MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Minutes of the Internal Quality Assurance Cell (IQAC) meeting on 06th March, 2021

The meeting of the Internal Quality Assurance Cell (IQAC) was held on **06th March, 2021** 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:

Chairperson:

Dr. R. K. Pandit, Director

Representative of Management:

- Shri. Prashant Mehta, IAS, Member, Board of Governors
- Er. Ramesh Agrawal, Secretary, SECS & Member BoG
- 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. Yatindra Kumar Shrivastava*, Industrialist, Syssteanz Management Advisory, Services, Pune
- Mr. Rajnesh Khosla**, Head of HR, LG Soft India Pvt. Ltd., Banglore

Faculty Representatives:

- Dr. Manjaree Pandit, Professor & Dean Academics
- Dr. R. Kansal, Professor & Dean Students Welfare
- Dr. Akhilesh Tiwari, Professor & Head IT
- Dr. Manish Dixit, Professor & Head CSE
- 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

Student Representatives:

- Ms. Muskan Gupta*
- Mr. Pranav Mishra*

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 11th December 2020.

➢ The minutes of the previous IQAC meeting dated 11.12.2020 regarding following points were confirmed:

- *The house was apprised about steps taken to identify top five Student Clubs/ Professional Society Chapters during Academic Year 2019-20.*
- *The results of the Academic Audit conducted during August-September 2020 were reviewed.*
- *The Annual Report of the 100kWp Rooftop Solar Power Plant installed in November 2019 at MITS was presented.*
- *The report on Induction Programme (Utthan-2020) conducted for the newly admitted first year students in virtual mode from 1st to 5th December 2020 was presented.*
- *The status report of UG/PG admissions was reviewed.*
- *The results of January to June 2020 semester examination were reviewed.*
- *The activities conducted for quality improvement were presented.*
- *The activities conducted by the student clubs/chapters during July 2020 to December 2020 were reviewed.*
- *The report of Student Feedback on virtual teaching-learning during this semester (July-August 2020) was presented and the it was reported that 37 faculty members received appreciation letters.*
- *The status of GATE Training to final & pre-final year students under TEQIP-III was presented.*
- *The Training & Placement Cell report was reviewed.*
- *The Exit Survey Report of passing out batch 2020 was presented and reviewed.*
- *The status of the e-repository created for storing UG & PG thesis/dissertations was presented.*
- *The faculty research publication report for year 2019-2020 was presented.*
- *The status of on-line self-learning courses (MOOCs) opted by students from SWAYAM/NPTEL for credit transfer during Jan-June 2020 semester was placed before the House.*
- *The status report of the AICTE sponsored International Conference to be conducted on December 18-19 was presented.*
- *The House was informed about the number of theory and practical classes conducted during the semester from July 15th to November 28th 2020.*
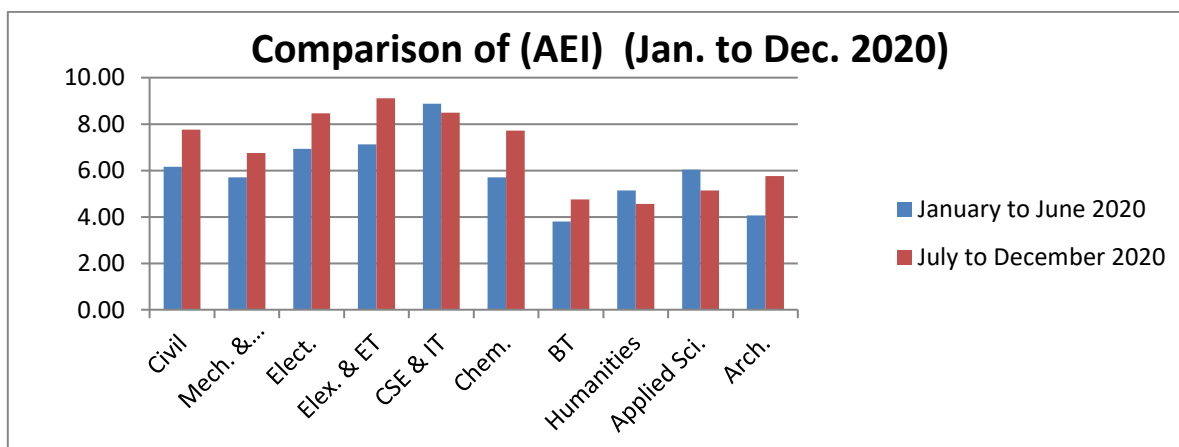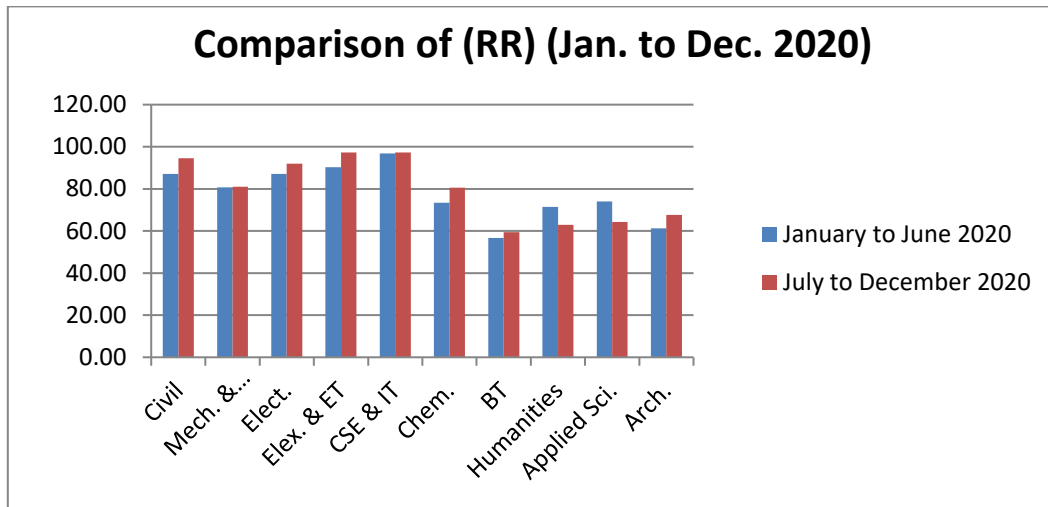
Item. 2: To apprise the house about AEI computation for July-December 2020

- ➢ The **Dean Academics** of the Institute has apprised the house regarding Administrative Efficiency Index computed for July-December 2020. Following are the details AEI computation:
- ▪ As previously discussed and approved in the meeting of the IQAC the Administrative Efficiency Index (AEI) for the July to December- 2020 session has been computed.
- ▪ The AEI indices of the departments for the two successive semesters Jan-June 2020 & July to December- 2020 are compared.
- ▪ A total of **37 parameters (reports)** were used for the computation of AEI out of 10. The department wise scores are listed here.

COMPARISON OF LAST TWO SEMESTER REPORTS
(January 2020 to December 2020)

Duration	ADMINISTRATIVE EFFICIENCY INDEX (AEI) (out of 10)									
	Civil	Mech. & Auto.	Elect.	Elex. & ET	CSE & IT	Chem.	BT	Humanities	Applied Sci.	Arch.
January to June 2020	6.16	5.71	6.94	7.13	8.87	5.70	3.80	5.14	6.04	4.06
July to December 2020	7.76	6.76	8.46	9.11	8.49	7.72	4.75	4.56	5.14	5.76

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The Full report is enclosed as Annexure-I

Item. 3: To apprise the house about Summary of Feedback –I & II for July-December 2020 Semester and appreciation to faculty members based on FFI

➢ The **Director** of the Institute has apprised the house about the mechanism of FFI and methodology of appreciation to faculty on the basis of FFI. The House appreciated the efforts taken by faculty members as the number of student's responses received for the faculty feedback Index calculation is good.

- It is a practice to collect online feedback from students for all courses twice in a semester.
- The responses are used to compute the faculty feedback Index (FFI).
- The second feedback activity for II Year-IV year during the July-November semester was conducted on 23rd & 24th November 2020.
- The comments received from the students were mailed to the concerned faculty with copy to the Head of the Department, for corrective action.
- The full reports are also mailed similarly.
- **Based on the first & second feedback reports appreciation letters were given to the following 10 faculty members for 13 courses**.
- The criteria used to identify these 13 courses (as implemented earlier also) was as follows:
  o The faculty gets an FFI score greater than 4 in both the feedbacks collected from students during the semester.
  o The responses are received from at least 50 % of the students to whom the feedback links were sent by the department.

➢ **The summary is given below**:

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FEEDBACK SUMMARY OF ONLINE CLASSES DURING [COVID-19]
(Session - July to December, 2020)

Appreciation Letters (Online FFI – I, August, 2020 & FFI – II, November, 2020)

Name of Department :		Automobile Engineering			
S. No.	Name of Faculty/Course Name with Code	Class/ Semester	FFI-I	FFI-II	Average
1	Prof. Utkarsh Shrivastava : (FM and hydraulic machines)		4.24	4.07	4.16
Name of Department :		Electronics Engineering			
1	Prof. Rishabh Shukla (Electromagnetic Theory-140502)	III Year (5th Semester)	4.17	4.07	4.12
2	Prof. Santosh Sharma (Microwave Engineering 140713)	IV Year (7th Semester) (DE - 3)	4.00	4.08	4.04
Name of Department :		Electronics & Telecommunication Engineering			
1	Dr. Vikas Mahor (VLSI Design) (200712)	IV Year (7th Semester) (DE - 3)	4.52	4.55	4.54
Name of Department :		Computer Science & Engineering			
1	Prof. Mir Shahnawaz Ahmad, OOPs, 150304	II Year (3rd Semester) (Section - A)	4.24	4.38	4.31
Name of Department :		Chemical Engineering			
1	Dr. Antaram N. Sarve (Fluid Particle Mechanics, 170305)		4.34	4.03	4.19
2	Prof. Anish P. Jacob (Mass Transfer - II, 170502)	III Year (5th Semester)	4.12	4.18	4.15
3	Prof. Anish P. Jacob (Chemical Reaction Engineering - I, 170503)		4.16	4.20	4.18
4	Dr. Rakesh K. Dubey (Inorganic Process Technology, 170505)		4.28	4.39	4.34
5	Dr. Rakesh K. Dubey: (Petrochemical Technology) (170714)	IV Year (7th Semester) (DE - 3)	4.07	4.07	4.07
Name of Department :		Biotechnology			
1	Prof. Shikha Jha (180503, Bioprocess Engg.)	III Year (5th Semester)	4.18	4.78	4.48
2	Prof. Shikha Jha (180505, Plant Biotechnology)		4.30	4.75	4.53

Name of Department :		MCA			
1	Prof. Parul Saxena (680304: Database Management System)	II Year (3rd Semester)	4.26	4.10	4.18

The Full report is enclosed as Annexure-II

Item. 4: To review the Report of International Conference ICSISCET-2020.

➢ The house reviewed the report of AICTE sponsored **Second International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology (ICSISCET-2020)** which was conducted on 18th-19th December 2020 in **'Virtual Mode'**.

➢ The coordinator of conference & Dean Academic Dr. Manjaree Pandit has apprised the house following key highlights of conference :

  ▪ There were total 146 participants; which included Authors/presenters (47) + Keynote Speaker (01)+Technical session experts (08) + External(07)/Internal session chairs(12)+session conduction team (14)+Technical support team(23) + Reviewers (35)] [Registered but absent during conference: 01 participant]

Benefit to institute

• **Branding of the ICSISCET series**: The institute has created a brand name through this **ICSISCET Conference Series with support from AICTE** as this is the **Second International Conference on Sustainable and Innovative Solutions for Current Challenges in Engineering & Technology (ICSISCET-2020)**.

• **Background & Achievement:** The first ICSISCET-2019 was very well received by the researcher community and two edited books were published by Springer.

• **Virtual Conduction:** Conducting an International Conference in virtual mode was a big challenge and the planning, IT support and skills of the institute were successfully tested. Minute to minute time schedules were successfully maintained with proper prior planning.

• **Participation of Renowned Interdisciplinary Researchers:** Though the physical interaction with eminent scholars from all over the globe was missed, the organizers were able to get very renowned speakers for the conference. Normally such eminent experts would not have spared time to travel to India for this event; however in virtual mode they were able to spare time.

• The keynote was delivered by **Prof. K. K. Aggarwal**, Chairman NBA. The other experts who participated were **Dr. P.N. Suganthan of Nanyang Technological University, Singapore, Dr. Anuradha Ranasinghe of Liverpool Hope University, United Kingdom**, Dr. Swagatam Das of Indian Statistical Institute, Kolkata, West Bengal, India, **Dr. Carlos A. Coello Coello of CINVESTAV-IPN, Mexico**, Dr. R.V. Rao of NIT, Surat, Gujrat, India, Dr. Sumantra Dutta Roy of IIT, Delhi, India, Dr. J.C. Bansal of South Asian University, New Delhi, India, and Dr. B. K. Panigrahi of IIT, Delhi, India.

