

**MANAV RACHNA UNIVERSITY, FARIDABAD**  
(Formerly Manav Rachna College of Engineering, Faridabad)

**The Annual Quality Assurance Report (AQAR) of the IQAC**  
(July 1, 2015 to June 30, 2016)

Part – A

**1. Details of the Institution**

1.1 Name of the Institution	Manav Rachna University (formerly MRCE)
1.2 Address Line 1	Sector-43, Surajkund Road,
Address Line 2	Aravali Hills,
City/Town	FARIDABAD
State	HARYANA
Pin Code	121 001
Institution e-mail address	<a href="mailto:registrar@mru.edu.in">registrar@mru.edu.in</a>
Contact Nos.	0129-4268500
Name of the Head of the Institution:	Dr. Sanjay Srivastava
Tel. No. with STD Code:	0129-4268587

Mobile:

Name of the IQAC Coordinator:

Mobile:

IQAC e-mail address:

1.3 NAAC Track ID (For ex. MHC0GN 18879)

1.4 NAAC Executive Committee No. & Date:   
(For Example EC/32/A&A/143 dated 3-5-2004.  
This EC no. is available in the right corner- bottom  
Of your institution's Accreditation Certificate)

1.5 Website address:

Web-link of the AQAR:

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup> Cycle	A	3.10	2011	September 15, 2016

1.7 Date of Establishment of IQAC:

1.8 AQAR for the year (for example 2010-11)

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

- i. AQAR 2010-11 Submitted to NAAC on 26.09.2012
- ii. AQAR 2011-12 Submitted to NAAC on 26.12.2013
- iii. AQAR 2012-13 Submitted to NAAC on 06.12.2014
- iv. AQAR 2013-14 Submitted to NAAC on 03.04.2015
- v. AQAR 2014-15 Submitted to NAAC on 07.09.2015

**1.10** Institutional Status

University State  Central  Deemed  Private

Affiliated College Yes  No

Constituent College Yes  No

Autonomous college of UGC Yes  No

Regulatory Agency approved Institution Yes  No

(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education  Men  Women

Urban  Rural  Tribal

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

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

**1.11** Type of Faculty/Programme

Arts  Science  Commerce  Law  PEI (Phys Edu)

TEI (Edu)  Engineering  Health Science  Management

Others (Specify)

**1.12** Name of the Affiliating University (*for the Colleges*)

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

Autonomy by State/Central Govt. / University

MRCE was upgraded to Manav Rachna University, a Haryana State Private University in 2014

University with Potential for Excellence

UGC-CPE

DST Star Scheme

UGC-CE

UGC-Special Assistance Programme



UGC-Innovative PG programmes

Any other (*Specify*)

UGC-COP Programmes



**2. IQAC Composition and Activities**

2.1 No. of Teachers

2.2 No. of Administrative/Technical staff

2.3 No. of students

2.4 No. of Management representatives

2.5 No. of Alumni

2.6 Number of any other stakeholder and

Community representatives

2.7 No. of Employers/ Industrialists

2.8 No. of other External Experts

NIL

2.9 Total No. of members

15

2.10 No. of IQAC meetings held = 9

Date of Meeting	Agenda
July 21, 2015	Preparing Calendar for IQAC & Filling of AQAR
August 4, 2015	Faculty Induction Programme
August 18, 2015	Review of AQAR 2014-15
October 17, 2015	Monitoring of Attendance Registers
December 15, 2015	Review of Course Material
February 5, 2016	Planning of IQAC activities
March 5, 2016	Responsibilities for Preparing of AQAR 2015-16
April 2, 2016	Planning of Audit
May 14, 2016	Formulation of IQAC sub committees for 2015-16

2.11 No. of meetings with various stakeholders:

Total No.

7

Faculty

4

Non-Teaching Staff /Students

2

Alumni

1

Others

2.12 Has IQAC received any funding from UGC during the year? Yes

No

If yes, mention the amount

2.13 Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

Total Nos.  International  National  State  Institution Level

(ii) Themes:

- Qualitative Changes Envisaged Ahead (From MRCE to MRU)
- Ethics & Values at the work place
- Examination System in MRU
- Experiential Learning

#### 2.14 Significant Activities and contributions made by IQAC.

S.No.	Activity	Speaker	Dates
1	Workshop on “Qualitative Changes Envisaged Ahead”	Prof.(Dr) V K Mahna, Pro-Vice Chancellor, MRU	9-Mar-16
2	Ethics & Values at the work place	Mr. R S Endlaw, Judge, Delhi High Court, Mr. S Ravindra Bhat, Judge, Delhi High Court	2-Apr-16
3	Submission of Times i3c Engineering Institutes Ranking Survey 2016 Report	IQAC Coordinators and IQAC Team	8-Apr-16
4	Examination System in MRU	Prof. B.D.Pathak, Dean Exam	16-04-2016
5	Conf on Emerging Trends and Innovations in Electronics and Communication (ETIETE-2016)	ECE Dept., MRU	28 June, 2016
6	Workshops on Experiential Learning	Prof. N.Martin	April - June, 2016

#### 2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year (2015- 16)

Plan of Action	Outcome
A Workshop on “Qualitative Changes Envisaged Ahead” was facilitated by Prof. (Dr.) V. K. Mahna, Pro. V.C., MRU.	FDP on quality issues to be addressed in transition from MRCE to MRU
Expert talk was organized on the topic “Ethics & Values at the work place”. The resource person was Mr. R S Endlaw, Judge, Delhi High Court, and Mr. S Ravindra Bhat, Judge, Delhi	Improve the personality of faculties as teachers and as a person.
Applied for Times i3c Engineering Institutes Ranking Survey 2016.	To get recognition among the top most Engineering Institutes in the country.
A Conference on Emerging Trends and Innovations in Electronics and Communication (ETIETE-2016) was	To upgrade the knowledge in interdisciplinary areas of

organized jointly with Dept. of ECE.	research
Workshop on Experiential Learning was organized for the faculties of all the technical departments by Prof. N.Martin, Visiting Faculty, MRU	To introduce critical thinking through new pedagogy

2.16 Whether the AQAR was placed in statutory body Yes No

Management Syndicate any other body

Provide the details of the action taken

IQAC looks at the internal processes and initiates measures for improvement. The year 2015-2016 motivated R&D activities among the faculty and provided directions for publishing high quality research work. IQAC identified gaps in the skill set of the faculty and organised specific sessions for overcoming the shortcomings.

