, is fondly termed a Library. Manipal Academy of Higher Education (MAHE), Manipal has15 libraries in Manipal, Mangaluru, Bengaluru, and Jamshedpur campuses.

MAHE Libraries are deeply committed to providing physical as well as virtual access to books, journals, online databases, and other materials to the students, faculty members, and researchers. MAHE Libraries have a rich collection of information resources in the area of Medical Sciences, Dental Sciences, NursingSciences, Pharmaceutical Sciences, Health Professions, Life Sciences, Technical/Engineering, Management, Communication, Hospitality Management, Humanities, Geopolitics, Natural Sciences, Library Science, Statistics, Public Health, Social Work and General Subjects.

MAHE libraries have a varied collection of print textbooks, reference volumes/books, ancient books/manuscripts, theses/projects, and reports in diverse fields. The total number of textbooks and reference volumes/books are 44651 and 2363 respectively (five years). The ancient books are 2181 in number. Theses/projects and Reports are 27359 and 1555 in number respectively. CDs, audio-visual materials are 7480 in number.

MAHE libraries provide a growing range of e-resources (online databases, online journals, and e-books) on the campus network and these resources are accessible through well-designed library

portals. KMC HealthSciences Library, Manipal; KMC Central Library, Mangaluru, and MIT Central Library, Manipal have introduced EZProxy / OpenAthens software, thus enabling faculty, students, and research scholars to access the library's subscribed e-resources from any part of the world (remote access). The KMC Health Sciences Library, Manipal, KMC Central Library Mangaluru, and MIT Central Library, Manipal have provided web-Scale Discovery Service' (Single Window Search tool) to find relevant information across all libraries subscribed e-resources, open-access resources, library catalog, and MAHE digital repository using the single search box. These Libraries also provide Computer lab/Internet kiosks with Internet access to its users to access e-resources.

There are 33 online databases subscribed (the year 2020-21) at MAHE Libraries for students, faculty, and research scholars for their teaching/learning/clinical practice/research activities. MAHE libraries also provide access to 17935 online journals and 85211 e-books (the year 2020-21). Further, the total print journals subscribed to are 712 (the year 2020-21). 77351 bound volumes of journals are also available at MAHE libraries.

File Description	Documents
Library acquisition data for the year	https://manipal.edu/content/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-4---infrastructure---learning-resources/4-3-2-statistics-of-resources-available-in-library.html
Any other relevant information	No File Uploaded

4.3.3 - Does the Institution have an e-Library with membership/ subscription for the following e – journals / e-books consortia e - ShodhSindhu Shodhganga SWAYAM Discipline-specific Databases	A. All of the Above

File Description	Documents
Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership etc. (Data Template)	View File
E-copy of subscription letter/membership letter or related document with the mention of year	View File
Any other relevant information	View File

4.3.4 - Annual expenditure for purchase of books and journals (including e-resources) during the year

4.3.4.1 - Annual expenditure for purchase of books and journals during the year (INR in lakhs)

2467

File Description	Documents
Provide consolidated extract of expenditure for purchase of books and journals during the year duly attested by Finance Officer	View File
Audited Statement highlighting the expenditure for purchase of books and journal library resources	View File
Proceedings of Library Committee meetings for the year for allocation of fund and utilization of fund	View File
Details of annual expenditure for purchase of books and journals for the year (Data Template)	View File
Any other relevant information	View File

4.3.5 - E-content resources used by teachers/students Other MOOCs platforms SWAYAM Institutional LMS e-PG-Pathshala Any other Government Initiatives	**B. Any 4 of the Above**

File Description	Documents
Give links or upload document of e-content developed	View File
Supporting documents from the hosting agency for the e-content developed by the teachers	View File
Give links e-content repository used by the teachers / Students	https://manipal.edu/content/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-4---infrastructure---learning-resources/4-3-5-e-content-used-by-teachers-and-students.html
Data Template	View File

4.4 - IT Infrastructure

4.4.1 - Number of classrooms, seminar halls and demonstration rooms linked with internet /Wi-Fi enabled ICT facilities (data for the preceding academic year)

4.4.1.1 - Number of classrooms, seminar halls and demonstration room with ICT facilities

577

File Description	Documents
Number of classrooms, seminar halls and demonstration room with ICT enabled facilities (Data Template)	View File
Description of new facilities added during the preceding academic year	**No File Uploaded**
Consolidated list duly certified by the Head of the institution	View File
Geotagged photographs	View File
Any other relevant information	View File

4.4.2 - Institution frequently updates its computer availability for students and IT facilities including Wi-Fi

Keeping in tune with the evolving technology and needs of the teaching-learning process, a total of 14191computer systems are made available at MAHE. Further, IT related services are constantly upgraded. Six prominent initiatives implemented are listed below:

1. SLcM Software Project implementation

A robust and scalable Student Lifecycle Management ERP system on Microsoft Dynamics Platform is used for managing the student-related processes to deliver and configure core functions such as admissions, academics, evaluation, and student finance. The Student Lifecycle Management (SLcM) system is implemented across institutions and departments and it caters to the following functions:

- Admissions & Registration Process
- Academics Delivery
- Evaluation Process
- Student Finance
- Portal Services for Students, their respective Parents, and Faculty members

2. Lecture Capture Solution implementation in Class Rooms from ImpartusImpartus is a video-based learning platform that helps educational institutes to create and distribute content online. MAHE has implemented the Lecture Capture solution in a total of 84 rooms.

Features of Lecture Capture Solution

- Schedule Based Automated Lecture Recording
- Multi-View Recording – close to the real classroom experience
- Multiple Cameras, Board View, Presentation Screen Capture
- Cloud as well as On-Premise Hosting
- Easy interface for editing of lectures
- Access of recorded lectures through Portal to the students

3. Virtual Class Room Solution

Virtual classroom solution connects four locations:Manipal, Jaipur, Sikkim and Dubai. At Manipal, the facility has been implemented at Sir MV Seminar Hall, Manipal Institute of Technology in2017. It provides video collaboration opportunities to students and faculty members of different campuses.It encourages students to have face-to-face collaboration with their counterparts and share common workspaces. Using this, faculty-to-student interaction happens both ways with AV in real-time. Students can join live classes on the web and online across devices. Further, universities will have a repository of all live sessions.

4. Wi-Fi Project implementation for Students

MAHE has engaged M/s Dvois Broadband Communication Pvt. Ltd to provide Wi-Fi services to students on campus since 2007. Internet Bandwidth provided is 3400 Mbps to MAHE Campus, Manipal, and 1300 Mbps to MAHE, Mangalore Campus. The number of Wi-Fi Access points installed technology Campus, Manipal is 1566, Health Science Campus, Manipal – 1407, and Mangalore campus - 344.

5. IT Security and GDPR Readiness Assessment for MAHE

- IT Security and GDPR Readiness Assessment for MAHE are carried out regularly to ensure the following:
- Review and update the existing IT security policies and processes applicable to MAHE
- Conduct secure configuration review of critical network devices and network architecture review
- of MAHE.
- Perform secure configuration review of servers and databases.
- Perform external penetration testing of all applications listed in the additional information.

6. Digital Transformation Project

The project named S.H.I.F.T. (Sustained, Holistic Impact For Tomorrow) aims at establishing a digital strategy for MAHE based on an understanding of the target stakeholders. It creates a digital transformation roadmap for MAHE. First, it outlines a roadmap for the first year of transformation and then envisions a high-level roadmap for the next four years.

File Description	Documents
Documents relating to updation of IT and Wi-Fi facilities	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-4---infrastructure---learning-resources/4-4-2-IT-updation--WIFI-facilities.html
Any other relevant information	https://assessmentonline.naac.gov.in/storage/app/hei/SSR/102606/4.4.2_1630475317_6453.docx

4.4.3 - Available bandwidth of internet connection in the Institution (Leased line)	A. ?1 GBPS

File Description	Documents
Details of available bandwidth of internet connection in the Institution	View File
Bills for any one month of the last completed academic year indicating internet connection plan, speed and bandwidth	View File
Annual subscription bill / receipt	View File
Any other relevant information	View File

4.4.4 - Facilities for e-content development such as Media centre, audio visual centre, Lecture Capturing System (LCS), etc.

MAHE has made concerted efforts to integrate the best of the ICT-enabled facilities to the teaching learning process. The ICT features are used at diverse levels such as classroom teaching, information sharing and dissemination, and digitizing the learning process.

The campus is Wi-Fi enabled with an internet facility of more than 1 GBPS. Further, MAHE has 577rooms with ICT facilities such as LCD, Wi-Fi, and so on (471 rooms with LCD and Wi-Fi + 22 rooms with smartboard + 84 rooms with audio-video recording facility).

MAHE has introduced a video-based learning platform that enables institutions to capture, edit, and distribute the learning content. A total of 78 rooms are equipped with Lecture Capture System. The platform (Impartus) enables automatic audio-video recording and distribution of classroom lectures. The platform uses the turnkey solution to automatically record classroom experience. The adaptive and secure videos can be consumed live or on-demand from the web and mobile applications. The platform also enables students and faculty members to collaborative learning by sharing content. Enriched with advanced search, analytics, and editing facility, the solution is seamlessly integrated with blackboard, conventional classroom lectures, and other well-known LMSs.

Another important ICT-enabled feature used is the Virtual Classroom. This platform is used to enrich existing programs by extending the class online. Sir MV Seminar Hall, MIT hosts the virtual classroom facilities at Manipal. Using these features, the speaker can live-stream videos, hold real-time interaction with students through video conferencing, live chat, and polls. The facility is used for

live streaming the guest lectures for the benefit of students and faculty members of other campuses. It enables the students to organize special interactions online and attend from a remote location. Using video conferencing solutions, faculty members can interact in real-time with students through live interactions.

The Audio Visual (AV) Department, MAHE offers specialized services to teaching departments in the field of Photography, Video Coverage, and Audio Systems. The department is well-equipped with sophisticated facilities for video recording, voice recording, editing, and the creation of visual materials. Teaching departments, primarily health care institutes at MAHE, utilize the AV department facilities to record clinical experiments and classroom dissemination of ideas. Further, the Sound studio, TV studio, Editing Lab at the Manipal Institute of Communication (MIC) acts as a resource hub for video creations of academic material for all the constituent units. Students get practical training in audio-visual content production in MIC's in-house studios using modern gadgets and equipment such as digital mixers, cameras, lighting equipment, workstations for post-production activities, and vision mixer consoles.

Media Studio at the Manipal Institute of Technology (MIT) provides students with opportunities to excel with their creativity. These Laboratories are equipped with the latest software from Esko Graphics for packaging designing, Xitron Navigator RIP and Technova PoliRIP for prepress technology, IGTPrintability Tester and KPP Flexo proofer for Quality Testing, X-rite devices and software to study color management, Hybrid Flexo cum Gravure Machine and Auto Print offset machines for printing purposes.