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- **Lasting Relations & Associations**: It was a big achievement for the institute to associate with experts of International Renown. The conference has formed long lasting association with these eminent researchers. (Details in the PCR)
- **Collaboration:** It helped in establishing a long lasting research collaboration with 3 other institutes of national repute, namely **DTU, Delhi, NIT Surat and South Asian University, New Delhi.**
- **Proceeding in Springer:** A pre-conference contract (Contract No.: 119691) was signed with **Springer Nature Switzerland** for publishing a work provisionally entitled **"Artificial Intelligence and Sustainable Computing - Proceedings of ICSISCET 2020" in Springer Series "Algorithms for Intelligent Systems (AIS)"** on 10th November 2020 with two faculty members from the institute as Editors and two faculty members from other institutes.
- **Publicity & Media Coverage**: The conference was very successful and very **good media coverage** was received which generated **good publicity** for the institute in the region.
- **Live streaming on Youtube:** This was also a big achievement for the organizing team as those who were not even registered could benefit from the deliberations due to live streaming of the event.
- **Good Participation:** Authors/Participants from about 33 institutions covering India and abroad participated and presented their research in the conference.
- **Exposure & Experience:** The sessions were very efficiently managed by the internal session chairs with support from external session chairs from different institutes.
- Therefore, the host institute got a chance to showcase all its positive attributes such as qualified faculty, research environment, excellent infrastructure etc.
- **Appreciation:** The institute received lot of applause from all participant and experts conceiving this international conference which was interdisciplinary in nature.
- **Team-spirit:** As faculty from various departments was involved in planning and conducting this conference, a very healthy team spirit was built between different engineering and science departments of the institute.
- **Interdisciplinary Interactions:** The interdisciplinary nature of the conference brought together all the different departments of the institute under one umbrella, while planning and conducting the conference; healthy team spirit and bonding was experienced which will play a very important role in the future growth and development of the institute

Benefit to Faculty

- **Organizing experience:** The members of the organizing committee worked very hard before and after this interdisciplinary conference. The faculty members in the organizing committee received valuable experience of conducting an academic event on a large scale.
- **Contacts**: The conduction of this mega event in virtual mode was a learning experience for one and all. It has given the faculty confidence and helped in developing good contacts with other faculty members and experts which may get converted into some valuable future collaborations.

- **Value Addition:** Many faculty members also got in-house opportunity to (i) to present a paper (ii) to review a few papers (iii) to chair a session or (iv) to work as a member of session conduction team etc.
- **Publishing & Achievement**: A pre-conference contract (**Contract No.: 101329**) was signed with **Springer Nature Switzerland** for publishing a work provisionally entitled "**Intelligent Computing Applications for Sustainable Real-World Systems – Intelligent Computing Techniques and their Applications**" on 28th August 2019
- **Future advantages**: The successful conduction of this even has encouraged many faculty members to take a lead and plan similar types of events in different domains.

Benefit to Students

- The expert sessions were highly beneficial for the students. Also, they got a platform to express their work and were exposed to the latest technological advancements.
- Some scholars were also actively involved in organizing the conference. They got valuable exposure and training in organizing sessions, supporting session chairs and reporting on the events.
- The students and scholars got a first-hand experience of organizing and attending an international conference during the COVID-times when they were not able to travel to other institutes for such activities.

Benefit to Industry

- The resulting industry-institute interaction was beneficial to persons from industry as well as experts, faculty, students and delegates.
- Papers were contributed by industry persons and they were also involved in review and other activities where necessary.

The Project Completion Report is enclosed as Annexure-III

Item 5: To review the academic activities organized by the Departments (July 2020 to January 2021).

- The house appreciated the efforts taken by various departments for the conduction of following academic activities in online mode:

ACADEMIC ACTIVITIES ORGANIZED

(July 2020 to January 2021)

Activities	Civil	Mech.	Elect.	Elex.	CSE	Chem.	IT	Total
Workshops	2	-	3	1	1	-	1	**08**
Seminar	1	-	1	-	-	-	-	**02**
Webinar	5	-	-	4	-	-	-	**09**
Training Programmes for Faculty (FDPS/STTPS/STCS)	-	-	-	1	1	-	-	**02**
TOTAL								**21**

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Item 6:   To review the academic activities in which faculty of the departments have participated July-Dec. Semester.

➢ The house reviewed the following status of participation of faculty members in various faculty development activities in online mode:

ACADEMIC ACTIVITIES ATTENDED
(July 2020 to January 2021)

Activities	Civil	Mech.	Elect.	Elex.	CSE	Chem.	IT	Total
Workshops	11	7	3	11	17	4	16	**69**
Conferences	2	1	7	1	2	-	-	**13**
Seminar	-	-	-	1	5	-	-	**06**
Webinar	20	11	10	43	29	4	9	**126**
Professional Development Programmes, Viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes	19	37	39	20	16	11	10	**152**
TOTAL								**366**

The full report is enclosed as Annexure-IV

Item 7: To apprise the house about AQIS proposals submitted to AICTE under RPS/MODROB and other schemes in Nov-Dec 2020-Jan 2021.

➢ The Director of the Institute has apprised the house about the submission of following proposals under various Quality Improvement schemes of AICTE:

SN	Scheme	ID	Title	Dept	PI	Co-PI	Amount
1.	RPS	1-9311083881	Development of an algorithm for Source identification of particulate matter observations in ambient air on the basis of heavy metals in Gwalior region.	Civil Engg	**Dr M K Trivedi**	**Prof Anil Saxena**	23,68,220
2.	RPS	1-9310768801	Development of an algorithm for Source identification of particulate matter observations in ambient air on the basis of heavy metals in Gwalior region.	Electrical Engg	**Dr. Sulochana Wadhwani**	**Kuldeep Swarnkar**	18,50,000
3.	RPS	1-9286103812	Developing a massive parallel machine learning based system for Intelligent processing of multimedia data	CSE	**Dr R.S.Jadon**	**Ms Parul Saxena**	14,04,200
4.	RPS	1-9286103787	An Intelligent and Efficient framework for the approximation of COVID-19 and other significant respiratory diseases in real time scenario	CSE	**Dr Manish Dixit**	**Dr R R Makwana**	20,28,000
5.	RPS	1-9286103781	Techno-economic assessment and optimal sizing of hybrid renewable energy systems for on-grid & off-grid remote areas using intelligent	Electrical	**Dr Manjaree Pandit**	**Dr. Laxmi Srivastava**	24,71,100

			techniques				
6.	SPICES	1-9256490411	Scheme for Promoting Interests, Creativity and Ethics among Students	Institute Level	**Dr Manjaree Pandit**	**Prof Vishal Chaudhari**	1,00,000
					TOTAL	**1,02,21,520**	

Item 8:   To review the visit of the expert team of National Board of Accreditation (NBA) and the comments of experts received during the 'Exit Meeting'.

➢   The NBA Coordinator & Dean Academics of the Institute has apprised the house about the following details of NBA accreditation committee visit:

▪   The NBA Accreditation committee visited the institute for the accreditation of undergraduate programmes of **Civil, Mechanical & Electrical Engineering from 19th to 21st February 2021**.

▪   The Exit Meeting with visiting experts (in virtual mode) was attended by the Director, all HoDs, Deans, Professors and Section Heads of the Institute in the Faculty Resource Centre from 9.30 AM on 21st February 2021.

▪   The final report has not yet been received from the NBA; however, based on the comments of the honourable Chairman and Programme Evaluators

the major strengths and weaknesses mentioned during the Exit Meeting are as follows:

STRENGTHS

❖ Very eminent BoG
❖ Autonomous since 2002
❖ Funded by TEQIP-III
❖ Location "Historic", close to Delhi
❖ Good Vision, well documented
❖ Good infrastructure, reasonably good ambience
❖ 30% faculty is Ph.D., awarding Ph.D. also.
❖ Admission is transparent
❖ Reasonably good internet facility

WEAKNESSES

The institute is very old and has 60 plus years behind it. How to improve visibility of the institute? This was the question put before the stakeholders and their suggestions were:

▪   **Improvement in research funding using Industry support through highly place alumni.**

▪   Consultancy needs to be industry focused.

▪   **Faculty needs to visit industry more frequently, must invite people from industry and students should also go more frequently to industry for projects, dissertations, visits etc.**

▪   **Calibration Centre certified by a National Agency can be established in the institute.**

▪   **EDC to be more active, vibrant, having better interaction with industry.**

- **Collaboration with foreign university, student exchange programmes**
- **Last visit also it was suggested to increase industry- institute but there is still scope**
- **Facility for Upskilling of working professionals can be provided by the institute**.
- **Financial assistance for projects, symposiums etc. to students**. (**This we are already doing but policy, norms and support provided must be clearly visible on website**)
- More hostels for girls & Boys
- **Residential campus, after sunset the facilities which have been created after speeding crores of rupees should get utilized**
- Senior faculty to participate more in laboratories to clear student doubts.

➢ In view of Improvement in research funding using Industry support through highly placed alumni, **Er. Ashutosh Chincholikar, M.D. & CEO** of Smart Controls Ltd. has suggested to take initiative for utilization of CSR (Corporate Social Responsibility) fund of reputed industries for joint collaborative research projects.

➢ **Shri. Prashant Mehta,** Member, Board of Governors, has suggested to assign the responsibility 'to explore the possibility of requesting CSR funds from industries for funding industry-collaborative research projects in the institute'. For this, it will be required to explore the rules, regulations & general guidelines of CSR fund utilization for the benefit of the Institute

➢ **The Director** of the Institute has assigned this responsibility (of exploring the norms and feasibility for getting benefits from the CSR funds of industries for the benefit of the institute) to Dr. Akhilesh Tiwari, Head IT Department.

Dr. Akhilesh Tiwari will submit a report in this regard, after discussion with Accounts Officer and other concerned officials within one-month.

The full report is enclosed as Annexure-V

Item. 9: To review of Alumni Association & its activities.

➢ The house reviewed the following initiatives and concerns about Alumni Association and alumni interaction:
- The Alumni is the most important resource that the institute has generated over its 60 + years of existence.
- The meetings of the Alumni Association were held on 2.10.2019, 3.11.2019, 17.11.2019, 12.01.2020 and 15.3.2020 during year 2019-2020.
- The eminent and vast alumni pool has given the institute a name and standing in the country.
- However, the full potential of Alumni has not yet been utilized. **Some of the evidences of Alumni involvement in the institute are as follows:**
  o Annual Alumni meet has been a constant ritual for the last many years.
  o Usually the 'silver jubilee celebrations' are also conducted by the batch completing 25 years of their graduation.

- o During the 'Golden Jubilee' & 'Diamond Jubilee Celebration' of the institute a large number of alumni visited the institute from all over the globe. Their bonding and connection with the institute was quite visible.
- o **The representatives of the Alumni are there in (i) BoG (ii) IQAC and (iii) BoS**
- o Initiative was taken by the IQAC for creating a database at the department level; **Alumni Coordinators** were appointed in each department for enhancing interaction, conducting meetings, preparing database, collecting feedback from alumni etc.
- o **The institute has allotted separate space for the office of the alumni association**.

- ➤ **The following measures are proposed for increasing the alumni participation in quality enhancement and branding/ranking of the institute and for enhancing Industry-Institute interaction**
  - o 'Alumni Tracing' and registration through website
  - o Involving the students for creating an alumni database
  - o Establishing regular communication with the alumni through an active alumni portal managed by a dedicated team of faculty & students
  - o Space & facilities for the Alumni Cell of the institute
  - o Regular meetings of alumni with the institute team
  - o Inviting alumni support for internships, placements, industry sponsored research projects, scholarships, collaborative activities etc.
  - o Offering institute support like infrastructure, human resource, providing academic support and training in state-of-the art, emergent domains etc.
- ➤ **Er. Ashutosh Chincholikar, M.D. & CEO** of Smart Controls Ltd. has suggested to identify quality alumni (Alumni working in reputed organization/ senior position) to work as leaders with a target to form a dedicated group of alumni and launch an initiative which may be called **'Industry Connect through Alumni'**. Initially a small group of focussed alumni can be involved with a clear goal.
- ➤ **Er. Yatindra Kumar Shrivastava**, Industrialist, Syssteanz Management Advisory, Services, Pune, was of the view that the 'alumni administration' should be done by the institute and then handed over to the present students for further exploitation of this important resource.

  Thus**, a** group of existing students can coordinate the alumni linkages. The Institute Faculty/Official will monitor the entire alumni linkages and activities. **An MITS-Industry-Alumni cell can be constituted.**

➢ **Er. Rajnesh Khosla, Head of HR,** LG Soft India Pvt. Ltd., Banglore suggested that a **tripartite arrangement involving an NGO-Industry-Institute** can be initiated as lots of CSR funds are available to NGOs.

➢ **Shri. Prashant Mehta,** Member, Board of Governors, has advised to form a group or team of personnel from Industries, Alumni & Institute to enhance the interaction. In addition to advice from Shri. Prashant Mehta, Member BoG, regarding formation of cell/team, **Shri. Keshav Pande, Journalist** has suggested that the monitoring of such cell must be done through Institute authority.