## Part – B

### Criterion – I

#### 1. Curricular Aspects

##### 1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD		CSE, ECE, ME, Management, Physics, Chemistry, Mathematics 7Nos.	7	
PG	M.Tech. (CSE, ECE, ME), MBA. 4 Nos.	Nil	4	3 (M.Tech summer and winter trainings: practical trainings: bridge courses)
UG	B.Tech (CSE, IT, ECE, ME) 4 Nos.	B.Sc.(Hons) Chemistry, Physics & Maths 3Nos	7	4 (B.Tech summer trainings; practical trainings; bridge courses; Foreign Languages-German, French & Spanish Proficiency Program)
<b>Total</b>	8	10	18	7

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

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	18
Trimester	
Annual	

1.3 Feedback from stakeholders

parents  Students  Employers  Alumni

*(On all aspects)*

Mode of feedback : Online  Manual  Co-operating schools (for PEI)

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

No

1.5 Any new Department/Centre introduced during the year. If yes, give details. Manav Rachna Centre for Foreign Languages for teaching French, German and Spanish Languages to UG, PG and Ph.D. students. Centre for Renewable Energy has been set up in collaboration with M/s Su-Kam for teaching and research in solar energy.

## Criterion – II

### 2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
166	136	15	15	2 (RA)

2.2 No. of permanent faculty with Ph.D.

46



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

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
06	23	0	0	02	04	0	0	08	27

2.4 No. of Guest and Visiting faculty and Temporary faculty:

Assistant Prof  Associate Prof  Professor

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/Conference Workshops/Symposia (ME)	4	68	NIL
Presented papers (ME)	6	10	NIL
Resource Persons (ME)	1	1	NIL

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

**Innovative Teaching Learning Pedagogy**

The process of Teaching has undergone a sea change in the wake of ‘outcome based education’ movement, initiated and established through Washington Accord and followed by National Board of Accreditation, India. The enormous development and evolutions in the global society force a continuous change in the emerging areas of education. It has become important to move from ‘teacher centric system’ to ‘learner centric system’. MRU is centered in the philosophy of learning-by-working. Students learn to apply the conceptual knowledge through practice and application to identify, evaluate and resolve business management problems and situations. MRU has moved in this direction through the introduction of a number of innovations in the teaching and learning process. The quality assurance system at MRU ensures compliance of the same and thereby helps in making the Teaching Learning Process ‘outcome oriented’. The curricula for all the programmes have been designed on Choice Based Credit System (CBCS) with a basket of Elective and skill based Courses in Foreign Language, Photography and Video Development, Event Management, Spirituality, Incubation, Physiotherapy, Computer Skills, Sports, culture, applied sciences, engineering, Computer science, and Humanities. Students develop their organizational skills and talent through clubs and Society’s like Leo Club, Management Club, Music Club and Dance Clubs.

### **Effective Teaching through innovative practices :**

- Trans Disciplinary learning (TLP) with choice of subjects over and above the core subjects is applicable in all the courses. The TLP is also supplemented with latest tools and technologies to enhance the effectiveness of the course delivery and equip the students in a better way. Some of the technologies adopted are Multimedia Based Teaching (through PPTs, educational videos), Bloomberg Terminals, Case studies, Role plays, Innovative Assignments, Live Projects, Simulation exercises, Students presentations, Workshops on upcoming technologies, Guest Lectures by senior corporate professionals. Enriched Library through Online National and International Journals, NPTEL Videos. Regular interface with Industry leaders and academic experts (Guest lectures and Industry visits) are being held. Collaboration with Bloomberg professional services for financial software, data & support in research and pedagogy. The courses are being designed as per the Industry-driven curriculum and pedagogy with the focus on applied and experiential learning. SAP/Foreign language/Soft Skill training is being included as part of the curriculum.

### **Quality in Teaching Learning Process:**

- In line with the Vision and Mission of the Institute, all the degree offering departments have well defined Program Education Objectives (PEOs) and Program Outcomes (POs), approved by the Academic Committee of the Institute.
- All courses are designed to collectively achieve the PEOs and POs. Hence, during the course design the course objective, the learning outcomes, the lesson plan, the teaching methodology, the evaluation parameters and the content beyond syllabi are carefully designed so as to contribute to specific targeted PEOs.
- The course descriptions are supported by the tutorials and lab exercises (if applicable). It is ensured that the tutorial and lab exercises are designed to attain specific Course Objectives and Outcomes, which are specified in the tutorial and lab sheets.
- The complete course material, after several reviews by the departmental committees, is uploaded on the intranet at least 10 days before the beginning of the semester.
- IQAC ensures the quality of the uploaded material through periodic checks.
- The course designs are updated every year in line with technology enhancements worldwide.
- The evaluation methods are designed to assess the achievement of learning objectives. All the evaluation methods are aimed at encouraging development of self-learning skills, application of concepts, development of analytical skills through open ended problems, and ability to synthesize systems and processes.

### **Co-curricular & Extra-curricular Activities enhancing the TLP**

- MRU focuses on grooming the overall personality of the students. Hence the extra-curricular and co-curricular activities are designed to provide the required value addition so as to bridge the gap between the prescribed curriculum and demands of national and international academic fraternity.
- Chapters of major national and international societies such as IEEE, ASME, and SAE etc have been set up. These chapters work towards providing the required value addition in the form of workshops, seminars, competitions and other such technical activities.

- MRU also engages the students towards making them Socially Responsible citizens through various social clubs (such as MRU Leo club under sponsorship of Faridabad Lions Club), joining hands with NGOs for undertaking tasks that serve the society at large.
- MRU has partnered with industries such as Infosys, IBM, and TCS etc and has a vibrant culture of guest lectures, seminars, workshops, and alumni interactions etc. which have greatly impacted the holistic development of students.

### **Summer Training:**

- The University initiated an intensive summer training program aimed at bridging the gap between the prescribed university curricula and the industry requirements.
- The summer training curricula is enhanced every year to maintain its effectiveness and focus.
- Since the summer training is an intensive program, attending it is compulsory and the minimum attendance criteria are also maintained at a high level to ensure that the students get the maximum benefit.
- The training is conducted during the summer vacations of the students immediately after their university exams. The training offers:
  - Integrated summer training programme for B.Tech Students including technical summer training projects, Infosys Campus Connect Program and Infosys governed soft skills training.
  - Introduction to the upcoming technologies required in the industry but missing from the university curricula.
  - Preparation of the final year students for the forthcoming placement drives through practice sessions on Logical and Aptitude papers.

The summer trainings have been extremely helpful in the overall grooming of the students and it is evident in the excellent placements of the university in the year 2015-16. The batches passing out in 2016 have been through this intensive training starting from the first year through to the final year.

### **Course Structure and Delivery**

The program of study will consist of:

- (i) **Core Courses:** Group of courses specifically required for a given program of study. These are compulsory for a student and no exemption is granted;
- (ii) **Elective Courses:** Group of courses in a program where the student has the flexibility of choosing courses of his/her choice and interest.

