



**Minutes of the Internal Quality Assurance Cell (IQAC) meeting on 11<sup>th</sup> December, 2020**

The meeting of the Internal Quality Assurance Cell (IQAC) was held on **11<sup>th</sup> December, 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

**External Expert:**

- Dr. I. K. Bhat\*, Vice Chancellor, Manav Rachna University, Faridabad
- Dr. S. G. Deshmukh\*, Prof. & Head, Department of Mechanical Engineering, Indian Institute of Technology Delhi

**Nominee from Alumni:**

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

**Nominees from Employer/Industries:**

- Mr. Yatindra Kumar Shrivastava\*, Industrialist, Syssteanz Management Advisory, Services, Pune
- Mr. Rajnesh Khosla\*, Head of HR, LG Soft India Pvt. Ltd., Bangalore

**Faculty Representatives:**

- Dr. Manjaree Pandit, Professor & Dean Academics
- Dr. P K Singhal, Professor & Exam Controller
- 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 29<sup>th</sup> August 2020.**

- The minutes of the previous IQAC meeting dated 29.08.2020 regarding following points were confirmed:
  - *Commencement of an Advance Academic Session in Virtual Mode w.e.f 15<sup>th</sup> July 2020*
  - *The preparedness of the institute for the virtual semester was reported, such as*
    - *Advance preparation of detailed guidelines for digital teaching learning*
    - *Drafting of Digital Teaching-Learning Action Plan*
    - *Conduction of in-house workshop for Digital Teaching-Learning & Evaluation*
    - *Conduction of collaborative online workshop with Directorate of Technical Education on "Effective Use of e-learning Platforms for Teaching & e-contents Developments Tools"*
  - *The mechanism adopted for the implementation of the Digital Teaching-Learning Action Plan was presented.*
  - *The mechanism adopted for weekly monitoring of the virtual classes was discussed.*
  - *The eminent external expert Member Dr. I. K. Bhat, Vice Chancellor, Manav Rachna University, Faridabad enlightened the House about the advantages of digital learning.*
  - *Mr. Ajay Joshi, Mr. Ashutosh Chincholikar & Mr Prashant Mehta also suggested that the initiatives for development of futuristic learning tools must continue even after the Covid-19 situation ends.*
  - *The Director thanked the Chairman & the Board of Governors for constant efforts & monitoring to promote a world class education system in the Institute.*
  - *The initiatives taken by the institute to facilitate student learning during the difficult Covid-19 times for student orientation & counselling were reported.*
  - *The student profiling done on the basis of their digital learning behaviour and the subsequent classification of students into three categories was reported.*
  - *Issuing of appreciation letters to faculty based on digital teaching feedback from students during the Covid-19 lockdown period was reported.*
  - *Administrative Efficiency Index (AEI) computed for the Jan-June 2020 session was reported.*
  - *Signing of MoU with National Highways Authority of India (NHAI) to sharpen the technical skill of Civil Engineering Students*
  - *The house was apprised about recognition of Institute as a Nodal Center of Virtual Labs of IIT Delhi*
  - *The activities conducted for inculcating gender equity and women empowerment were reported.*
  - *The paper presentation status of Final year B.E. major projects completed during the Jan-June 2020 session was reported.*
  - *The House was apprised of the initiatives taken by the Central Library during COVID-19.*
  - *The House was apprised of initiatives taken and activities conducted by the Placement Cell during COVID-19*
  - *The activities conducted by the student clubs and professional society chapters were presented.*
  - *Quality initiatives under taken during the last three months (June-August 2020) were presented.*



**Item. 2: To apprise the house about steps taken to identify top five Student Clubs/ Professional Society Chapters during Academic Year 2019-20.**

- The **Dean Academics** of the Institute has appraised the house regarding initiative taken to identify top five Student Clubs/ Professional Society Chapters during Academic Year 2019-20, following are the details of initiative taken to appreciate/motivate the high performing clubs/professional society chapters:
  - As per the guidelines and discussions in the IQAC meeting, a framework for performance evaluation of Student Clubs/Society Chapters was developed by the “**Student Development Cell**”.
  - The numerical model for ranking the performance of clubs/chapters was discussed and approved in the IQAC meeting on 3<sup>rd</sup> March 2020.
  - The Director announced that on the basis of the assessment of this academic year, five top ranking clubs will be financially rewarded
  - Based on that, applications were invited in October-November 2020 from respective Faculty Coordinators in the prescribed Google Form in two sections ‘A’ and ‘B’.
  - Section ‘A’ for activities organized by Club/ Society Chapters
  - Section ‘B’- for participation in activities outside the Institute
  - **Total 46 entries from 12 Student Clubs/Society Chapters were received.**
  - Entries were scrutinized by the ‘Student Development Cell’ and top 5 in order of rank are identified as follows:

**Top Five Clubs/Chapters**

S. No	Name of Club/Society Chapter	Faculty Coordinator	Merit
1.	ISTE Student Chapter	Prof. Vishal Chaudhary	I
2.	Holistic Health Club	Prof. Vishal Chaudhary	II
3.	Art Club	Prof. Pooja Sahoo	III
4.	IETE Student Forum	Dr. Vandana Vikas Thakre	IV
5.	Dance Club	Prof. Parul Saxena	V

**Evaluation of Clubs/Society Chapters**

S. No	Name of Club/ Chapter	Score-A	Score-B	Total Score
1.	ISTE Student Chapter	3270	110	3380
2.	Holistic Health Club	1910	150	2060
3.	Art Club	540	0	540
4.	IETE Student Forum	393	0	393
5.	Dance Club	290	35	325
6.	ASIMOV Robotics Club	302	0	302
7.	October Sky (Rocket Club)	180	0	180
8.	Career Counselling Club	171	0	171
9.	MITS Journalism Society	132	15	147
10.	Photography Club	132	0	132
11.	Terrestrial Automobile Development Club	63	0	63
12.	Querencia (Literary Club)	48	10	58

*The score sheet is enclosed as Annexure-I*



**Item. 3: To review the results of the Academic Audit conducted during August-September 2020.**

- The house reviewed the results of Academic Audit conducted during 27<sup>th</sup> August to 3<sup>rd</sup> September 2020. **Shri. Prashant Mehta**, Member, Board of Governors and **Er. Ramesh Agrawal**, Secretary, SECS & Member BoG have appreciated the performance of IT, Electrical Engineering & CSE Departments and also suggested to take necessary corrective measures in the departments, where the rank/performance is suddenly degraded or constantly lowest.
  - The institute follows the practice of conducting Academic Audit twice in an Academic Year.
  - The previous Academic Audit conducted on **22<sup>nd</sup> & 29<sup>th</sup> February 2020** was reviewed in the IQAC meeting on 3<sup>rd</sup> March 2020 vide Item No 11.
  - Looking at the Covid-19 scenario, the parameters were reduced from 50 to 40 in the Academic Audit conducted during **27<sup>th</sup> August to 3<sup>rd</sup> September 2020**.

<b>Results of Academic Audit</b>												
<b>(27<sup>th</sup> August to 3<sup>rd</sup> September 2020)</b>												
<b>Engineering &amp; Allied Departments</b>												
<b>Criterion</b>	<b>CE</b>	<b>ME</b>	<b>AU</b>	<b>EE</b>	<b>EX</b>	<b>ET</b>	<b>CSE</b>	<b>IT</b>	<b>CHEM</b>	<b>APP. SCI</b>	<b>HU</b>	<b>ARCH</b>
Criterion I: Availability of Records & Data Management	19	21	24	26	16	14	31	30	24	17	10	16
<b>Rank (Criterion - I)</b>	<b>VI</b>	<b>V</b>	<b>IV</b>	<b>III</b>	<b>VIII</b>	<b>IX</b>	<b>I</b>	<b>II</b>	<b>IV</b>	<b>VII</b>	<b>X</b>	<b>VIII</b>
Criterion II: Teaching Learning Practices	23	21	23	33	21	20	26	30	21	17	9	18
<b>Rank (Criterion- II)</b>	<b>IV</b>	<b>V</b>	<b>IV</b>	<b>I</b>	<b>V</b>	<b>VI</b>	<b>III</b>	<b>II</b>	<b>V</b>	<b>IX</b>	<b>VIII</b>	<b>VII</b>
Criterion III: Quality Improvement Initiatives	38	47	52	59	41	51	60	70	40	28	25	32
<b>Rank (Criterion - III)</b>	<b>IX</b>	<b>VI</b>	<b>IV</b>	<b>III</b>	<b>VII</b>	<b>V</b>	<b>II</b>	<b>I</b>	<b>VIII</b>	<b>XI</b>	<b>XII</b>	<b>X</b>
<b>Total Points Obtained</b>	<b>80</b>	<b>89</b>	<b>99</b>	<b>118</b>	<b>78</b>	<b>85</b>	<b>117</b>	<b>130</b>	<b>85</b>	<b>62</b>	<b>44</b>	<b>66</b>
<b>Aggregate Points</b>	<b>195</b>	<b>195</b>	<b>190</b>	<b>195</b>	<b>195</b>	<b>190</b>	<b>195</b>	<b>195</b>	<b>190</b>	<b>185</b>	<b>175</b>	<b>195</b>
<b>Department</b>	<b>CE</b>	<b>ME</b>	<b>AU</b>	<b>EE</b>	<b>EX</b>	<b>ET</b>	<b>CSE</b>	<b>IT</b>	<b>CHEM</b>	<b>APP SC</b>	<b>HU</b>	<b>ARCH</b>
<b>Percentage(Present)</b>	<b>41</b>	<b>46</b>	<b>52</b>	<b>61</b>	<b>40</b>	<b>45</b>	<b>60</b>	<b>67</b>	<b>45</b>	<b>34</b>	<b>25</b>	<b>34</b>
<b>Present Rank (Overall)</b>	<b>VII</b>	<b>V</b>	<b>IV</b>	<b>II</b>	<b>VIII</b>	<b>VI</b>	<b>III</b>	<b>I</b>	<b>VI</b>	<b>X</b>	<b>XI</b>	<b>IX</b>
<b>Percentage(Previous)</b>	<b>62</b>	<b>76</b>	<b>58</b>	<b>68</b>	<b>62</b>	<b>54</b>	<b>69</b>	<b>75</b>	<b>56</b>	<b>64</b>	<b>55</b>	<b>61</b>
<b>Present Rank (Overall)</b>	<b>VI</b>	<b>I</b>	<b>IX</b>	<b>IV</b>	<b>VII</b>	<b>XII</b>	<b>III</b>	<b>II</b>	<b>X</b>	<b>V</b>	<b>XI</b>	<b>VIII</b>