Item 10: To apprise the house about Institutional membership of IETE, IET Academic Affiliate Partnership Programme & Institutional Chapter of Institution of Engineers (India).

➢ **The Dean Academics has apprised the house about following initiatives taken for the Institutional membership of IETE, IET Academic Affiliate Partnership Programme & Institutional Chapter of Institution of Engineers (India):**
  o The professional Chapters and their activity help in shaping the careers of the graduate by improving their all-round skills and personality.
  o In IQAC meeting on 29th August 2020 it was informed (vide Item no 20) that the institute intends to establishing the student chapter of "Institution of Engineers, India" vide order no 1107 dated 16/7/2020.
  o **As a result of efforts made by the institute, the Institutional membership of 'Institution of Engineers, India' (IE)** was conferred upon MITS on 9th September 2020 [Membership number IM000684-].
  o The **Life Membership** of Chapter of **'The Institute of Electronics and Telecommunication Engineers (IETE), India'** was conferred upon MITS on 15th December 2020 [Membership number G00581 1].
  o MITS signed an MoU with the **Institution of Engineering and Technology (IET), UK** on 26th January 2021 and became an **academic affiliate of the IET.**
  o Under the agreement the **Student Chapter of IET** was formed and free membership was given to selected 50 student members (10 from I year, 15 from II year and 25 from III year) and 38 faculty members.

Item 11: To apprise the student Counselling, grievance redressing & support: (Meetings conducted with newly entered Lateral Entry students. Queries regarding internship, OC/DE addressed by conducting meetings).

➢ The Dean Academics has apprised the house about following activities conducted under student Counselling, grievance redressing & support system.

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Summary of Counselling Sessions of First Year Students
(As communicated by class coordinators/HoDs after meeting with students)

S. No.	Name of Department	Date of Meeting	Number of students registered	Number of students present
1.	Civil Engineering	10.01.2021	137	91
2.	Mechanical Engineering	12.12.2020	136	76
3.	Mechanical Engineering	02.01.2021	136	58
4.	Automobile Engineering	13.12.2020	40	20
5.	Automobile Engineering	01.01.2021	40	18
6.	Electronics Engineering	07.12.2020	120	64
7.	Electronics Engineering	11.12.2020	120	62
8.	Electronics Engineering	18.12.2020	120	46
9.	Electronics Engineering/ET	24.12.2020	120	127
10	Electronics Engineering	01.01.2021	120	31
11.	Computer Science & Engineering	08.01.2021	140	90
12.	MCA	08.01.2021	63	48
13.	Information Technology	09.01.2021	69	37
14.	Information Technology (IoT)	02.01.2021	70	47
15	Information Technology (AIR)	12.01.2021	69	36
16.	Chemical Engineering	01.01.2021	44	35
17	Electrical Engineering	09.01.2021	140	58
18	Internet of Things (EE)	07.01.2021	69	64
	TOTAL		**1753**	**1008**

➢ The issues raised by students were solved by the faculty coordinators during the meetings and the report was submitted to the office of the Dean Academics.

➢ The questions raised by the students were compiled by the Dean Academics office and the answers to those questions were uploaded on the MOODLE under the heading '**FAQs by First Year Students'**. 20 such FAQs are listed below.

➢ Similar initiative was taken by the institute for the senior students also and reported in the **IQAC meeting on 29th august 2020 vide Item 5.**

FAQs by Newly Admitted First Year Students
(Queries of students communicated through the class coordinators)

1. **Library books availability**
   Ans: **All class coordinators please inform students that a request for books can be sent to the library on e mail. The Central Library has taken initiative to send scanned & e-books to desiring students on e-mail.**
   On request of first year students, the library timings have been extended till 6.0 pm with effect from 15th January 2021.

2. Mode of examination for Engineering Graphics paper
   Ans: **The mode of examination will be communicated to the students by the concerned faculty through a separate communication.**

3. Regarding the day when offline classes will be conducted.
   Ans: The decision regarding this will be taken after considering all aspects, based on feedback from stakeholders after a review by the administration.

4. Sometimes the students are not able to join classes when their number increases.
   Ans: Appropriate action has already been taken in this regard.

5. Some students have not been able to register on MOODLE yet.
   Ans: The concerned coordinators must take cognizance of this and identify students who have not registered on MOODLE or IMS yet. Required action must be taken immediately. In case of any issues, the students may send their queries to ims@mitsgwalior.in /moodle@mitsgwalior.in

6. Some faculty members have not yet created their course page on MOODLE
   Ans: The HoDs must identify such faculty members, if any and immediately resolve the matter. The digital teaching planning being followed at the institute needs all the faculty members and students to be very active on MOODLE.

7. Some students want MOODLE training.
   Ans: The MOODLE administrator Mr. Atul Chauhan has demonstrated the use of MOODLE during the induction programme and the videos are available. On request, briefing sessions were arranged in Electronics and some other departments also.
   The same can be repeated at the request of class coordinators.

8. Some students are facing problem in submitting assignments on MOODLE
   Ans: The coordinators and concerned faculty can find out the problems faced by students and take corrective actions/measures.

9. Sometimes the link of some recorded lectures are not shared with the students due to which they are not able to watch later
   Ans: As part of the digital teaching action plan, it is absolutely necessary that the links of recorded videos and PPTs/notes etc must be uploaded on the SAME day on the MOODLE. Faculty members must please take note of this.

10. Laboratory sessions conducted through virtual mode are not properly understood by the students.
    Ans: Due to COVID guidelines, the students are not getting exposed to the latest facilities available in the labs. As a second best option, the institute is managing the laboratory teaching through virtual/recorded lab sessions.
    Our institute is a nodal centre of 'Virtual labs, IIT Delhi'. The conduction of laboratories can be further improved/enhanced by using these virtual experiments.

The virtual laboratory experiments must be recorded in such a manner that the salient points are captured properly.

In case of queries by students, specific solutions/answers must be provided by the concerned faculty and technical staff to make the conduction of virtual laboratories more meaningful.

Students will be given an opportunity to conduct experiments in the institute laboratories when the institute reopens for students. Special laboratory sessions will be conducted so that students get practical exposure in laboratories.

11. Faculty are taking classes using different platforms like G-meet, go to meeting, zoom etc. This creates problem for the students.

    Ans: Yes, that's how things are being managed at present due to a number of practical difficulties being faced by one and all due to COVID situation. However, all the faculty members are trying their best to engage classes with whatever resources are available at that moment.

12. In 'go to meeting' a lot of data of students is being consumed.

    Ans: Yes, this point has been noted and due care is being taken by the faculty to find the best possible solution, under these circumstances.

13. Due to internet failure classes sometimes get rescheduled/disturbed.

    Ans: Due to heavy load on data services due to COVID all over the globe the frequency of network failures has increased. The students and faculty are requested to bear with it for the time being, soon better solutions will be available.

14. Quiz must be short. time allotment should be justified. Practice questions should be added separately.

    Ans: Yes, quizzes can be more in number to test the student learning continuously, but not too many questions.

15. Some students have doubts about how to submit laboratory reports and assessment of lab courses.

    Ans: The concerned faculty will address this issue as it will vary from department to department and lab to lab.

16. Students want on special session to be organized about SWAYAM/NPTEL and a virtual tour of NPTEL.

    Ans: This must be arranged/scheduled by SWAYAM coordinators/SWAYAM manager for all departments separately.

    In some departments, separate sessions have already been conducted by the SWAYAM manager to create awareness about this platform.

17. Quiz schedule should be announced by the faculty in advance, preferably on Friday & Saturday.

    Ans: Yes, some pre-announced schedule can be followed so that students will also be ready to take the quiz. However, sometimes surprize quiz can also be taken to check alertness of students.

18. The timings of quizzes/additional classes sometimes clash.

    Ans: Prior scheduling of these activities will avoid clashing. At the coordinator & faculty level, efforts are required to avoid this issue.

19. Make class representatives; one or two boys and girls

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Ans: Class coordinators, with the permission of HoDs can take a call on this issue and fix the mechanism for selection of these representatives and the what duties & responsibilities will be assigned to them.

20. No additional classes should be scheduled on Saturdays and Sundays.

Ans: As per the Digital Teaching Plan of the institute every week 01 additional class per course is to be scheduled to facilitate and interact with those who may not be able to take all regular classes due to data and other issues.

Students may have many other issues also on day-to-day basis. The class coordinators must be approached for the solution of these issues. The class coordinator will resolve the issues with the help of faculty, HoD and others as needed.

Summary of meeting with Lateral Entry Students

➢ The **Lateral Entry students who are from different Diploma Steams** were admitted in the III Semester of various UG programmes.

➢ Due to COVID situation, their admissions got delayed.

➢ The class coordinators and faculty of the departments helped them to cope up with studies by providing them links of recorded classes.

➢ The students were also motivated to attend the Additional Classes.

➢ Each department conducted separate meetings with these **Lateral Entry students**, the details of which are given below:

Meeting with Students admitted through Lateral Entry

S. No.	Name of Department	Date of Meeting	Number of students registered	Number of students present
1.	Civil Engineering	16.12.2020	13	13
2.	Mechanical Engineering	12.12.2020	10	08
3.	Electrical Engineering	10.12.2020	13	12
4.	Electronics Engineering	15.12.2020	05	04
5.	Electronics & ET Engineering	15.12.2020	01	01
6.	Computer Science Engineering	09.12.2020	12	09
7.	Information Technology	08.12.2020	06	04
			60	51

Orientation Programme for Students (II to IV year 2021)

➢ At the beginning of each semester a one-day orientation programme is conducted in each department.

➢ The faculty and various coordinators interact with students and brief them about the provisions of the curriculum, internships, projects, outcome based education, remedial class mechanism etc.

➢ Each department conducted separate orientation sessions for II Year-Final year students, the details of which are given below:

Orientation Sessions for II Yea to IV Year Students

S. No.	Name of Department	Year	Date of Meeting	Number of students present
1.	Civil Engineering	II	29.01.2021	50
		III	30.01.2021	82
		IV	29.01.2021	45
2.	Mechanical Engineering	I to IV	29.01.2021	191
3.	Electrical Engineering	II	18.01.2021	125
		III	08.01.2021	63
		III	15.01.2021	85
		IV	08.01.2021	74
4.	Electronics Engineering	II	15.01.2021	94
		III	15.01.2021	92
		IV	11.01.2021	91
5.	Computer Science & Engineering	III	29.01.2021	40
		IV	23.01.2021	40
6.	Information Technology	II	30.01.2021	22
		III	30.01.2021	20
		IV	30.01.2021	29
7.	Chemical Engineering	II to IV	28.01.2021	47
8.	Computer Application	II	27.01.2021	16
		IV	29.01.2021	38
			Total	**1244**

The full report is enclosed as Annexure- VI

Item 12: To review the activities of the student clubs & Professional Society Chapters.

➢ The **Dean Students Welfare Dr. Rajiv Kansal** has presented following brief report of student clubs & Professional Society Chapters:
  ▪ The student clubs have been very active during the COVID times and lot many co-curricular activities were conducted.
  ▪ The club activities for the last 4 years at a glance are:

YEAR	2017-2018	2018-2019	2019-2020	2020-2021
club activities	86	66	54	47 so far

The activities conducted by the clubs and chapters from July 2020-Jan 2021 are listed below.