File Description	Documents
The e-content development facilities	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria4/qualitative/444/Link%20to%20econtent%20facilities.docx
Geotagged photographs	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-4---infrastructure---learning-resources/4-4-4--e-content-development-facilties.html
Any other relevant information	Nil

4.5 - Maintenance of Campus Infrastructure

4.5.1 - Number of expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the year

47089

File Description	Documents
Audited statements of accounts on maintenance	View File
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Template)	View File
Link to ERP	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria4/quantitative/451/annexure/SOP%20for%20access%20to%20ERP%20(1).docx
Any other relevant information	View File

4.5.2 - There are established systems and processes for maintaining physical and academic support facilities: (laboratory, library, sports facilities, computers, classrooms, etc.)

MAHE has well-established systems and processes for maintaining its physical and academic support activities. Institutional buildings, housing laboratories, and classrooms are under the administrative control of the respective institutions or department heads. If there is any maintenance activity required, the head raises a request to the General Services Department. Annual budget allocation happens every financial year and the budget is operated to provide repair and maintenance upon receipt of such requests. The department of General Services is responsible for the maintenance of all support services including ancillary, civil, electrical, HVAC, telecommunication, transportation, plumbing & water supply. The various departments are guided by the standard operating procedures set in line with the ISO9001, 14001, and 50001 standards.

Routine maintenance activities such as external painting, overhead water tank cleaning, and water dispensing stations are carried out as per schedule. Other services like lifts and air-conditioning are covered under annual maintenance contracts with respective approved service providers. Centrally operated services such as power supply, water supply, wastewater treatment, waste management are directly supervised by the General Services department.

Libraries on campus are fully computerized using Library Management Software. At present all the collections and services of MAHE libraries have been fully automated on the modern lines usingKoha/ EasyLib Library Management Software. The libraries provide a growing range of e-resources(online databases, online journals, and e-books) on the campus network and it is also remotely accessible.

The campus offers adequate indoor and outdoor sports facilities. The indoor sports complexes with an approximate built-up area of 150000 and 74000 Square feet at Manipal and Mangaluru respectively cater to the needs of sports like tennis, shuttle, squash, table tennis, basketball, and other simulated sport including a gymnasium. This is especially useful during the monsoon season. Swimming pools within the sports complex as well as the independent pool cater to the needs of aquatic sports. All these are maintained on daily basis for upkeep as well as smooth functioning. Other outdoor sports facilities include football, tennis, hockey, basketball, athletic tracks, and cricket stadium. Most of these surfaces are turfed and the landscaping team carries out regular maintenance of the same.

State-of-the-art computer labs are established centrally as well as in institutes. The IT team has established a helpline and engages the services of various service providers for attending to all IT-related issues both hardware as well as software including internet connectivity within the campus network.

Audiovisual aids are available in all classrooms and the infrastructure is maintained by the audiovisual department to ensure seamless connectivity during lectures in classrooms both within the campus as well as intra-campus.

The transport department with an in-house fleet of vehicles caters to the mobility requirements. This is also augmented by a fleet of electric vehicles that cater to the airport transfer requirements of staff and students.

Monthly review meetings are conducted by the Director-General Services to ensure smooth resolution of outstanding issues if any. New initiatives are also discussed for implementation in this meeting.

File Description	Documents
Minutes of the meetings of the Maintenance Committee for the year	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-4---infrastructure---learning-resources/4-5-2--system-for-maintaining-physical-and-academic-support.html
Log book or other records regarding maintenance works	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-4---infrastructure---learning-resources/4-5-2--system-for-maintaining-physical-and-academic-support.html
Any other relevant information	https://assessmentonline.naac.gov.in/storage/app/hei/SSR/102606/4.5.2_1633344574_6453.pdf

STUDENT SUPPORT AND PROGRESSION

5.1 - Student Support

5.1.1 - Number of students benefited by scholarships /free-ships / fee-waivers by Government / Non-Governmental agencies / Institution during the year

5.1.1.1 - Number of students benefited by scholarships /freeships / fee-waivers by Government / Non-Governmental agencies / institutions during the year

25073

File Description	Documents
Attested copies of the sanction letters from the sanctioning authorities	View File
Consolidated document in favour of freeships and number of beneficiaries duly signed by the Head of the institution	View File
List of students for the year who received scholarships/ freeships /fee-waivers	View File
Any other relevant information	No File Uploaded

5.1.2 - Institution implements a variety of	A. All of the Above

capability enhancement a n d o t h e r s k i l l s development schemes Soft skills development Language and communication skill development Yoga and wellness Analytical skill development Human value development Personality and professional development Employability skill development

File Description	Documents
Detailed report of the Capacity-enhancement programs and other skills development schemes	View File
List of capability enhancement and skill development schemes (Data Template)	View File
Link to Institutional website	**Nil**
Any other relevant information	**No File Uploaded**

5.1.3 - Number of students benefited by guidance for competitive examinations and career advancement offered by the Institution during the preceding academic year

5.1.3.1 - Number of students benefited by guidance for competitive examinations and career advancement offered by the Institution during the preceding academic year

6702

File Description	Documents
Copy of circular/brochure of such programs	View File
List of students attending each of these schemes signed by competent authority	View File
Program/scheme mentioned in the metric	View File
List of students (Certified by the Head of the Institution) benefited by guidance for competitive examinations and career advancement offered by the Institution during the preceding academic year (Data Template)	View File
Any other relevant information	**No File Uploaded**

5.1.4 - The Institution has an active international student cell

MAHE is known globally and enjoys one of the highest international populations in India. International students are admitted to undergraduate, postgraduate and Super Speciality programs in Health Sciences, Technology, Management, Humanities, Liberal Arts and Social Sciences based on the qualifications recognized by the Association of Indian Universities (AIU), New Delhi. The International Admission Office issues letters to the admitted students for obtaining a Student Visa from the Indian Embassy/Consulate. The department also submits details of admitted foreign/NRI students to the relevant ministries of Ministry of Health & Family Welfare (MOHFW), Ministry of Human Resource Development (MHRD), Ministry of External Affairs (MEA), Government of India (GOI) to obtain the 'No Objection Certificate' (NOC) for the students to pursue their higher education at MAHE. The Department of Student Affairs looks after the day-to-day affairs of the foreign / NRI students. It ensures physical safety and security of international students. The office also facilitates medical and legal assistance in case of emergencies. The Office of International Affairs and Collaborations (OIAC) at MAHE is the University's comprehensive resource for study, research, internship, and other educational experiences worldwide.It provides the necessary expertise various aspects of settling in on the campus and compliance with immigration requirements for all international students, faculty, staff and short-term exchange visitors. Student exchange programs are promoted with all partner universities and research organizations across India and around the world. The OIAC facilitates inbound and outbound mobility allowing the students to experience the academic and cultural bonding at an international university abroad The office also helps the students with their application, accommodation, food, logistics, FRRO(Foreigners Regional Registration Office) registration and any other ancillary services associated with the exchange. The international student associations on campus, International Association for the Exchange of Students for Technical Experience (IAESTE), AIESEC (International Association of Students in Economic and Commercial Sciences) SPIE (International Society for Optics & Photonics) and IPSF (International Pharmaceutical Students' Federation), facilitate paid/volunteered internship opportunities for students. While these student bodies function independently, they report to the OIAC on the developments and activities undertaken.

Manipal Academic Exchange for Student Traineeship and Research Outreach (MAESTRO) is an initiative of the OIAC to promote international student training and research internship. MAESTRO is a

central pool of research projects which will be published in consultation with faculty and consultants. These topics range from a wide gamut of disciplines ranging from physical to health sciences and from literature to fine arts. International Students' Day KAIROS is celebrated on the 2nd Friday of August, where students from different countries get an opportunity to know each other better and enjoy the cultural diversity and exchange pleasantries. Literary events like World Café, Turncoat and others are keenly contested. Summer/Winter schools – Short term immersion programs are organized at various institutions for international students which are tailor-made based on the academic specialisation of the visiting students blended with a cultural touch showing the flavours of Indian traditions, nature, food and community.

File Description	Documents
International students' cell	https://manipal.edu/mu/admission/international-students.html
Any other relevant information	https://manipal.edu/mu/about-us/international-collaboration.html

5.1.5 - The Institution has a transparent mechanism for timely redressal of student grievances / prevention of sexual harassment and prevention of ragging Adoption of guidelines of Regulatory Bodies Presence of the committee and mechanism of receiving student grievances (online/ offline) Periodic meetings of the committee with minutes Record of action taken	A. All of the Above

File Description	Documents
The Institution has a transparent m	View File
Circular/web-link/ committee report justifying the objectives of the metric	https://manipal.edu/mu/campus-life/student-affairs.html
Details of student grievances and action taken (Data Template)	View File
Any other relevant information	No File Uploaded

5.2 - Student Progression

5.2.1 - Number of students qualifying in state/ national/ international level examinations (eg: NET/SLET/GATE/GMAT/ GPAT/CAT/ GRE/TOEFL/ PLAB/ USMLE /Civil services/ Defense/UPSC/State government examinations/ PG-NEET/ AIMSPGET, JIPMER Entrance Test, PGIMER Entrance Test etc.,) during the preceding academic year

301

File Description	Documents
Number of students qualifying in state/ nation	View File
Pass Certificates in the examination	View File
Any other relevant information	**No File Uploaded**

5.2.2 - Number of placement /self-employed professional services of outgoing students during the preceding academic year

5.2.2.1 - Number of outgoing students who got placed / self-employed during the preceding academic year

2315

File Description	Documents
Self-attested list of students placed / self-employed	View File
Details of student placement / self-employment during the preceding academic year (Data Template)	View File
Any other relevant information	**No File Uploaded**

5.2.3 - Number of the graduates in the preceding academic year, who have had progression to higher education

5.2.3.1 - Number of outgoing students progressing to higher education

1209

File Description	Documents
List of students who have progressed to Higher education preceding academic year	View File
Supporting data for students/alumni	View File
Details of student progression to higher education (Data Template)	View File
Any other relevant information	**No File Uploaded**

5.3 - Student Participation and Activities

5.3.1 - Number of awards/medals for outstanding performance in sports/ cultural activities at state/regional/national/international events (award for a team event should be counted as one) during the year

5.3.1.1 - Number of awards/medals for outstanding performance in sports/cultural activities at state/regional /national/international events (award for a team event should be counted as one) during the year

14

File Description	Documents
e-copies of award letters and certificates	View File
List of awards/medals for outstanding performance in sports/cultural activities at national/international events during the year (Data Template)	View File
Any other relevant information	**No File Uploaded**

5.3.2 - Presence of Student Council and its activities for institutional development and student welfare

Student Councils at MAHE The constituent units of MAHE have a well-structured Student Council functioning as a link between the administration and the student community in matters related to academics, extra-curricular activities, and grievance redressal. The student council of the institute is either an elected body or nominated by the administration, or a mix of both. The council representatives are usually elected by the class representatives (e.g. 120 class representatives elect the 30 member board of the student council at MIT, Manipal) and are responsible for the effective functioning of the institute activities. The major

functions of the Student Council are listed as below:

