

Minutes of the Internal Quality Assurance Cell (IQAC) meeting on 30th June, 2020

The meeting of the Internal Quality Assurance Cell (IQAC) 2020 was held on 30th June, 2020 at 11.30 am in the Convention Hall of the institute. The meeting was chaired by **Dr. R. K. Pandit**, Director of the Institute. Following have attended the Internal Quality Assurance Cell (IQAC) meeting:

Representative of Management:

- **Shri. Prashant Mehta, IAS, Member, Board of Governors**
- Er. Ramesh Agrawal, Secretary, SECS & Member BoG

The External Expert:

- Dr. I. K. Bhat*, Vice Chancellor, Manav Rachna University, Faridabad

Nominee from Local Society:

- Shri. Keshav Pande, Journalist

Nominee from Alumni:

- Er. Ashutosh Chincholikar*, M.D. & CEO of Smart Controls Ltd.

Nominees from Employer/Industries:

- Mr. Ajay Joshi*, Industrialist, Appmaisters, VadodraServices, Pune
- Mr. Yatindra Kumar Shrivastava*, Industrialist, Syssteanz Management Advisory. Services. Pune

Student Representative:

- Mr. Kunal Abhishek*

Faculty Representatives:

- Dr. Manjaree Pandit, Professor & Dean Academics
- Dr. P K Singhal, Professor & Exam Controller
- Dr. Rajeev Kansal, Professor & Dean Students Welfare
- Dr. Akhilesh Tiwari, Professor & Head CSE/IT
- Dr. Manish Dixit, Professor
- Prof. R. R. Singh Makwana, Assistant Professor

Administrative Officers:

- Mr. Vikram Singh Rajput, Training & Placement Officer
- Mr. Dharmendra Gorakhpuri, Finance Officer
- Mr. Atul Chauhan, Assistant Registrar

Coordinator of the IQAC:

- Dr. Pratesh Jayaswal, Professor & Coordinator IQAC

**Attended through online mode*

The following deliberations took place in the meeting. The Item wise details are as follows:

| Item-1 | To confirm the minutes of the previous IQAC meeting on 3rd March 2020. |
|--------|---|
| | <p>➤ The minutes of the previous IQAC meeting dated 03.03.2020 regarding following points were confirmed.</p> <ul style="list-style-type: none">• Actions for promoting a culture of meritocracy in the institute.• Quality improvement initiatives & events conducted under IQAC & TEQIP-III.• Constitution of Parent-Teacher Association at the department level. |



- Constitution of Alumni Association at department level.
- Formulation of the draft Internship policy of the institute.
- Conduction of International Symposium December 2019.
- Mechanism developed to compute the Administrative Efficiency Index (AEI) of the departments & Sections.
- The report of the Girls Grievances cell (GGC).
- Preparations of the Institute for the forthcoming NBA accreditation.
- Academic & Administrative Audit by external experts.
- Status of facilities in the Central Library.
- Financial support under the IRS- Scheme & Ph.D. admissions under the QIP scheme.
- Status of e-repository created on MOODLE for UG projects and ME dissertations.
- First student feedback report for January-April 2020 Sessions.
- Details about Hackathon conducted in the institute.
- Monitoring of on-line teaching-learning through the MOODLE Working Index (MWI).
- Mechanism for ranking the performance of student clubs/chapters
- Performance of faculty & staff members in on-line courses on SWAYAM/ NPTEL platform during July-Dec. 2019.

Minutes of the previous IQAC meeting dated 03.03.2020 is attached.

Item-2

To apprise about conduction of classes and academic activities in online mode

- In view of the present situation due to COVID-19 pandemic, various advisory were issued to faculty & Staff members of Institute regarding guidelines for ensuring Teaching Learning activities through online mode. In addition to above, all the faculty members were instructed to submit the details of work done from home including online sessions of students Teaching & Learning and online Mid Sem Examination conducted.
- Further, teaching learning activities (online classes/interactive sessions with students) conducted during lockdown at various department level is compiled as summarised below:

| Summary of On-line Classes | |
|----------------------------|--|
| Name of Department | Remarks |
| Civil | Total Interactive Classes = 195 Videos on youtube/ Google Drive = 74 |
| Mechanical | Total Interactive Classes = 253 Videos on youtube/ Google Drive = 192 |
| Electrical | Total Interactive Classes = 376 Videos on youtube/ Google Drive = 192 |
| Elex & ET | Total Interactive Classes = 204 Videos on youtube/ Google Drive = 298 |
| CSE/IT | Total Interactive Classes = 430 Videos on youtube/ Google Drive = 342 |
| Chemical | Total Interactive Classes = 81 Videos on youtube/ Google Drive:59 |
| Applied Sciences | Total Interactive Classes = 134 Videos on youtube/ Google Drive = 114 |
| Humanities | Total Interactive Classes = 161 Videos on youtube/ Google Drive = 06 |
| Architecture | Total Interactive Classes = 95 Videos on youtube/ Google Drive = 57 |
| BT | Total Interactive Classes = 92 Videos on youtube/ Google Drive = 30 |

- The house **appreciated the initiatives** taken by Institutes to ensure the use the various tools and techniques for online interactive teaching, e-content developments, effective delivery, peer group learning, various audio-visual aids and many other on-line tools ICT initiatives of MHRD during the COVID-19 pandemic situation.
- **Mr. Ajay Joshi, Industrialist**, Appmaisters, Vadodra advised for the conduction of Training to faculty and staff for the effective conduction of virtual classes/lab.
- The **External Expert Member Dr. I. K. Bhat**, advised to ensure Collaborative learning along with regular online classes as it is the educational approach of using groups to enhance learning through working together. Groups of two or more learners may be formed to work together to solve problems, complete tasks, or learn new concepts.