Club activities 2020-21

S. No.	Name of the club & Coordinator	Name of Activity	Level of Activity	Date	No. of Students Participated	Achievements/ Winners Detail
1.	**Terrestrial Automobile**	Fundamentals of	College	25-07-2020	35	Experts from foreign

	Development Club **Prof.Vedansh Chaturvedi**	automobile and go-kart designing.		& 26-07-2020		university and industry were invited for online workshop.
2.	**Animation Club** **Amit Kumar Manjhvar**	Quiz	Deptt.	19/09/2020	58	--
3.	**Holistic Health Club Gwalior** **Prof. Vishal Chaudhary**	Online Quiz competition on**"Health and social Awareness during Covid-19 Pandemic".**	National	29/09/2020	250	Students from different colleges participated including IIT, IIITM, IITTM, ITM, PRESTIGE, JIWAJI, SATI VIDISHA, ORIENTAL BHOPAL, MIT SGSITS, BITS PILANI, IITK.
4.		Webinar on Mock Placement preparation by Mr. Yash Jain	National	21/11/2020	200	Participants from all over INDIA attended webinar. News of the session is printed in newspaper.
5.	**ASIMOV Robotics Club** **Dr Karuna Markam**	Webinar	Institute	30/08/2020	80	
6.	**Digital Learning Group**	Webinar on "Secret Behind Cracking Placements"	College	04/07/2020	76	--
7.		Webinar on "Entrepreneurship"	College	25/07/2020	79	--
8.		Webinar on "Gate Selection Process And Criteria"	College	01/08/2020	82	--
9.		"TOPPER'S TALK"	College	09/08/2020	76	--
10.	**Prof. Punit Johri**	Webinar on "Placement Scenario in Colleges"	College	18/09/2020	86	--
11.		Webinar on "Effective Communication Skills"	College	27/09/2020	77	--
12.		"Placement Ready Program"	College level event	5/07/2020 to 14/07/2020	90	First prize winner Mr. Pavan Vaghela
13.		"Knowledge Hunt Championship"	Nodal level	14/08/2020 to 16/08/2020	86	1. Ratnakar Nayak 2. Swapnitamahauth
14.		Workshop on "Basic of robotics"	College	5/09/2020	87	--
15.		Webinar on "Effective Resume Building"	College	11/10/2020	89	--
16.		Webinar on "Journey from	College	8/11/2020	96	--

		MITS Gwalior to Director at IIT Kanpur"				
17.		Diwali : be the light	College	11/11/2020 to 13/11/2020	12	--
18.	ISTE Student's Chapter MITS	CAREER LABS	College level	17/10/2020	160	
19.		CAREER MASTER CLASS	Institute level	18/10/2020	40	
	Prof. Vishal Chaudhary					
20.		CODESY	College level	19/10/2020	45	3 winners were felicitated.
21.	Dance Club Prof. Parul Saxena	ONLINE DANCE COMPETITION 2.0	International	20th July to 20th August 2020	30	Winners: 1st : Aditi Jadhav & Trisha Pandey, Mumbai 2nd : K.B. Keerthana, MITS, Gwalior & Pratham Purohit, Indore 3rd: Devi Das, SNCV, Kolkata & Ujjwal Chandel, JNVU, Jodhpur 4th:Swagatama Ghosh, KIIT, Bhubaneshwar & Abhishek Kumar, SOL DU, Delhi 5th:Shubhi Gupta, ECS School, Gwalior
22.	MITS Journalism Society	Session on Placement Scenario post covid and how to prepare for it	College	01/07/2020	110	
23.		Session on Acing Defense Service Exams and SSB	College	05/07/2020	50	
24.	Prof. Anish P. Jacob	Session on "Ending Hunger in India" with City Director, Zomato Feeding India	College	31/07/2020	50	
25.		Webinar on "Current Scenario of International Admissions and Tips for Students" with Foreign Admits	College	08/08/2020	40	
26.		Online session with Make a Difference	College	9/10/2020	40	
27.		Webinar with CATCORNER	College	28/10/2020	30	
28.	AASF student forum (MoU between IIITM Gwalior and MITS)	Online Workshop "Fundamentals of aptitude"	College	19/09/2020	50	Ist position: Shivam Sharma II position:

						Mayank Prakash
29.	**Scrabble Club MITS** **Prof. Jaimala Jha**	Online quiz event "Abhipray"	College level	15/09/ 2020	88	Ist Saurabh Singh IInd Vansika Rathore
30.	**Querencia Club** **Dr. Sanjiv Khanna**	Online Writing Competition	Inter-College	15/07/2020 to 10/08/2020	15	**WINNER** **Article Writing** Mohd. Bilal – GRMC **Short Story Writing** A. Vajpayee – NUJS V. Budholiya – JU **Poetry** S. Fuzel – Amity Uni. A. Bhalla - MITS
31.	**Sports Club** **Dr. B.P.S. Bhadoria**	Chess Tournament	College Level	25-26th July, 2020	90	**Boys Winner-** 1. Himanshu Jha 2. S. S. Sikarwar 3. Deepak Jha **Girls Winner** 1. Sanya Verma 2. Priya Patel 3. Mitali Patidar
32.		On-line Sports awareness quiz	College Level	07th to 09th August 2020	300	Winner: Rishab Rajput
33.		Yoga Competition	College Level	23/08/2020	28	1.Anushka Singh 2. Neha Bhadoria 3. Rahul Semil
34.		Webinar	College Level	22nd August 2020	198	-
35.		On-line Quiz on sports awareness	College Level	9th to 13th September 2020	500	-
36.		On-line Chess tournament	National Level	28th to 29th November 2020	650	-
37.	**IETE Student Forum**	A workshop on HTML and CSS(Create Website on their own)	Intra College	6th – 8th July2020	54	The enthusiasts went through an online exam of about 15 minutes. In order to boost up their confidence, participation. Certificates were provided to all.
38.	**Dr.Vandana Vikas Thakre**	Digital poster making Competition **Topic –** Thanking Frontline Warriors	Intra College	19/07/2020	8	Winners: Pragya Rajput (Digital Design) Ashwani Verma (Handmade).
39.		TEQUIZ on International Youth Day (quiz on technical youth icons)	Intra College	12/08/2020	80	Ist : Arpit Dubey IInd: Nancy Tiwari and Ansh Agrawal IIIrd: Ashish Bansal
40.		A workshop on Java		24th – 26th	64	Participation

		Script (Development of a user Friendly Website)		Aug. 2020		certificates were provided to all attendees
41.		Human Capital and Design Thinking		20/09/2020	230	Participation certificates were provided to all attendees
42.		Women Leadership in Science and Technological Development		08/11/2020	146	Participation certificates were provided to all attendees
43.		Two Days online conference on Topic "Next Generation Communication"		21- 22 Nov. 2020	66	Participation certificates were provided to all attendees
44.	**Speaker's Club** **Dr. Manish Dixit & Prof. Shweta Singh**	Talk Tonic	Institute	26.01.2021	70	**For the Notion** 1. Tanupriya Saxena 2. K.B. Keerthana 3. Nishant Pathak **Against The Notion** 1. Khushi Sharma 2. Ambika Bansod 3. P. Mudotiya
45.	**Personality Development Club** Dr. Anjali S Patil & Prof. Shweta Singh	Open Space	Institute	30.01.2021	32	

> The house appreciated the regular interest and hard work by students and faculty members for the conduction of various activities even during the COVID situation.

The full report is enclosed as Annexure-VII

Item 13: To review the development of laboratories & procurement of new equipment during the last 2 years

> The house reviewed the development of following new Laboratories/Facilities created in the department during the last two years from 2018-2020:

S.No	Department	Amount (Rs.)
1.	Department of Civil Engineering	58,28,200
2.	Department of Mechanical Engineering	37,08,686
3.	Department of Electrical Engineering	97,69,159/-
4.	Department of Electronics & Electronics & Telecommunications	47,63,007
5.	Department of CSE & IT	38,50,861
TOTAL		**2,79,19,913/-**

The department wise details of labs and major facilities/equipment installed are as follows:

Department of Civil Engineering: Rs. 58,28,200/-

S.No.	Name of the Lab	Name of Major Equipment Installed	Amount (Rs.)
1.	Survey Lab	Electronic Total Station (03 Nos) @4,00000/-	12,00000/-
2.	PHE LAB	BOD Incubator	62,000/-
3.	Soil Lab	Direct Shear Test Apparatus CBR cum UCS Test Apparatus	1,82,300/-
		Digital Microprocessor based	1,22,000/-
		Triaxial testing Machine	5,50,000/-
		SPT Apparatus	86,000/-
		Consolidation Apparatus	2,22,000/-
4	Material Diagnostic Lab (New Lab Created)	Concrete Impermeabillity Apparatus	1,78,250/-
		Creep Rig Tester	5,19,200/-
		Ultrasonic Pulse Velocity	3,46,550/-
		Analyser Digital Rebound Hammer	1,95,100/-
5	Concrete Lab	Compression Testing Machine	9,50,000/-
		RESIPOD	2,53,800/-
6	Highway Lab	Digital Marshall Apparatus	2,56,500/-
		LOS Angeles Abrasion Testing Machine	1,94,500/-
		ROD Pod VT Meter	3,10,000/-
TOTAL AMOUNT (CIVIL)			**58,28,200/-**

Department of Mechanical Engineering: Rs. 37,08,686/-

S.No.	Name of the Lab	Name of Major Equipment Installed	Amount (Rs.)
1	Refrigeration and Air Conditioning Lab	Air Conditioning Test Rig, Cold Storage Trainer, Ductable air conditioning, Cut Section of Various Transmission and Control system, Refrigeration fault simulator	6,69,714/-
2	CAD Lab	**Hardware:** 1. No of desktops: 07 Intel, core i7, 16 GB RAM, 64 BIT Operating System. 2. No of desktops: 08 Intel, core i7, 08 GB RAM, 64 BIT Operating System. **Software:** 1. ANSYS' s Academic Research (1 Task/Single user) 2. ANSYS' s Academic Teaching (25 task/Users)	25,95,528/-

3	Dynamics of machine lab	CAM analysis apparatus, Coriollis component of acceleration apparatus with digital RPM indicator, Epicyclic gear train apparatus, universal governor apparatus, universal vibration machine apparatus, Gyroscopic setup, flywheel setup, digital Scorboscope	4,43,444/-
	TOTAL AMOUNT (MECHANICAL)		**37,08,686/-**

Department of Electrical Engineering: Rs. 97,69,159/-

S. No.	Name of the Lab	Major Equipment Installed	Amount (in Rs.)
1	Industrial Automation Lab	1.Industrial PLC Trainer 2.Rotary Transfer Unit 3.Conveyor Belt 4.Lift Elevator 5.Water Level Control SCADA Software	10,69,080/-
2	Control Systems Lab	1 DC Servo Motor Controller 2 Design of PID Controller 3 Lead Lag Network Simulator 4 Potentiometer Error Detector 5 Relay Control System 6 Stepper Motor Characteristics Study Module 7 Synchro Transmitter and Receiver Trainer 8 Temperature Control System 9 Tuning of Controller	3,88,981/-
3	Electrical Machines Lab	1.DC Shunt Motor coupled to DC Shunt Generator 2.DC Compound Motor coupled with DC Shunt Generator 3.DC Shunt Motor coupled to Mechanical Load (belt and pulley type) 4.DC Series Motor coupled to Mechanical Load (belt and pulley type) 5.3Phase Squirrel Cage Induction Motor coupled to Mechanical Load 6.3 Phase 4 pole Slip ring Induction Motor coupled to 3-Phase 2 pole Slip-ring Induction Motor 7.Synchronous Motor coupled with DC Machine and a rotary exciter and static DC Source. 8.DC Motor coupled to AC Generator 9.DC Machine coupled to Salient Pole Alternator 10.Various tests on 1 phase Transformer. 11.Three-Phase Transformer Test set up.	34,83,596/-
4	Power Electronics & Drives Lab	Chopper Based Drives (4 Quadrant 3 Phase) Chopper Based Drives	16,62,502/-

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		(3 Phase IGBT Based)	
		Converter / Regulator Based Drives (3 Phase)	
		Converter / Regulator Based Drives 1 Phase Input	
		Forced Communication Circuits	
		Inverter Based Drives	
		(1 Phase Input IGBT Based)	
		Inverter Based Drives	
		(3 Phase IGBT Based)	
		MOSFET Based Buck Boost Converter	
		SCR Power Circuit For Half and Full -Single Phase Converter / Regulator Bridges	
		SCR Power Circuit For Half and Full -Three Phase Converter / Regulator Bridges	
		Single Phase AC Voltage Controller Using SCR and TRIAC	
		Single Phase Bulb Load on Acrylic base with Holder Terminals, Single Phase SCR Full Bridge	
		Three Phase Bulb Load On Acrylic Base with Holder Terminals, Three Phase Cyclo-Converter, Three Phase Dual Converter,Three Phase Resistive Load Bank 3KW	
		Tms320f28335 DSP Based Motor Control Setup	
5	Project Lab	Induction Motor with PWM Inverter setup	1,72,800/-
6	Bio Medical Lab	3D Printer	4,76,000/-
7	Computer Lab	PSCAD Software	12,86,200/-
8		Digital X-ray Machine	12,30,000/-
TOTAL AMOUNT (ELECTRICAL)			**97,69,159/-**

Department of Electronics Engineering & ET: Rs. 47,63,007

S. No	Name of The Lab	Name of Major Equipment Installed	Amount (Rs.)
1	Microprocessor & Digital Electronics Lab	Kit 8086 with Power Supply and LCD Display	2,77,500/-
		Kit 8051 with Power Supply and LCD Display	3,04,500/-
		Kit 8085 with Power Supply and LCD Display	3,87,000/-
		Card 8 Bit ADC0809 & DAC0800 [4+4]	31,600/-
		Stepper Motor Controller Card with Motor	17,800/-
		Temperature Measurement Card	24,800/-
		8255 Study Card	13,400/-
		8259 PIC Study Card	15,500/-
		8254 PIT Study Card	14,300/-
		PROFESSIONAL Version Visual TCAD & Genius (2D/3D) Device Simulator Systems. Modules: Visual TCAD GUI	9,95,500/-
		SYMICA EDA (AMS) Design Tool Kit	7,00,000/-
		TOTAL	27,81,900/-
2	Basic Electronics Lab	Stabilizer	22000/-