The various courses shall comprise one or more of the following four components:

- (i) Lecture (L)
- (ii) Tutorial (T)
- (iii) Practical (P), and
- (iv) Outcome (O)

- (i) **Lecture:** Presentation & discussion, used to convey development of theories and/or systems; their applications; current status and future prospects to a large class.
- (ii) **Tutorial:** A smaller class or group session (typically 15-30 students) aimed at problem solving; analysis and/or designing by applying what have been discussed in a lecture.

- (iii) **Practical Lab:** Module of the course aimed at doing practical work using different instruments, apparatus, systems or soft wares.
- (iv) **Outcome:** Component of a course referring specifically to one or more outcomes of the course/ program which are not achievable through regular L-T-P structure. Outcome component may include Seminars/ Projects/ Presentations and other related components. The institute conducts the sessional examinations thrice a semester. A senior professor, by rotation, is appointed as Controller of examination. There are clearly defined roles and responsibilities of CoE approved by Academic Committee of the institute. CoE prepares a calendar and ensures smooth and fair conduct of examination. CoE has well laid out guidelines and advisories for invigilators, students and flying squads.

The Core/ Elective Courses offered may be:

- **Hard Courses** having either L-T-P or L-T-P-O: Hard courses refer to set of courses aiming at development of hard skills specific to domain or supplementing the domain;
- **Soft Courses** having either L-P or L-P-O: Soft courses are courses aimed at Development of a person's emotional, social, ethical, professional and creative potentials;
- **Workshop Courses** having only P component: These are completely 'hands on' courses conducted in laboratory/ field aimed at developing application/ implementation/ designing skills of the student;
- **Non-Teaching Credit Courses** having P and /or O component: These courses involve no teaching. These shall include seminars, presentations, dissertations, projects, thesis etc.;

## PLACEMENT SUPPORT

Students are supported to develop their capabilities and skills to make them employable. The Career Development Cell imparts training in Communication (Interpersonal and Intra Personal), Grooming, Negotiation, Group Discussion, Team Work and Leadership. The Corporate Resource Center develops relationships with Corporate, NGOs, International Institutions and Government bodies to create career opportunities. Over 150 Corporate offered placement to students in various programs with placement package of upto Rs 9 lakhs per annum for graduates.

Students are also supported in their entrepreneurial ventures for which training programs are organized. The Manav Rachna Entrepreneurship Ecosystem facilitates the creation of new products and services and the launch of new ventures.

### Feedback System:

MRU has a well-established system of taking regular feedbacks from the all its stake holders.

- **Students:** The feedback of students is taken, through an in-house developed online feedback system, twice in a semester for all courses being delivered in the semester. The criterions are designed to assess the degree of achievement of course objectives and outcomes and the effectiveness of the facilities/resources required to attain them. The same feedback form is filled by the course instructor also. The feedback process is designed to gauge the student and faculty's self satisfaction with the progress of a course so as check the convergence of their satisfaction with a course and to facilitate improvement in teaching/learning process.

- **Passing out batch:** Program Feedback is conducted in the final year to analyze the satisfaction level of students with the academic offerings and other services offered by university during their graduation.
- **Alumni:** Feedback from Alumni through registered Alumni Association. The feedback is taken at the time of Annual Alumni Meet, Convocation and at the time Alumni visit the campus for any purpose.
- **Industry:** Feedback from the recruiting companies through the office of Dean Industry Interaction. The feedbacks from recruiters have been extremely useful in training the students in the right direction and manner and have led to commendable increase in the campus placements.
- **Parents:** Feedback through Dean Academics Office. 2 days in a semester are earmarked in the Academic Calendar for Parent Teacher Interaction where parents provide their valuable feedback.

The feedback process helps the Deans and Heads to analyze the attainment of stated Program Education Objectives; effectiveness of departmental policies regarding projects, summer trainings, value added courses etc. The department utilizes the feedback to review the existing policies and put in changes wherever required. The feedback also provides the administration an insight into the students' perception of existing administrative procedures and helps them to make the system more efficient.

2.7 Total No. of actual teaching days during this academic year: 170

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

The University follows a policy of continuous evaluation with the objective of training a student to put in sustained, steadfast and a disciplined effort over the entire period of study. The assessment system of both theory & practical is based on formal examinations/tests (Part A) and a component of continuous assessment (Part B).

The formal examination can be of different modes (normal written mode, open book, open access, multiple choice, essay type, case study based etc.). These modes of examination are announced well in advance by the course instructors.

Instruments of PART B evaluation can be quiz/ assignment/ problem solving/ class participation/ presentations/ seminars/ term paper submission/ project submission etc. These may be pre-announced or conducted by surprise.

**Details of weightage of the same are:**

- (i) For hard courses, the PART A of the semester evaluation shall comprise as given below in the Table 1:

**Table 1**

<b>Theory:</b>	100%
Test T <sub>1</sub> (approx 5 weeks into the semester)	25 %
Test T <sub>2</sub> (approx 10 weeks into the semester)	25 %
Test T <sub>3</sub> (at the end of the semester)	50 %

<b>Practicals:</b>	100%
Test PT <sub>1</sub> (approx 5 weeks into the semester)	25 %
Test PT <sub>2</sub> (approx 10 weeks into the semester)	25 %
Test PT <sub>3</sub> (at the end of the semester)	50 %

- (ii) For soft courses, the PART A evaluation will be done as given below in the Table 2:

**Table 2**

<b>Theory:</b>	100%
At least one Test T (at the end of the semester)	100%. Additional tests with weightage not more than 30%, at the discretion of Course Coordinator can be introduced but need to be announced at the start of the semester.
<b>Practicals:</b>	100%
Test PT <sub>1</sub> (approx 5 weeks into the semester)	25 %
Test PT <sub>2</sub> (approx 10 weeks into the semester)	25 %
Test PT <sub>3</sub> (at the end of the semester)	50 %

- (iii) Courses having only P and/or O components shall follow the structure of Practical Examination as given in the Table 1.
- (iv) Summer Trainings/ Internships etc. shall culminate in submission of project report and its evaluation. The mode of evaluation shall be announced at the beginning of the summer training.

### **Evaluation of answer scripts**

The process of evaluation of answer sheets comprises following constituent steps:

1. A central spot evaluation center is formed for the evaluation of theory answer scripts. The spot evaluation process for all the Faculties is carried out in this Centre. None of the faculty is allowed to take any answer script out of this centre.
2. Dean Examination nominates two senior faculty members, as in charge of spot Evaluation Centre. The responsibility of safe custody of answer sheets & their evaluation rest solely with the in charge of Spot evaluation.
3. On the basis of recommendations received from Board of Studies, Dean Examination appoints external experts from other universities / colleges for practical / theory component such as evaluation / viva-voce / project evaluation.