*The full report is in Annexure-II*



**Item. 4: To present the Annual Report of the 100kWp Rooftop Solar Power Plant installed in November 2019 at MITS.**

➤ The **Director** of the Institute has appraised the house that the 100 kWp solar rooftop PV plant was installed in November last year and is running successfully since then at MITS Gwalior under Renewable Energy Service Company (**RESCO**) scheme of **MP Urja Vikas Nigam**, Bhopal and installed by and maintained by Azure Power Rooftop Five Pvt. Ltd. Following are the details of 100kWp Rooftop Solar Power Plant:

- This plant is **Net-metered grid Connected with MPMKVV Co Ltd.**
- The cost of the plant is **Rs. 46.25 lakh** but after subsidy and RESCO scheme customer has to pay **Rs. 2.38 per unit.**
- The institute being an HT consumer has to pay **Rs. 7.10 per unit plus additional fixed/metering charges, duties and taxes to MPMKVV Co Ltd.**
- The chronological progress of the project is given below:

Date	Particulars
16.05.2016	Solar Light LED requirement is submitted to DTE
<b>31.05.2016</b>	<b>100kW solar PV plant is submitted to DTE, MNRE interest form is submitted</b>
24.06.2016	Solar site survey report is submitted
29.07.2016	Deployment report of solar plant emailed to MPUVM Madhya Pradesh
<b>12.09.2016</b>	<b>MPUVM -MP Solar plant installation letter is received</b>
<b>01.09.2017</b>	<b>DTE Bhopal PPA issued for deployment of plant under RESCO model</b>
<b>11.10.2018</b>	<b>MPUVN Gwalior sanctioned and approved MITS Gwalior for 100 kW plant</b>
<b>15.10.2018</b>	<b>PPA signed with Azure Power Rooftop Five Pvt. Ltd</b>
09.07.2019	Azure Power Rooftop Five Pvt. Ltd emailed layout SLD to MITS Gwalior for approval
<b>20.07.2019</b>	<b>MPMKVV CO. Ltd Gwalior approved net metering and grid connectivity for plant</b>
<b>04.10.2019</b>	<b>Work Completion report signed</b>
<b>04.11.2019</b>	<b>Net metering agreement signed with MPMKVV Co Ltd</b>
27.11.2019	First joint meter reading signed
<b>27.11.2019</b>	<b>Project satisfaction certificate for 100kW solar PV plant issued</b>
August 2020	Electrify bill is paid at Rs. 2.38 per unit after getting invoice from company.

**Details of the Equipment Installed**

S.N.	Particulars	Numbers	Capacity	Make
1	Solar Module	308 panels	@ 330Wp	Vikram Solar
2	Inverter	02	50 kW	Sungrow

- Regular maintenance is under AZURE Power Company.
- Extension of the power plant from same or other company is in process.



- The rooftop solar plant can be used for student internships, projects, dissertations & thesis work.
- Shadow analysis, structure design and tilting potential of solar PV plant can be studied along with its environmental effect.
- **Ashutosh Chincholikar, M.D. & CEO of Smart Controls Ltd.** has suggested for the development of IoT based automated energy system for fast & efficient mobile application based monitoring, analysis & control. He also expressed willingness to be part of students projects on IoT based automated energy system.
- The **Director** of the Institute has appraised the house that the Department of Electrical Engineering is working on the area of "future sustainable energy systems" with the utilization of resources generated through DST (FIST-'0'Level) project sanctioned to Institute.
  - *Detailed performance is enclosed as Annexure-III*

**Item 5: To present the report on induction programme conducted for the newly admitted first year students.**

- The **Director** of the Institute has appraised the house that as per AICTE guidelines on the conduction of Induction Programmes for the first year students in view of prevailing COVID-19 conditions, Institute has conducted the **Induction Programme (Utthan-2020)** for the newly admitted first year students in virtual mode from **1<sup>st</sup> to 5<sup>th</sup> December 2020** as per following details:
  - All the first year students were enrolled on a newly created "**Induction Programme Moodle**".
  - A virtual tour of the institute and department was given to the students. They were introduced to the glorious history of the institute, glimpses of campus life, past achievements and prominent alumni.
  - The new students were welcomed with motivational address by the eminent members of the board, the Director and current & old students of the institute.
  - The students were briefed about all the academic provisions, schemes and other co- curricular activities by Dean's, Examination Controller, HoDs, Moodle administrators, SWAYAM coordinator, Training & Placement Officer, administrative officer etc.
  - Quiz and cultural activities were conducted for the students and winners were announced.

*Detailed performance is enclosed as Annexure-IV*

**Item 6: To review the status report of UG/PG admissions.**

- The house reviewed the admission status as on 10.12.2020 against the sanctioned seats for various UG & PG (Engineering & Technology, Management, Architecture & MCA programmes) courses running in the Institute, following is the summary of admission status as on 10.12.2020:
  - UG admissions = 1027 + 102 + 44 + 5 = 1178 (including EWS+ TFW+ PMSS+ CSAB)
  - (Total Seats=1242)
  - PG admissions: 51 (Total seats:214)
  - During one previous meeting the house suggested to study/review the decreasing interest of students for admissions in PG programs at Institute level through a suitable committee and to take corrective measures if required to increase the admissions in PG courses. It was decided that the courses where the admissions are poor be restructured/ renamed.



- This year the PG programmes were revamped and the number of courses were reduced to give students more time for self-learning, research and projects, with provision for on-line courses, open electives and more number of electives.

**Under Graduate (Architecture)**

Branch	Total Seats	Total Admitted	Total Vacant
B.Arch. 2019	40	40	00
B.Arch. 2020	40	38	2

**Under Graduate (Engineering)**

YEAR	BRANCH B Tech	TOTAL SEATS	TOTAL ADMITTED	TOTAL VACANT	EWS SEATS	EWS ADMISSION	EWS VACANT	TFW seats	TFW admn	TFW vacant	PMSS	TOTAL
2019	UG	840	836	04	84	84	0	42	38	04	9 (01NP)	968 (99.79%)
2020	UG	1080	1027	53	108	102	6	54	44	10	5	1178 (94.8%)

**MCA 2020**

Year	Branch	Total Seats	Total Admitted	Total Vacant	EWS Seats	EWS Admission	EWS Vacant	TFW Seats	TFW admission	TFW Vacant
2019	MCA	60	17	43	6	0	06	3	3	0
2020	MCA	60	60	0	6	0	6	3	3	0

**PG Admissions**

Year	Total	Admitted	Vacant	EWS	EWS admitted	EWS Vacant
2019	183	55	128	12	1	11
2020	201	50	151	13	1	12

**Lateral Entry Admissions**

Year	Seats	Filled	Vacant
2019	84	63	25
2020	84	62	22

➤ **The External Expert Member Dr. I. K. Bhat**, Vice Chancellor, Manav Rachna University, Faridabad has suggested:

- that the Institute should conduct a study to analyse the admissions trends to find out the root cause of low interest in PG & some of the UG courses.



- to include the courses/contents in curriculum as per future skill requirements and to make suitable changes in the content and pedagogy so that the graduating students have the right capabilities for the job-in-demand.
- to incorporate the subjects exclusively focused in Artificial Intelligence (AI), Internet of Things (IoT), Blockchain, Robotics, Quantum Computing, Data Sciences, Cyber Security, 3D Printing and Design, Augmented Reality/ Virtual Reality (AR/VR).
- in place of closure of a course where admission trend is poor, Institute may apply for change in nomenclature with suitable changes in the existing scheme & curriculum.

○ *The department/course wise full report enclosed as Annexure-V*

**Item 7: To review the results of January to June 2020 semester examination.**

➤ The Exam Controller of the Institute has appraised the house about the examinations which were conducted in online mode during this semester. The results were declared as per UGC/University guidelines based on internal performance and previous semester result. Following are the status of results/performance benchmarks:

**Summary of UG/PG Semester wise Result Analysis Report  
(January – 2020 to June – 2020)**

Programme	Course (UG/PG)	Semester	Appeared	Pass	Percentage
B.Tech. (I <sup>st</sup> Year)	UG	1 <sup>st</sup> (D.19)	884	735	83%
		2 <sup>nd</sup>	865	841	97%
B.Tech. (II <sup>nd</sup> Year)		3 <sup>rd</sup> (D.19)	915	673	73.55%
		4 <sup>th</sup>	899	877	98%
B.E. (III <sup>rd</sup> Year)		5 <sup>th</sup> (D.19)	823	684	83%
		6 <sup>th</sup>	879	837	95%
B.E. (IV <sup>th</sup> Year)		7 <sup>th</sup> (D.19)	923	807	87%
		8 <sup>th</sup>	935	927	99%
B.Arch. (I <sup>st</sup> Year)		1 <sup>st</sup> (D.19)	40	32	80%
		2 <sup>nd</sup>	38	37	97%
B.Arch. (II <sup>nd</sup> Year)	3 <sup>rd</sup> (D.19)	36	33	91%	
	4 <sup>th</sup>	36	36	100%	
B.Arch. ((III <sup>rd</sup> Year)	5 <sup>th</sup> (D.19)	38	37	97%	
	6 <sup>th</sup>	38	38	100%	
B.Arch. (IV <sup>th</sup> Year)	7 <sup>th</sup> (D.19)	39	38	97%	
	8 <sup>th</sup>	39	39	100%	
B.Arch. (Final Year)	9 <sup>th</sup> (D.19)	29	29	100%	
	10 <sup>th</sup>	29	29	100%	
Programme	Course (UG/PG)	Semester	Appeared	Pass	Percentage
M.E. (I <sup>st</sup> Year)	PG	1 <sup>st</sup> (D.19)	21	13	61.90%
		2 <sup>nd</sup>	20	20	100%
M.E. (II <sup>nd</sup> Year)		3 <sup>rd</sup> (D.19)	40	36	90%
M.TECH. (I <sup>st</sup> Year)		1 <sup>st</sup> (D.19)	31	25	80.64%
		2 <sup>nd</sup>	30	29	97%
M.TECH. (II <sup>nd</sup>	3 <sup>rd</sup> (D.19)	42	36	85.71%	



# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Year)					
MUP (I <sup>st</sup> Year)	1 <sup>st</sup> (D.19)	12	12	100%	
	2 <sup>nd</sup>	12	12	100%	
MUP (II <sup>nd</sup> Year)	3 <sup>rd</sup> (D.19)	15	15	100%	
MCA (I <sup>st</sup> Year)	1 <sup>st</sup> (D.19)	19	17	89%	
	2 <sup>nd</sup>	19	19	100%	
MCA (II <sup>nd</sup> Year)	3 <sup>rd</sup> (D.19)	59	46	77%	
	4 <sup>th</sup>	58	58	100%	
MCA (III <sup>rd</sup> Year)	5 <sup>th</sup> (D.19)	63	56	88%	
	6 <sup>th</sup>	63	63	100%	

### STUDENT SUCCESS INDEX 2019-2020 (WITHOUT BACKLOG)

Branch	No. of Students Admitted in (a)	No. admitted in 2 <sup>nd</sup> year via lateral entry (b)	No. of students graduated without backlog <sup>#</sup> (c)	Success Index [c/(a+b)]
Civil Engineering	128	23	70	<b>0.46</b>
Mechanical Engineering	132	24	61	<b>0.39</b>
Electrical Engineering	132	24	82	<b>0.53</b>
Electronics Engineering	130	16	83	<b>0.57</b>
Computer Science & Engineering	128	24	88	<b>0.58</b>
Information Technology	63	12	37	<b>0.49</b>
Chemical Engineering	56	5	25	<b>0.41</b>
Biotechnology	21	0	02	<b>0.10</b>
Automobile Engineering	57	13	15	<b>0.21</b>
Electronics & Telecommunication Engineering	57	0	16	<b>0.28</b>

### STUDENT SUCCESS INDEX 2019-2020 (WITH BACKLOG)

Branch	No. of Students Admitted in (e)	No. admitted in 2 <sup>nd</sup> year via lateral entry (f)	No. of students graduated in with backlog <sup>§</sup> (g)	Success Index [g/(e+f)]
Civil Engineering	128	23	57	<b>0.38</b>
Mechanical Engineering	132	24	65	<b>0.42</b>
Electrical Engineering	132	24	60	<b>0.38</b>
Electronics Engineering	130	16	50	<b>0.34</b>



Computer Science & Engineering	128	24	47	<b>0.31</b>
Information Technology	63	12	29	<b>0.39</b>
Chemical Engineering	56	5	22	<b>0.36</b>
Biotechnology	21	0	08	<b>0.38</b>
Automobile Engineering	57	13	38	<b>0.54</b>
Electronics & Telecommunication Engineering	57	0	25	<b>0.44</b>

**ACADEMIC PERFORMANCE INDEX IN II YEAR**

Mean of CGPA of all successful students who proceeded to III year(m)	Total number of successful students who proceeded to III year (n)	Total number of students who appeared in Examination in II year (batch/CAYm1) (p)	Academic Performance Index [(m/p)*n]
<b>7.24</b>	<b>879</b> (including lateral entry admitted students)	<b>896</b> (including lateral entry admitted students)	<b>7.10</b>

○ *The full report is enclosed as Annexure-VI*

**Item 8: To review the activities conducted for quality improvement.**

- The Dean (Academics) of the Institute has appraised the house regarding following activities, which was conducted for the quality improvement in various teaching-learning, professional development approaches for faculty & students:
  - Interactive Webinar on "Challenges to technical education in pandemic times" by Prof. D.P. Agrawal, former chairman, Union Public Service Commission, on 24th September 2020. All the faculty members of the institute attended the webinar.
  - Interactive Talk on "Future of the Technical Education & New Education Policy-2020" by Prof. K.K. Aggarwal, Chairman, National Board of Accreditation, New Delhi. All the faculty members of the institute attended the session through zoom link.
  - Prof. Aditya Agrawal was appointed the faculty coordinator for establishing the student chapter of "Institution of Engineers, India" vide order no 1107 dated 16/7/2020
  - The institutional membership certificate of Institution of Engineers (India) was granted to MITS on 9th September 2020.
  - An in-house workshop of the OBE Coordinators was held on 24th November 2020 to review the mechanism for CO attainment during the virtual semester.
  - The CO attainment for the semester Jan-June 2020 was reviewed.
  - The assessment tools used in this semester were online tests and assignments for theory subjects and assignment+ oral with rubrics for practical.



- Identification of gaps in CO attainment levels for Jan-June 2020 semester and the probable corrective measures for improvement of one of the departments (Electrical Engineering) was displayed and discussed among the coordinators.
  - It is proposed that the OBE coordinators will conduct meetings in their respective departments to identify the gaps with the subject expert.
  - Based on the gap analysis, the subject expert will be proposing the corrective measures for improvement.
  - Other activities organized/attended by the faculty members will be compiled and presented in the next meeting.
- The house appreciated the conduction of above quality improvement activities suggested to assign Industry based projects/Thesis/dissertations to the students to ensure the Outcome Based Education.

**Item 9: To review the activities conducted by the student clubs/chapters during July 2020 to December 2020.**

- The house appreciated the efforts taken by students and faculty mentors of various clubs and professional society chapters for the conduction of following activities even in the prevailing condition of COVID-19:

**SUMMARY**

S.No.	Name of Club	No of Activities Conducted	Number of Participants
1.	Terrestrial Automobile Development Club	01	35
2.	Animation Club	01	58
3.	Holistic Health Club Gwalior	02	450
4.	ASIMOV Robotics Club	01	80
5.	Digital Learning Group	12	936
6.	ISTE Student's Chapter MITS	03	245
7.	Dance Club	01	30
8.	MITS Journalism Society	06	320
9.	AASF student forum (MoU between IITM Gwalior and MITS)	01	50
10.	Scrabble Club MITS	01	88
11.	Querencia Club	01	15
12.	Sports Club	06	1741
13.	IETE Student Forum	07	648
	<b>Total</b>	<b>43</b>	<b>4,496</b>

- *The full report is enclosed as Annexure-VII*



**Item 10: To present the report of Student Feedback on virtual teaching-learning during this semester (July- August 2020).**

➤ The Dean (Academics) of the Institute has appraised the house regarding following feedback mechanism adopted during virtual teaching-learning education due to prevailing condition of COVID-19:

- The online session started from July 15th for II year to Final year students. The first student feedback was collected on 24th& 25th August for which the format was also modified.
- The format was designed to map with the Digital Teaching-Learning Action Plan of the institute. A sample is enclosed below.
- **Thirty seven (37) faculty members received appreciation letters based on their FFI score, i.e if the FFI was greater than 4 out of 5 and the response rate was not less than about 50 %.**

**SAMPLE FORMAT(Faculty Feedback from Students before Mid Semester Test I)**

**[Registered : 39, Link Sent : 25] Sample Size : 24**

Attributes	Excellent	Very Good	Good	Average	Below Average	Performance Index (FFI)
The on-line classes which started from 15 <sup>th</sup> July are conducted <b>regularly</b>	7	8	7	2	0	3.83
The online classes were <b>useful</b> to you	5	5	11	3	0	3.50
The PPTs/notes and other relevant study material was shared in timely manner ( <b>Availability of study material</b> )	4	8	9	3	0	3.54
The <b>quality of recorded lectures</b>	5	5	10	3	1	3.42
<b>Additional classes</b> conducted for remedial purpose	6	4	10	4	0	3.50
The <b>assignments</b> helped you in learning	7	5	10	2	0	3.71
The <b>weekly quiz</b> conducted has motivated you to revise	6	5	10	2	1	3.54
The teacher was in general <b>considerate and helpful</b>	5	7	8	4	0	3.54
The <b>efforts made by the teacher</b> (under present constraints due to COVID-19)	4	7	9	4	0	3.46
<b>Overall rating</b> of the course covered so far	6	4	11	2	1	3.50
<b>Faculty Feedback Index (FFI) (on a scale of 5) (5: Excellent, 4: Very Good, 3: Good, 2: Average, 1: Below Average)</b>						<b>3.55</b>

○ *The full report is enclosed as Annexure-VIII*



**Item 11: To present the status of GATE Training to final & pre-final year students under TEQIP-III.**

- The house has reviewed the following status of GATE training:
  - The Institute is conducting 250 Hours GATE Training for Final Year & Third Year students' w.e.f. 18.09.2020 through external agency.
  - Total students: 626
  - Duration of training : 18.09.2020 to 07.02.2021

**Number of Students participating in GATE Training**

S.No.	Branch	Final Year	III Year	Grand Total
1	Automobile Engineering	04	16	20
2	Chemical Engineering	27	29	56
3	Civil Engineering	34	45	79
4	Computer Science Engineering	34	76	110
5	Electrical Engineering	43	37	80
6	Electronics and Telecommunication	08	24	32
7	Electronics Engineering	20	58	78
8	Information Technology	11	39	50
9	Mechanical Engineering	53	68	121
	Total	234	392	626

- The house appreciated the Institution practice of providing GATE Training for the final & Pre-final year students through external agency under TEQIP-III. The house also emphasized to continue this practice of providing GATE Training even after the completion of TEQIP-III project, as higher rank in GATE provides the recognition of students at National Level, helps in securing higher education admission & provides job opportunity in PSUs.