		Workstation-2	580000/-
		RC Couple Amplifier	5750/-
		Class C Tuned Amplifier Experiment Board	5750/-
		Transistor characteristics	11500/-
		MOSFET characteristics	11500/-
		Hartley and Collpits Oscillator Trainer Kit	6900/-
		Wien Bridge oscillator trainer Kit	4600/-
		SCHMITT Trigger	5750/-
		Phase Shift Oscillator	4600/-
		Clapp Oscillator	4600/-
		Crystal Oscillator	4600/-
		Multivibrators using IC-556	11500/-
		Function Generator 1MHz	83700/-
		Regulated Power Supply Kit	43600/-
		Multimeter	6000/-
		Shearing Machine (PCB Cutter)	12000/-
		USB camera for video conferencing system MODEL AVER CAM 340	55211.86/-
		Online UPS MicroteK 1KVA	19317.80/-
		Interactive panels & accessories MODEL NO VS17435, Viewsonic - IFP7550-2	408432.21/-
		Viewsonic Intel Micro PC	48470.34/-
		AVR PTZ video conferencing camera 1080p, 60fps, Resolution Aver CAM 520	159114.41/-
3	Computer lab	LED TV (52inch) make Samsung DC55 with setup box (Direct to home free disk)	109210/-
		Desk Top HP280 G4-GDP97GA16 Monitor HP V202B	357000/-
TOTAL AMOUNT (ELECTRONICS &ET)			**47,63,007**

Department of CSE & IT: Rs 38,50,861/-

S. No.	Name of the Lab	Name of Major Equipment Installed	Amount (in Rs.)
1	Computing Lab (2018-2019) (CSE)	Computer Systems: 30 No. HP 280 G3 SFF Desktop Core I7/7700/08 GB Ram/01 TB HDD/19.5" Monitor /Win10 Preloaded DVD WR	18,58,000/-
2	Hardware Lab (2019-2020) (CSE)	1. PC Hardware Trainer Model: XPO- PCHT 2. Local Area Network Trainer Model: XPO- LAN 3. Managed Switch	2,60,072/-
3	Programming Lab –III (2018-2019) (CSE)	Samsung Make LED TV With Ahuja Audio System	1,39,789/-
4	IoT Lab (2018-2019) (IT)	1. Raw Material For the development of IOT 2. Real Time application of IOT	15,93,000/-

| | | 3. Wi-Fi based IOT Development System
4. WSN Based IOT Development system | |
|---|---|---|---|
| | **TOTAL AMOUNT (CSE&IT)** | | **38,50,861/-** |
| | **GRAND TOTAL** | | **2,66,89913/-** |

Item 14: To apprise the house about conduction of NSS activities for year 2019-2021.

> **The Dean Academics of the Institute has apprised the house about the conduction of following activities conducted under NSS during the year 2019-2021.**

1. **Literacy cum Awareness Programme:**
   The N.S.S. unit is continuously running literacy cum awareness progromme for the underprivileged children in the institute premises since year 2011. During the academic year 2019-20, 55 NSS volunteers started to teach the approximate eighty underprivileged children from **05/08/2019** on regular basis (Monday to Friday) at 5:00 P.M. to 6:30 P.M.

2. **Plantation and Yoga Programme:**
   The N.S.S. unit MITS Organized the Plantation programme after Yoga Session during the Orientation Programme of First Year Students on **25/08/2019**. More than 100 students participated and fifty saplings were planted.

3. **Rally on benefit of barefoot walking:**
   National Service Scheme, MITS unit and Electronics department organised the Rally on "Benefit of barefoot walking" **on 09/09/2019** from MITS to Sun-City. Approximately 77 volunteers participated.

4. **Plastic Free Campaign:**
   National Service Scheme, MITS unit and Bio-Technology department organised the plastic free campaign **on 22/09/2019** at Tighara. This event was organized under the supervision of Prof Vinod Jatav, Vikash and NSS Programm Officer. 108 volunteers participated.

5. **NSS Day:**
   National Service unit MITS and Mechanical Engineering Department organized a cultural programme (Dance, Poetry, Music and Nukad Natak with social Messages) on NSS Day i.e. **24/09/2019 at Bahadurpur Gaon** under National Service Scheme Unit. 68 volunteers were present and participated.

6. **Blood Donation Camp:**
   NSS unit, Red Ribbon Club, MITS and CSE & IT Department organized the blood donation camp on occasion of the Punya-Tithi of Late His Highness Shrimant Madhav

Rao Scindia (30th September 2019). 188 units were donated to Red Cross society and Moorar Hospital Blood Bank.

7. **Swachchhata Abhiyan:**

National Service Scheme, MITS unit and Mechanical Engineering Department organised "Swachchhata Abhiyan" for protest the use of polythene and cleaning of campus on **02/10/2019.** 97 students/ volunteers of NSS unit MITS with programme officer participated in this event.

8. **Traffic Awareness (Sadak Surksha Saptah):**

National Service Scheme, MITS unit, Electronics Engineering department and Mechanical Engineering Department organised the awareness programme on "Safe Vehicle Driving and Traffic Rules" on **14/01/2020** during the yatayat surksha saptah. Mr Pankaj Pandey, ASP, Mr Vijay Bhadoria, DSP Traffic, Mr Himanshu Tiwari were the speakers of the programme. Prof Deep Kishor Parsetia and Prof Puja Sahu coordinated this even. Total 155 students/ volunteers of NSS unit MITS with programme officer participated in this event.

9. **Rally on Matdata Jagrukta:**

National Service Scheme unit MITS and Electronics Engineering Department organised a rally on "Matdata Jagrukta Abhiyan" on **20/01/2020** as per order received from collectrorate office**.** 105 students/ volunteers of NSS unit MITS with programme officer and prof Deepkishor Parsetia participated in this event.

10. **Rally on Shudh ke liye Yuth:**

National Service Scheme, MITS unit is participated in the rally on "Shudh ke Liye Yuth" on **31/01/2020.** 155 students/ volunteers of NSS unit MITS with programme officer and other faculty coordinators participated in this event.

11. **Vishva Samajik Nyay Diwas:**

National Service Scheme, MITS unit with Applied Science Department organised a programme on "Closing the Inequalities Gap to Achieve Social Justice" on **20/02/2020.** 222 students/ volunteers of NSS unit MITS participated in this event.

12. **Swachchhata Awareness and Stationary Distribution Programme:**

National Service Scheme, MITS unit and Chemical Engineering Department are organised a programme on "Swachchhata Awreness And Stationary Distribution" on **20/02/2020.** Prof Swati Gupta Coordinate this even. 45 students/ volunteers of NSS unit MITS with programme officer participated in this event.

13. **Matribhasha Diwas:**

NSS unit MITS Gwalior celebrated the International Mother Language Day, also known as Matribhasha Diwas, on 21 February, 2020. Mechanical engineering department organized a special programme under the NSS. A total of 10 activities including poem-recitation, singing, dancing and speeches in Hindi were organized. Students from Bihar, U.P and north-east studying at MITS spoke about the culture of their states.

14. **Mahila Diwas:**

National Service Scheme, MITS unit, CSE Department and Sai Leela Seva Sanstha was jointly organized rally on "Mahila Diwas" on **08/03/2020.** Naresh Anotia ji, DSP Traffic

Police invited as Chief Guest of the program. Prof. Jamwant Singh Kumre & Prof. Amit Kumar Manjhvar CSE & IT, MITS Gwalior coordinate this program. 50 students/ volunteers of NSS unit MITS with programme officer participated in this event.

The full report is enclosed as Annexure-VIII

Item 15: To report about meritocracy initiative of Institute.

➢ The Dean Academics of Institute has apprised the house that the IQAC in its meeting on March 3rd 2020 resolved to promote a culture of meritocracy over mediocrity and to identify and encourage between performers and non-performers. It was decided that **persons who take ownership and initiative to start new practices, and/or excel in the existing activities**, can be rewarded on the basis of recommendations/nomination from the concerned heads.

➢ It was also decided that mechanism for acknowledging and appreciating high performers will be developed at the institute level and will be discussed in the subsequent meetings of the IQAC.

The appreciation is proposed to be at two levels as listed below:

1. **Awards at the institute level: The contribution of faculty/staff member may be appreciated if any of the following conditions or similar conditions apply:**
   (i)   The contribution has brought some kind of recognition to the institute at state-level/National Level
   (ii)   Significant contribution in a pioneering initiative or an important quality enhancement activity of the institute
   (iii)   Contribution in the development of new facilities/laboratories/Centre of Excellence
   (iv)   The contribution has introduced new ideas & innovations/started new practices in teaching-learning
   (v)   The contribution is "one/first of its kind", exemplary, leading to quality enhancement
   (vi)   Securing a prestigious research project/research award/Industry sponsored research project
   (vii)   Product development leading to patent
   (viii) Conduction of Management Development Programme
   (ix)   Mentoring students for significant contribution with NGOs/NSS/social organizations etc for the society

2. **Appreciation letters may be given to faculty/staff on the basis of the following contribution at the department level**
   (x)   Average FFI in a semester
   (xi)   Maximum attendance in class
   (xii)   Best or 100% result in course taught

(xiii) Minimum or no leaves taken

(xiv) Massive Open On-line Course (MOOC) development

(xv) Successful conduction of Value Added Courses in new areas

(xvi) Development of new Internship Modules attracting participants from outside MITS

(xvii) New lab development or any special achievement in

(xviii) Guiding student projects in collaboration with industry with evidence of success in some form (Publication of a paper in SCOPUS/SCIE/journal or conference/best paper award etc)

(xix) Publishing paper in SCI/SCIE/E-SCI journals as first author

(xx) Conducting significant research, publishing papers, training activities in collaboration with industry

(xxi) Contributing to upskilling of working Professionals

➢ **It is proposed that the practice will be dynamic and will be reviewed from time to time based on the feedback received from the various Head of the Departments/Sections.**

➢ **Shri. Prashant Mehta, IAS, Member**, Board of Governors has suggested to constitute a search committee of three persons to nominate the awards at the institute level.

Item 16: To apprise the house about the participation /efforts made for institutional ranking

➢ The Director of Institute has apprised the house that the institute has participated in the National Institutional Ranking Framework (NIRF) 202o and institute has also participating in India today & Dataquest ratings of top Indian technical institutions

➢ In view of importance of peer perception/visibility/branding of the Institute for the ranking at National Level, Er. Ashutosh Chincholikar, M.D. & CEO of Smart Controls Ltd. has suggested to appoint external professionals/Marketing agency or same can be done through digital marketing by Institute Level team.

➢ **Shri. Prashant Mehta, IAS, Member**, Board of Governors has also requested Er. Ashutosh Chincholikar to share the details of marketing professionals for further appointment of suitable marketing agency/consultant.

Item 17: To review the present status of senior faulty role & responsibilities and defining role of senior faculty (Professors & Associate Professors) in improvement of peer perception and branding of the institute

➢ The house reviewed the present status of senior faulty role & responsibilities and concluded that there is a need to create awareness and confidence among the senior & qualified faculty of the institute about their importance in enhancing the image and visibility of the institute in public domain. Usually it is observed that some of the

senior Professors/Associate Professors withdraw into their own shells once their tenure as HoD is over.

➢ **The IQAC suggested that the following activities need active participation and contribution of the senior faculty members:**
   o Conduction of events such as conferences, workshops, FDPs etc
   o Submitting proposals to funding agencies for receiving grants
   o Developing new laboratories/enhancing the existing ones
   o Developing MOOCs for upcoming fields
   o Testing/consultancy activities
   o Publication of research papers, books & book chapter
   o Research guidance to PhD students
   o Institution development work assigned by the Head of the Department/Institution
   o Administrative responsibilities
   o Networking with industries resulting in signing of MoUs/meaningful collaborations
   o Networking with other prestigious institutions/universities in India
   o Establishing collaboration with foreign universities
   o Improving the 'alumni connect' of the institute for enhancing the alumni database
   o Recognition outside the institute as experts (delivering expert sessions, chairing conference sessions, selection committee member, member of BoS of other universities/institutes etc)
   o Develop training modules in collaboration with industry
   o Grooming the younger faculty members of the department/institute

Item 18: To apprise the mechanism of profiling of first year students based on their digital learning behaviour

➢ The Dean Academics of Institute has apprised the house that the following mechanism of profiling of first year students based on their digital learning behaviour:

➢ **The IQAC vide Item no 5 dated 29th August 2020 reviewed the digital learning behaviour of students** during the virtual session from 15th July to 14th August 2020 with an objective to identify the learners into three categories, so that necessary actions for the improvement of teaching-learning and continuous assessment can be made during the **Virtual Semester**.
   o The **fast digital learners** were those students who were found to attend almost all classes (2-3 per week per course), appear for all quizzes and were submitting all assignments regularly. (The classification was based on the digital presence & capabilities only)
   o The **medium level digital learners** were those students who are attending at least one online class per course per week, and submitting assignments regularly and

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appearing for quizzes (at least 50% of assigned/conducted).(irrespective of marks obtained)

o The **slow digital learners** were those students who are **not** attending any online classes or attending less than 10% of classes, and not submitting assignments/quizzes or submitting/appearing for less than 10 % of assigned /conducted. (irrespective of marks obtained)

o The **slow digital learners** are encouraged to attend at least the **additional classes (01 per week per course)** and **submit assignments, appear for quizzes.** If they do so, their attendance is counted and they can progress and move along with the academic session.

➢ The first year classes started from 7th December 2020 in Virtual Mode. The profiling was done after one month.