- **Coordinate and carry out the student related activities in the institute (organizing national level Cultural activities, Sports activities, Technical activities)**
- **Manage and support Student Project Activities**
- **Provide academic and mentoring support to students (Student-mentor-student initiative)**
- **Represent student concerns in the right forum**
- **Facilitate communication channels among the students**
- **Represent student grievances and provide peer support (Peer Support Group in emotional distress management)**
- **Coordinate inter-institute, intra-institute and inter-batch cultural, sports and other competitions**
- **Manage and enhance the student club activities (technical clubs: 55; non-technical clubs: 45)**
- **Encourage community service activities.**
- **Represent the student community in the Academic Committee, Hostel Committee, Mess Committee, and in the Placement Office**

File Description	Documents
Student Council activities during the year	https://manipal.edu/wgsha/news-events/student-council-installation-2020---wgsha--mahe.html
Any other relevant information	**Nil**

5.3.3 - Number of sports and cultural activities / events/ competitions organised in the Institution during the year

5.3.3.1 - Number of sports and cultural activities / competitions organised by the Institution during the year

12

File Description	Documents
Report of the events/along with photographs appropriately dated and captioned	View File
Copy of circular/brochure indicating such kind of activities Information as per Data template	View File
Any other relevant information	No File Uploaded

5.4 - Alumni Engagement

5.4.1 - The Alumni Association/Chapter (registered and functional) has contributed significantly to the development of the Institution through financial and other support services during the year

Alumni Relations of Manipal Academy of Higher Education (MAHE) puts in effort to bring all Manipal Alumni of different institutions on one platform to create a global group of Manipalites and build long lasting relations. We, at Alumni Relations are working with Manipal Alumni towards creating opportunities to network, share nostalgic moments, help Alumni to connect and partner in the growth of their Alma Mater, MAHE.

Alumni Relations MAHE aims to have a very strong and engaged group of Manipal Alumni globally. In order to achieve this goal and develop a mutually beneficial relationship between alumni and alma mater; we have a theme to CONNET, INSPIRE & SUPPORT.

Connect: In this era of digitalization, we connect using emails and social network like Facebook and Twitter @Manipalalumni. Alumni Relations has an alumni portal, which records and maintain the alumni data at manipalalumni.manipal.edu. It provides an update of alumni activities and achievements. We have an alumni network of 1.69 Lakhs across MAHE of which 40 thousand alumni have voluntarily registered on our portal.

Inspire: Effective engagement with alumni happens across Institutions as adjunct faculty/visiting faculty/guest faculty. Last year 149 alumni faculty visited the campus and interacted with students for greater educational experience. Over 250 alumni revisited the campus to deliver guest lectures. About 15 Orations as a part of annual lecture series was delivered by notable alumni. 28 home coming events of multiple alumni departments/batches was held across MAHE notably a Silver Re-union and Golden Re-union of 1994 & 1969 batch of KMC respectively were great success.

Support: The Golden Re-union class of 1969 KMC initiated Manipal Alumni Endowment Scholarship Fund. The generous contribution of Mr. Faizal Kottikollon MIT alumnus has led to the establishment of MIT KEF R&D Center at Manipal and Vikas Khanna has been very instrumental in establishing Museum of Culinary Arts. The similar activities happen throughout the year. Over the last 5 years the alumni have

File Description	Documents
Details of Alumni Association activities for the year	View File
Frequency of meetings of Alumni Association with minutes	View File
Quantum of financial contribution for the year	View File
Audited statement of accounts of the Alumni Association for the year	View File

5.4.2 - Provide the areas of contribution by the Alumni Association / chapters during the year Financial / kind Donation of books /Journals/ volumes Students placement Student exchanges Institutional endowments	A. All of the Above

File Description	Documents
Annual audited statements of accounts. Extract of Audited statements of highlighting Alumni Association contribution duly certified by the Finance Officer and Head of the Institutions	View File
List of Alumni contributions made during the year	View File
Certified statement of the contributions by the head of the Institution	View File
Any other relevant information	No File Uploaded

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 - Institutional Vision and Leadership

6.1.1 - The Institution has clearly stated Vision and Mission which are reflected in its academic and administrative governance

Yes. The Institution has a clearly stated vision and mission. They are reflected in its academic and administrative governance as follows:

In line with the vision of the Institution, the 'leadership' is committed towards continual improvement, sustained development, and nurture a culture of quality. The leadership of the ISO certified self-financing, Institution of Eminence, Deemed to be a University in the private sector is guided by the elements of sound judgment, effective communication, and setting standards/ benchmarks in quality education and administration, and desire to excel in stakeholder customer satisfaction. The vision and mission are strategized in 15-year strategies and a five-year rolling implementation plan and monitored continuously with Management Review Meeting IQAC, Academic Council, and Board ofManagement. Management directly interacts with the stakeholders, obtains regular feedback, and takes prompt actions based on feedback analysis.

Feedbacks, suggestions, findings of the Internal audits in the departments---Reports submitted to IMR/Nodel officer—same is presented in Institution IQAC/MRM---Discussed and undecided issues escalated to University IQAC/MRM-- University Action/Decisions (AC and BOM)—IOE

Senior leaders effectively set the strategic direction of accomplishing the organization's objectives through careful top-down, bottom-up alignment of departments, constituent institutes, and key functional areas. This alignment is achieved through the strategic planning process as the prioritized strategic objectives cascade to organizational, departmental, and employee goals. The senior management then reviews the objectives and university goals. It identifies the roles of departments and constituent institutes in achieving those objectives and goals by utilizing their expertise and daily interactions with students, patients, employees, industry and the community. From this information, they propose their individual goals through guided discussions with their respective HoI and HoD. Proposed department and institutions goals are validated and aligned by heads of institutions and heads of departments through discussions with key leaders in their department to enable internal linkage of goals, establish standards of performance for shared goals, and ensure that all university goals have been assigned. The senior leaders ensure that the university

goals and objectives are supported and strengthened by the goals and objectives of constituent units and their departments. The policies of the University are framed in such a way that there is continuous improvement in every aspect. The senior leaders communicate effectively with the faculty and the staff through regular meetings, newsletters and bulletins, University's internet/ intranet and media activities. University has a people-driven HR policy to motivate the employees to strive for excellence. The following are a few of them:

HR Initiatives: People driven HR Policy, Educational assistance, Provision for the conference, workshop, continual education, Provision of laptops, Scholarship for children and spouse, Training and development, International exposure, Educational assistance

Internal audits are the best ways to encourage process-driven planning and execution. The issues that are taken up at MRM/IQAC are finalized and documented. Leaders participate in discussions, both formal and informal, to facilitate decision-making that enhances planning and execution skills. Exit interviews are carried out to sustain an atmosphere congenial to learning and development.

File Description	Documents
Vision and Mission documents approved by the Statutory Bodies	https://manipal.edu/mu/about-us/vision-and-mission.html
Report of achievements which led to Institutional excellence	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria6/qualitative/611/6.1.1%20Achievements%20which%20led%20to%20Institutional%20excellence.pdf
Any other relevant information	View File

6.1.2 - Effective leadership is reflected in various Institutional practices such as decentralization and participative management etc.

Yes. University encourages participatory management by involving the stakeholders at all levels.

Academic administrative decentralization

- Department meetings are held at the departmental level, wherein all faculty members participate. Faculty members are also members of the department Board of Studies.
- Heads of Department (HoD) meetings are held at the institutional level. Department heads are also members of the

institution Board of Studies.

- At the university level, Heads of Institution (HoI) meetings are held, where all the HoIs take part and discuss the management issues.
- HoIs are also members of the Academic Senate, which is entrusted with the primary responsibility of maintaining academic standards.
- HoIs are also members of the Executive committee, and three of the HoIs are also members of the board of Management.
- Academic and Administrative Heads meetings
- Executive committee meetings
- Select senior faculty members are entrusted with additional responsibilities of senior official positions at the University.

University promotes a culture of decentralization and participative management. In addition to the academic council, board of management, finance committee, faculty selection committee, planning and monitoring, executive committee, and IQAC, there are 40 other committees at the university level, which create a participatory ecosystem. The overall administrative activities, operational issues, and the overall control of constituent institutes are under the university leadership for decision-making purposes. Hence, all issues such as planning, strategic development issues, academic issues, administrative issues and financial control are vested with theUniversity, under various and appropriate committees.

However, institutes receive unparalleled support from and constructive, participatory role by the university in all their endeavours to provide a holistic educational experience to their students, to create a benchmark for quality education, and leverage technology in the teaching-learning process. All constituent institutes of the University have functional autonomy to carry on with the academic and administrative activities to ensure that the vision and mission of the University and the institution are achieved.

Financial decentralization

The Head of the department in consultation with faculty members proposes annual capital and operation budget. The proposed budget is discussed with the Head of the Institution. The Head of the institution compiles the budget requirements of all the departments and prepares a consolidated Annual budget for the institution based on the priority of the capital and operation budget items. At the university level, Director Finance consolidates the budget

requirements of all the constituent institutes. Top management along with heads of institutions deliberates on the proposal and the budget is allotted based on the available resources.

This autonomy and participatory administrative support steadily promote innovation in teaching and learning, research and healthcare. The result is evidenced in the student achievements and placement records enhancing MAHE's reputation and global recognition as one of the elite institutions in the education and health care sector.

File Description	Documents
Information / documents in support of the case study	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria6/qualitative/612/Information-documents%20in%20support%20of%20the%20case%20study.pdf
Any other relevant information	Nil

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic plan is effectively deployed

MAHE prepared Fifteen-years Strategic Plan with five-year rolling implementation plans. The Fifteen-year plan is a strategic plan to meet the objectives and characteristics of the Institution of Eminence (IoE), and it contains quantified milestones and timelines for the Institution to achieve world-class repute as laid down in guidelines. It also outlines SWOT analysis indicating its present status in the quality hierarchy and proposed measures to address the shortcomings. The rolling five-year implementation plans contain details and tangible action plans to achieve the objectives laid out in the strategic plan.

The following are the five key pillars for achieving the Institution of Eminence Deemed to be University status:

• Excellence in Education

• Exemplary Research and Innovation

• Expanding Reach and Internationalization

• Effective Engagement and Alumni Relation

- Enabling Foundation

Some of the salient features are: offer education of the highest standards in a congenial environment facilitated by competent academics to every active learner adopting a curriculum accepted nationally and internationally, be an exemplary model in research and innovation creating a balanced ecosystem that enables interdisciplinary research collaboration, secure global recognition as an internationally reputed organization facilitating knowledge and cultural exchanges recognizing the diversity and inclusivity, develop a deepening and sustaining relationship with important stakeholders which is mutually beneficial through industry, alumni and societal interactions, and enable infrastructure for World-class facilities for teaching, research, administration, and student life

Deployment

The strategic plan was shared with all the constituent institutions and they prepared their individual institutional developmental plan in alignment with the university plan. The university strategy plan is monitored by the Directorate of Planning and it is reviewed by the management every six months. It is realigned by the institutional heads and top management every year. MAHE has almost achieved the goals set up to 2021. MAHE continues to be recognized by accrediting agencies like NAAC, I0E, ISO NBA NABH AAHRP, and IFCA

Effective implementation is also seen in the form of improvement in NIRF ranking from18 to 7 by 2021. MAHE also expanded its campuses and courses offered. In a dynamic interdisciplinary environment, students at MAHE have a choice of over 270+ globally recognized and accredited programs from 37 constituent units across 29 disciplines under the faculties of Health Sciences, Technology and Management, and Humanities, Liberal Arts and Social Sciences.