**Item 12: To present the Training & Placement Cell report.**

- The Training & Placement Officer of the Institute has presented the Placement Report from Sep to Nov, 2020 for 2021 Graduated Batch. He also appraised the house about the strategies adopted by the T&P cell of the Institution during COVID-19 for the facilitation of Online Training, Internship & Placement opportunities.



- **Ashutosh Chincholikar, M.D. & CEO of Smart Controls Ltd.** has appreciated the efforts taken by T&P cell and suggested TPO to be in touch for help in providing placement opportunity through Smart Controls Ltd.

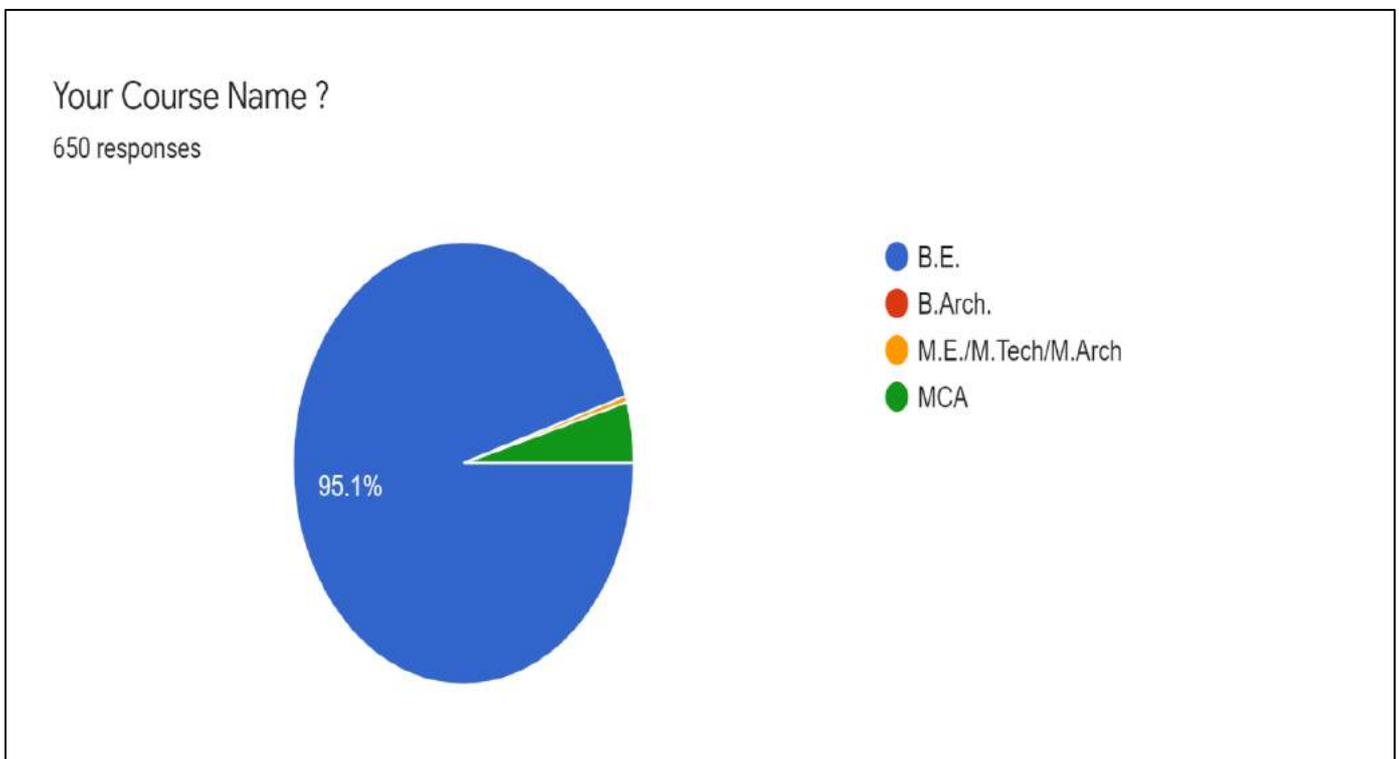
**Placement Report of 2021 Graduated Batch is enclosed as Annexure.**

**Item 13: To present the Exit Survey Report of passing out batch 2020**

- The house reviewed the following Students Exit Survey Report- 2020 Batch for each parameters and directed T&P cell to share the Students Exit Survey Report to concern official of the Institute for necessary corrective action (if applicable).
- The house also discussed about the scale used in existing survey (Poor, Fair, Good, Excellent) and suggested to revise as 'Poor, Fair, Good, Very Good, Excellent' for better understanding of students views on concerned parameter.
- The most of the members were also agreed to provide provision in Exit Survey so that comparative study can be done for different departments/sections.

**STUDENTS EXIT SURVEY REPORT- 2020 BATCH**

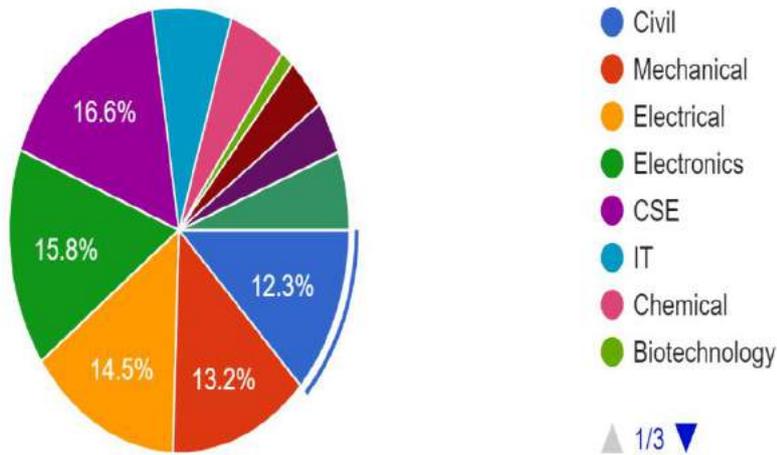
**Total No. of Responses Received till 10th Dec, 2020: 650 (Students)**





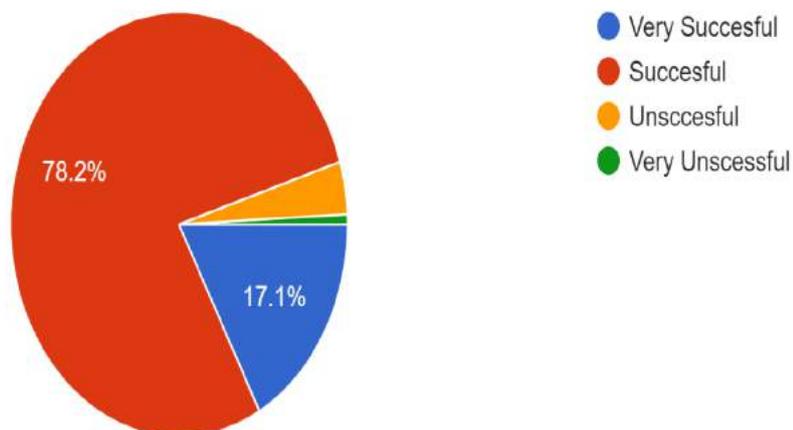
### Your Branch?

650 responses



### About Learning: Are you able to identify the principal concepts, theories, and practices in the functional areas of branch?

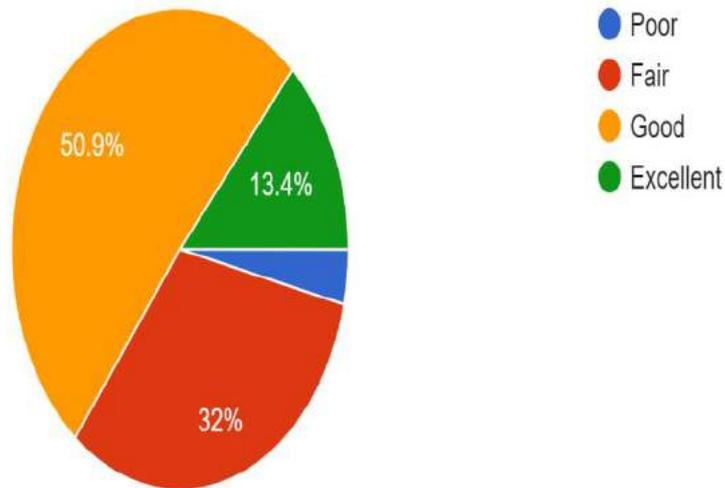
650 responses





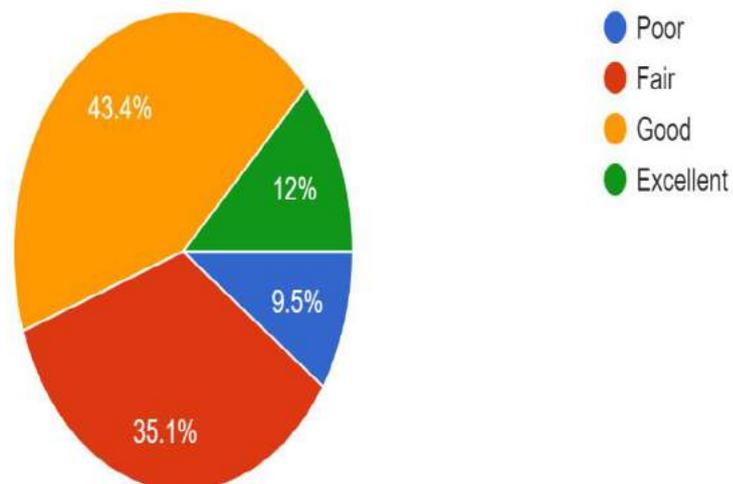
### Rate the Faculty Teaching in the UG & PG Programs:

650 responses



### Creativity of Your Professors?

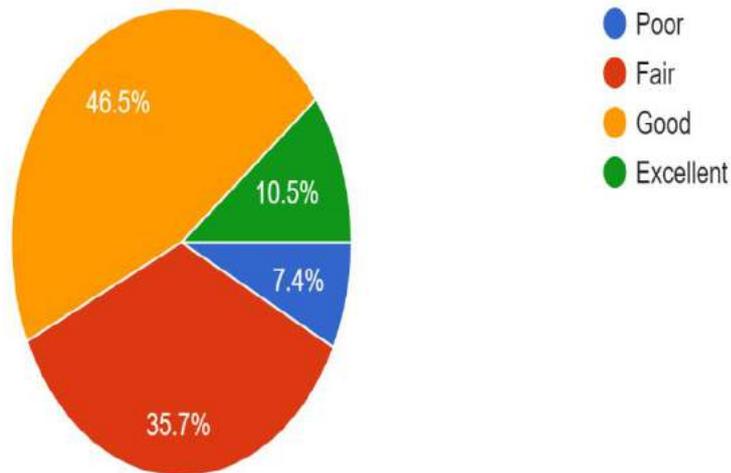
650 responses





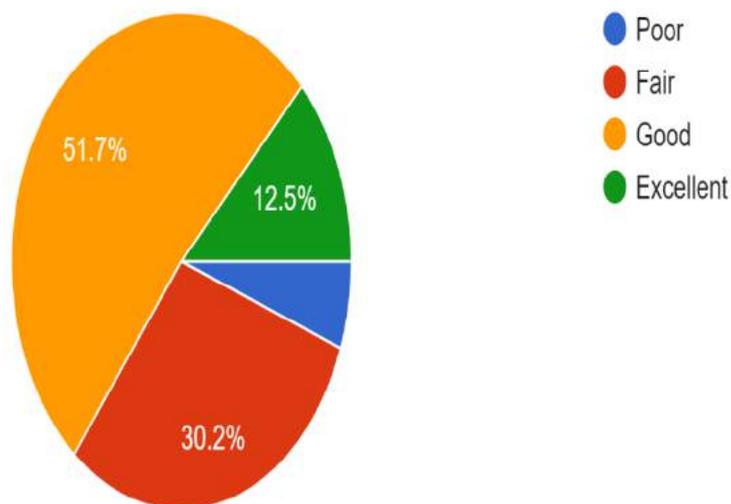
### Teaching Methods of Faculty?

650 responses



### Curriculum in the Program which you attended?

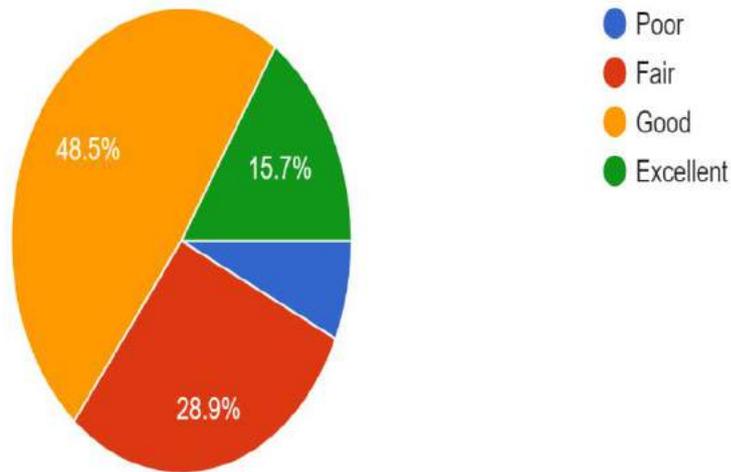
650 responses





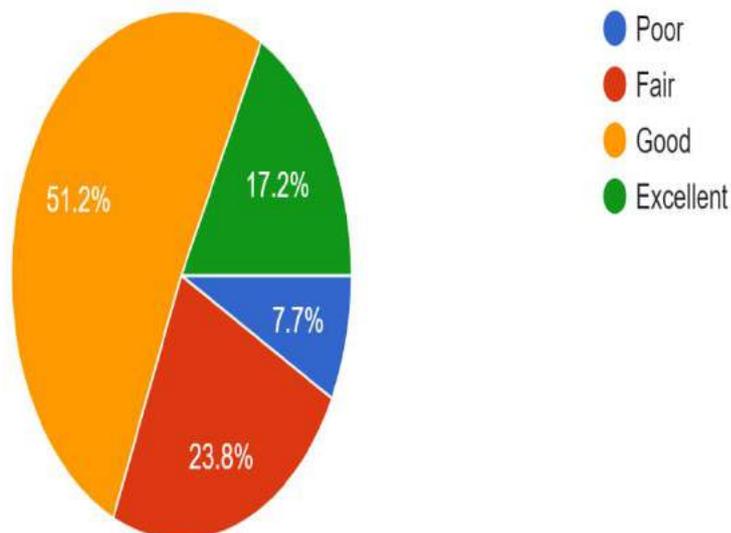
Relevance of Course to Your Career Goals or Further Study:

650 responses



Availability of and Access to Faculty During Office Hours:

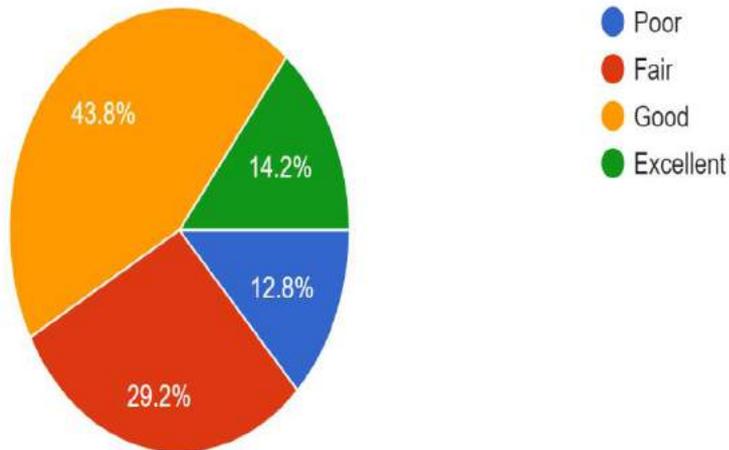
650 responses





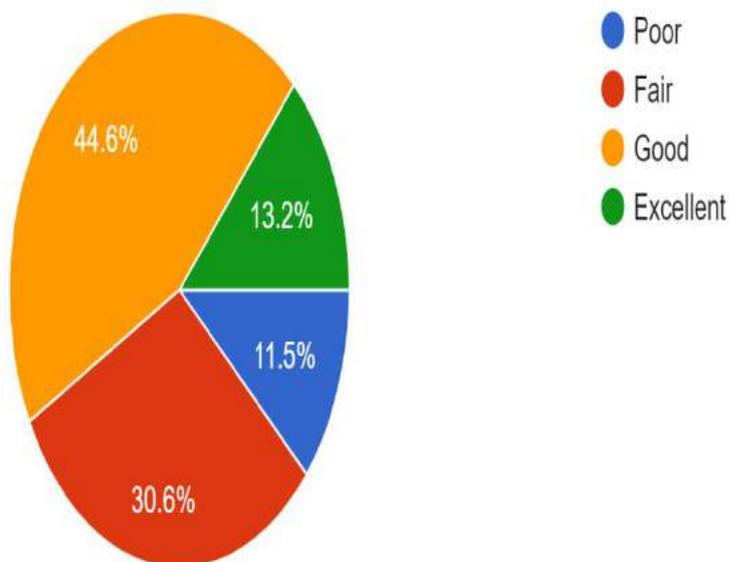
**Classroom Facilities:**

650 responses



**Learning and Technological Resources:**

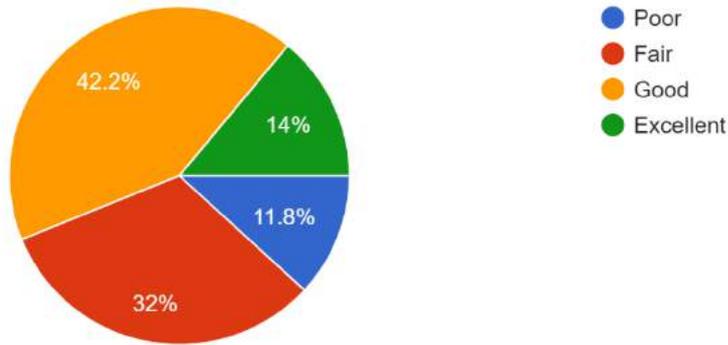
650 responses





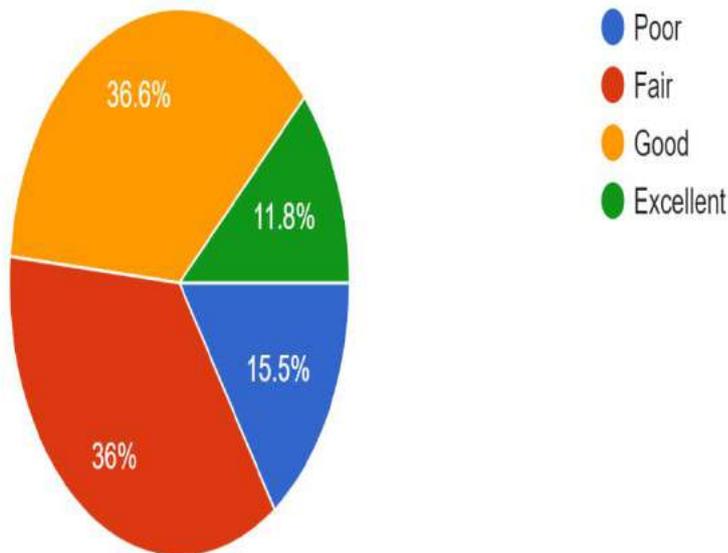
Library Resources in the Areas of Engineering, Research, Journals & e-Journals, Technical Magazines etc.