4. On each day of examination, the written answer sheets are delivered to the spot evaluation Centre by the Centre Superintendent along with a dispatch memo in sealed envelopes.
5. The number of answer sheets in each packet received is verified as per dispatch memo by the respective in charge of Spot Evaluation centre or his nominee.
6. An evaluation committee consisting at least two teachers (one teacher if only one teacher is engaged in teaching a particular subject) in respect of each subject is nominated by Head of the Department with the approval of dean of faculty of the respective department constituted by the in charge of spot evaluation. List comprising names of members of different evaluation committees shall be sent by in charge spot evaluation to the Dean examination under sealed cover envelope. Answer key is prepared for each subject. In case of two or more teachers for a particular subject: faculty A will check one question of all the answer scripts, faculty B will check second question for all the answer scripts and so on.
7. Members of the evaluation committee for each Faculty shall be invited by the in-charge Spot evaluation to carry out evaluation at the Centre.
8. Spot evaluation shall ordinarily be completed within 7 working days from the day of examination. Before entering marks in award list two faculty members are appointed by the office of Controller of Examination for the purpose of Scrutiny of answer books. Each evaluator shall fill the marks awarded by him/her in the award list. Thereafter, marks in respect of all subjects shall be filled in the Excel Sheet. Both hard copy (filled & signed by the evaluators) and the Excel sheet shall be transmitted by the respective Dean of each Faculty to the COE.
9. After the spot evaluation, evaluated answer books shall be sent to the Examination Cell in sealed covers.

**Thesis Evaluation:** The institute has initiated the continuous evaluation process of all M.Tech dissertations. The process begins in the third semester and has following steps:

- a. Allocation of thesis topics
- b. Dissertation proposal and schedule presentation
- c. Mid-term thesis review
- d. Final thesis review.

**Continuous Projects Evaluation:** B.Tech final year projects are done in three stages:

- e. Synopsis Review
- f. Mid-term progress review
- g. Final progress review with presentation and/or working code/project.

**Summer Training Evaluation:** The summer trainings at the end of a year are evaluated through presentation and viva and the awarded grades are incorporated as a component in the internal assessment of the general proficiency paper in the following semester.

2.9 No. of faculty members involved in curriculum

BOS (44)	Faculty (134)	CD (134)
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Restructuring/revision/syllabus development

As a member of Board of Study/ Faculty/ Curriculum Development workshop

2.10 Average percentage of attendance of students: 75%

2.11 Course/Programme wise distribution of pass percentage:

**ODD SEMESTER 2015-16**

Title of the Programme	Total No. of Students Appeared	Division				
		Distinction %	I %	II %	III %	Pass %
B.TECH CSE	103	26	53	10	4	92
B.TECH ECE	8	3	50	13	-	100
B.TECH ME	32	15	31	6	9	94
M.TECH ME	3	3	-	-	-	100
B.SC CHEMISTRY	5	2	40	20	-	100
B.SC MATHEMATICS	5	4	-	-	20	100
MBA	12	7	25	-	8	92

**EVEN SEMESTER 2015-16**

Title of the Programme	Total No. of Students Appeared	Division				
		Distinction %	I %	II %	III %	Pass %
B.TECH CSE	103	47	27	10	7	89
B.TECH ECE	8	2	38	25	13	100
B.TECH ME	32	16	25	3	9	88
M.TECH ME	3	3	-	-	-	100
B.SC CHEMISTRY	5	3	20	20		100
B.SC MATHEMATICS	5	4	-	-	20	100
MBA	12	6	25	8	8	92



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

As a part of regulatory requirement as well as a part of best practices, each academic unit of Manav Rachna University has an Internal Quality Assurance Cell to drive quality processes. The members of the Cell include senior faculty, University administration, Industry representatives, alumni, industry representatives, civil society members and student representatives.

Some of the major purposes of IQAC include development and application of quality parameters and organization of activities relating to enhancement of educational quality. The cells are engaged in evolving mechanisms for timely, efficient and progressive performance of the various academic and administrative units of the universities. These cells also undertake periodic academic review of the various departments in which specific measures for quality are suggested and implemented. The Cells play a key role in promoting quality culture in respective universities. The cell conduct faculty and staff development programmes, workshops and expert lectures from time to time to generate quality awareness among faculty and students for enhancing quality of education and student support services.

### **Outcomes from IQAC Activities**

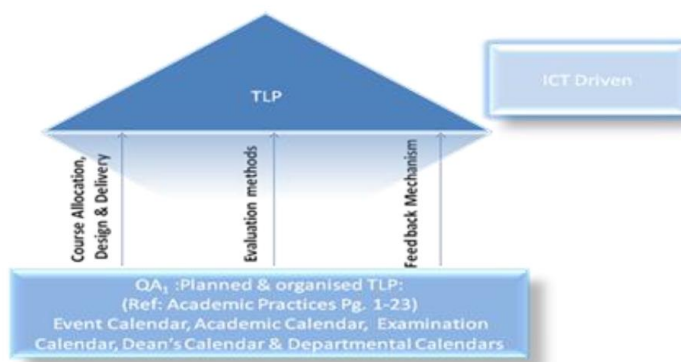
1. Development of Quality Culture in the institution;
2. Development and application of quality benchmarks/parameters for various academic and administrative activities of the Institution;
3. Ensuring timely, efficient and progressive performance of academic, administrative and financial tasks
4. Realistic assessment of quality of academic and research programmes
5. Equitable access to and affordability of academic programmes for various sections of Society
6. Optimization and integrations of modern methods of teaching and learning
7. Enhancing the creditability of evaluation procedures
8. Ensuring the adequacy, maintenance and proper allocation of support structure and services
9. Sharing of research findings and networking with other institutions in India and abroad.
10. Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process.
11. Arrangement for feedback response from students, parents and other stakeholders on quality-related institutional processes;
12. Dissemination of information on various quality parameters of higher education;
13. Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles;
14. Acting as a nodal agency of the Institution for coordinating quality-related activities including adoption and dissemination of best practices;

15. Preparation of the Annual Quality Assurance Report (AQAR) as per guidelines and parameters of NAAC, to be submitted to NAAC.

Besides playing its sentinel role for quality control, IQAC has ushered in ambience wherein every stakeholder places a high premium on quality as the objective function and value addition which accrues.

Under the aegis of Quality Cell various processes like curriculum design and development, obtaining feedback from various stakeholders like students, parents, teachers, industry experts, recruiters and other peer groups were designed, sharpened and optimized. These initiatives have paid rich dividends as corroborated by an overall enhancement in various processes including accreditation of B.Tech. Computer Science & Engineering, B.Tech. Electronics & Communication Engineering and B.Tech. Mechanical Engineering programmes by the National Board of Accreditation (NBA). MRU employs the vehicle of IQAC for an inexorable continuous quality improvement.