MAHE was India's first private and Deemed to be University to breakthrough into the Top 100 of the QS BRICS and Top 200 of the QS Asia Universities Rankings.

15 YEAR VISION

- In Top 100 of World Overall and Top 50 for Medicine & Pharmacy

- Corpus from INR 7 Billion to 20 Billion • INR 800 Million for Need Blind Scholarships

- **Collaborate with 30 of Top 50 World**

- **Maintain 1:10 FSR**

- **32000+ Students | 3200+ Faculty | 400+ Programmes | 30+ Disciplines | 75% PhD Faculty International Origin Faculty & Students**

- **22000 Research Papers with an Average of 10 Citations Per Paper | 40% Papers with International CoAuthors P**

File Description	Documents
Strategic Plan document	View File
Minutes of the Governing Council/ other relevant bodies for deployment / monitoring of the deliverables during the year	View File
Any other relevant information	View File

6.2.2 - Effectiveness and efficiency of functioning of the Institutional bodies as evidenced by policies, administrative setup, appointment and service rules, procedures etc.

MAHE as an Institute of Eminence Deemed to be University is functioning as per the framework/MOA of UGC with an independent Board of Management (BoM). It has developed a very robust self-governance structure under the guidance of highly qualified and eminent academic leaders. BOM is empowered to function independently without any interference from MAHE Trust.

MAHE has constituted all statutory committees as prescribed by the regulatory authorities both at University and at the Institute levels. Following are the major committees effectively functioning under the University.

- **Academic council**
- **Finance Committee**
- **Executive Committee**
- **Faculty Selection Committee**
- **Internal Quality Assurance Cell**
- **Planning and Monitoring Board**

All the above committees are functioning as per the defined time schedule, and relevant documents are maintained at the University.

The Academic Council is the primary academic body of MAHE. It monitors and manages the standards of teaching, research and training, approval of syllabus, coordination of research activities, and quality of examinations and tests.

The Executive Committee meets on defined intervals and takes decisions on various administrative matters approved by the BoM. MAHE has constituted Faculty Selection Committee (FSC) under the Chairmanship of Vice-Chancellor of the University to recommend eligible and suitable candidates for teaching positions.

The Finance Committee monitors the annual budget, annual accounts and financial estimates of the University. The Faculty Selection Committee also conducts personal interviews of faculty members for their career promotion. MAHE ensures the presence of external/subject experts in the committee for recruitment /promotion of faculty members at the level of Professor. Proceedings of the FSC are maintained in the University. Internal Quality Assurance Committee initiates, plans and monitors the quality of various academic activities. The planning and monitoring committee of MAHE monitors the development of various academic programs under the University. Apart from this MAHE also has other important committees such as the Grievance Committee, Anti-ragging cell, Internal Complaints Committee for prevention of Sexual Harassment. Various other committees are also functioning at the institution level.

MAHE has developed a feedback system to understand the performance of its functional departments and various services extended to its internal stakeholders.

MAHE has well-defined Service Rules governing the terms of employment of its teaching and non-teaching staff. Service rules are aligned with the applicable statutes of the country. Copy of service rule is annexed.

MAHE recruitment policy strictly adheres to the principle of non-discrimination based on gender, caste, colour, religion, language, disability, gender identity. MAHE attracts the best talent through effective and fair recruitment and selection practices that are consistent and aligned with its primary goals of teaching and research.

File Description	Documents
Annual Report of the preceding academic year	https://manipal.edu/content/dam/manipal/mu/documents/mahe/MU%20Annual%20Report/MAHE%20Annual%20Report%202020.pdf
Minutes of meetings of various Bodies and Committees for the preceding academic year	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-6---governance---leadership---management/qualitative-metrics/6-2/6-2-2.html
Any other relevant information	**Nil**

6.2.3 - The University has implemented e-governance in the following areas of operation Planning and Development Administration (including Hospital Administration & Medical Records) Finance and Accounts Student Admission and Support Examination	**A. All of the Above**

File Description	Documents
Institutional budget statements allocated for the heads of E-governance implementation ERP Document for the year	View File
e-Governance related document	View File
Screen shots of user interfaces	View File
Any other relevant information	View File

6.3 - Faculty and Staff Empowerment Strategies

6.3.1 - The Institution has effective welfare measures for teaching and non-teaching staff and other beneficiaries.

MAHE offers a wide range of welfare measures to its employees, realizing that the well-being of teaching and non-teaching staff is important for the effective functioning of the institution. It also practices various faculty empowerment strategies to upgrade the professional competencies of its faculty members.

Summary of welfare practices are detailed below:

- **Statutory benefits: Provident Fund, Gratuity & ESI scheme -**

Fully complied as per the respective enactments.

- **Pension Scheme:** MAHE has introduced National Pension System (NPS), covering all the teaching and non-teaching staff on the rolls with effect from April 01, 2016. MAHE contributes 10% basic pay of every employee to the NPS fund.
- **Medical Coverage:** MAHE has covered its teaching and non-teaching staff with a medical insurance scheme (Medicare) for 3 lakhs and 1.5 lakhs per annum respectively. Premium towards this Medical insurance is being shared between MAHE and employees in the ratio 70:30 for non-teaching staff and 50:50 for the teaching staff.
- **Life Insurance & Permanent Disability Coverage:** The employees are covered under the Group Term Life Insurance Scheme with the coverage for life and permanent disability with Rs.50 Lakhs and Rs. 10 Lakhs for teaching and non-teaching staff respectively. Management contributes 80% of the premium for non-teaching staff and 50% in the case of teaching staff.
- **School Fees Reimbursement:** Provides reimbursement of children's educational expenses up from nursery to standard XII for two children with a top ceiling of Rs. 10,000/- per child / annum.
- **Scholarship to children/spouse for higher education:** MAHE provides a scholarship to children/spouse of employees for pursuing professional courses under the University. The scholarship is linked to the annual income of both parents.
- **Conference Facilities:** Faculty members are entitled to Rs. 50,000 per year as financial support to attend conferences/workshops. It can also be used for reimbursement of publication charges/fees for patents.
- **Incentives for Research & Publication:** Provides cash incentives/sponsorships to the conference under the scheme based on the points earned by the faculty members for their research publications.
- **Research incentives:** Provides incentives for research grants and consultancies with a top ceiling of Rs. 15 Lakhs per year.
- **Subscription to Professional Societies:** All the faculty members are eligible for reimbursement of subscription fees to professional society with a ceiling of 7,500/- per annum.
- **Dr. TMA Pai Endowment Chairs:** MAHE has constituted 20 endowment chairs of Rs.10 Lakh each per year to exemplary researchers.
- **Interest subsidy on utility/housing loan:** Provides for 4% interest subsidy on utility/housing loans.
- **Leave Travel Concession:** Middle and senior-level faculty members are covered under this scheme.
- **Institutional accommodation:** MAHE provides accommodation to

the staff based on availability.
- Laptops: Every faculty member is provided with a laptop for academic purposes.
- Sodexo vouchers: Provisions available for Sodexo meal/gift vouchers for faculty members and non-teaching staff
- Recreation facility: Faculty members have access to MARENA World-class indoor sports facility and membership to the Valley club.

File Description	Documents
Policy document on welfare measures	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria6/qualitative/631/Policy%20document%20%20on%20Welfare%20Measures.pdf
List of beneficiaries of welfare measures	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria6/qualitative/631/list%20of%20beneficiaries%20of%20welfare%20measures.pdf
Any other relevant information	Nil

6.3.2 - Number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

2036

File Description	Documents
Details of teachers provided with financial support to attend conferences, workshops etc. during the year (Data Template)	View File
List of teachers provided membership fee for professional bodies during the year	View File
Policy document on providing financial support to teachers	View File
E-copy of letter/s indicating financial assistance to teachers and list of teachers receiving financial support under each head	View File
Audited statement of account highlighting the financial support to teachers to attend conferences/workshops and towards membership fee for professional bodies during the year	View File
Any other relevant information	No File Uploaded

6.3.3 - Number of professional development / administrative training programmes organized by the University for teaching and non- teaching/technical staff during the year (Continuing education programmes, entrepreneurship development programmes, Professional skill development programmes, Training programmes for administrative staff etc.,)

453

File Description	Documents
List of professional develoment / administrative training programmes organized by the University for the year	View File
The lists of participants who attended the above programmes during the year (Data template)	View File
Detailed program report for each program	View File
Reports of the Human Resource Development Centres (UGC ASC or other relevant centres).	View File
Reports of Academic Staff College or similar centres. Verification of schedules of training programs	View File
Copy of circular/ brochure/report of training program self-conducted program may also be considered	View File
Any other relevant information	**No File Uploaded**

6.3.4 - Number of teachers who have undergone Faculty Development Programmes (FDP) including online programmes (Orientation / Induction Programmes, Refresher Course, Short Term Course etc.) during the preceding academic year

2653

File Description	Documents
Details of teachers who attended FDPs during the preceding academic year (as per Data Template)	View File
Details of teachers who attended FDPs during the preceding academic year (as per Data Template)	View File
E-copies of the certificates of the programs attended by teacher Any other relevant information	View File

6.3.5 - Institution has Performance Appraisal System for teaching and non-teaching staff

MAHE recognises the value of its employees and understands that the quality of University services depends upon employees. MAHE has a well-defined performance management policy applicable to its faculty members. MAHE has upgraded its Performance Management System (PMS) from the paper format to Online mode through internally developed software. Based on the assessment scores, faculty members are graded as 'A+++', 'A++', 'A+' and 'A' through relative ranking in the ratio of 30:30:30:10 respectively. Performance Incentives at approved rates are sanctioned based on the grades obtained by the faculty members. The faculty members with grades 'A' are not eligible for performance incentives for that particular year. The annual appraisal process begins with self-appraisal followed by assessment by respective Heads of the Departments. Further, the assessment report is reviewed by the Head of the Institution who recommends the appropriate performance grades and submits the report to MAHE. Annual appraisal reports thus received are reviewed by a committee chaired by the Vice-Chancellor for final approval. Student feedback on faculty is conducted at the Institute level, which is also a part of the PMS process. Faculty members are assessed every calendar year i.e, from January to December. Performance incentives based on the above assessments are sanctioned from the month of April every year. PMS reports and grades are essential parts while considering faculty members for promotion to the next level and also while considering for leadership positions such as Heads of the Departments and so on. The non-teaching staff are assessed through a uniform assessment format annually. They are assessed on various parameters which are critical for the functioning of the departments/institution. PMS reports of non-teaching staff are also being used to identify the training need areas.