650 responses



Help in Career Counselling and future Planning:

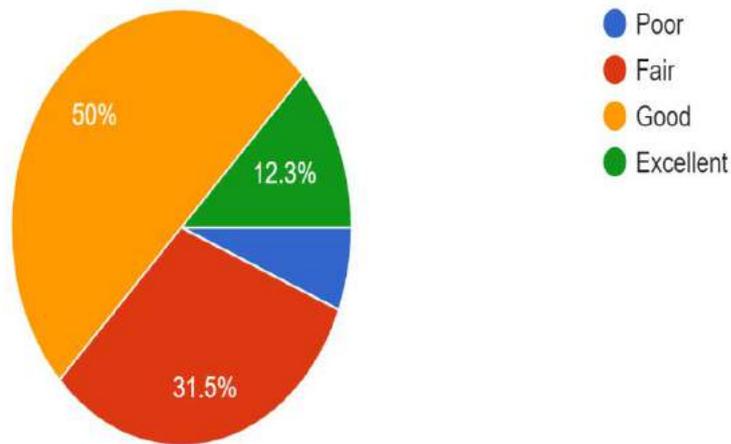
650 responses





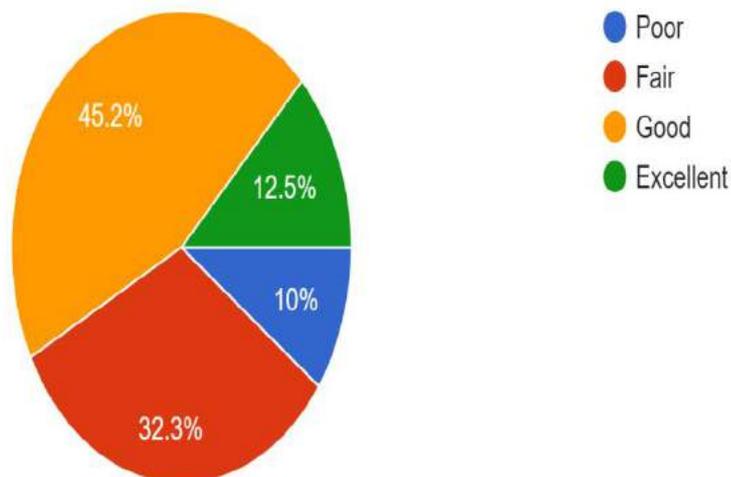
Student Organizations, Technical & Social Clubs:

650 responses



Cultural Activities and other Development:

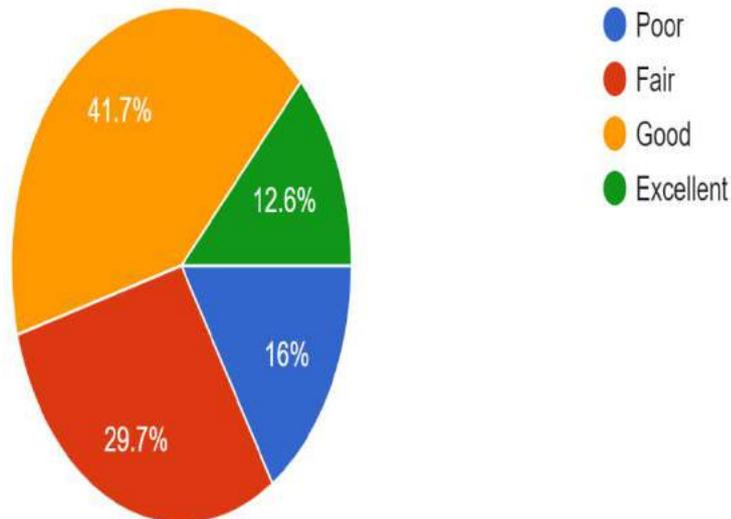
650 responses





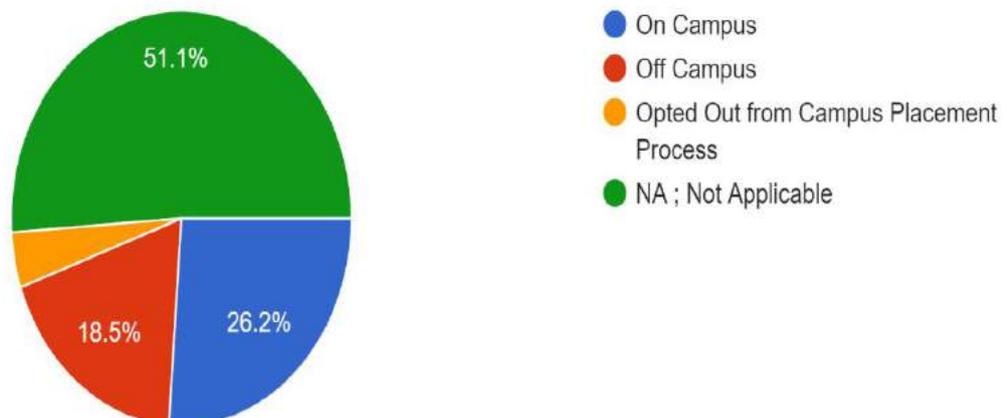
### Training & Placement Support:

650 responses



### Were you selected for Job On Campus or from Outside?

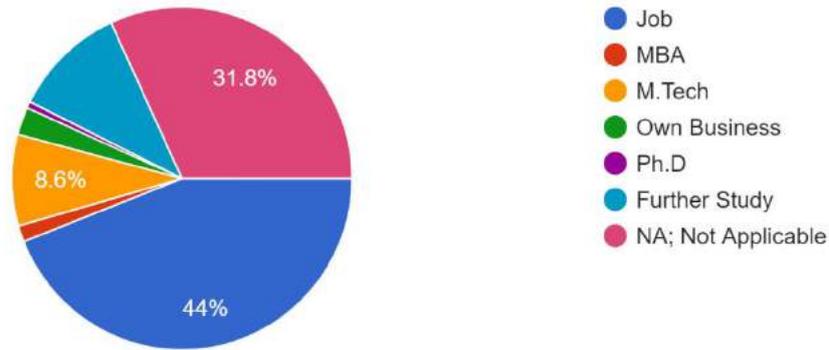
650 responses





Opted for Job or Post Graduation?

650 responses



**135: Opted for Higher Education**

**17: Opted for Own Business**

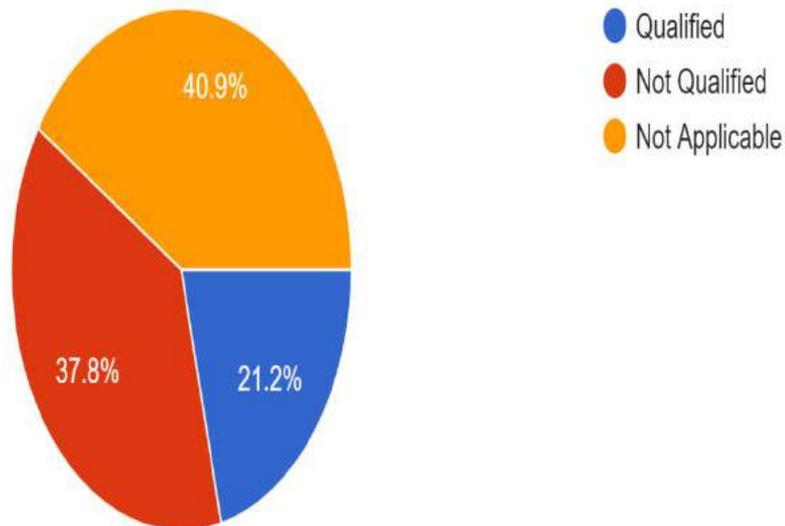
**04: Opted for Ph.D**

**38: Opted out from Campus Placements (Approx)**



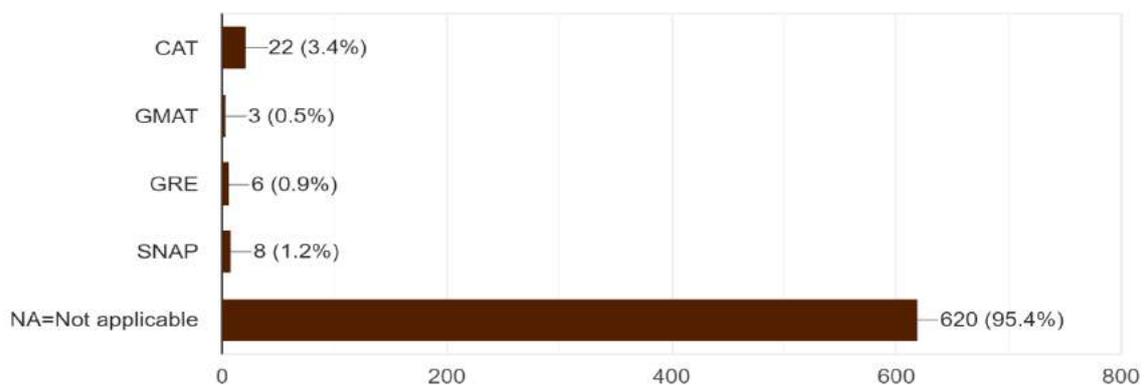
### Have you Qualified or Not Qualified GATE Exam?