Detailed faculty wise report on conduction of classes, submission of on-line assignments/quiz etc is enclosed as Annexure.

Item-3 To apprise about conduction of online remedial/additional classes during lockdown

- The institute is always focused to ensure the performance of students with special attention to the needy students for the improvement in **quality and equity**. In view of same the classes and other academic activities were continued after **26th April 2020** to help those students who were not able to attend the classes earlier due to technical or other reasons. The remedial classes for UG & PG students were also conducted. Following is the summery of total Remedial Classes conducted through online mode during lockdown & subsequent unlock-1 in various departments:

| Dept./Year | B.Tech. | | | | M. Tech | Total |
|-----------------|---------|-----|-----|-----|---------|-------|
| | I | II | III | IV | I | |
| Applied Science | 57 | 52 | 12 | 0 | 0 | 121 |
| Civil | 6 | 35 | 8 | 6 | 0 | 55 |
| Mechanical | | 40 | 15 | 0 | | 110 |
| Automobile | 51 | 24 | 9 | 5 | 4 | 38 |
| Electrical | 42 | 79 | 49 | 36 | 37 | 243 |
| CSE | | 72 | 42 | 32 | | 217 |
| IT | 27 | 51 | 40 | 36 | 44 | 127 |
| Electronics &ET | 0 | 106 | 72 | 24 | 19 | 221 |
| Chemical | 0 | 25 | 32 | 19 | 0 | 76 |
| Architecture | 15 | 2 | 0 | 0 | 0 | 17 |
| Biotech | 0 | 22 | 15 | 13 | 0 | 50 |
| MCA | 18 | 61 | 37 | 0 | 0 | 116 |
| Total | 216 | 569 | 331 | 171 | 104 | 1391 |

- The House appreciated the efforts made by Institute to reach each individual effectively and to maintain equity aiming at improving **“Transition Rate”**.

The detailed report on online remedial & additional classes is enclosed as Annexure

Item-4 To review the conduction of online Mid Semester Examination through MOODLE and report the variation in scores through statistical analysis.

- The mid-semester II examination was conducted online using MOODLE from 26th April to 2nd May 2020. For establishing the credibility of evaluation, the statistical comparison of

| | |
|--------|---|
| | <p>results of online open book examination (MCQs as well as subjective in a few courses) has been done with the off-line pen paper mode traditional examination (with subjective questions).</p> <ul style="list-style-type: none"> ➤ The courses where the mean marks were ≥ 18 and/or the standard deviation was ≤ 2 were identified where the variation of marks was found to be very less in the online mode of examination. ➤ Out of the 259 courses for which the results of the online mid-semester examination were analyzed, about 45 courses ($< 17.5\%$) were found to have low variation in students scores. ➤ Efforts were made to identify the reasons for very low variation in scores or very high scores for all students to establish the credibility of the online/open book mid-semester examinations conducted through the MOODLE. ➤ The mid-semester III examination was also conducted online using MOODLE from 16th June to 24th June 2020. ➤ The External Expert Member Dr. I. K. Bhat, Vice Chancellor, Manav Rachna University, Faridabad has suggested following to ensure the proper assessment through digital mode: <ul style="list-style-type: none"> ▪ The faculty members should prepare question banks with more number of questions ensuring three section/level of questions (Easy, Moderate & Tough) to test the concept, basic knowledge, numerical skills and implementation of technical skills. MCQs do not have to be limited to only assessing recall. Students' higher-order thinking, such as application, analysis, and synthesis, should be tested using well-constructed MCQs. Faculty should Consider the sophistication of student learning that the MCQ is testing & each MCQ should be constructed to test a single course concept or outcome. ▪ Formative assessment during ongoing process of teaching- learning with focus on learning goals. <p>Annexure: Performance of Students in Mid-semester Examinations</p> |
| Item-5 | <p>To notify the House about the Student Feedback on digital teaching during the National Lockdown imposed due to COVID-19</p> <ul style="list-style-type: none"> ➤ The house reviewed the Student Feedback on digital teaching and assessment during the lockdown due to COVID-19 and found following observations: <ul style="list-style-type: none"> • Increasing Education Outcomes. • Improvement in Formative Assessment along with mid sem assessment using digital means of online assessment. • Approach of Learner centric study model allowing self paced & adaptive learning. • Increase in digital literacy & competency of all faculty members & Students • Flexible timing & home tutoring through live tutoring Online classes led to improvement in students attendance ➤ The External Expert Member Dr. I. K. Bhat, Vice Chancellor, Manav Rachna University, Faridabad has suggested for the Mandatory provision of Linking of result declaration with submission of all required feedback by the students for increase in number of responses/better response of feedback collected from students. ➤ Dr. I. K. Bhat, also advised to initiate the provisioning of mentoring to faculty scoring less FFI through faculty achieving higher FFI (Faculty Feedback Index). <p>The full report & summary is enclosed as Annexure.</p> |