### ACADEMIC PROCESS



#### 2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	-

UGC – Faculty Improvement Programs	-
HRD programs	-
Orientation programs	55 (2 Programs held)
Faculty exchange program	-
Staff training conducted by the university	15 (Navoday program)
Staff training conducted by other institutions	-
FDP , Conferences and Workshops : 5(by Manav Rachna University)	134 (45 participants in each)

#### 2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	19		0	0
Technical Staff	14		0	01 (R.K Ahluwalia)

### Criterion – III

#### 3. Research, Consultancy and Extension

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

IQAC has taken the following initiatives with an objective of Sensitizing/Promoting Research Climate in the institution:

- **Internal R & D Fund:** The Institute provides an Internal R&D fund of Rs 30 lakh annually. The purpose of the fund is to provide seed money to faculty members for starting initial work and take it up to a level where it can be submitted to external funding bodies for higher grants.
- **Contingency Grant:** The College promotes publication in Scopus and SCI listed journals. The Board of Governors of MRU has agreed to Academic Committee's proposal of providing a contingency grant of Rs. 25000 to a faculty member who publishes in the above indexed list.
- **Visiting Scientist Scheme:** For faculty development in emerging areas and technologies a visiting scientist scheme has also been initiated wherein scientists and researchers from other national and international institutes/industries can be appointed as visiting scientists. These visiting scientists shall expose the faculty to advancements in specific areas.
- **Consultancy and Extension:** College also promotes consultancy and extension work by

faculty members. The revenue generated is shared between the faculty member and College in the ratio 80:20 after the deduction of expenditure.

### 3.2 Details regarding major projects

CS	Completed	Ongoing	Sanctioned	Submitted
Number			1	
Outlay in Rs. Lakhs			9.55	

### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number		1		
Outlay in Rs. Lakhs		0.78		

### 3.4 Details on research publications

	International	National	Others
Peer review journals	61	10	6
Non- Peer review journals	NIL	NIL	NIL
E- journals	NIL	NIL	NIL
Conference proceedings	28	57	NIL

### 3.5 Details on Impact factor of publications:

Range	0.13- 6.57	Average	2.61	h-index	0 - 3	Nos. in SCOPUS	8
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### 3.6 Research funds sanctioned and received from various funding agencies, industry and other organisations

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects	2 yrs	MRU	9.55 Lakhs	NIL
Minor Projects	1 yr	MRU	0.78 Lakhs	0.78 Lakhs
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College				
Students research projects				

(other than compulsory by the University)				
Any other(Specify)				
Total		MRU	10.33Lakhs	0.78 Lakhs

3.7 No. of books published i) With ISBN No.  Chapters in Edited Books

ii) Without ISBN No.

3.8 No. of University Departments receiving funds from:

UGC-SAP  CAS  DST-FIST   
DPE  DBT Scheme/funds

3.9 For colleges: NA Autonomy  CPE  DBT Star Scheme   
INSPIRE  CE  Any Other (specify)

Revenue generated through consultancy

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number		1			
Sponsoring agencies		IETE			

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

3.13 No. of collaborations International  National  Any other

1.14 No. of linkages created during this year:

3.15 Total budget for research for current year in lakhs:

From funding agency  From Management of University/College   
Total

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	NIL
	Granted	NIL
International	Applied	NIL
	Granted	NIL
Commercialised	Applied	NIL
	Granted	NIL

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

Total	International	National	State	University	Dist	College

3.18 No. of faculty from the Institution   
who are Ph. D. Guides  
and students registered under them

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

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

JRF  SRF  project Fellows  Any other

3.21 No. of students Participated in NSS events: NIL

University level  State level   
National level  International level

3.22 No. of students participated in NCC events: NIL

University level  State level   
National level  International level

3.23 No. of Awards won in NSS: NIL

University level  State level   
National level  International level

3.24 No. of Awards won in NCC: NIL

University level  State level   
National level  International level

3.25 No. of Extension activities organized

University forum  College forum   
NCC  NSS  Any other

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

- Organized Blood donation Camp in association with Lions Club Faridabad on 16th Sept. 2015 and collected 400 units of blood
- Students visited the Govt. Girls Sr. Secondary school at Mohna Village every Friday in the month of October, 2015 and conducted the classes on Health and Hygiene, Communication, General awareness, Dance and Music, Science experimentation etc.
- Students organized the workshop with the students of Prakashdeep NGO on Decoration of Diyas during Diwali and the amount that was collected from the sale of these Candles and Diya's was deposited to NGO account.
- In the month of October 2015 and March, 2016 project EK Muththi Daan was organized and 1500 Kg of rice was collected in both the months for donation to 3 different NGO's.
- Cleanliness drive was organised at Old Faridabad Railway Station and Shiv Mandir, Sainik Colony, Faridabad in the month of April, 2016.
- On 26th August 2015, students of MBA organized a visit to an old age home i.e. "Gharondha". All the MBA students along with three faculty members met the elderly people. The purpose of the visit was to invoke the mind set of students, to make them realize the hard realities of life, let them understand importance of senior elderly people in our life. All students were overwhelmed and paid their gratitude to senior citizens.

#### **Criterion – IV**

#### **4. Infrastructure and Learning Resources**

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area	10.48 Acres			
Class rooms	40			
Laboratories	33			
Seminar Halls	12			
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.				
Value of the equipment purchased during the year (Rs. in Lakhs)				
Others: Workshop	1			
Drawing Hall	2			
Research & Instrumentation (Labs)	3 (Research and Instrumentation lab, Solar Lab, Techno Planet lab)			

#### 4.2 Computerization of administration and library

The following softwares are being used in the institute in various areas:

1. **Attendance Monitoring System:** Attendance monitoring system is entirely supported by Google docs and TCSion software.
2. **In-house Developed Feedback system:** Feedback system is supported by the Google docs and TCS software.
3. **Course ware:** The entire course ware including lecture notes, assignments, tutorial sheets; academic calendars etc. have been uploaded on the intranet and TCS Learning Exchange.
4. **Library:** The records at the library (issue and return of the books) are supported by Libsys Software; the Digital library is equipped with 30 computers with internet connections).
5. **Accounts/Fee:** The entire accounts/fee system is supported by Tally and then shifted to Gabba Software.
6. **Admission Process:** The admission process at the institute is entirely based on TCS software.
7. **HR:** The leave management system (leave records), etc. of faculty and staff members are supported by Google docs.