Profiling of Slow learners
(16th August to 15th September 2020)

Semester	Registered Students (all courses)	No of students found to be slow digital learners from 16th August to 15th September)	No of quiz attempted by slow digital learners (15th July-15th September)	No of assignments submitted by slow digital learners (15th July-15th September)	% of classes attended by slow learners
VII	867	122	39	29	10.8%
V	992	182	20	10	12.71%
III	966	108	36	31	11.11 %
Average	**2825**	**412**	**95**	**70**	**11.54%**

Profiling of students at the institute level

Dates	% of total fast digital learners	% of total medium level digital learners	% of total slow digital learners
II Year to Final Year			
(15th July to 14 August, 2020)	**50.66**	**32.35**	**21.78**
(16th August to 15th Sept. 2020)	**---**	**--**	**18.58**
Newly Admitted First Year Batch			
7th Dec 2020 to 25th Feb. 2021	**69.82**	**22.80**	**7.36**

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Summary of Department-wise Profiling of First Year Students
(7th December 2020 to 25th February 2021)

Programme	Registered students × no of courses	Number of Slow digital learners		Number of medium level digital learners		Number of Fast digital learners	
		Number	In %	Number	In %	Number	In %
Civil Engineering	695	101	14.53	203	29.2	391	56.25
Mechanical Engineering	697	44	6.31	173	24.82	480	68.86
Electrical Engineering	699	58	8.29	181	25.89	460	65.8
Electrical Engineering (Internet of Things IOT)	207	8	3.86	72	34.78	127	61.35
Electronics Engineering	705	43	6.09	103	14.6	559	79.29
Electronics &Telecommunication Engineering	355	47	13.23	86	24.22	222	62.53
Computer Science Engineering (CSE)	705	54	7.65	117	16.59	534	75.74
Information Technology (IT)	351	31	8.83	59	16.8	261	74.35
Information Technology (IOT)	349	9	2.57	97	27.79	243	69.62
Information Technology (AI & Robotics)	345	4	1.15	41	11.88	300	86.95
Chemical Engineering	220	12	5.45	131	59.54	77	35
Mathematics & Computing (MAC)	69	4	5.79	8	11.59	57	82.6
MCA	315	10	3.17	38	12.06	267	84.76
Overall Average	**5712**	**425**	**7.36**	**1309**	**22.91**	**3978**	**69.64**

The Full report is enclosed as Annexure-IX

Item 19: To apprise the house about Quality enhancement initiative by IQAC in collaboration with Manav Rachna University, Faridabad.

➢ The IQAC coordinator has apprised the house following details of Quality initiatives taken for the promotion of blended learning:

➢ The IQAC of Madhav Institute of Technology and Science, Gwalior & Manav Rachana University, Faridabad, Haryana jointly organised **Two National Workshops in Virtual Mode**, titled "**Transition from traditional to blended learning: Challenges & Opportunities**" on 23rd & 30th January 2021 under TEQIP-III.

➢ The objective of conducting this interactive workshop was
  o to inspire & guide the faculty to develop quality e-content
  o to familiarise them with the differences between digital & traditional teaching
  o to develop a new mind set so that the faculty is ready to accept the new & emerging scenario
  o to create awareness about the changing stakeholder expectations from teachers.

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➢ The schedule was as follows:

Transition from traditional to blended learning: Challenges & Opportunities-I			
Date	Time	Expert	Topic
23.01.2021 (Saturday)	11.00AM	Prof. R. K. Singh, Faculty of Commerce & Business, Delhi School of Economics, University of Delhi	Changing paradigm of the teaching learning process
23.01.2021 (Saturday)	12.15 AM	Prof. I.K. Bhatt Vice Chancellor, Manav Rachana University, Faridabad, Haryana	Importance of Blended mode of Teaching Learning Process
Transition from traditional to blended learning: Challenges & Opportunities-II			
30.01.2021 (Saturday)	11.00 AM	Prof. Geeta Thakur Professor & Head, Academic Staff Leadership Institute, Manav Rachana University, Faridabad, Haryana	Developing e-content: Some important aspects-I
30.01.2021 (Saturday)	12.15 AM	Prof.Geeta Thakur Professor & Head, Academic Staff Leadership Institute, Manav Rachana University, Faridabad, Haryana	Developing e-content: Some important aspects-II

➢ At the end a quiz was conducted and feedback was taken from the participants.

Item 20: To apprise the house about new initiative of collecting Feedback on Conduction of Laboratory Courses.

➢ The Dean Academics of the Institute has apprised following details regarding Conduction of Laboratory Courses and feedback collected on same:

o Due to the COVID, all the labs are being conducted in virtual mode for the last one year.
o The institute is a nodal Centre of IIT Delhi, Virtual Labs. Many laboratories are equipped with virtual set-up.
o The faculty and technical staff also recorded the experiments in laboratories from 15th May onwards 2020 using conventional means and shared the links of the **recorded laboratory sessions** with students. The students were asked to submit hand written lab reports through e-mail or MOODLE. Viva-voce for continuous & end-term examination was conducted virtually for all the laboratory courses for all the students.
o In view of regular monitoring and necessary corrective measures institute has started student's feedback on online conduction of laboratory courses.

The Full report is enclosed as Annexure-X

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Item 21: To report the status of conduction of Online Classes from July 15th 2020 to till date.

➢ The Dean Academics of the Institute has presented following details of online classes conducted by various departments from 15.07.2020 to till date:

Theory Classes
(From 15th July 2020 to 28th November 2020)

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

Theory Classes
(From 7th December 2020 to 12th February 2021)

Department	Total Classes conducted	Total Classes recorded	Total assignments given	Total Quiz conducted	Average % attendance
Civil Engineering	360	341	76	75	68.31
Mechanical Engineering/ Automobile Engineering	487	438	60	72	69.77
Electrical Engineering/ IOT	401	389	90	191	76.39
Electronics Engineering/ Electronics & Telecommunication Engineering	263	253	58	57	77.81
Computer Science & Engineering/ MCA	604	590	151	151	73.92
Chemical Engineering (II & III Year) (18th Jan. to 12th Feb. 2021)	92	82	22	19	43.22
Information Technology/ IOT/ AIR	433	423	81	101	73.69
Mathematics & Computing	338	322	48	100	70.42
Applied Science & Humanities	293	256	29	58	66.52
Architecture	191	96	39	9	79.65
MBA	181	158	18	26	61.71

Practical Classes
(From 15th July 2020 to 28th November 2020)

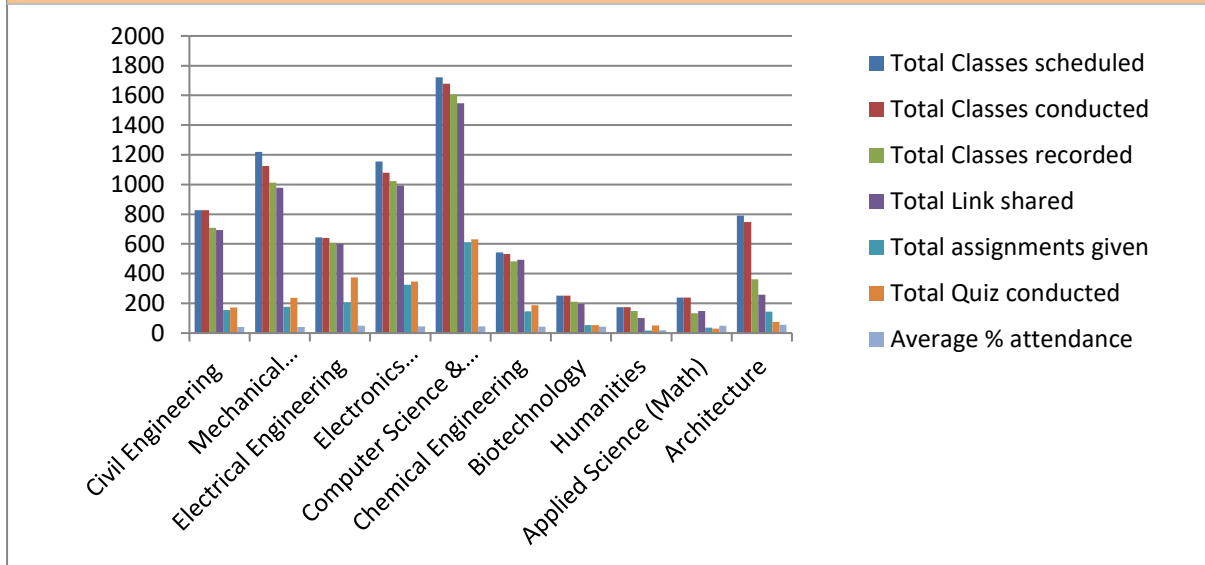| Department	Total Classes conducted	Total Classes recorded	Total Link shared	Total Lab report formats uploaded	Average % attendance
Civil Engineering	207	149	149	136	25.07
Mechanical Engineering/ Automobile Engineering	334	295	294	220	23.12
Electrical Engineering	262	255	254	199	43.66
Electronics Engineering/ Electronics & Telecommunication Engineering	518	492	486	470	39.13
Computer Science & Engineering/ Information Technology/ MCA	266	253	251	212	36.56
Chemical Engineering	109	90	94	94	39.89
Biotechnology	35	32	31	24	20.76
Architecture	288	119	119	33	53.72

Practical Classes
(From 7th December 2020 to 12th February 2021)