| | |
|--------|---|
| Item-6 | <p>To inform the House regarding feedback forms designed for (i) Counsellors (ii) Administrative Officer (iii) T&P officer (iv) Accounts Officer & (v) Controller of exam.</p> <ul style="list-style-type: none"> ➤ Director of the Institute has informed the house about the existing on-line feedback collected and analysed for the faculty members since 2017-18. He also informed about recent Initiative to take feedback for other staff members (Counsellors, Administrative Officer, T&P officer & Accounts Officer & Controller of Exam) also. The feedback report will be appraised in the next meeting of IQAC. <p>Annexure: Feedback forms of officers</p> |
| Item-7 | <p>To apprise the House about the conduction of on-line Summer Internship Programmes & student feedback</p> <ul style="list-style-type: none"> ➤ Dean Academics of the Institute appraised the house about mandatory Summer Internship Programmes (SIP-I & SIP-II) which are conducted in-house by the institute were offered in on-line mode this time due to COVID-19. <ul style="list-style-type: none"> ▪ The total number of modules offered was 33 for SIP-I. ▪ Total number of students registered for SIP-I were 953. The feedback was given by 526 students. ▪ In SIP-II the soft skills module was developed and conducted in on-line mode. ▪ Total number of students registered for SIP-II was 980. The feedback was given by 622 students. ➤ Er Ashutosh Chincholikar, M.D. & CEO of Smart Controls Ltd. has expressed willingness for the support in Internship modules based on Industry Automation. ➤ The IQAC members belongs to Industry have appreciated the new initiative and suggested to insure proper Internship Assessment as the purpose of this internship assessment is to provide the student intern with constructive feedback on his/her internship experience. This evaluation should be completed by the internship supervisor or the faculty coordinator most responsible for supervising the intern's work assignments. The student's grade should be partially based on your evaluation of his/her/their performance on each of the internship dimensions identified below. Use the evaluation rubric to assess the student's performance on each dimension by specifying a score based on the performance ratings and descriptors delineated in the rubric form. <ul style="list-style-type: none"> • Quality of Work: The degree to which the student's work is thorough, accurate, and completed in a timely manner • Ability to Learn: The extent to which the student asks relevant questions, seeks out additional information from appropriate sources, understands new concepts/ideas/work assignments, and is willing to make needed changes and improvements • Initiative and Creativity: The degree to which the student is self-motivated, seeks out challenges, approaches and solves problems on his/her own, and develops innovative and creative ideas/solutions/options • Character Traits: The extent to which the student demonstrates a confident and positive attitude, exhibits honesty and integrity on the job, is aware of and sensitive to ethical and diversity issues, and behaves in an ethical and professional manner • Dependability: The degree to which the student is reliable, follows instructions and appropriate procedures, is attentive to detail, and requires supervision • Attendance and Punctuality: The degree to which the student reports to work as scheduled and on-time <p>The feedback report is attached as annexure. Annexure: Internship modules offered and feedback for SIP-I & SIP-II</p> |

Item-8

To apprise about the conduction of Finishing School Program (Online Internship-2020) For Pre-Final and Final Year Students

- The house reviewed the introduction of the **Finishing School Program, 2020** (Online Internship) by Institute through online mode for Pre-Final as well as Final year students of the Institute. The Modules aimed to instil a synergy of both Soft Skills and Technical Acumen for increasing employability of students. It was designed to cater to the needs of the mandatory industrial internship programme and was open for students who were not able to get an Internship offer from any industry due to the COVID-19 Crisis.
- The program started on 18th May, it was designed to be equivalent of five weeks summer Internship period as per AICTE norms and was run daily with fixed number of hours.

| SUMMARY | |
|--------------------------------|-----|
| Total no. of students 3rd Year | 583 |
| Final year students | 148 |
| Outside Students | 03 |
| Total | 734 |

| S.No. | Department | Module Name | Registered students |
|-------|-------------------------------------|---|---------------------|
| 1. | Biotech Department | Medical Device Innovation | 5 |
| 2. | Chemical Engineering | Process Integration & Automation in Chemical Industries | 31 |
| 3. | Civil Engineering (148) | Module 1: Matrix Analysis of Structures | 1 |
| 4. | | Module 2: Environmental Engineering Design of Sewage Treatment Plant | 20 |
| 5. | | Module 3: Field Outlook in Geo-technical Engineering Projects | 65 |
| 6. | | Module 4: Energy Efficient Building (Planning, Design & Evaluation) and Pavement Design and Materials(Overview) | 55 |
| 7. | | Module 5: Structural Design of a Two Storey RC Building and MS Project | 7 |
| 8. | CSE & IT Engineering (312) | Module 1: Administrative Functions Automation and Data Loading | 7 |
| 9. | | Module 2: Applied Computational Skills | 42 |
| 10. | | Module 3: Cyber Security | 125 |
| 11. | | Module 4: Data Science | 138 |
| 12. | Electrical Engineering (35) | Biomedical Signal and Image Processing using MATLAB/OCTAVE Platform | 7 |
| 13. | | Soft Computing Techniques in Engineering | 28 |
| 14. | Electronics Engineering | Robotics and Automation | 52 |
| 15. | Mechanical & Automobile Engineering | Advances in Mechanical Engineering | 151 |
| | | Total | 734 |

➤ The Industry experts members of IQAC, advised to collaborate these finishing school modules with renowned industries to use industry inputs for better outcomes of Finishing School programmes introduced to increase the employability rate.
 The feedback and module details are available in Annexure.