#### 4.3 Library services:

	Upto July 2014 – June 2015		Newly added July 2015 – June 2016		Total	
	No.	Value	No.	Value	No.	Value
Text Book	23204		8363		31567	



Reference Book	5026		2150		7176	
E-Books						
E-Journals	56111	21,15,612	20581	6,79,522	20581	6,79,522
Print Journals / Magazines	90	1,85,788	55	2,86,569	145	2,86,569

#### 4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centers	Computer Centers	Office	Deptt.	Others
Existing	600	12	45MBps	12	12	1	Laptops - 62 Other users desktop - 102	Class rooms 31 Language Lab 35 ECE Lab 15 Mech Lab 27 ECE M Tech Lab 33
Added	150	---	45MBps	---	---	---	---	
Total	600	430	Campus wifi zone established	30	35		164	56

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

Dedicated Wi-Fi network was established for MRU. New projectors (15 in numbers were added) and CCTV cameras were installed in all the buildings, labs, classes etc.

Faculty training/FDPs/Workshops on various institutional processes like attendance monitoring, admission, feedback, leave management system, placement at the beginning of every session for the newly joined faculty members and the existing faculty and staff members from time to time. Expert lectures (form industry and alumni) are organized to bridge the industry-academia gap.

#### 4.6 Amount spent on maintenance in lakhs:

4.28
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i) ICT	
ii) Campus Infrastructure and facilities	101.86
iii) Equipments	12.42
iv) Others	91.38
<b>Total:</b>	209.94

## Criterion – V

### 5. Student Support and Progression

#### 5.1 Contribution of IQAC in enhancing awareness about Student Support Services

1. IQAC is actively involved in suggesting improvements in various areas including support services.
2. Orientation of the students is conducted by the HODs and Deans (members IQAC) at the commencement of new session of the new joiners wherein all the students are informed regarding the activities and new facilities created/available in the
3. IQAC as a part of its initiative towards Quality Enhancement modifies processes like course coordination, feedback, attendance monitoring etc. from time to time.
4. The well-formed MRU Women's Cell, Anti-ragging squad, Proctor committees, students' clubs and their constitution are displayed on the notice boards and mentioned in institute prospectus along with website.
5. The institute (now MRU) has a provision of funding students' projects and participation in various national and international events. The policy/rule has been documented in the students' booklet.
6. IQAC frequently reviews the study material quality uploaded on the intranet & TCS for the students.
7. Dean Students' office apprises students about all the policies and processes like academic calendars followed at the institute through handbooks etc. The same is uploaded on the website, intranet and TCS to have wider scope of accessibility
8. The Dean Academics (member IQAC) also takes feedback of the students regarding the hostel facilities and other support services. IQAC coordinates with student representatives to ensure smooth working of the same.

#### 5.2 Efforts made by the institution for tracking the progression

- The academic progression of the students taking different courses is regularly keeping a continuous record during the course and the departmental levels both. The attendance and the academic records of the students are obtainable or accessible with their respective departments.
- The academic progression and the results are discussed and studied and the necessary actions are planned to be implemented during the meetings of senior functionaries and Board of Governors' meeting (once a year). The action taken reports and MOM of the meetings are documented every time.
- The class has been assigned a Mentor/Programme Coordinator who maintains academic and attendance records of the students and provides guidance regularly. **Feedback system:**
- The formal feedback is being taken twice a semester in the form of formative and summative feedback. Informal feedback is conducted from time to time to observe the progression.

- The Dean Students' (member IQAC) also holds the meeting to show the details of the students' activities and to discuss the future plans regarding extra- and co-curricular areas. The action taken reports and MOM of the meetings are documented every time.
- Reports and MOM of the meetings are documented every time.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
1347		46	

(b) No. of students outside the state

510

(c) No. of international students

NIL

Men	No	%
	1264	77.83

Women	No	%
	360	22.17

Last Year						This Year					
General	SC	ST	OB C	Physically Challenged	Total	General	SC	ST	OB C	Physically Challenged	Total
1981	34	03	202	02	2222	1347	33	2	242	NIL	1624

Demand ratio : 4.3

Dropout % : 0.02

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

- Under summer trainings/employment enhancement programme, aptitude development classes and specific modules related to core technical subjects are organized for the purpose of placement. These also benefit the students appearing for other competitive examinations.
- Career Development Centre (CDC) is accountable for skill enhancement of students, provides coaching on Aptitude, Language Skills, Employ-ability Skills, Business Communication, Personal Productivity Skills, Quality and Managerial Skills.

No. of students beneficiaries: 558

5.5 No. of students qualified in these examinations

NET  SET/SLET  GATE  CAT   
IAS/IPS etc  State PSC  UPSC  Others GRE

5.6 Details of student counseling and career guidance:

1. Refer students to various companies for industrial training and placement
2. Coordinate presentations and final viva of the final year students
3. Obtain consent of the students for each and every drive for the master data
4. Provide information to the parents, regarding their wards placement activities / placement progress
5. Provide complementary aptitude course material by rankjunction.com (video lecture) to the students
6. Create awareness amongst students about job fairs
7. Provide pre-placement study material for recruitment drives
8. Organize alumni lectures for various streams
9. Provide pre placement technical training
10. Conduct the guest lecture to enrich the students with the latest updates of the industry
11. Placement drives and various tests like COCUBES AND AMCAT.
12. Provide the necessary information about the various companies offered by talent grids graduate competence test FNAT, (TGGCT), COCUBES AND AMCAT.
13. Awareness about entrepreneurial endeavours and hand holding students in making business plans and reaching start-up stage.

Number of students benefitted: 343

5.7 Details of campus placement

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
157	419	385	85

5.8 Details of gender sensitization programs: NIL

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events Sports:

State/ University level

No. of students participated in cultural events & Technical Events

State/ University level  National level  International level

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

Sports: State/University level  National level  International level

Cultural & Technical:

State/University level  National level  International level

5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	34	2127500
Financial support from government	NIL	NIL
Financial support from other sources		
Number of students who received International/ National recognitions		

5.11 Student organized / initiatives

Fairs : State/ University level  National level  International level

Exhibition: State/ University level  National level  International level

5.12 No. of social initiatives undertaken by the students

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

## **Criterion – VI**

### 6. Governance, Leadership and Management

#### 6.1 State the Vision and Mission of the institution

##### **Vision**

MRU envisions being a Centre for knowledge generation, dissemination and transferring in the frontier areas, which derives impetus from various disciplines of sciences, humanities and technology and generates globally relevant human resource and knowledge which addresses the future issues/needs of society.

##### **Mission**

- To impart outcome based holistic education
- To disseminate education in frontier areas
- To produce globally competitive, ethical and socially responsible human resources
- To produce human resources sensitive to issues of Environment and Sustainable Development

#### 6.2 Does the Institution have a Management Information System? Yes

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

##### 6.3.1 Curriculum Development

1. Semester system with Choice Based Credit System (CBCS): Learn at one's own pace: Flexibility to register for lesser or higher number of credits. Learners' choice of courses: Flexibility to pick and choose courses from different areas
2. Holistic Development: Development of a person's emotional, social, ethical and creative potential through soft courses
3. Multidisciplinary approach: Small core and large elective basket. Flexibility to choose electives from other departments like Engineering, Management, Humanities, Sciences and Social Sciences.
4. Global Graduate Attributes: Program design and delivery ensures development of Global Attributes (GAs)
5. Learning by Doing: Lab component with all courses; specialized workshops/projects every semester
6. Emerging/Futuristic courses: Students' exposure to emerging technologies/sciences
7. Environment & Sustainable Development: Key component of all programs
8. Research & Development: Early exposure to Research field.