File Description	Documents
Performance Appraisal policy of the Institution	View File
Report on the analysis of the Performance Appraisal for the teaching and non-teaching staff for the year as submitted to the Board of Management/ University Senate etc.	View File
Any other relavent information	No File Uploaded

6.4 - Financial Management and Resource Mobilization

6.4.1 - Institutional strategies for mobilisation of funds and the optimal utilization of resources

Policy on Financial Resource Mobilization

Manipal Academy of Higher Education (MAHE), being a self-financed Deemed to be University, mobilizes its financial resources through the following sources:

1. Tuition Fees
2. Research Grants
3. Consultancy Services
4. Services – Hospital, Diagnostic etc.
5. Donations – Alumni & Philanthropists
6. Endowments
7. Hostel fees
8. Interest and dividend
9. Miscellaneous sources

Sources of Revenue

1. Tuition Fees: MAHE is a self-financing university. The tuition fee is the primary source of income for the University. A fee fixation committee, headed by a retired High Court judge, decides the fee structure for a block period of three years. Accordingly, the fee is fixed for each batch of students at the time of their admission and it is communicated to the students. It is also displayed in the university website.
2. Research Grants: A research grant refers to a sum of money given to a researcher for meeting the expenses involved in the research project (a grant that funds research). MAHE encourages its faculty members to submit proposals for research grants to various funding agencies both within the country and outside. It also encourages collaborative research activities. MAHE provides incentives to the researchers as per the Research incentive policy of MAHE.
3. Consultancy Services: Consulting Servicesrefer to services of an advisory and/or intellectual nature provided by consultants using their professional skills to study, design, organize, and manage projects encompassing multiple activities and disciplines. MAHE motivates its faculty to render consultancy work.
4. Hospital and Diagnostic Services – These services facilitatethe provision of timely, cost-effective, and high-quality diagnostic carein safe and secure environments. It includes the clinical services of Pathology and Laboratory Medicine, Radiology, Nuclear Medicine etc.

5. **Donations – Alumni & Philanthropists:** It refers to the voluntary contributions from alumni and philanthropists to partially fund the augmentation of infrastructure and/or provide scholarships to the students. MAHE approaches the philanthropists and alumni for donations / Institute awards, scholarships, etc.
6. **Endowments:** Endowment funds received towards the establishment of centres of excellence, chair, grants and awards.
7. **Hostel Fees:** MAHE provides its students with the excellent option of boarding and lodging in its on-campus hostels.
8. **Interest and Dividend**
9. **Miscellaneous sources:** MAHE organizes workshops/training, plenaries with industry or corporate sponsorships and delegate fees. The following chart shows the financial resource mobilization under each heading in a financial year:

Approximate percentage income under each heading in a financial year:

Tuition and Other Fees, 64.61

Hospital Income, 19.48

Hostel Income, 3

Interest and Dividend, 2.53

Grant and Donations, 0.11

Research Income, 0.88

Consultancy Services, 0.01

Fees based Services/Training, 0.01

Workshop/Training, 0.02

Allocation of funds

The Head of the Department in consultation with faculty members proposes annual capital and operation budget. The proposed budget is discussed with the Head of the Institution. The Head of the Institution compiles the budget requirements of all the departments and prepares a consolidated annual budget for the institution based on the priority of the capital and operation budget items. At the University level, Director Finance consolidates the budget

requirements of all the constituent units. Top management along with Heads of Institutions deliberates on the proposal and the budget is allotted based on the available resources.

File Description	Documents
Resource mobilization policy document duly approved by BoM / Syndicate / Governing Council	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-6---governance---leadership---management/qualitative-metrics/6-4/6-4-1.html
Procedures followed for optimal resource utilization	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-6---governance---leadership---management/qualitative-metrics/6-4/6-4-1.html
Any other relevant information	Nil

6.4.2 - Funds / Grants received from Government / Non-Government bodies / philanthropists during the years (excluding scholarships and research grants covered under Criterion III)

File Description	Documents
Audited statements of accounts for the year	View File
Copy of letter indicating the grants/funds received by respective agency as stated in the metric	View File
Provide the budget extract of audited statement towards Grants received from Non-Government bodies, individuals, philanthropist duly certified by chartered accountant and/or Finance Officer	View File
Information as per Data template	View File
Any other relevant information	No File Uploaded

6.4.3 - Institution conducts internal and external financial audits regularly

The Audit at MAHE is being carried out by external agencies who are appointed by the Finance committee.

The audit is by way of:

- Internal Audit.
- Statutory Audit

The Internal Audit for the last four financial years has been entrusted to an external agency. They carry out the audit for each quarter of the year. They are mainly into transactional audit, which is carried out on a test basis. They also look into the physical verification of stocks, cash verification at the institutional level. They look into the internal controls of the financial system. They highlight the deficiency in the system, if any, and advise the Management for remedial measures.

The Statutory Audit is carried out annually. In order to reduce the burden at the end of the financial year, the external audit team visits MAHE at the end of six months, i.e., September and carries out the half-yearly audit. Subsequently, the Final audit is carried out in the month of June /July.

The financials are prepared according to the prevailing laws. They are then approved by the Finance committee.

Along with the above two Audits, MAHE also has the following:

- Audit of its PF Trusts and Gratuity trust
- ISO Audit
- Audit of the Research Grants
- Audit of the conference and workshop conducted

There are no major observations from the external auditors or internal Auditors to date.

File Description	Documents
Policy on internal and external audit mechanisms	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-6---governance---leadership---management/qualitative-metrics/6-4/6-4-3.html
Financial Audit reports for the years	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-6---governance---leadership---management/qualitative-metrics/6-4/6-4-3.html
Any other relevant information	Nil

6.5 - Internal Quality Assurance System

6.5.1 - Instituion has a streamlined Internal Quality Assurance Mechanism

MAHE is well known for its quality education and health care. It obtained ISO certification 18 years ago and voluntary NAAC accreditation in 2004. Following is the Quality assurance mechanism at the institution:

MAHE has a central Internal Quality Assurance Cell (IQAC) with representation from various institutional and functional departments as members along with external stakeholders. Each institution has institutional IQAC.

MAHE participates in accreditation like ISO, NBA, NABH, NABL AAHRP. The IQAC meets on regualr basis and approves the anual quality assurance reports to be submitted to NAAC.

The compilation, validation, and submission of data for participating in all the rankings of the institution are done by the IQAC. Following are some of the important rankings the institution

participates every year:

Team of auditors

The quality Assurance team comprises around 350 members, which includes nodal officers and internal auditors from various constituent units. MAHE continuously develops and upgrades the skills of the team members through auditory training, refresher courses and participation in cross audits.

Training / Workshops:

- GUIDE BY SIDE session by the internal team on introduction to risk management relevant to ISO 9001-2015 for the HoDs of MIT Manipal
- An Interactive Session on "Academic Reputation and World University rankings" was held by Dr. Karthick Sridhar, M/s ICARE Chennai, for the HoDs of Manipal Campus
- Analysis of NIRF ranking 2018 of Health sciences disciplines was presented at the MAHE Health Sciences Council meeting by the Quality team.
- GUIDE BY SIDE session by the internal team on introduction to risk management relevant to ISO 9001-2015 for the HoDs and Internal auditors of MCHP Manipal
- Half-a-day session on NIRF ranking Awareness was conducted to the HoDs of MCODS Mangalore by the Quality team.
- Half-a-day session on analysis of NIRF Ranking on MEDICAL discipline with specific insights to KMC Mangalore was conducted to HoDs of KMC Mangalore
- An orientation workshop on Preparation for NAAC Re-accreditation w.r.t. new methodology was conducted by Mr. Syed Mujahid, M/s ICARE Chennai for the MAHE Quality team and some of the institution Nodal officers.
- Two batches of the Orientation program for Heads of Departments of Manipal Campus on "Academic Reputation and World University rankings, Institution of Eminence and National Institute Ranking Framework" by Dr. Karthick Sridhar, Vice Chairman, M/s ICARE Chennai
- Orientation on "NIRF / Subject Rankings – way forward" for the Director, Joint Director, Associate Directors, QMR & Dy. QMR of MIT by Dr. Karthick Sridhar & team, M/s. ICARE Chennai.
- Orientation program for Heads of Departments of Mangalore Campus on "Academic Reputation and World University rankings, Institution of Eminence and National Institute Ranking framework" by Dr. Karthick Sridhar, Vice Chairman, M/s ICARE Chennai

- One-day workshop on Assessment and Accreditation Process of National Assessment and Accreditation Council was organized by Mr. Syed Mujahid, M/S ICARE Chennai for the NAAC Action team consisting of 41 members, who would compile and collate information for preparing NAAC Self Study Report for Reaccreditation.
- The Performance Masterclass – A workshop was conducted by Dr. Nickie Hosreman, Mr. Kenneth Sim and Mr. Ritin Malhotra from Times Higher Education.
- Review of NAAC SSR compiled by NAAC Action team (Mr. Syed Mujahid, ICARE)
- To meet the requirements of various accreditation bodies, Outcome Based Education (OBE) needs to be implemented for all the programmes offered by the University. To align the courses using OBE concepts, initially a workshop on "Outcome-based Education" was arranged for all the Heads of Institutions and Heads of MAHE Teaching Departments
- Four Workshops on Outcome Based Education was organized to orient Academic Coordinators / Nodal Officers about the OBE, which needs to be implemented at all institution/departments to comply with various accreditation requirement.
- Inpods services are being initiated for implementation of OBE in all colleges and CBME at Medical colleges.
- MAHE is ISO certified for QMS (9001:2015), EMS (!4001:2015) and EnMS (50001:2011) by M/s TUV Rheinland Co. Bengaluru. As part of this certification, two internal audits are thoroughly conducted every year by in-house trained and certified auditors. These audits cover all the functions of the University and its constituent units, including Academics / Curriculum design / Teaching Learning & Evaluation. Further, a separate external audit is conducted yearly by experts from our certifying agency, which also covers Academics / Curriculum design / Teaching Learning & Evaluation.

File Description	Documents
The structure and mechanism for Internal Quality Assurance	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-6---governance---leadership---management/qualitative-metrics/6-5/6-5-1.html
Report on the quality sustenance/enhancement initiatives of the IQAC during the year	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-6---governance---leadership---management/qualitative-metrics/6-5/6-5-1.html
Minutes of the IQAC meetings for the year	https://manipal.edu/mu/about-us/naac/iqac-mahe/iqac-minutes.html
Any other relevant information	Nil

6.5.2 - Quality assurance initiatives of the Institution include: Academic and Administrative Audit (AAA) and initiation of follow-up action Conferences, Seminars, Workshops on quality Collaborative quality initiatives with other Institution(s) Orientation programmes on quality issues for teachers and students Participation in NIRF process Any other quality audit by recognized State, National or International agencies (ISO, NABH, NABL Certification, NBA, any other)	A. All of the Above

File Description	Documents
Report /certificate of the Quality Assurance Initiatives as claimed by the Institutions eg: NBA, ISO, NABH, NABL, AAA etc.,	View File
Data template including documents/certificates relating to options 1 to 6 above	View File
Any other relevant information	View File

6.5.3 - Impact analysis of the various initiatives carried out and used for quality improvement during the year

QA Initiatives

- Curriculum Design and Development
- Academic Flexibility
- Feedback System
- Student Enrolment and Profile
- Teacher Quality
- Student Performance and Learning Outcomes.
- Promotion of Research
- Resource Mobilization for Research
- Research Publications and Awards
- Consultancy
- Collaboration
- Student Mentoring and Support
- Faculty Empowerment Strategies
- Over 2000 outreach and extension activities in collaborations with government, industry and
- NGO's.