Item-9

To report the initiatives taken for organizing GATE Training & the performance of students in GATE-2020

➤ The house reviewed the status of following numbers of selections in GATE 2020, GATE training provided to students by the institute under TEQIP-III and ranks obtained by the students lows:

| Sr. No. | Particulars | Numbers | | |
|---------|---|-------------------|------|--------|
| 1 | Total Number of Final Year Students 2019-2020 | 906 | | |
| 2 | Total Number of Students who have taken GATE Training | 486 | | |
| 3 | Total Number of Students (Final Year) taken GATE Training | 296 | | |
| 4 | Total Number of Students (Final Year) Appeared in GATE-2020 | 287 | | |
| 5 | Total Number of Students (Final Year) qualified GATE-2020 | 125 | | |
| | | Name | Rank | Branch |
| 6 | Best Five Rank in GATE-2020 (Name, Rank, Discipline) | 1.Mohammad Faizan | 315 | EC |
| | | 2.Chirag Jain | 418 | EC |
| | | 3.Shubham Agrawal | 943 | ME |
| | | 4.Ashwin | 1019 | EC |
| | | 5.Anoop Pathak | 1074 | EC |

GATE 2020 Branch-wise Result Analysis

| S.NO. | Department | No. of Qualified Students |
|--|------------------------------|---------------------------|
| 1. | Civil Engineering | 24 |
| 2. | Electrical Engineering | 22 |
| 3. | Mechanical Engineering | 21 |
| 4. | Electronics Engineering | 19 |
| 5. | Computer Science Engineering | 34 |
| 6. | Chemical Engineering | 04 |
| 7. | Biotechnology | 01 |
| Total qualified | | 125 (about 44%) |
| Total Number of Students Appeared | | 287 |

➤ A general discussion was also done to identify the lack of interest in students towards appearing in GATE, members were in opinion that the students are more interested to get the jobs in new emerging areas of IT & Product Development as compared to higher education or jobs in traditional core sectors.

| Item-10 | <p>To apprise about the conduction of Employability Skills Training to final & pre-final year students under TEQIP-III</p> <ul style="list-style-type: none"> ➤ The house reviewed the following status of Employability Skills Training conducted by the Institute to final & pre-final year students under TEQIP-III, house was in opinion to conduct such training regularly: <ul style="list-style-type: none"> ▪ Conducted 60 Hours Training for Final year Batch (2020 Graduated Batch) - 30 July to 22nd August, 2019 - Total students 740. ▪ Conducting Employability Skills Training for 2021 Graduating Batch: Started on 4th June, 2020 - Total students 844. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|--|--|----------------|--|----------------|--|----|-------------------|--------------------------|----|----|----|------------------------|---------------------------|----|----|----|------------------------|---------------------------------------|----|----|----|-------------|---------------|----|----|----|--------|---------------------------|----|----|----|--------------|----------|----|----|--------------|--|--|-----------|-----------|
| Item-11 | <p>To apprise about online presentation & progress review of Ph.D. scholars under QIP/NDF/RA-TEQIP-III</p> <ul style="list-style-type: none"> ➤ The Dean Academics of Institute has appraised the house regarding following initiatives to continue the research activities during prevailing situation of COVID-19, in the benefits of research scholars admitted through various schemes: <ul style="list-style-type: none"> ▪ In view of conduction of Teaching, learning & Research activities through online mode due to prevailing situation of COVID-19 pandemic, online Presentation & progress review of Ph.D. scholars under QIP/NDF/RA-TEQIP-III by approved RAC (Research Advisory Committee) for concerned candidates was completed before 30th May 2020. ▪ The review of all Ph.D. scholars registered under QIP/NDF/RA-TEQIP-III was conducted between 10th May to 30th May 2020. All the 28 registered students appeared for the on-line review. The department wise details are: <table border="1" data-bbox="365 1153 1372 1881"> <thead> <tr> <th>S.No.</th> <th>Department</th> <th>TEQIP/NDF/QIP</th> <th>No. of Student</th> <th>No. Students Present for online review</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Civil Engineering</td> <td>TEQIP RA = 1 NDF = 04</td> <td>05</td> <td>05</td> </tr> <tr> <td>2.</td> <td>Mechanical Engineering</td> <td>TEQIP RA = 01 NDF = 05</td> <td>06</td> <td>06</td> </tr> <tr> <td>3.</td> <td>Electrical Engineering</td> <td>TEQIP RA = 02 NDF = 04 QIP = 02</td> <td>08</td> <td>08</td> </tr> <tr> <td>4.</td> <td>Electronics</td> <td>TEQIP RA = 01</td> <td>01</td> <td>01</td> </tr> <tr> <td>5.</td> <td>CSE/IT</td> <td>TEQIP RA = 01 NDF = 05</td> <td>06</td> <td>06</td> </tr> <tr> <td>6.</td> <td>Architecture</td> <td>NDF = 02</td> <td>02</td> <td>02</td> </tr> <tr> <td colspan="2">Total</td> <td>TEQIP RA = 06 NDF = 20 QIP = 02</td> <td>28</td> <td>28</td> </tr> </tbody> </table> | S.No. | Department | TEQIP/NDF/QIP | No. of Student | No. Students Present for online review | 1. | Civil Engineering | TEQIP RA = 1 NDF = 04 | 05 | 05 | 2. | Mechanical Engineering | TEQIP RA = 01 NDF = 05 | 06 | 06 | 3. | Electrical Engineering | TEQIP RA = 02 NDF = 04 QIP = 02 | 08 | 08 | 4. | Electronics | TEQIP RA = 01 | 01 | 01 | 5. | CSE/IT | TEQIP RA = 01 NDF = 05 | 06 | 06 | 6. | Architecture | NDF = 02 | 02 | 02 | Total | | TEQIP RA = 06 NDF = 20 QIP = 02 | 28 | 28 |
| S.No. | Department | TEQIP/NDF/QIP | No. of Student | No. Students Present for online review | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. | Civil Engineering | TEQIP RA = 1 NDF = 04 | 05 | 05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. | Mechanical Engineering | TEQIP RA = 01 NDF = 05 | 06 | 06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. | Electrical Engineering | TEQIP RA = 02 NDF = 04 QIP = 02 | 08 | 08 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. | Electronics | TEQIP RA = 01 | 01 | 01 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. | CSE/IT | TEQIP RA = 01 NDF = 05 | 06 | 06 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6. | Architecture | NDF = 02 | 02 | 02 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | | TEQIP RA = 06 NDF = 20 QIP = 02 | 28 | 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