650 responses



### Have you appeared for CAT/GRE/GMAT/SNAP or any other exam?

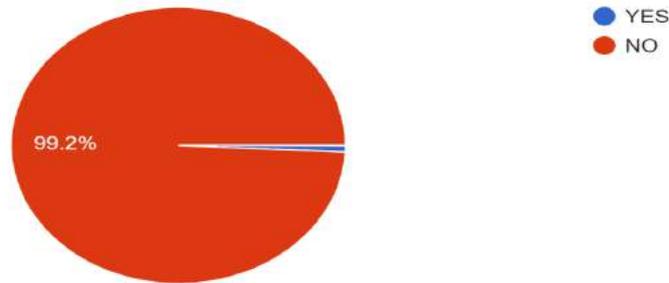
650 responses





Would you like to donate your caution money for the student welfare fund for economically weak students in MITS ?

650 responses



**Out of 650 students 428 students have submitted their Internship details. Some of the companies where students have completed their Internships are:**

Eicher Tractor's	Jamna Auto Industries	Maruti Suzuki	JBM limited
Volvo Eicher Commercial Vehicle(VECV),Pithampur,Indore	Eminent Biosciences , Indore	Aditya Birla	Indian Oil Corporation Limited, Mathura Refinery, U.P
IOCL Mathura	Madhav Institute of Technology and Science Gwalior (Finishing School Program)	Montage enterprises pvt. Ltd. Malanpur	National Fertilizers Limited, Vijaipur
Teva API Pvt. Ltd.	BHEL Bhopal	Coal India limited	CPWD, Gaya , Bihar
Dilip Buildcon Ltd.	Construction of Railway Over-Bridge in Indian Railways	KEC International Limited	MP PWD
Nagar Nigam Gwalior	PHE gwalior	WCR Railway	PRAEDICO GLOBAL RESEARCH PRIVATE LIMITED
Aurozen	e-Biz technocarts private limited	Quikr	Internshala (online core java training)
CRISP	JK TYRE GWALIOR	MPEB	Mondelez pvt ltd
NTPC	PGCIL	Robotronics	THERMAL POWER PLANT PARICHHA
Airports Authority of India	BSNL	Cetpa Infotech, Noida	Surya Roshni Limited
Tata Motors	Udemy	Hindustan Aeronautics Ltd. Kanpur	MOIL etc.



**Item 14: To present the status of the e-repository created for storing UG & PG thesis/dissertations.**

- The Dean Academics of the Institute has presented the report on e-repository created for UG & PG thesis/dissertations submitted by students. Dean (Academics) also appraised the house that the initiative was taken in 2018-2019 to submit UG thesis and PG dissertations on an e-repository.
- *The details are enclosed in Annexure-IX*

**Item 15: To present the faculty research publication report for year 2019-2020.**

- The House reviewed the faculty research publication report for year 2019-2020, compiled for the quality publications of the faculty members in indexed and peer reviewed journals for the last three years.
- The Director of the Institute has also appraised the house regarding motivation and support provided to faculty members for research, development & Innovation activities.
- *The details are enclosed in Annexure-X*

**Item 16: To present the status of on-line self-learning courses (MOOCs) opted by students from SWAYAM/NPTEL for credit transfer during Jan-June 2020 semester**

- The house recognized and appreciated the following mechanism adopted for on-line self-learning courses (MOOCs) opted by students from SWAYAM/NPTEL for credit transfer during Jan-June 2020 semester
  - The Institute has drafted a policy in line with the AICTE model curriculum guidelines and implemented the 'credit transfer from MOOCs' w.e.f. the 2017-2018 admitted batch after approval in the Academic Council of the Institute.
  - Due to COVID-19, the proctored NPTEL examinations could not be conducted and the NPTEL requested the institutes to honour the 'Modified Pass Certificate' (MPC) issued to the students on the basis of the internal evaluation.
  - The Academic Council of the Institute in its meeting on **15<sup>th</sup> June 2020** decided to transfer the credits on the basis of the MPC for the Jan-June 2020 session. However, it was decided that for obtaining Honours (in parent discipline) or Minor specialization (in allied discipline), the MPC will not be considered and the students will have to appear for the proctored examination whenever it is conducted by the NPTEL.

**Summary of NPTEL Results (Session : Jan.-July, 2020)**

S.No.	Department	Faculty			Students <sup>#</sup>		
		Total Registration	Eligible for Modified Pass Certificate	Not Eligible for Modified Pass Certificate	Total Registration	Eligible for Modified Pass Certificate	Not Eligible for Modified Pass Certificate



1	Civil Engineering	14	13	1	150	147	3
2	Mechanical Engineering	9	8	1	195	193	2
3	Electrical Engineering	25	25		190	183	7
4	Electronics Engineering	18	17	1	201	188	13
5	ET				20	18	2
6	Computer Science and Engineering	10	10		162	157	5
7	Chemical Engineering	1		1	72	62	10
8	Information Technology	4	4		82	81	1
9	Biotechnology	5	5		11	11	
10	Automobile Engineering				61	60	1
11	Architecture	4	4		40	40	NONE
12	Mathematics	4	3	1	NA	NA	NA
13	English	7	7		NA	NA	NA
14	MCA				8	8	NONE
		<b>101</b>	<b>96</b>	<b>5</b>	<b>1192</b>	<b>1148</b>	<b>44</b>

**Item 17: To present the status report of the AICTE sponsored International Conference**

- The Dean (Academics) of the Institute & Coordinator of International Conference has appraised the house about the AICTE sponsored **Second International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology (ICSISCET-2020) which is to be conducted in virtual mode on 18<sup>th</sup> & 19<sup>th</sup> December 2020.**
- The house appreciated the efforts taken by organizing team on receiving a great response from globally renowned academicians and authors of research papers to be part of International Conference as resource person/presenter/participant.
  - *The details are enclosed in Annexure-XI*

**Item 18: To present the class conduction report for the semester (July 15<sup>th</sup> to November 28<sup>th</sup>)**

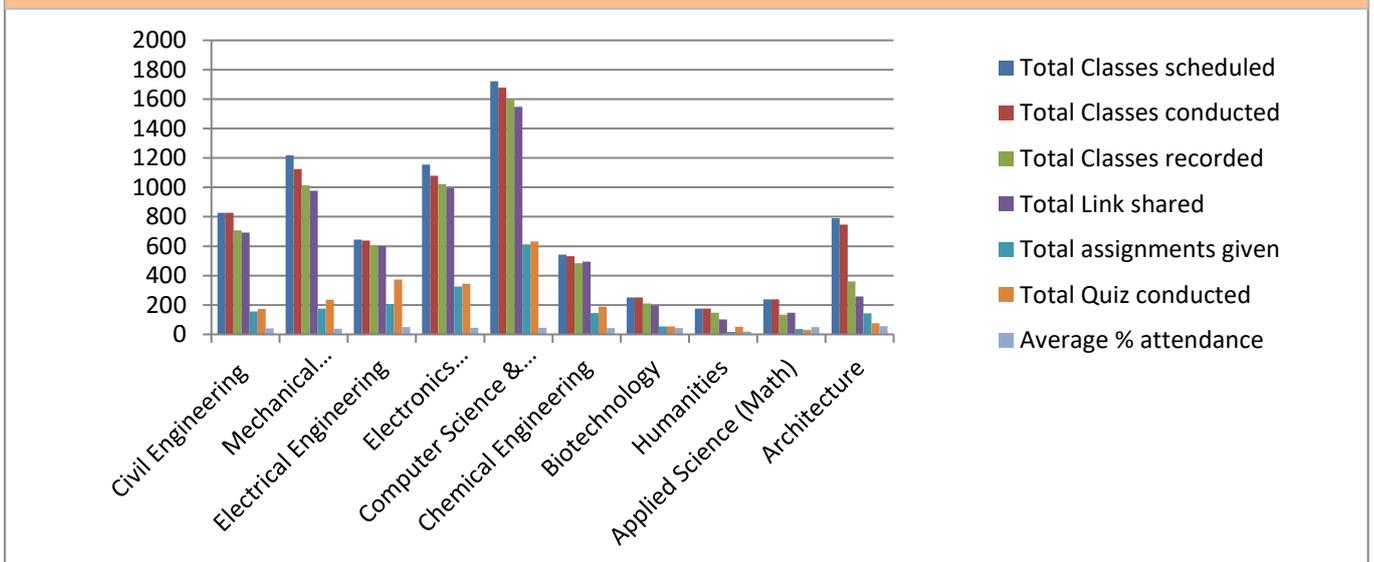
- The house appreciated the Institution efforts in successful Planning, conduction and monitoring of regular online classes for Odd semester, during 15th July 2020 to 28th November 2020 (15 Weeks), the summary of classes are as follows:



**Theory Classes**

Department	Total Classes scheduled	Total Classes conducted	Total Classes recorded	Total Link shared	Total assignments given	Total Quiz conducted	Average % attendance
Civil Engineering	827	827	708	693	155	173	41.42
Mechanical Engineering/ Automobile Engineering	1219	1125	1013	977	176	236	39.80
Electrical Engineering	645	639	608	601	207	374	48.77
Electronics Engineering/ Electronics & Telecommunication Engineering	1154	1080	1023	994	325	346	44.49
Computer Science & Engineering/ Information Technology /MCA	1722	1679	1604	1547	611	632	45.91
Chemical Engineering	542	531	483	494	146	188	43.95
Biotechnology	251	251	211	196	53	54	43.77
Humanities	175	175	148	102	17	51	18.99
Applied Science (Math)	238	238	134	148	36	31	49.16
Architecture	791	747.5	361	258	144	75	55.59