Impact of the initiatives

- 8 new interdisciplinary programs have been approved for 2021 so far(Total 54 programs in the last five years) CBCS is implemented in 93.36% of the programmes
- Audit option available in 47 programs across 3 institutions/departments
- Continues feed back from stakeholders are taken and integrated with the delivery system.
- Faculty percentage with Terminal degrees have improved to 29.34% faculties with PhD and 64.74% faculties with Terminal degrees.
- 65% of students are from outside state and 6% are international students
- Outcome Based Education is documented in all the constituent units . Attainment of Student
- Learning Outcomes is being monitored .
- Over 25 thousand [Actual is 27313] students were actively engaged in learning through MOOCs
- Average % of students qualifying in these exams during last five years have improved to 89.48% .
- Average Seed Funding of 146.15 lakhs INR is provided to faculty each year (last 5 years)
- Out of 128 grant proposal submitted during the period 71 proposal are interdisciplinary in nature.
- 21 % of the publication published during the calendar year

2020 is interdisciplinary,27% of publications with international collaborations

- 221 faculties are currently in the editorial board of national and international journals.
- In year 2020: 2774 publication in Scopus with 34% of which in Q1.
- Revenue generated from advisory/R&D /Consultancy projects including clinical trials during the last five years is 12708 Lakhs INR.
- Crisis management teams under the offices of Student Welfare ensures timely response for any student related emergencies.62093 students have benefited from various scholarships and fee waivers in the last 5 years. (About 50%)
- MAHE in its journey to meet the objectives of IoE. These have led to better realization of goals.
- MAHE ranked 7th in the Univerity category in NIRF ranking and 751-800 in QS world ranking,
- Pharmacy 151-300 and Medicine 351-400 in QS Subject Ranking
- Teaching Hospitals are accrediated with NABH and NABL
- Last five years, more than 12000 students are participated in community health services

File Description	Documents
Relevant documents/information on the process and results of impact analysis on the above aspects	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-6---governance---leadership---management/qualitative-metrics/6-5/6-5-3.html
Any other relevant information	View File

INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the institution for the promotion of gender equity during the year

Manipal Academy of Higher Education is constantly striving to maintain international standards of excellence, certainly in academic output, but equally in the holistic emotional, mental, and physical well-being of its students, employees and all its stakeholders. MAHE is committed to creating a healthy environment that enables students and faculty to learn and work without any fear of prejudice, gender bias and gender discrimination. Since its inception, MAHE continues to remain committed to fostering an inclusive environment and to creating a fair and equitable space for all staff and students irrespective of their gender. This is

reflected in the fact that woman leadership heads various constituent institutes of MAHE. Gender balanced leadership means a greater diversity of thought and better decision-making leading to higher employee satisfaction. An overview of gender equity and sensitization initiatives, offered to students, faculty, and staff of MAHE, are presented below: • The Director Student affairs is the nodal contact for all student grievances. The Student Support Centre (SSC) established offers practical and constructive support to students in adjusting to a new environment as well as social or personal challenges that are specific to their age group and circumstances. SSC has set up a Student Advisory Board comprising of student leaders from all institutes and both genders, that organize awareness campaigns and outreach sessions across institutes. • The student handbook provided to all the students during the Orientation Day of the respective institutes contains the telephone numbers of the Director of Student Affairs and University Patrol Vehicles to ensure the safety and security students. • Policy on Prevention, Prohibition, and Redressal of Sexual Harassment at Workplace is constituted by MAHE. There is a robust and fair mechanism to address sexual harassment complaints received from students and staff. • Centre for Women's Studies, established in 2016 organizes an array of events like talks and conferences that revolve around gender equity. • International Women's Day is celebrated annually by the University to celebrate the spirit of womanhood. This committee organizes programs at regular intervals on various topics like health and mental well-being, entrepreneurship, and financial well-being of women. • The Students Council at every institute has a balanced representation of both male and female students, and both are equally responsible for planning, coordination, execution, and reviewing all student activities. • Deliberating the benefit of students as also keeping in mind the general safety and security of students, each of the institutes has several internal committees viz. anti-ragging committee, grievance committee, sexual harassment committee, inquiry committee, and SC/ST & OBC Committee for the overall well-being of the students. • Hostel accommodations are provided separately for boys and girls with several functional CCTV cameras positioned across the premises. Entry into each hostel is restricted only to the students of with access combo-cards. A faculty from the institution is appointed as the warden of the female hostel where the nursing students reside. The disciplinary committee is functional headed by Chief Warden ,Dean and student representative for disciplinary measures of the hostel.

File Description	Documents
Annual gender sensitization action plan	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria7/711/Gendersensplan_2020.pdf
Specific facilities provided for women in terms of: a. Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria7/711/Facilities.pdf

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation measures Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/ power efficient equipment	B. Any 4 of the Above

File Description	Documents
Geotagged Photographs	[View File](#)
Any other relevant information	[View File](#)
Data template in prescribed format	[View File](#)

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 100 - 200 words)

Manipal Academy of Higher Education, Manipal is an ISO 9001, 14001 & 50001 certified campus, following a series of voluntary ISO standards on Quality, Environmental & Energy Management Systems. The Environment and Energy Policy is our guiding document that enables the University to achieve continual improvement over time. Focus areas on campus include Institutional buildings, hostels, residences, hospital and other support services. Solid waste management: Domestic Waste is segregated into recyclables, food is used in farms and vegetable waste is composted. Biomedical waste is generated in the hospital and nursing facilities within the campus and is handled as per the Biomedical Waste Rules. Hazardous waste, the major component in this category is generated is disposed to Authorized recyclers. E-waste including desktop computers and accessories, compact fluorescent lights, printer cartridges are collected through separate waste streams and disposed to Authorized recyclers Waste water management: Three sewage plants set up and

maintained by the University treat the waste water generated in the campus. These have a combined capacity to treat 6,500 cubic meters per day. Treated water from these plants are fully utilized for gardening and arboriculture. In addition grey water treatment plant of 400 cubic meters per day capacity, treats grey water from the treatment plant which is re-circulated to the flush system in few hostel blocks. Rainwater harvesting: MAHE harvests rainwater in two ways: From rooftops of buildings; then using it for domestic purposes after proper filtering. By diverting storm water to abandoned bore wells and creation of artificial water body to rejuvenate and improve the water table. Air quality monitoring: MAHE ensures the emissions from diesel generators are tested at regular intervals to ensure conformity to environmental limits. To control vehicle emissions on our campus fleet, an Emission Testing Centre has been established. Energy conservation: Energy conservation concept is applied in the planning and developing of all our campus facilities. We are also increasing our energy procurement mix with an increase in renewable sources like solar energy. Solar Water heaters & PV Systems: Solar powered heaters are exclusively used for heating requirements. Currently, the total installed capacity of solar heaters is four lakh liters per day thus reducing conventional energy use for heating. Green Transportation: Transportation of faculty and staff to and from airports and campuses is now being done by electric vehicles. MAHE has engaged the services of third party for provision of five electric cars which augments the current existing fleet of vehicles and helps reduce carbon foot print due to transportation. Campus patrolling is done using EVs. Exam Pads: MAHE now conducts the examinations by using e-pads which has significantly reduced paper consumption effectively preventing trees from being felled. The above measures have resulted in substantially reduced carbon emissions. Introduction of e-pads for student examinations has helped achieve a carbon emission reduction along with self-generation & green energy procurement at main campus.

File Description	Documents
Relevant documents like agreements/MoUs with Government and other approved agencies	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria7/713/Evidence2.pdf
Geotagged photographs of the facilities	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-7.html
Any other relevant information	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-7.html

7.1.4 - Water conservation facilities available in the Institution Rainwater harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus

A. Any 4 or All of the above

File Description	Documents
Geotagged photographs / videos of the facilities	View File
Any other relevant information	View File

7.1.5 - Green campus initiatives include: Restricted entry of automobiles Battery-powered vehicles Pedestrian-friendly pathways Ban on the use of Plastics Landscaping with trees and plants

A. All of the Above

File Description	Documents
Geotagged photos / videos of the facilities	View File
Relevant documents / reports	View File
Any other relevant documents	No File Uploaded
Data template in prescribed format	View File

7.1.6 - Quality audits on environment and energy regularly undertaken by the Institution and any awards received for such green

A. All of the Above

campus initiatives: Green audit Energy audit Environment audit Clean and green campus recognitions / awards Beyond the campus environmental promotion activities Any awards received for green campus initiatives

File Description	Documents
Audit reports of the institution related to the metric Data template	View File
Any other relevant information	View File

7.1.7 - The Institution has Divyangjan friendly, barrier-free environment Built environment with ramps/lifts for easy access to classrooms. Divyangjan friendly washrooms Signage including tactile path, lights, display boards and signposts Assistive technology and facilities for Divyangjan to access NAAC for Quality and Excellence in Higher Education AQAR format for Health Sciences Universities Page 68 website, screen-reading software, mechanized equipment Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading material, screen reading

A. All of the Above

File Description	Documents
Geotagged photographs / videos of the facilities	View File
Relevant documents / reports	View File
Any other relevant information	**No File Uploaded**
Data Template	View File

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 200 words).