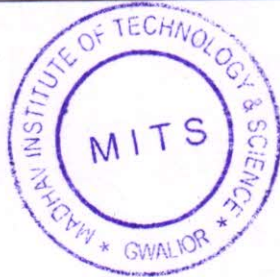


Item-
12

Contribution on behalf of Institute Faculty & Staff in PM Cares Fund to fight against COVID-19:

- Director of the Institute has informed the house about various initiatives & steps taken to ensure that the spread of CORONA virus is slowed down and to help the society by providing support during the lockdown period through the conduct of awareness programmes, free Counselling, tele-support, developing e-material for managing online classes, involving in development of essential solutions, etc. as efforts in fighting COVID-19.
- In addition to above a financial Contribution provided by Institution (faculty/staff members/ students) towards the relief fund is as follows.

| Category of Employees | Numbers | Contribution (Rs) |
|---|------------|--------------------|
| TEQIP Faculty members | 84 | 4,73,580/- |
| Regular faculty & Staff (Regular teaching staff, class-II, III & IV employees) | 214 | 5,55,928/- |
| Contract Faculty | 59 | |
| Contractual Staff (AE, Counsellors, Doctor & contractual technical staff) | 07 | |
| TOTAL | 364 | 10,29,508/- |



Item-
13

To report on status of implementation of the Flexible Curriculum

- The house reviewed the following status of implementation of Flexible curriculum & open courses to be offered to the **B.Tech. VII Semester of July – Dec. 2020** under the **Flexible Curriculum (2017-18 admitted batch)**:
- The flexible curriculum has been implemented for the batch admitted in 2017-2018. The students under the Flexible Curriculum are now in VI semester and will be promoted to the VII semester the next Academic Session, i.e. 2020-2021, beginning shortly.
 - In the January-June 2020 session the institute has offered Departmental Elective Courses (DEs), Open Courses (OCs) and also offered courses for **credit transfer from MOOCs using the NPTEL platform**.
 - Also, the provision for getting a **minor specialization** (in other engineering discipline) or **Honours** (in parent discipline) was also made from V semester onwards, since July 2019 session.
 - The DEs, OCs & MOOCs to be offered in the next semester (July 2020-Decemebr 2020) were approved by the **Academic Council meeting on 15th June 2020**.
 - Following **Open Category (OC) courses** are proposed by the different departments and will be offered to the **B.Tech. VII Semester of July – Dec. 2020** under the **Flexible Curriculum (2017-18 admitted batch)**.
 - The Board of Studies has prepared the syllabi for these OCs to be offered by their respective departments.

| S. No. | Course Name (OC-2) | Course Code (OC-2) | S. No. | Course Name (OC-3) | Course Code (OC-3) | Offering Department |
|--------|---|--------------------|--------|---|--------------------|-------------------------|
| 1 | Integrated Waste Management for Smart City | 900201 | 1 | Urban Planning & Transportation Systems | 900213 | Civil Engineering |
| 2 | Project Planning & Control | 900202 | | | | |
| 3 | Industrial Automation | 900203 | 2 | Engineering Materials for Industrial Applications | 900214 | Mechanical Engineering |
| 4 | Solar Energy | 900204 | 3 | Maintenance Engineering | 900215 | |
| 5 | Applications of Electrical Equipment and Motors | 900205 | 4 | IoT in Microgrid | 900216 | Electrical Engineering |
| | | | 5 | Electrical Vehicles | 900217 | |
| 6 | Satellite Systems | 900206 | 6 | MEMS & Mechatronics | 900218 | Electronics Engineering |
| 7 | Consumer Electronics | 900207 | 7 | Multimedia Communication | 900219 | |
| 8 | Soft Computing | 900208 | 8 | R Programming | 900220 | CSE & IT |
| 9 | Network Security | 900209 | 9 | Artificial Intelligence | 900221 | |
| 10 | Data Mining & Warehousing | 900210 | 10 | Computer Networks | 900222 | |
| 11 | Petroleum Processing Technology | 900211 | 11 | Process Safety & Hazard Management | 900223 | Chemical Engineering |
| 12 | Bioinformatics | 900212 | -- | -- | --- | Bio-Technology |
| - | - | - | 12 | Entrepreneurship & SMSE | 900224 | Humanities |
| - | - | - | 13 | Laser Technology | 900225 | Applied Science |