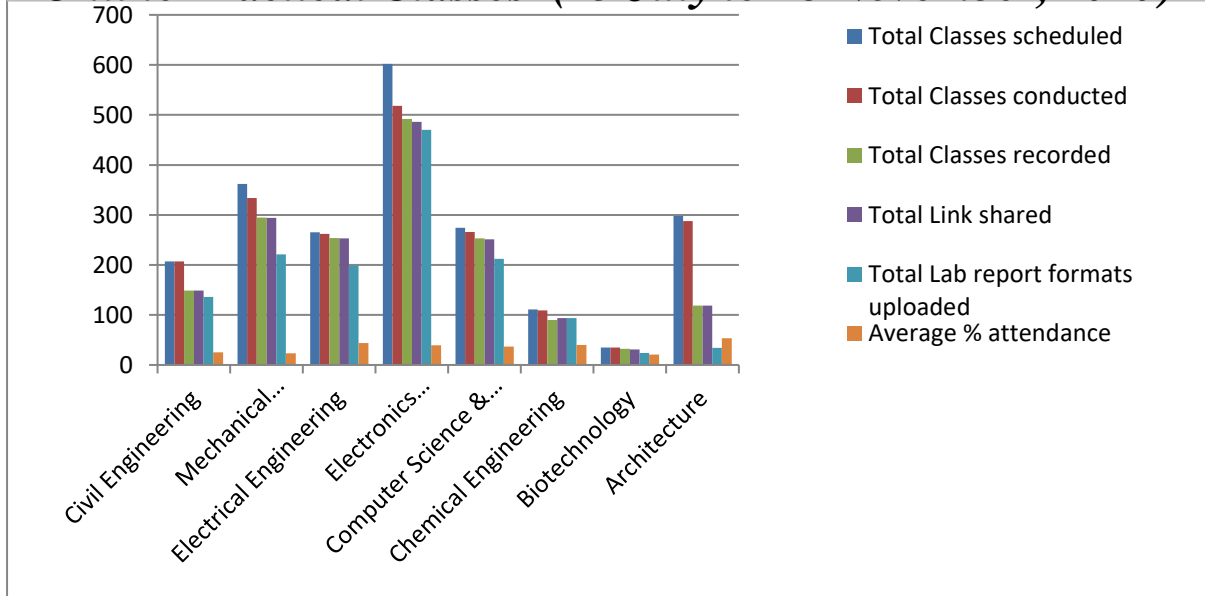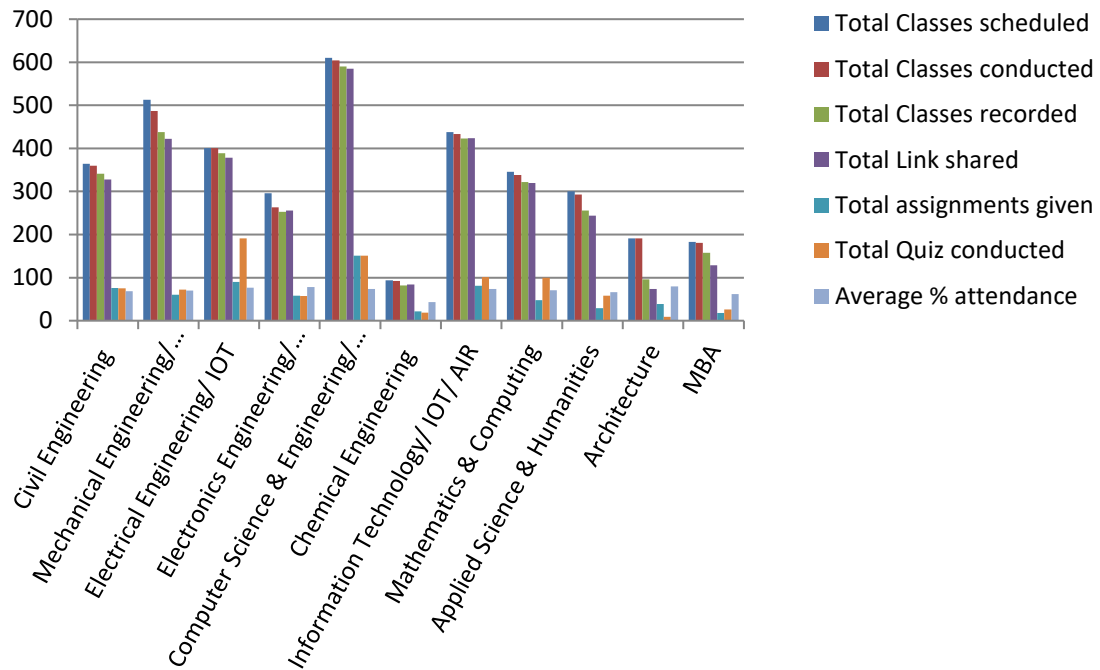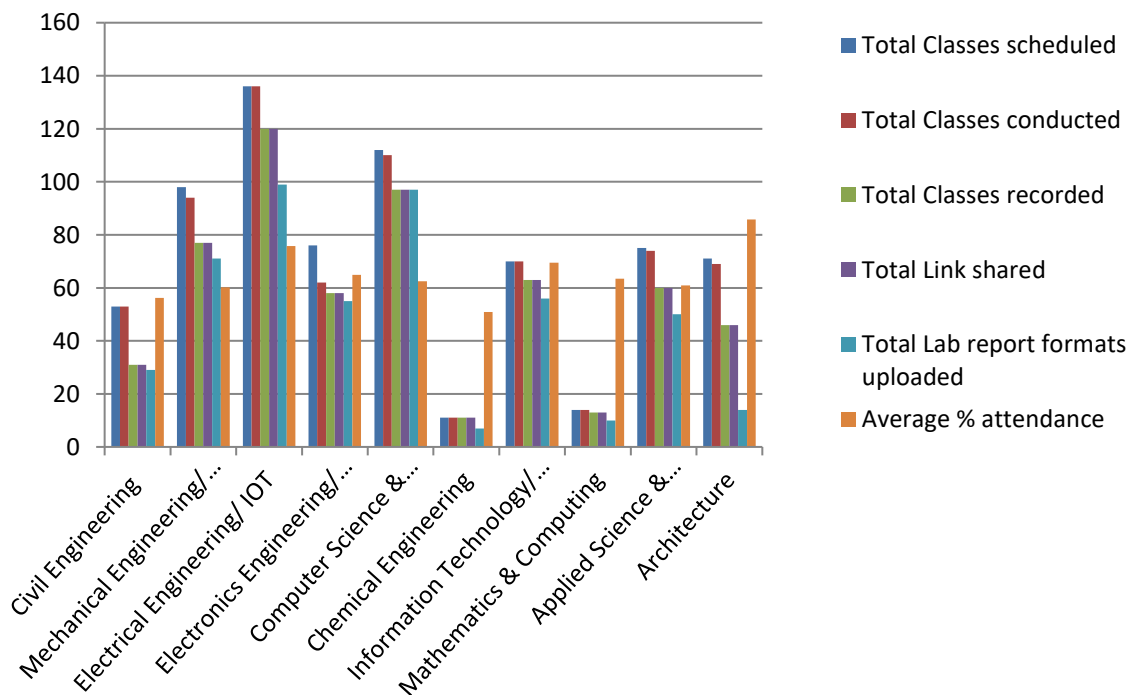| Department	Total Classes conducted	Total Classes recorded	Total Link shared	Total Lab report formats uploaded	Average % attendance
Civil Engineering	53	31	31	29	56.17
Mechanical Engineering/ Automobile Engineering	94	77	77	71	60.22
Electrical Engineering/ IOT	136	120	120	99	75.75
Electronics Engineering/ Electronics & Telecommunication Engineering	62	58	58	55	64.93
Computer Science & Engineering/ MCA	110	97	97	97	62.50
Chemical Engineering (II & III Year) (18th Jan. to 12th Feb. 2021)	11	11	11	7	50.95
Information Technology/ IOT/ AIR	70	63	63	56	69.51
Mathematics & Computing	14	13	13	10	63.50
Applied Science & Humanities	74	60	60	50	60.90
Architecture	69	46	46	14	85.80

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

Online Practical Classes (15 July to 28 November, 2020)

Online Theory Classes (7 December 2020 to 12 February, 2021)

Legend:
- Total Classes scheduled
- Total Classes conducted
- Total Classes recorded
- Total Link shared
- Total assignments given
- Total Quiz conducted
- Average % attendance

Categories: Civil Engineering, Mechanical Engineering/.., Electrical Engineering/ IOT, Electronics Engineering/.., Computer Science & Engineering/.., Chemical Engineering, Information Technology/ IOT/ AIR, Mathematics & Computing, Applied Science & Humanities, Architecture, MBA

Online Practical Classes (7 December 2020 to 12 February, 2021)

Legend:
- Total Classes scheduled
- Total Classes conducted
- Total Classes recorded
- Total Link shared
- Total Lab report formats uploaded
- Average % attendance

Categories: Civil Engineering, Mechanical Engineering/.., Electrical Engineering/ IOT, Electronics Engineering/.., Computer Science &.., Chemical Engineering, Information Technology/.., Mathematics & Computing, Applied Science &.., Architecture

Item 22: To report the Virtual Conduction of Lab Classes (July-Dec 2020).

➢ The house reviewed and appreciated the regular conduction of virtual lab classes by the faculty & Technical staff of Institute to facilitate the students in COVID-19 situation.

➢ Following are the details of various virtual classes conducted for laboratory courses:

.No.	Name of Department	Name of Virtual Lab used	No.of students benefited	No. of experiments performed
1.	Electronics	1. Network Theory	208	08
		2. Data Communication	131	01
		3. Digital Circuit System	208	08
		4. Microprocessor & Interfacing	198	10
2.	Electrical	1. Basic Electrical & electronics Engineering lab	210	4
		2. Electrical Machines lab	148	2
		3. Analog Electronics Lab	154	8
3.	Mechanical	1. Theory of Machine lab	120	2
		2. Strength of Materials lab	138	8
		3. Fluid Mechanics and Fluid Machines lab	67	5
		4. Mechanics of Materials lab	67	8
4.	Computer Science	1. Data Structure	141	8
		2. Object Oriented Programming and Methodology	141	10
		3. Theory of Computation	140	12
		4. Software Engineering	140	10
		5. Hardware Lab	141	12
		6. Microprocessor & Interfacing	142	11
		7. Iot(DLC-3)	130	10
		8. Computer Graphics/Computer Graphics Multimedia	142	9
		9. Creative Problem Solving	130	5
5.	Civil	1. Strength of Materials Lab	143	10
		2. Building materials and construction		

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			140	8
6.	Chemical	1. Virtual mass transfer lab	56	1
		2. Chemical process dynamics	56	1
		3. Fluid Mechanics Lab	60	5
		4. Material & Energy Balance Lab	60	5
		5. Process Control, Reaction Engineering and Unit Operations Lab	56	3
8.	Biotechnology	1. Immunology Virtual Lab-I	08	04
		2. Immunology Virtual Lab-II	08	
				04
		3. Computer Aided Drug Design Virtual Lab	04	06
			3487	**198**

Item 23: **Student & Faculty Achievements in NPTEL Examinations July-December 2020.**

➢ The House appreciated the remarkable achievements of Institute NPTEL Local chapter, faculty and students. Following are the details of participation in NPTEL examinations:

➢ During the January-June 2020 session the proctored NPTEL examinations were not conducted due to COVID. All those who registered for the examinations and got more than 40% score in internal assessment (assignment) were issued 'Modified Pass Certificate'.

➢ However, for the July-December 2020 session, proctored NPTEL examinations were conducted along with the examinations of January-June 2020.

➢ 1439 students and 60 faculty members appeared for the proctored examination out of which 83% students and 68% faculty members passed the examination.

➢ **Based on the results The MITS NPTEL LOCAL CHAPTER RANKED 13th in the COUNTRY out of 4000+ active chapters for year 2020.**

➢ **The rank is calculated using the following weightage:**

R = 0.1*Number of learners from LC writing exam (Capped at 10) + 1*Successfully completed (capped at 100) + 2*Elite +5*Silver + 8 *Gold + 10*Toppers

The toppers are awarded if their Final Score >= 60 based on the following criteria:

➢ If (certified candidates <= 10) --> 1 Course Topper is awarded
➢ If (certified candidates > 10 to <= 50) --> 2 Course Toppers are awarded
➢ If (certified candidates > 50 to <= 100) --> 5 Course Toppers are awarded
➢ If (certified candidates > 100) --> 1 % of Certified candidates --> 2 % of certified candidates --> 5 % of certified candidates are awarded as toppers.

  ✓ Two faculty members **Prof. Pooja Sahu, Department of Electronics** and **Dr. Vikram, Department of Electrical Engineering** were declared **course toppers**
  ✓ **Total 59 students received course topper certification.**

Department	No of students with Topper Certification from NPTEL
Mechanical Engineering	24
Electrical Engineering	12
Computer Science & Engineering	07
Civil Engineering	05
Information Technology	04
Automobile Engineering	03
Electronics Engineering	01
Electronics & Telecommunication engineering	01
Chemical Engineering	02
TOTAL	**59**

The REPORT of NPTEL CHAPTER (July-December 2020)

➢ Out of the 1439 students who took the examination, 83% passes and were able to secure a certificate from NPTEL in various categories as mentioned below:

Score ≥90%	75%-89%	Score ≥60%	Score 40%-59%	< 40%
Elite+Gold	**Elite+Silver**	**Elite**	Successfully Completed	Fail

Report on Students Performance in NPTEL Courses Run During July-Dec 2020

Total No. of Registrations	No of courses in which registration are made	No. of students appeared in exam	No. of students qualified exam					
			Elite + Gold certificate	Elite +Silver certificate	Elite certificate	Successfully completed	No of toppers in various courses	Total students qualified exam
7049 courses enrolled by 2497 students	1495	1439	22	232	561	381	60	1195

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Report on Performance of Faculty members SWAYAM/ NPTEL courses during July-Dec 2020

Total No. of courses Registered	Total no of faculty registered in NPTEL courses	No. of faculty appeared in NPTEL exam	No. of faculty members qualified exam						
			Elite + Gold certificate	Elite +Silver certificate	Elite certificates	Successfully completed	Total no. of faculty qualified exam	No of toppers in various courses	No. of Faculty members completed FDP courses
600 courses registered by the 171 faculty	76	60	01	11	20	18	51	02	41

Item 24: To apprise the Implementation status of the Flexible Curriculum. (Project/Internship policy for VIII semester students & list of OC courses offered in January-June 2021 session).

➢ The Dean Academics of the Institute has apprised the housefollowing status of flexible scheme and Project/Internship policy for VIII semester students & list of OC courses offered in January-June 2021 session:

▪ The Flexible Curriculum was implemented for the 2017-2018 admitted batch. These students are in the final year now.

▪ Therefore, the first batch under flexible curriculum will graduate in May-June 2021.

▪ Every semester suitable mechanism was made for the implementation of various provisions of the Flexible Curriculum.

▪ In the VIII semester

    (i) For the first time there is a provision of 'full semester internship' at industry/research organization/academic institute of national repute

    (ii) The Internship Policy and relevant documents were prepared and circulated.

    (iii) Fortnightly reports from industry mentor are sought.

    (iv) The students who will not be able to procure an internship placement will be undertaking 'Project' under the mentorship of the institute mentor.

    (v) There is a one credit course on **'Professional Development'** which will be evaluated based on the participation & achievement of students in co-curricular activities at different levels.

    (vi) The evaluation guidelines are ready and approved by the Academic Council.