Manipal Academy of Higher Education (MAHE) believes in providing an inclusive environment that promotes students' all-around personality development. MAHE also committed to upholding harmony towards cultural, regional, linguistic, socioeconomic, and other diversities among students, faculty, and staff. MAHE's constituent units

encourage students to participate in community services and activities to uphold the sense of civic responsibilities. The students actively participate in Voluntary Service Organization (VSO) activities, a social unit of MAHE, initiated to provide an opportunity for students to serve society. VSO undertakes projects which cover community, organizational, and soft skills avenues. Projects are also planned in collaboration with the clubs/organizations of the constituent colleges of MAHE and executed with MAHE support. VSO organizes activities at school for special children, pediatric cancer block, every month birth celebrations at orphanages, health camps for underprivileged people, blood donation camps, collection drives (clothes, stationery, toys), theatre & drama workshops for children, SPARSH and annual fundraising cultural show. Staff and students also participate in week long donation drive, week-long, by participating in various community projects aimed at spreading smiles by touching others' lives in Manipal, Udupi, and Mangalore. The students participate in outreach programs organized by their respective departments and student councils. The outreach programs allow the students to understand the different perspectives of social issues prevailing in the community. Some of the activities organized as outreach programs are: role play, sociodrama, street play, eye camps, diabetes camps, and blood donation camps. The different institutes under MAHE also observe days of national and international health importance such as World tuberculosis day, World suicide prevention day, World health day, No tobacco day, International Women's Day, World breastfeeding week, World mental health day, World heart day, World diabetes day, World Alzheimer's Day, etc. To create a sense of civic responsibilities among students, they are encouraged to participate in the different national days observed such as Independence Day, Republic Day, Sadbhavana Divas, Armed Forces Flag Day, National unity day/Rashtriya Ekta Divas, Matrbhasha Diwas, Observance of Vigilance Awareness Week, Anti-Terrorism Day, Swachatha Hi Sewa, and National Youth Day. "Utsav," a cultural extravaganza organized every year by the cultural coordination committee of MAHE, gives a holistic approach to professional higher education. The cultural activities are aimed to orient the students towards standards of equality, justice, and humanist culture. Some of the areas the students get exposed through this committee are: Local theatrical arts, Literature, music, painting, cinema, and other fine arts, History and philosophy of science, Cultural responses to globalization, Ecology, and environment, Culture, religion and philosophy, Functional knowledge of local and foreign languages. Beyond these cultural activities, the constituent institutions also celebrate festivals like Ganesha Pooja, Sharada Pooja, Deepavali, Navarathri, Holy, Christmas, Onam, etc.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria7/718/7.1.8.pdf
Any other relevant information	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria7/718/7.1.8.pdf

7.1.9 - Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

MAHE undertakes different initiatives each year, by organizing various activities to sensitize students and employees alike to our constitutional obligation: Values, Rights, Duties and responsibilities of the citizens. On 26th Jan, MAHE organized the Republic Day every year. MAHE actively celebrates Independence every year. Every institution is represented by a contingent of students at the Independence day parades who marches and offer their respect to the national flag. The best contingents were awarded. MAHE commemorated 'national unity day'/ Ekta Diwas on 31 Oct to foster and enforce our dedication and to preserve our unity, integrity and security. A pledge taking ceremony named "Rashrtiya Ekta Diwas pledge" was conducted by staff and students to defeat threats to unity and security of India. MAHE also celebrated the 'International Mother Language Day' on 24th February to promote mother tongues and increase awareness of the linguistic and cultural traditions. The idea behind such a day was to inspire solidarity based on understanding, tolerance, cultural traditions and also create a complete awareness of Indian languages. An elocution competition, related to 'Patriotism' was also organized. MAHE takes pride in engaging and educating the community at large about their democratic rights and responsibilities. The Electoral literacy club and voters' awareness forum are created to literate the students and the general public about the Democracy. A voters' pledge programme was organized. MAHE also celebrated the 'Swachatha Hi Sewa' campaign between Sept 14th - Oct 2nd . MAHE celebrated the Constitution Day/ Samvidhan Divas on 26th Nov. It was also insisted that every student should inculcate fraternity, equality and justice among them and reminded the social responsibilities as citizens of the greatest country and also enthused them to oblige the constitutional laws in every walk and step of their lives and strive for the betterment of the society. Youth Day, constitution day, and vigilance awareness

weeks were also held for students. The various events held during these days include pledge taking, debate, poem recitation, collage, role play, essay writing competition among the various groups of students. Special Lectures on Human Rights were also organized. The topics emphasize on six rights Right to Equality, Right to Freedom, Right against Exploitation, Right to Freedom of Religion, Cultural and Educational Rights, and Right to Constitutional Remedies.Apart from this in order to inculcate environmental consciousness among students a practical event led by Artists Surendran, Srinath and Ravi have guided students on the detailing and importance of simplicity in Diya making. The workshop was planned in a manner that only environment friendly materials were used. Student Empowerment for Environmental Development (SEED) constituted under Centre for Hospitality and Tourism Research (CHTR), WGSHA, Manipal Academy of Higher Education conducted the programme to inculcate sustainable approach in products and processes. Students have made more than 250 diyas in the workshop. These diyas will be used for Diwali celebrations at the WGSHA hostels.

File Description	Documents
Details of activities that inculcate values necessary to render students to be responsible citizens	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria7/719/7.1.9.pdf
Any other relevant information	https://manipal.edu/content/dam/manipal/mu/documents/mahe/naacssr/2021/criteria7/719/7.1.9.pdf

7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organized professional ethics programmes for students, teachers, administrators and other staff during the year Annual awareness programmes on Code of Conduct were organized during the year

A. All of the Above

File Description	Documents
Weblink of the code of conduct	https://manipal.edu/mu/about-us/naac0/naac-ssr/naac-ssr-2021/weblinks/criteria-7.html
Details of the monitoring committee of the code of conduct	View File
Details of Programs on professional ethics and awareness programs organized during the year	View File
Any other relevant information	No File Uploaded

7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

Manipal Academy of Higher Education celebrates national and international commemorative days. Independence day Republic Day is celebrated by the University every year. Also, special competitions are organized by its constituent institutes at the grass-root level to instill a sense of patriotism. One such initiative was a drawing competition for the children of a school in Manipal on the theme 'India: Observing our Republic Day'. The students painted and drew on various subjects of pride and concern about their country and felt motivated to contribute to national development. International Women's day is celebrated every year at the university and institute levels. Rashtriya Ekta Diwas is celebrated to commemorate the birth anniversary and paid a tribute to Sir Sardar Vallabhai Patel on the occasion of Rashtriya Ekta Diwas (National Unity Day). A special screening of biographical cinema on Gandhi, Ambedkar and Sardar Patel is organized to educate students about the contributions of these national figures. Birthday of Swami Vivekananda is celebrated every year as National Youth Day on January 12 to channelize energies of the youth in national reconstruction. An emphasis has been given on Gandhi, wherein a session on Gandhi reading, bhajans were held during the 150-year celebration on Gandhi. Rashtriya Bhasha Divas, another important event on campus where students from various cultural and linguistic backgrounds participate in seminars and cultural programs. To re-instill the spirit of freedom struggle and national movement among the younger generation MAHE has celebrated the "Azadi 70 - Yaad Karo Kurbani". International Students of Manipal Academy of Higher Education come together to organize and celebrate International Day. This is facilitated by the Office of International Affairs annually. Literary and cultural events are organized by the international community on campus. World

Heart Day is celebrated annually by conducting a walkathon to create awareness among the general public. World Hepatitis Day and World Rabies Awareness day are celebrated by organizing seminars by the respective departments. Oral hygiene day is celebrated by the Dental Sciences College to educate and motivate the patients regarding the importance of oral hygiene. In order to promote the 'No Tobacco Day', the dental science college organized a logo design competition to create a sense of awareness on the harmful effects of tobacco consumption. International Yoga day is celebrated by the Division of Yoga, Centre for Integrative Medicine, and Research (CIMR). Students, staff, and faculty of MAHE participate in the conduct of Yoga. Panel discussion on "Indian Constitution: a Cornerstone of India's Integrity and Diversity" on the special occasion of Constitution Day Celebrations. As part of "Matribhasha Diwas 2019" different activities were performed by the students of Welcomgroup Graduate School of Hotel Administration (WGSHA) and Manipal College of Nursing. Seminars are organized by other institutes to celebrate this day, annually. Showcasing its accountability to sustainability, MAHE celebrates World Environment Day annually by planting saplings. Hundreds of students take part in the day's programs, which were designed to help them understand the importance of a good clean environment.

File Description	Documents
Annual report of the celebrations and commemorative events for the year	View File
Geotagged photographs of some of the events	View File
Any other relevant information	View File

7.2 - Best Practices

7.2.1 - Describe two best practices successfully implemented by the Institution during the year as per NAAC format provided in the Manual

1. Title of the Practice

SMILE - Synergic Manipal Integrated Learning Engagement.

2. Objectives of the Practice

In order to meet its future leadership requirements, MAHE initiated "SMILE" - Synergic Manipal Integrated Leadership Engagement - a 9-month leadership development program in partnership with Global HR

Consulting Firm People Business, with clear plans to identify and develop a pool of young academic leaders to take up key positions in the future, by exposing them to the range of responsibilities involved, and the complexities of leveraging preparation program reform in universities.

Main objectives of the program are to:

- Facilitate sustained approach to faculty empowerment
- Aim at leadership development
- Provide an opportunity for growth in in-house talent
- Intend succession planning

3.The Context

The past decade has seen increasing evidence describing the difficulties of leadership in the university environment, changes in leadership roles and organizational practices, and the volatility of the higher education climate.

There has been high growth in student intake, geographical spread, and internationalization; higher focus on innovation and research; quality focus; building new capabilities; higher complexities due to regulations and further education and learning models. The SMILE program was intended to create a pool of dynamic leaders to take up critical/key academic/administrative positions at MAHE and manage the related complexities. A program of this nature is novel in the education sector.

MAHE upskilling leadership at all levels meets a unique need in educational leadership. Making faculty truly capable of leading change unearths hidden individual talent and organizational potential, resulting in a more innovative and adaptive culture. This will help MAHE to drive its culture in the journey of its growth.

4. The Practice

The SMILE strategy, rolled out in January 2015, was to build leadership competencies across the board, from first-level managers to top management. MAHE partnered with experts in the leadership development field - People Business, a global consulting firm, in the design and execution of the SMILE Program.

Profile:

Based on essential eligibility criteria, potential participants for

the program were asked to apply for the initiative. This created an aspirational value for the program, and only genuinely motivated candidates applied.

After a rigorous selection process by a MAHE leadership panel, the participants went through a profiling phase that included a development center, 360-degree feedback, and MBTI (Myers Briggs Type Indicator). The profiling was based on key competencies considered essential for future leaders of MAHE.

Major elements:

- The SMILE 1.0 Programme, took place from February 2015 till October 2015 and involved training of 60 faculty members, many of whom were assigned higher positions at MAHE. Continuing its effort to identify in-house talent, MAHE initiated SMILE 2.0 in 2016, in which 29 faculty members were trained, enabling MAHE to discover potential candidates for critical leadership positions across the organization in future.

- As developing leadership skills is a continuous process, Phase 2 of SMILE was launched in June 2017 for all the participants of SMILE 1.0 and SMILE 2.0. Phase 2 focused on providing the participants with more customized inputs for career development. It involved classroom sessions on advanced leadership skills, individual development plan, career development plan, management skills development inputs, and providing them with job enrichment to achieve overall career goals. The development inputs were spread over more than 12 months.

Phases of the Program:

Educate: The participants were provided with an understanding of the journey ahead. The benefits of learning and how they would affect their career were provided.

Develop: This phase was based on 70:20:10 principle. This included customized classroom sessions based on key competencies, action learning by executing impact projects relevant to MAHE, coaching by People Business using a customized learning dossier, and mentoring by internal leaders at MAHE. Sample Action Planning projects as part of SMILE were developed.

Evaluate: The program was evaluated on multiple fronts. The immediate reaction feedback showed the overall effectiveness of the

classroom session. The behavioural outcomes of coaching and execution of the projects were articulated, emphasizing how they impacted the participant as self, team, and at the institutional levels. The projects were also evaluated.