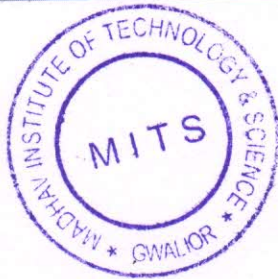
Item-
14

To apprise the house regarding approval of new Under Graduate Courses in Emerging areas

- The house appreciated the Institute efforts to start the following FIVE new Under Graduate courses in Engineering & Technology and Planning programmes with effect from 2020-21 academic session as per approval of AICTE:

| Level | Course | Intake |
|------------------------------|--|--------|
| Under Graduate (B.Tech.) | Mathematics and Computing | 60 |
| Under Graduate (B.Tech.) | Internet of Things (to be offered by Electrical Engineering Department) | 60 |
| Under Graduate (B.Tech.) | Internet of Things (IoT) [to be offered by Information Technology Department] | 60 |
| Under Graduate (B.Tech.) | Information Technology (Artificial Intelligence and Robotics) | 60 |
| Under Graduate (B. Planning) | B. Planning | 40 |

- The house also reviewed the following status of Scheme and syllabus and admission procedure of new courses to be offered w.e.f. 2020-21:
 - In view of interdisciplinary orientation of above courses in emerging areas, a committee has been constituted for the preparation and finalization of scheme & syllabus of aforementioned courses.
 - The admissions in first year for above courses along with other UG & PG courses offered by Institute will be done through Directorate of Technical Education, Madhya Pradesh.



Item-15

To apprise the House about the funds received from the AICTE in year 2019-2020

➤ The house appreciated the efforts made by faculty members to receive the grants under following schemes of AICTE to explore the research and development activities in the Institute:

| S. No | Scheme | Department | Coordinator | Title of the Project | Duration of Project | Amount (Rs.) |
|--------------|--|-----------------|----------------------|--|---------------------|---------------------|
| 1. | MODROBS | Mechanical | Dr. C. S. Malvi | MODROBS - Modernisation & Removal of Obsolescence | 02 Year | 9,00,000 |
| 2. | RPS | Electrical | Dr. H. M. Dubey | RPS – Research Promotion Scheme | 03 Years | 4,00,000 |
| 3. | STTP | CSE/IT/MCA | Dr. R.S. Jadon | STTP – Short Term Training Program | 01 Year | 3,00,000 |
| 4. | RPS | Institute Level | Dr. R. K. Pandit | Performance analysis of thermal comfort and Sustainability analysis of Heritage Buildings | 03 Years | 5,00,000 |
| 5. | Skill and Personality Development Centre | Institute Level | Dr. Pratesh Jayaswal | Skill and Personality Development Program Centre for SC/ST students | 03 Years | 15,46,750 |
| 6. | GOC (e-conference) | Institute Level | Dr. Manjaree Pandit | Second International Conference on Sustainable and Innovative Solutions For Current Challenges in Engineering and Technology | 06 Months | 1,66,667.00 |
| TOTAL | | | | | | 38,13,417.00 |

Item-16

To apprise & review the status of participation in Coursera for Campus: Coursera's Coronavirus Response Initiative.

➤ The house reviewed the following initiative of AICTE and efforts made by faculty & Students to take the benefit of opportunity made by AICTE for learning/certification from Coursera through online mode:

- As per AICTE announcement regarding **Coursera for Campus: Coursera's Coronavirus Response Initiative**, to help and to minimize the impact of the coronavirus outbreak on faculty & students, the Coursera community has launched a global effort to assist universities and colleges to deliver courseware online.

- Accordingly, the Institute has taken initiative to take the advantage of Coursera for Campus for the faculty & students of Institute. Coursera's Coronavirus Response Initiative will be available at no charge till 31 July 2020.
- **The Coursera Coronavirus Response Initiative is available for Institute to:**
 - Access to 3,800 courses and 400 Specializations
 - Up to 3,000 licenses for enrolled students
 - Institute may enroll students through July 31, 2020
 - Learners can access courses through September 30, 2020
- In view of the foregoing, Faculty & Students of all the Departments are utilizing the opportunity for the benefit of. **The usage report for the Coursera learning program is as follows as on June 29:**

| | |
|--|-------------|
| Total Enrolments | 2476 |
| Total unique learners | 641 |
| Learners who have enrolled in at least one course | 640 |
| Current members | 848 |
| Total unique courses | 649 |
| Total verified course completions | 475 |
| Total unique course completers | 208 |
| Total estimated hours spent | 5694 |
| Learners who have completed 50% of a course | 243 |
| Learners who have joined the program but have not enrolled in a course | 208 |
| Learners who have enrolled in a course but have not completed any course | 433 |
| Learners who have enrolled in 1 course | 248 |
| Learners who have completed 1 course | 109 |
| Learners who have enrolled in 2 courses | 135 |
| Learners who have completed 2 courses | 47 |
| Learners who have enrolled in more than 2 courses | 258 |
| Learners who have completed more than 2 courses | 52 |