**Online Theory Classes (15 July to 28 November, 2020)**

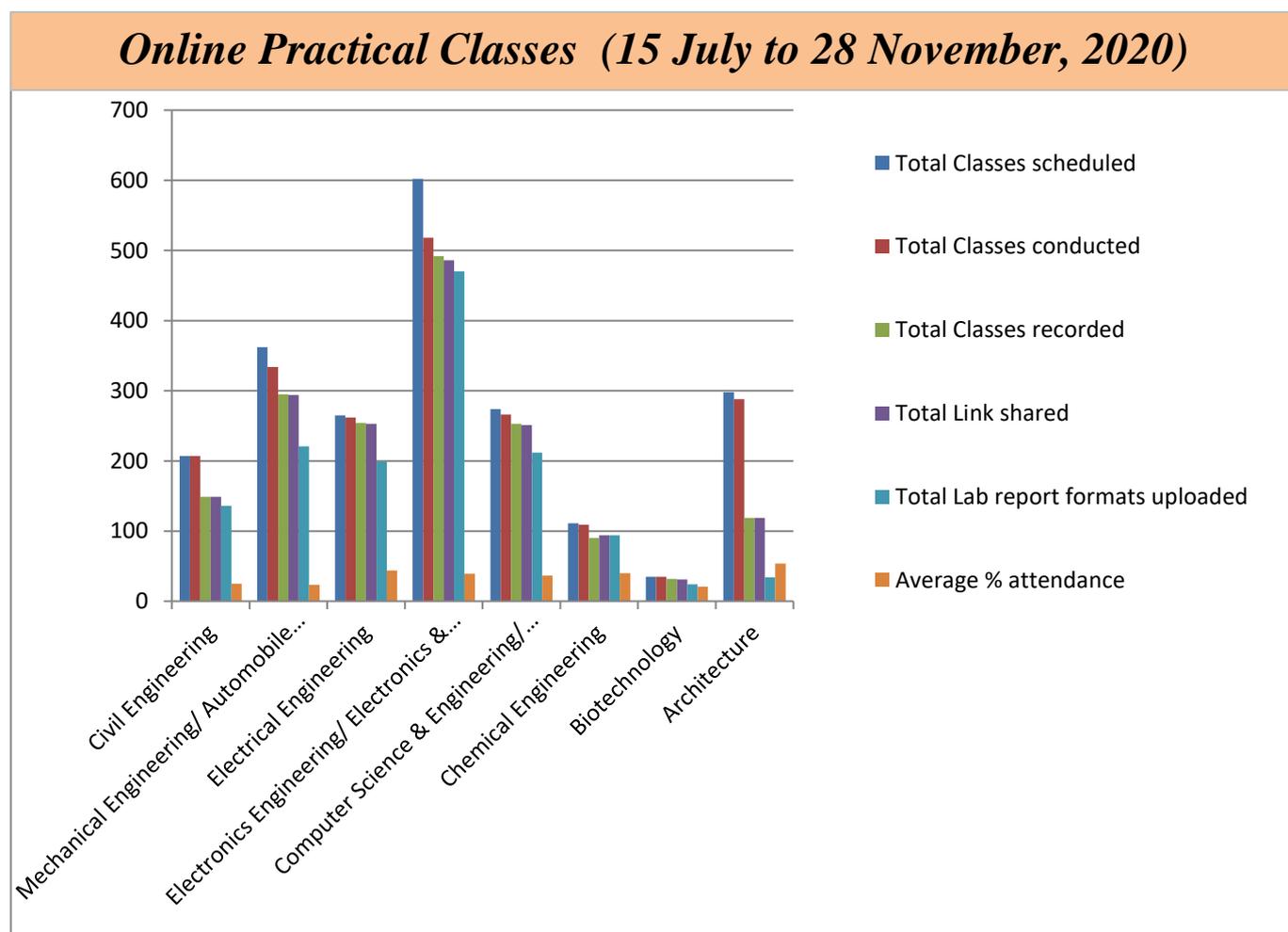


**Practical Classes**

Department	Total Classes scheduled	Total Classes conducted	Total Classes recorded	Total Link shared	Total Lab report formats uploaded	Average % attendance
Civil Engineering	207	207	149	149	136	25.07
Mechanical Engineering/ Automobile Engineering	362	334	295	294	221	23.12



Electrical Engineering	265	262	254	253	199	43.66
Electronics Engineering/ Electronics & Telecommunication Engineering	602	518	492	486	470	39.13
Computer Science & Engineering/ Information Technology/ MCA	274	266	253	251	212	36.61
Chemical Engineering	111	109	90	94	94	39.87
Biotechnology	35	35	32	31	24	20.76
Architecture	298	288	119	119	34	53.72

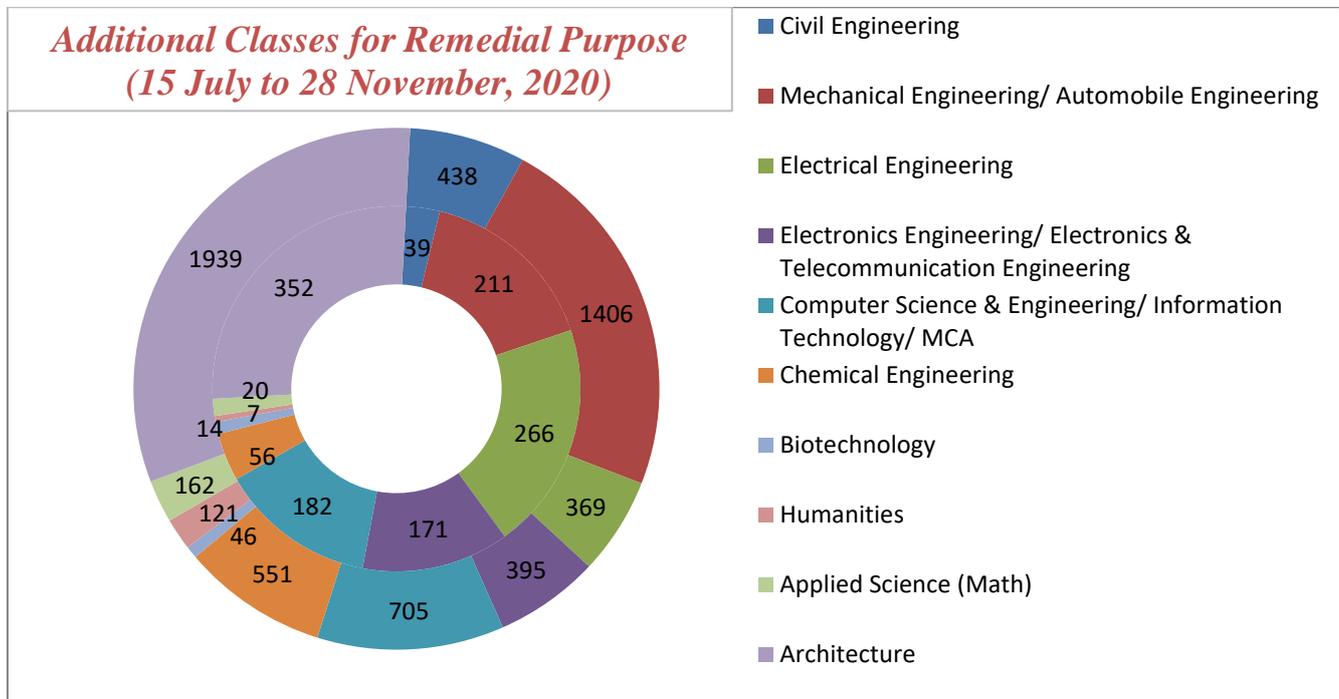


**Additional Classes/Special classes for remedial purpose**

Department	Total Classes <b>conducted</b>	Total number of students
Civil Engineering	39	438
Mechanical Engineering/ Automobile Engineering	211	1406



Electrical Engineering	266	369
Electronics Engineering/ Electronics & Telecommunication Engineering	171	395
Computer Science & Engineering/ Information Technology/ MCA	182	705
Chemical Engineering	56	551
Biotechnology	14	46
Humanities	7	121
Applied Science (Math)	20	162
Architecture	352	1939
<b>Total</b>	<b>1318</b>	<b>6132</b>



## 19. Any other matter with the permission of the Chair

- **The External Expert Member Dr. I. K. Bhat**, Vice Chancellor, Manav Rachna University, Faridabad has suggested that the Institute should implement following aspects of new National Education Policy in phased manner:
  - Technology Use and Integration: Use and integration of technology to improve multiple aspects of education.
  - Flexibility, so that learners have the ability to choose their learning trajectories and programmes, and thereby choose their own paths in life according to their talents and interests.
  - Assessment & Evaluation:
    - Emphasis on online assessments.
    - Unique assessment/evaluation approach for different courses.



- Self-assessment and peer assessment, and assessment of progress of the student in project-based and inquiry-based learning, quizzes, role plays, group work, portfolios, etc., along with teacher assessment.
  - Separate section for digital infrastructure: the existing digital platforms and ongoing ICT-based educational initiatives must be optimized and expanded to meet the current and future challenges in providing quality education for all.
  - Focus on content development & delivery as per 21st Century learners.
  - Provision for earn while learning must be added in the Institute.
  - Development of digital repository of content including creation of Content/course by the faculty members of the Institute like Coursera, which will help the institution in recognition at Global Level.
  - Project & Skill Based Learning must be promoted at UG & PG level.
  - Pedagogy: pedagogy should be towards learning how to learn.
- The External Expert Member Dr. I. K. Bhat, has also suggested to organize series of workshops/discussion for the Implementation strategies of assessment, flexibility, pedagogy etc as per the provisions made in the New Education Policy.

**(Dr. Pratesh Jayaswal)**  
**Coordinator IQAC**

**(Dr. R. K. Pandit)**  
**DIRECTOR**

Date: 11.12.2020