## PROGRAMME STRUCTURE

The university program curriculum and delivery is designed to ensure development of Global Graduate Attributes as defined by International Professional Societies of the concerned areas. The courses in a Program can be categorized on the basis of course nature and course type.

### COURSE TYPE

- a. Core courses: Group of courses specifically required for a given programme of study. These are compulsory for a student and no exemption is granted.
- b. Elective courses: Group of courses in a programme where the student has the flexibility of choosing courses of his choice and interest. Electives to be offered in a department are subject to availability of expert faculty and enrollment of a specified minimum number of students in an elective.

### COURSE COMPONENTS

- a. Lecture (L)   b. Tutorial (T)   c. Practical (P)   d. Outcome (O)

### COURSE NATURE

- a. Hard course (L-T(optional) -P and/or O):  
These courses are for development of hard skills.
- b. Soft course (L-P and/or O):

These courses are for the development of a person's emotional, social, ethical, professional and creative potentials.

- c. Workshop (P):

Courses conducted in the workshop mode to impart practical skills to the students on upcoming tools and technologies.

- d. Non-teaching credit course (O):

These courses may include seminars/ projects/presentations etc. to imbibe self learning ability in the students.

- e. Outcome Based Course (O): Conducted in contact mode, these courses are specifically targeted at identified outcomes.

## 6.3.2 Teaching and Learning

Following measures are taken to make continuous improvements in the teaching - learning process:

1. Faculty induction program and workshops are conducted at the beginning of an academic year to make the newly inducted faculty aware of the teaching - learning practices being followed by the institution.
2. Reviewing the course material before the commencement of the session by the departmental committees ensures the timely preparation and quality of course material to be uploaded on intranet for students' reference.
3. Periodic reviews of courses being delivered, by course coordinators and their teams, ensures uniform coverage and timely flagging of academic issues, if any, in the delivery of course.
4. Online feedback taken twice a semester for a course, from students as well as faculty delivering the course, helps to identify the improvement areas and check the convergence of faculty and student perception.

5. Analysis of internal assessment and university results is done and presented in academic committee. These analyses are helpful in identifying the concern areas and putting in appropriate measures/strategies

#### 6.3.3 Examination system

1. Examinations are well planned.
2. Continuous evaluation of student performance in theory as well as lab courses is done through series of tests, quizzes, assignments, tutorials, viva voce etc.
3. Question Papers are designed to assess the achievement of outcomes as defined in course description.
4. Uniform evaluation tools are applied across various sections taking the same course. A common question paper is administered and questions in answer scripts are marked by single evaluator as per guidelines agreed in the course faculty group.
5. Assessment of examination results is an important part of teaching-learning process.

#### 6.3.4 Research and Development

1. Institute R&D fund is allocated to various faculty members for seeding the research and development work to a stage where it is ready for submission.
2. Research Incentive Scheme has been introduced to encourage faculty members to publish in SCOPUS conferences and journals.
3. Faculty members are encouraged to collaborate and develop external R&D linkages.
4. Departments recruit research assistants to assist faculty members with their research work.
5. Ph.D. Program has also been initiated in the University and 46 students have been registered for the same in different departments.

#### 6.3.5 Library, ICT and physical infrastructure / instrumentation

1. Library: To enrich the library following practices are followed:
  - a. Allocation of funds to departments enables the individual faculty and departments to buy books without prior sanctions/approvals.
  - b. As an institutional policy the library encourages procurement of larger no of titles rather than large no of volumes of a title.
  - c. Access to online journals on faculty PCs.
  - d. Availability of digital material in digital library.
2. ICT: Usage of ICT
  - a. In teaching -learning process: LCD projectors; availability of course material on intranet for ready reference; Wi Fi enabled campus; Online feedback system ; conduct of webinars; usage of Virtual labs (as Nodal centre for Virtual Labs)
  - b. In administration: Library; fee collection; admission; biometric employee attendance system; attendance monitoring of students.
3. Infrastructure/Instrumentation:



- a. Infrastructure as per regulatory body is established and maintained. Maximum utilization of resources is encouraged.
- b. New Research labs have been developed by institutional R&D funding
- c. For summer trainings all requirements of new instruments/additional consumables are met.
- d. Faculty-In-charges of Labs are responsible for organizing the maintenance of all equipments in their labs and also raising the new requirements for labs in their charge.
- e. Annual maintenance of instruments/infrastructure is done as per requirement.
- f. Liberal grants for student projects and innovation lab are provided.

### 6.3.6 Human Resource Management

1. The College has specific policies and processes for Human Resource Management.
2. MREI has a complete HR Team that takes care of the recruitments, payrolls, appraisals and all HR issues.
3. A dedicated HR representative is available on campus for addressing HR queries and issues

### 6.3.7 Faculty and Staff recruitment

1. The Interview Panel boards comprise of Professors from IITs, JNU, DU and other premiere institutes
2. Screening of applicants, as per norms agreed, is done before calling for interviews
3. In case a potential candidate cannot attend the interview a telephonic/Skype interview is conducted.
4. For wider applicant base advertisements in national daily newspaper is published.
5. In case of Lab staff, recruitment directly from polytechnics is also encouraged.

### 6.3.8 Industry Interaction / Collaboration

Institutional organization structure has a Dean - Industry Interface, who is responsible for interfacing with the Industries for the following:

1. External interface with Industry for skill development, guest lecturers; visits to the industry; student trainings and placements.
2. Float various extension programs for external faculty/industry personnel.
3. Facilitate consultancy assignments

### 6.3.9 Admission of Students

1. Setting minimum marks requirement in qualifying exams as eligibility condition ( ex. 65% in XII for admission to B Tech program)
2. Online applications for admissions

- Fair, transparent and merit based Admission process through Haryana State Counseling Society and Institute level Physical counseling.

#### 6.4 Welfare schemes for

Teaching	Tie up with Reputed Hospital for Medical Care and Provided Accidental Insurance
Non teaching	Tie up with Reputed Hospital for Medical Care; Provident Fund
Students	Provisions of on-campus medical facilities for first aid and minor medical exigencies; availability of ambulance on the campus for severe emergency.