| | |
|----------------|---|
| <p>Item-17</p> | <p>To report about joining of Institute in the Implementation of National Innovation & Start-up Policy.</p> <ul style="list-style-type: none"> ▪ The IQAC coordinator has informed the house about following institute initiatives to promote start-up, internship & innovations in the Institute campus via implementing National Innovation & Start-up Policy: ▪ As per mandate of MHRD is to ensure adoption of NISP by all the HEIs in a time bound manner, Institute has joined the NISP (National Innovation & Start-up Policy) campaign and have also started implementing the policy at Institute level. ▪ Dr. C. S. Malvi, Professor, Department of Mechanical Engineering is assigned the responsibility for initiating implementation of NISP at institute before beginning of the new academic year according to instructions from MHRD Innovation Cell/ AICTE. Dr. Malvi will work as coordinator for implementing the MHRD National Innovation & Start-up Policy at Institute level. <p>Annexure: National Innovation & Start-up Policy</p> |
| <p>Item-18</p> | <p>To apprise the House about the institute becoming a network institute of the IIRS outreach programme</p> <ul style="list-style-type: none"> ➤ Director of the Institute has informed the house that the Institute is now a network institute of following IIRS (Indian Institute of Remote Sensing)/ ISRO program: <ul style="list-style-type: none"> ▪ (Indian Space Research Organisation) outreach Programmes: IIRS Outreach Programme focuses on strengthening the academia and user segments in space technology & Its applications using Online Learning Platforms. Under this programme two mode of content delivery are employed using online platforms (i) Live & interactive mode and (ii) e-Learning mode. ▪ The programs are available through Internet without any cost to the user. The live and interactive sessions will be conducted by experts from IISR-ISRO and other knowledge Institutions. ▪ Prof. Aditya Kumar Agarwal, Assistant Professor, Department of Civil Engineering, has been appointed as the institute coordinator of IIRS Outreach Programme. ▪ The house appreciated the initiative of Institute to collaborate with IIRS/ISRO as this programme will help Faculty, Technical Staff members, research scholars and students to enhance their knowledge in remote sensing and geospatial technology using online simulated learning contents through self paced and learner centric e-learning courses. <p><i>Annexure: Guidelines of IIRS Programmes</i></p> |
| <p>Item-19</p> | <p>To apprise about the participation of Institute in the “Ek Bharat Shreshtha Bharat” Programme of Government of India</p> <ul style="list-style-type: none"> ➤ The initiative ‘Ek Bharat Shreshtha Bharat’ was announced by Hon'ble Prime Minister on 31st October, 2015. Through this innovative measure, the knowledge of the culture, traditions and practices of different states & UTs will lead to an enhanced understanding and bonding between the states, thereby strengthening the unity and integrity of India. ➤ Dr. Anjali Patil, Associate Professor, Department of Architecture is appointed as Institute coordinator for ‘Ek Bharat Shreshtha Bharat’ Programme. ➤ House appreciated the initiative of Institute to participate in Ek Bharat Shreshtha Bharat” Programme as Various cultural & academic activities will be organised under the initiative ‘Ek Bharat Shreshtha Bharat’ in the Institute, and same will enhance the interaction with other states of India. |