5. Evidence of Success

Exposure of the faculty to the University Challenges and providing the big picture was a great benefit of SMILE. The impact projects acted as catalysts of innovation and institution building. The program also helped to identify talent to take on enhanced growth and more extensive responsibilities. Involvement of MAHE Leaders as Mentors was well received and helped create a culture of "Leaders Create Leaders".

Success factors:

1. Since the program was designed in line with institutional priorities with the strong support of the leadership of MAHE, a pool of young leaders with a clear understanding of the vision and mission of the organization was created.
2. Phase 2 of the SMILE program clearly addressed the learning needs of the individual participants, which has helped to strengthen them in key areas impacting the organization.
3. The success of SMILE 1.0 of 2015 inspired MAHE to continue with SMILE 2.0 in 2016 with 29 participants with similar vigour. Realizing the success of SMILE 2.0 through the benefits of the projects executed by the participants, and their acceptance of higher responsibilities at MAHE, Phase 2 of SMILE 2.0 was deployed in the year 2017, which focused on providing customized inputs for career development.

6. Problems Encountered and Resources Required

Resources required for deploying the project in financial terms (estimated 2.1 crores)

SMILE

Content

Year

Total Number of Participants

Per Participant Cost

SMILE

2015 - 2016

60

1.55 Lakhs/Participant

SMILE 2.0

2016 -2017

29

1.55 Lakhs/Participant

SMILE –PHASE II

2017 - 2018

82

- High Potential Candidates: 15

- Potential Candidates: 46

- Others: 21

  - Advanced Leadership Program—Rs.20,25,000
  - Developing High Potential – Rs.23,10,000
  - Developing Potentials – Rs.23,50,000
  - Other Category – Rs.3,00,000

No Problems were encountered in implementing the SMILE project. The participants had to dedicate their time to undergo the training and for the completion of projects as a part of the training. This was quite challenging as they had to attend to their assigned job responsibilities, and also devote time for various activities under the SMILE project. However, all of them managed this challenge successfully. On completion of the training, the candidates were included in the talent pipeline to assume leadership positions in MAHE.

7. Notes (Optional)

Outcome

MAHE has successfully invested time and resources in training the leaders of tomorrow to ensure that senior academic leadership roles are handled by professionals with the right set of skills and clear goals.

The effectiveness of the SMILE Leadership Transformation Program is evident from the fact that out of the 132 participants, 38 were considered ready to take up key leadership roles, and 76 could be considered ready for higher responsibilities in the next 2-3 years with continued inputs. 21 participants have already taken up key roles, out of which 11 are Women Leaders. The Leadership training program also led to High Impact business projects that had clear ROI for MAHE. Apart from preparing leaders for tomorrow, the program also made the participants effective in their current roles. About 80% of the participants have improved their ratings profoundly when compared to the previous year.

1.Title of thePractice

Epad -Digitization of Examination and Evaluation system

2.Objectives of the Practice

MAHE believes in complete transparency and eco-friendliness in its academic process. The primary objective of digitization of examination and evaluation process is to make it transparent, error-free and quick, with the added advantage of reduced manpower. Another best practice here is the analysis of the outcome measures of academic activities by a software based tool supported by InPods Inc. The output generated by this application gives feedback about the students' outcome achievements to the students and faculty members. Another noteworthy advantage of this digitization is the drastic reduction in paper usage, which significantly aligns with MAHE's environment policy: 'Go Green'.

3.The Context

Previously, examinations at MAHE were being conducted using the conventional paper based method, involving answer books, question papers and stationery. Digitization of examinations has eliminated the use of all these. Previously, papers were coded, bundled and sent to evaluation halls. Examiners had to enter the marks in evaluation sheets and consolidated mark lists. This method was slow and there was scope for errors in calculation, entry etc. Also,

totalling errors, questions missed out for evaluation etc. had to be verified manually. These challenges were overcome by using an onscreen marking system. MAHE moved the processing of results to a software based platform. For closing the chain in outcome based education, an analysis to ensure the attainment of the intended outcomes of the academic programs is important. This has been achieved through InPods system. The newly established Student Lifecycle Management System (SLcM) has made the result processing activities simple and fast.

4.The Practice

In this innovative technology, which is practised in almost all institutions of MAHE, the student is provided with a writable tablet device called ExamPad (epWriter) to write the examination. The fingerprint facility available in the device is used for authentication and capturing the attendance. The question paper is uploaded to the system prior to the examination by the academic section concerned. The question paper gets downloaded automatically before the examination, and will open only at the specified time. A specified area for writing is available, on which students can write using a specific stylus. During the progress of the examination, the invigilator can monitor the device status like battery health, time remaining etc. in a separate device called epProctor. Once the examination duration is completed, the device gets locked automatically and does not allow students to continue writing.

The evaluation interface is user friendly and easy to use. The entire marking process replicates the pen-paper based marking system with advanced technology. After the examination, answer scripts are available in the cloud system and evaluators can do the marking online. A username and password is automatically generated for each examiner through the system. Examiners have to submit the marks through the key board or by mouse click. Totalling of marks and questions missed out for evaluation are taken care of by the system. The system also prevents the examiner from awarding more than the maximum marks for a question (specified in the template). Another advantage of this digitized process is the availability of the script with question-wise response. This makes it possible to assign question-wise marking to the evaluators, which ensures uniformity in evaluation.

This digitized process also enables the analysis process for measuring attainment of course outcomes using InPods. The course outcomes marked against each question are tagged to the responses of each student, along with the marks obtained by the respective

student by means of the InPods system, which generates the outcome attainment report. Once the evaluation process is completed, the marks verification, tabulation, consolidation with adding the internal assessment component, and the final grade card printing will be done automatically using the SLcM.

Limitations: Adequate training needs to be provided to students and faculty to convince and update them for using the system. Additional training/mock test/practice sessions need to be conducted on request.

5.Evidence of Success

The Epad examination system has been successfully initiated across all the institutions of MAHE except for postgraduate students. Adequate training/mock tests have been provided to the students as well as faculty members. Class tests/Sessional tests/University examinations and evaluations are also being conducted across all the institutions successfully. Students and faculty members have accepted the new system positively and are well versed in the Epad examination process. Arrangements for the availability of expert technicians as well as storage space for the Epads have been made. A system has been established in every institution to provide training and practice to use Epads, every time a new batch of students is admitted. Due to the introduction of question-wise distributed evaluation, the number of instances of marks change/revaluation has reduced. Another significant change evident due to the digitization of the examination process is the drastic reduction in manpower and paper consumption. Evidence on the success of SLcM and InPods implementation is yet to be seen. Overall the entire process of examination and evaluation has become transparent, smooth, efficient, error-free, fast and environment friendly.

6.Problems Encountered and Resources Required

·Initially the students were not familiar with writing on Epad, hence adequate training and practice needed to be ensured for the successful implementation. The same kind of approach was required for the faculty members, who were new to the system.

·Since onscreen marking was a new technology the evaluators also needed to be trained adequately to adapt to the new system/technology.

·For the success of analysis of attainment of course outcomes using InPods, relevant information needs to be provided by the question

paper setters. To achieve this, the curriculum needs to be reformed and the outcomes at different levels need to be identified, which in turn should be conveyed to faculty and students.

·Adequate training and dedicated staff have been extended for rolling out SLcM in all the activities related to various aspects of the examination process.

7. Notes (Optional)

Outcome

With the plan to automate the processes related to appointment of the examiners and selection of question papers this system is unique and a trendsetter in India. This helps to achieve excellence in the examination and evaluation process and also comply with MAHE's environment friendly 'Go Green Campus' requirements.

File Description	Documents
Best practices in the Institutional web site	https://manipal.edu/content/dam/manipal/mu/documents/mahe/IQAC/7.2%20-%20BEST%20PRACTICES.pdf
Any other relevant information	Nil

7.3 - Institutional Distinctiveness

7.3.1 - Portray the performance of the Institution during the year in one area distinctive to its priority and thrust within 100 - 200 words

The above infographicexplains MAHE's thrust towards excellence in education and healthcare. More details are availabe in the web link provided

File Description	Documents
Appropriate web in the Institutional website	https://manipal.edu/content/dam/manipal/mu/documents/mahe/IQAC/7.3%20-%20Institutional%20Distinctiveness.pdf
Any other relevant information	Nil

7.3.2 - Future Plans of action for next academic year (100 - 200 words)

MAHE Future Plans of Action for AY 2021-22 (Criterion wise)

Criterion - I

- Add 7New Programs over the next one year

- Add 3 more interdisciplinary programs in the next one year

- Add 2 more structured courses in the next one year

- Have at least an additional 3 percent of the programs to facilitate Semester Abroad option next year

Criterion - II

- Add 600 students next year to the existing number

- Increase the proportion of students in top 10 percentile to 40percent by next year

- Increase the international undergraduate admissions by additional 0.5 percent of the total undergraduate students by next year

- Increase the international postgraduate admissions by additional 2 percent of the total postgraduate students by next year

- Enable an additional 2 courses to have the option of offering joint degrees in the next year

- Offer 2 additional twinning programme next year

- Have an additional 20 students opt for outbound Semester Abroad programme in 2021-22

- Have an additional 20 students opt for inbound Semester Abroad

programme in 2021-22

• Increase in international faculty by additional 1percent of total faculty .

Criterion -III

• Add 300 institutions collaborating with MAHE for research publications over next one year

• Add 945 co-authored publications with international collaborators by next one year

• Add 15 specialized centers encompassing all faculties over next one year

• Increase the research spend from current level by additional2 percent over the next one year

• Have 640 new doctoral enrolments next year

•Increase the no. of PhD scholars to 1800

• Increase PhD guides by 4 percent

• Have 5500 publications by next one year

• Improve the score for citation by 0.5

• Achieve an increase in Field Weighted Citation Impact score by 0.1 in next one year

• Add 5 new ventures next year

• Have graduation of additional 2 ventures next year

• Increase the no. of new patent applications to 60next year

• Commercialize additional 3 technology in next one year

• Add 125 more international partnerships over the next one year

• Increase research publications with international co-authorship by 2 percent

CRITERION - IV

- Have 100 percent of the theory examinations using e-pads and online marking

- Provide accommodation for additional 500 students over next one year

CRITERION – V

- Increase the bursary amount to Rs. 34 Cr in the next year

- Add Rs 1 Cr to the new bursary to support socially under-privileged meritorious students

- Add Rs 1 Cr to the new bursary to support economically deprived meritorious students

- Increase alumni registrations by 5,000 in alumni portal by 2022

CRITERION – VI

- Increase the number of programs accredited to 25 by next year

- Support an additional 2 percent of faculty to attend international scientific meet in next year

- Have international exposure for additional 0.5 percent of total domestic faculty in next one year

CRITERION – VII

- Sapling plantation 1250 Numbers

- New Roof top PV Projection 1.5MW

- Heat Pump for solar water heater backup