6.5 Total corpus fund generated

6.6 Whether annual financial audit has been done Yes  No

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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	No		Yes	IQAC Appointed Committee
Administrative	No		Yes	Internal Auditors – Head Office

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

For UG Programmes Yes  No

For PG Programmes Yes  No

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

- University has reduced the period of conduct of examination, thereby increasing the duration of academic session
- Panel of external examiners for university practical/project etc. examinations is now floated by the university.
- University has made online facility for:
  - Uploading of internal assessments and external practical/project marks.
  - Declaration of results and copy of individual mark sheet.
  - Providing admit cards for examination.

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges? Not Applicable

6.11 Activities and support from the Alumni Association

- Alumni conduct lectures/workshops/seminars for skill development of current students
- Annual Alumni meet on 5th September every year

3. Alumni act as mentors/judges for various student club activities

### 3.12 Activities and support from the Parent – Teacher Association

Dates are earmarked in the academic calendar for parent-teacher interaction to provide information to the parents regarding student's attendance and academic performance.

### 6.13 Development programs for support staff

Administrative staff is trained on usage of different software involved in institutional processes such as admission, attendance, accounts, library management, managing web portals of regulatory bodies etc.

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

- Installation of solar street lights
- Tree plantation drives
- Installation of solar panels and lighting of Vice-Chancellor's office using the same
- Installation of dustbins for waste segregation at prime locations in campus e.g. near food courts.
- Institutional initiative of promoting R&D projects in the area of renewable energy and green Chemistry. These projects have led to SPV panels installation and development of SPV drier, to be used by sister hotel management institute for drying of grains, condiments etc.
- Eco Club conducts various activities for making students and faculty/staff aware about the environmental hazards by conducting lectures and eco-drives etc.

## Criterion – VII

### 7. Innovations and Best Practices

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

- 1. Strengthening of STP and EEP:** This year rigorous efforts were made on summer training of B.Tech. students so that they can be better connected with the course and understand the concepts by applications. The summer training project (STP) included the technical and soft skills training of the students. The Employability enhancement program (EEP) was also conducted and it helped in increasing the numbers & performance of the students in placement.
- 2. Introduction of Attendance Management System:** A new centralised attendance management system was introduced which helped to have an automated system and reduced the administration related work load as well. Attendance of both graduate and post-graduate students is updated on daily basis on an automated software TCS-ION.
- 3. Improved Course Coordination system:** A revised course coordination system was introduced to have uniform course coverage, uniform evaluation tools and grading process across branches, shifts and sections. With the help of this all academic issues pertaining to a course are raised and addressed timely in the course coordination group.

4. **Introduction of Special Interest Group:** Summer trainings were designed to extend the latest tools and technologies to the students and bridge the academia-industry gap. The trainings are regularly enhanced through introduction of new summer training modules and workshops prepared by the Special Interest Groups of the departments. This further created quality circles for different topics among the faculty and students.
5. **Introduction of Special Training for PG Students:** Specific Graduate attributes were developed for the PG students and in accordance to them a special and robust training for our PG students (M.Tech Courses) was arranged. The same practice helped us in engaging the students better in the course.
6. **Training Needs Assessment (TNA):** A TNA was done for the faculty members of the institute and the identified training needs were then fulfilled in the form of specific workshops and FDPs.

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

S. No.	Activity Planned	Facilitator	Activity Held on	Comments
1	Workshop on “Qualitative Changes Envisaged Ahead”	Prof.(Dr) V K Mahna, Pro-Vice Chancellor, MRU	9-Mar-16	
2	Ethics & Values at the work place	Mr. R S Endlaw, Judge, Delhi High Court, Mr. S Ravindra Bhat, Judge, Delhi High Court	2-Apr-16	
3	Submission of Times i3c Engineering Institutes Ranking Survey 2016 Report	IQAC Coordinators and IQAC Team	8-Apr-16	
4	Examination System in MRU	Prof. B.D.Pathak, Dean Exam	16-04-2016	
5	Conf on Emerging Trends and Innovations in Electronics and Communication (ETIETE-2016)	ECE Dept., MRU	28 June, 2016	
6	Workshops on Experiential Learning	Prof. N.Martin	April - June, 2016	

7.3 GIVE TWO BEST PRACTICES OF THE INSTITUTION (PLEASE SEE THE FORMAT IN THE NAAC SELF-STUDY MANUALS)

1. Design of API forms for faculty assessment.
2. Thrust on organizing workshops and seminars for faculty and students to update their knowledge on latest developments in engineering and science.

## 7.4 CONTRIBUTION TO ENVIRONMENTAL AWARENESS / PROTECTION

Paryavaran Club of Manav Rachna College of Engineering organized few events during odd Semester July-June'15. These events were:

1. **Slogan Writing, Pencil Sketching** – Theme for these is to preserve wildlife.
2. **Quiz Competition**- The questions of the quiz were related to environmental awareness, social issues, pollution and sustainable development.
3. **Environmental Capture**- To capture various moments of environmental phenomenon
4. **Earth Day Celebration**

7.5 Whether environmental audit was conducted?      Yes       No

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

S. No.	Areas	Results
1	Strength	No. of Admission, Infrastructure, Academics & its Delivery Process, Curricular activities, No. Faculty & staff, Alumni Association, Operational budget
2	Weakness	consultancy, External grants, Extension courses
3	Opportunity	Demand of professional courses, International Collaborations, Availability of research grants by funding agencies,
4	Threats/ Challenges	Large number of Universities/ Institutions coming up in Delhi NCR, Gap Between Course Curriculum and Industry Demands, International Student' interest in Indian Professional courses

## 7. Plans of institution for next year

1	Workshop on "Feedback system in University"	Prof. Dr. Meenakshi Khurana, Dean (Academics)
2	Research Proposals for Govt Funding	Prof(Dr) B. M. Bahal, Dean(Appl Sci & Research)
3	Gender Equality at Work Place	Eminent Women Activist
4	Research oriented approach in teaching	Prof. (Dr) Jay R.Bhatnagar, CST
5	Case Studies Paedagogy	Prof (Dr) Rajat Gera,HOD(Mgt )
6	Writing Quality Research Papers	Prof(Dr) Rajiv N. Rai, HOD(ME)
7	Workshop on 'Problem based learning"	Prof.(Dr) Meenakshi Khurana, Dean (Academics)
8	Challenges in Teaching and steps for improving the quality.	Ms.Goldi Malhotra, ED(Education)

9	Quality in Teaching - Learning Process -An Awareness Program	Prof(Dr) S. K.Bedi, Dean(FCBS), MRIU
10	Quality improvement in the Examination system of MRU	Prof.Dr.B.D.Pathak
11	Roles and Responsibilities of Faculty members	Prof.M.R.Tyagi, Dean Engg
12	Intellectual Property Rights - An overview	Dr.A.K.Kashyap, Indian Oil, R &D