| Item-20 | <p>To report about the constitution of Universal Human Values & Professional Ethics Cell in the Institute.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|------------------------------|---|----------------------------------|--|--|--|---|----------------|-------------|------------|------------|----|------------------|----------------|-----------------|------------|------------|----|----------------|--------------------|------------|------------|------------|----|---------------------|----------------|-------------|------------|------------|----|----------------------|----------------|-------------|------------|------------|----|-----------------|-----------------------|--------------|------------|------------|----|-----------------------|--------------------|------------|------------|------------|----|---------------|----------------|-------------|------------|------------|----|-------------------|-----------------------|------------|------------|------------|----|--------------------|-----------------------|--------------|------------|------------|----|-----------------|-----------------------|------------|------------|------------|----|
| | <p>➤ The house noted the following constitution of Universal <i>Human Values</i> & Professional Ethics Cell in the Institute:</p> <ul style="list-style-type: none"> ▪ As per AICTE Instructions, following Universal <i>Human Values</i> & Professional Ethics Cell is constituted in the Institute: <table border="0" style="margin-left: 20px;"> <tr> <td>Dr. Manish Sagar, Professor,</td> <td>Coordinator</td> </tr> <tr> <td>Dr. Anshu Chaturvedi, Professor,</td> <td>Member</td> </tr> <tr> <td>Dr. Sanjeev Khanna, Associate Professor,</td> <td>Member</td> </tr> <tr> <td>Prof. Vishal Chaudhry, Assistant Professor,</td> <td>Member</td> </tr> </table> ▪ The UHV& PE cell will work in coordination with Dean Student welfare of the Institute. ▪ The cell will ensure the implementation of AICTE instructions and Institute vision & Mission for Incorporating Universal Human Values & Ethics by creating the right understanding about human beings, family, society, natural environment, civilisation and professional ethics among the students to improve their life skills, employability and global competence significantly. | Dr. Manish Sagar, Professor, | Coordinator | Dr. Anshu Chaturvedi, Professor, | Member | Dr. Sanjeev Khanna, Associate Professor, | Member | Prof. Vishal Chaudhry, Assistant Professor, | Member | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dr. Manish Sagar, Professor, | Coordinator | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dr. Anshu Chaturvedi, Professor, | Member | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dr. Sanjeev Khanna, Associate Professor, | Member | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prof. Vishal Chaudhry, Assistant Professor, | Member | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Item-21 | <p>To report about student training on Future Skill Technologies through online mode by faculty trained at IITs</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p>➤ The Academic Coordinator of TEQIP-III has informed the house about following participation and conduction of training on Future Skill Technologies through online mode by faculty:</p> <ul style="list-style-type: none"> ▪ 27 Faculty members of the institute have participated in Future Skill trainings at IITs in their respective areas. ▪ Further, faculty trained at IITs on these technologies will be imparting job-oriented training to the students of institute to make them industry ready for complying with the future skill requirements of IT-ITes industries. ▪ The details are as given below: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Name of faculty</th> <th>Technology area Faculty have attended training on Future Skill at IIT</th> <th>Training attended at</th> <th>Date of commencement of Student Training</th> <th>Student training end date</th> <th>Number of students expected in the Batch (Training 150 Hrs.)</th> </tr> </thead> <tbody> <tr> <td>Mr. Lav Upadhyay</td> <td>Cyber Security</td> <td>IIT Roorkee</td> <td>29-06-2020</td> <td>25-09-2020</td> <td>50</td> </tr> <tr> <td>Mr. Santosh Sahu</td> <td>Cyber Security</td> <td>IIT Gandhinagar</td> <td>29-06-2020</td> <td>25-09-2020</td> <td>50</td> </tr> <tr> <td>Ms. Sneha Garg</td> <td>Internet of Things</td> <td>IIT Bombay</td> <td>29-06-2020</td> <td>25-09-2020</td> <td>50</td> </tr> <tr> <td>Mr. Abhilash Sonker</td> <td>Cyber Security</td> <td>IIT Roorkee</td> <td>29-06-2020</td> <td>25-09-2020</td> <td>50</td> </tr> <tr> <td>Ms. Khushboo Agarwal</td> <td>Cyber Security</td> <td>IIT Roorkee</td> <td>29-06-2020</td> <td>25-09-2020</td> <td>50</td> </tr> <tr> <td>Mr. Manoj Kumar</td> <td>Robotics & Automation</td> <td>IIT Guwahati</td> <td>01-07-2020</td> <td>15-08-2020</td> <td>50</td> </tr> <tr> <td>Mr. Tarun Shrivastava</td> <td>Internet of Things</td> <td>IIT Bombay</td> <td>29-06-2020</td> <td>25-09-2020</td> <td>50</td> </tr> <tr> <td>Mr. Rati Bhan</td> <td>Cyber Security</td> <td>IIT Roorkee</td> <td>29-06-2020</td> <td>25-09-2020</td> <td>50</td> </tr> <tr> <td>Mr. Neeraj Mishra</td> <td>Robotics & Automation</td> <td>IIT Madras</td> <td>06-07-2020</td> <td>07-09-2020</td> <td>50</td> </tr> <tr> <td>Mr. Awadhesh Gupta</td> <td>Robotics & Automation</td> <td>IIT Guwahati</td> <td>15-07-2020</td> <td>30-09-2020</td> <td>50</td> </tr> <tr> <td>Mr. Rahul Dubey</td> <td>Robotics & Automation</td> <td>IIT Madras</td> <td>15-07-2020</td> <td>30-09-2020</td> <td>50</td> </tr> </tbody> </table> | Name of faculty | Technology area Faculty have attended training on Future Skill at IIT | Training attended at | Date of commencement of Student Training | Student training end date | Number of students expected in the Batch (Training 150 Hrs.) | Mr. Lav Upadhyay | Cyber Security | IIT Roorkee | 29-06-2020 | 25-09-2020 | 50 | Mr. Santosh Sahu | Cyber Security | IIT Gandhinagar | 29-06-2020 | 25-09-2020 | 50 | Ms. Sneha Garg | Internet of Things | IIT Bombay | 29-06-2020 | 25-09-2020 | 50 | Mr. Abhilash Sonker | Cyber Security | IIT Roorkee | 29-06-2020 | 25-09-2020 | 50 | Ms. Khushboo Agarwal | Cyber Security | IIT Roorkee | 29-06-2020 | 25-09-2020 | 50 | Mr. Manoj Kumar | Robotics & Automation | IIT Guwahati | 01-07-2020 | 15-08-2020 | 50 | Mr. Tarun Shrivastava | Internet of Things | IIT Bombay | 29-06-2020 | 25-09-2020 | 50 | Mr. Rati Bhan | Cyber Security | IIT Roorkee | 29-06-2020 | 25-09-2020 | 50 | Mr. Neeraj Mishra | Robotics & Automation | IIT Madras | 06-07-2020 | 07-09-2020 | 50 | Mr. Awadhesh Gupta | Robotics & Automation | IIT Guwahati | 15-07-2020 | 30-09-2020 | 50 | Mr. Rahul Dubey | Robotics & Automation | IIT Madras | 15-07-2020 | 30-09-2020 | 50 |
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| Mr. Lav Upadhyay | Cyber Security | IIT Roorkee | 29-06-2020 | 25-09-2020 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mr. Santosh Sahu | Cyber Security | IIT Gandhinagar | 29-06-2020 | 25-09-2020 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ms. Sneha Garg | Internet of Things | IIT Bombay | 29-06-2020 | 25-09-2020 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mr. Abhilash Sonker | Cyber Security | IIT Roorkee | 29-06-2020 | 25-09-2020 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ms. Khushboo Agarwal | Cyber Security | IIT Roorkee | 29-06-2020 | 25-09-2020 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mr. Manoj Kumar | Robotics & Automation | IIT Guwahati | 01-07-2020 | 15-08-2020 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mr. Tarun Shrivastava | Internet of Things | IIT Bombay | 29-06-2020 | 25-09-2020 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mr. Rati Bhan | Cyber Security | IIT Roorkee | 29-06-2020 | 25-09-2020 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mr. Neeraj Mishra | Robotics & Automation | IIT Madras | 06-07-2020 | 07-09-2020 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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