    (vii) For the first time, OC courses, two in number, have been offered from MOOCs. The list is given here:

List of open courses (MOOCs) offered to the VIII Semester Students from NPTEL: 43 Nos

Category	Full Name of Course	Note:	Weeks	Mentor of our Institute
Pool of OC-4 and OC-5 (VIII Semester)	Linear Dynamical Systems	These Courses are **not allowed** for Electronics & E&T Students	8	Dr Karuna Markam
	Sensors and Actuators		12	Deepak Batham
	Electronics equipment integration and Prototype building		8	Arpita Singhal
	Computer Vision and Image Processing - Fundamentals and Applications		12	Shambhu Kumar
Pool of OC-4 and OC-5 (VIII Semester)	Linear Dynamical Systems	These Courses are **not allowed** for Electronics & E&T Students	8	Dr Karuna Markam
	Sensors and Actuators		12	Deepak Batham
	Electronics equipment integration and Prototype building		8	Arpita Singhal
	Computer Vision and Image Processing - Fundamentals and Applications		12	Shambhu Kumar
Pool of OC-4 and OC-5 (VIII Semester)	Waste to Energy Conversion	These Courses are **not allowed** for **Electrical Enginering** Students	8	Dr. Vijay Bhuria Prof. Punjan Dohare
	Automatic Control		8	Dr. Vikram Prof. Shailendra Pratap
	Renewable Energy Engineering: Solar, Wind and Biomass		08	Dr. Himmat Singh Prof. Rahul Sagwal

Pool	Subject Name	Restriction	Credits	Faculty
Pool of OC-4 and OC-5 (VIII Semester)	Non-Conventional Energy Resources	These Courses are not allowed for Mechanical and Automobile Students	12	Prof. Saurabh Kumar Rajput Prof. Nipun
	Waste to Energy Conversion		08	Mr. N. Sikarwar
	Product Design and Manufacturing		12	Dr. Amit Aherwar
	Automatic Control		8	Mr. Kostubh Khot
	Mechatronics		8	Mr. Vaibhav Shivhare
	Elements of Solar Energy Conversion		12	Dr. R. K. Ranjan
	Traditional and Non-Traditional Optimization Tools		8	Mr. Gyanesh Sharan
Pool of OC-4 and OC-5 (VIII Semester)	Waste to Energy Conversion	These Courses are not allowed for Mechanical and Automobile Students	08	Mr. N. Sikarwar
	Product Design and Manufacturing		12	Dr. Amit Aherwar
	Automatic Control		8	Mr. Kostubh Khot
	Mechatronics		8	Mr. Vaibhav Shivhare
	Elements of Solar Energy Conversion		12	Dr. R. K. Ranjan
	Traditional and Non-Traditional Optimization Tools		8	Mr. Gyanesh Sharan
Pool of OC-4 and OC-5 (VIII Semester)	Natural Hazards	These Courses are not allowed for Civil Enginering Students	8	Dr. Pratibha Singh
	Plastic Waste Management		8	Prof. Nupur Verma
	Economic Growth and Development		8	
	Remote Sensing: Principles & Applications		12	Prof. Shivam Gupta
Pool of OC-4 and OC-5 (VIII Semester)	Privacy and Security in Online Social Media	These Courses are not allowed for CSE and IT Students	8	Prof. Jamvant Singh Kumare, Prof.ram Parvesh Das
	Introduction to internet of things		12	Prof.Mir Shahnawaz Ahmad, Aishwarya
	Data Science for Engineers		8	Prof. Arun Kumar, Prof. Mohit Jain
	Social Networks		12	Prof.Jule Kumari, Prof.Sneha Garg
Pool of OC-4 and OC-5 (VIII Semester)	Privacy and Security in Online Social Media	These Courses are not allowed for CSE and IT Students	8	Prof. Rajeev K. Singh, Prof. Abhishek Dixit
	Introduction to internet of things		12	Prof. Vikas Sejwar, Prof. Shweta Patel
	Data Science for Engineers		8	Prof. Punit K. Johari, Prof Namrata Agrawal
	Social Networks		12	Prof. Rajeev K. Singh, Prof. Santosh S
Pool of OC-4 and OC-5 (VIII Semester	Computational Fluid Dynamics	These Courses are not allowed for Chemical Engineering Students	12	Prof. Swati Gupta
	Renewable Energy Engineering: Solar, Wind and Biomass		8	Dr. R.K.Dubey
	Environmental Quality Monitoring & Analysis		12	Dr. A.N.Sarve
	Electrochemical Technology in Pollution Control		8	Prof. Anish P. Jacob
OC-4 (VIII SEM	Bioengineering: An Interface with Biology and Medicine	These Courses are not allowed for Biotechnology Engineering Students	08	Prof. Vishal Ranjan
Additional OC-4 and OC-5	Economic Growth and Development	Any student can choose	8	Additional OC-4 and OC-5
	Emotional Intelligence		8	

List of open courses (regular mode)offered to the VI Semester Students: 14 Numbers

	Subject Name	Offered by Department	Faculty Mentor
1	Intelligent Control	Electronics Engineering	Mr. Deepak Batham
2	Embedded System		Dr Vikas Mahor
3	Energy Conservation & Management	Electrical Engineering	Dr. Hemlata Shakya
4	Biomedical Instrumentation		Dr. A.K. Wadhwani
5	Data Structures	Computer Science & Engineering	Mr. Sheo Kumar
6	Python Programming		Mr. Arun Kumar
7	Software Engineering	Information Technology	Mr. R. K. Singh
8	Data Mining & Warehousing		Dr. Akhilesh Tiwari
9	Numerical Methods in Engineering	Civil Engineering	Dr. Pankaj Kumar
10	Maintenance Management		Prof. A. K. Saxena
11	Robotics	Mechanical Engineering	Mr. Neeraj Mishra
12	Product Design		Mr. Puneet Nema
13	Fuels and Combustion	Chemical Engineering	Dr. R.K Dubey
14	Nano Technology		Dr. A.N.Sarve

The Internship Policy and formats are enclosed as Annexure-X

Item 25: **To apprise the house about recognition of Institute as 'well performing institute under TEQIP-III (Second time)'.**

➢ The Academic Coordinator TEQIP-III has apprised the house that the Institute is selected as well performing institute under TEQIP-III second time, on achieving all benchmarks (performance indicators) and accordingly selected for **additional fund of 01 Cr.** However, due to closure of Project on 31st March 2021, till date fund is not released by the NPIU.

➢ The IQAC appreciated the achievement of Institute as well performaing Institution under TEQIP-III.

Item 26: **To apprise the house about conduction of the third performance audit in virtual mode under TEQIP-III.**

➢ The Academic Coordinator TEQIP-III has apprised the house that as per the TEQIP-III guidelines and Instructions from NPIU, the **Performance Audit (Phase-III) was conducted online during 11, 12 & 13 February 2021** in online mode for following **TEQIP-III Performance Monitoring Parameters**:

    A. Effectiveness of funds utilized for the teaching, training, learning and Improvement in Teaching, Learning and Research competence
    B. Implementation of AICTE mandate
    C. Increasing research equipment, library, computers, etc.
    D. faculty productivity and motivation
    E. Effectiveness of equity at Institutional level
    F. Improved system efficiency
    G. Twinning Activities

➢ The Performance Audit report of Institute will be published and communicated by the NPIU in the month of March 2021 after verification by scrutiny committee.

➢ As per the provision made under TEQIP-III, **Performance Auditor (Prof. T.S. Mruthyunjay, Emeritus Professor Mechanical Engineering, IISC, Bangaluru)** has given following observations **(Achievements & Concerns)** regarding performance of Institute **on the basis of presentation by Academic Coordinator, Virtual Visit to the departments & sections, meeting with faculty, UG & PG students**.

Achievements

(i) **Overall very Positive improvements** through successful implementation of TEQIP-III project.

(ii) The **faculty at junior & senior level is very happy** with the provision/opportunities made by Institute under TEQIP-III project for the benefit of faculty through financial support for equipments, research, participation in faculty Development programmes etc.

(iii) The **Under Graduate students have appreciated the initiatives taken by the Institute during pre & post Covid duration for teaching-learning infrastructure and facilities.**

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(iv) The **Post Graduate & Ph.D. students are very happy** with the opportunities provided by the Institute regarding financial support for research, participation in conference and seminars, research assistantship and teaching-learning facilities.

(v) **The overall experience of NPIU faculty at Institute is very good.** NPIU faculty is very happy with the Institute 's efforts for continuation of services for deserving faculty at Institute.

Concerns

For MHRD:

(i) The experience of NPIU faculty must be considered for regular appointments as MITS has considered.

(ii) The provision under TEQIP/similar projects may be created for Architecture & MCA programmes.

For Institute:

(i) The Institute may plan to issue the laptops for students as per Institute policy for better implementation of digital teaching-learning practices.

(ii) The interaction with the alumni should be encouraged for concrete results/ outcomes.

Item 27: To report on the status of MOOC development in the Digital Studio of the institute.

➤ The MOOC development activity has started in the institute from January 2021.

➤ Initially Open Courses (OCs), Departmental Electives (DEs) and mandatory courses have been identified for this activity.

➤ The following is the report on current status of this activity:

S. No.	Course title	Category (DE/OC/MC)	Offered in semester	Name of Faculty	Department	% Syllabus Completed
1	Cyber Security	MC	IV	Ms. Shweta Patel	IT	30%
2	Python Programming	OC	VI	Mr. Arun Kumar	CSE	60%
3	Introduction to Computer Programming	MC	I	Mr. Mohit Jain and Mr. Mir Shahnawaz Ahmad	CSE	70%
4	Embedded Systems	OC	VI	Dr.Vikas Mahor	ET	30%
5	Numerical Methods in Engineering	OC	VI	Dr. Pankaj Kumar	Civil	20%
6	Solar PV System: Design	DE	VI	Mr. Saurabh Kumar Rajput	EE	50%
7	Industrial Automation	DE	VI	Mr. Manoj Kumar	EE	50%

➢ In view of importance of communication skills for students to enhance the employability, **Shri. Prashant Mehta, IAS, Member**, Board of Governors has suggested to develop the MOOC course through Internal and external expert, which will help in the enhancement of soft skills among the students (On-campus/off-campus/lifelong learning for alumni).

Item 28: To review the Improvement in Digital Teaching-Learning Practices through MWI.

➢ The house reviewed the following practice of MWI computation and appreciated the remarkable improvement in MOODLE utilization by faculty members:

➢ **The Objective of the Practice:** MOODLE Working Index (MWI) was computed to motivate the faculty members for using MOODLE.

➢ **Ten basic activities were identified for computing the MWI as follows :**

1. *Starting the Course page by Faculty (Course code & name)*
2. *Adding students & marking attendance*
3. *Availability of the Course Outcomes (COs) on faculty page*
4. *Availability of the Syllabus*
5. *Availability of the Lecture Plan*
6. *Question Bank*
7. *Course files (PPT, Lecture Notes ,Study material, Reference books , Unit wise Quiz and Assignment) Unit -1 , Unit- 2,..... Unit -N*
8. *Conduction of Quiz*
9. *Giving & checking Assignments*
10. *Taking Feedback*

For MWI computation:
- Faculty members completing 10 to 6 activities are grouped under "Excellent
- Faculty members completing 5 to 1 activities are grouped under "Good"
- Faculty members who are not working on MOODLE are grouped under "Poor"
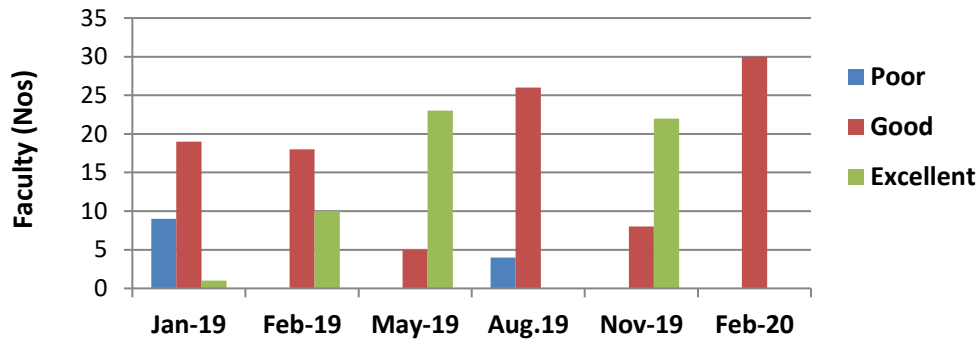
Civil Engineering

Civil Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	9	19	1
Feb-19	0	18	10
May-19(Semester End)	0	5	23
Aug.19 (Semester Beginning)	4	26	0
Nov-19	0	8	22
Feb-20(Semester End)	0	30	0

Mechanical Engineering
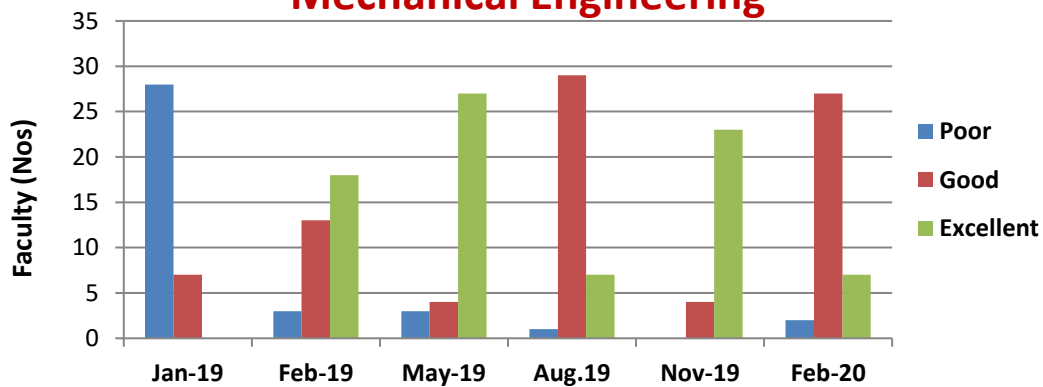
Mechanical Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	28	7	0
Feb-19	3	13	18
May-19(Semester End)	3	4	27
Aug.19 (Semester Beginning)	1	29	7
Nov-19	0	4	23
Feb-20(Semester End)	2	27	7

Automobile Engineering
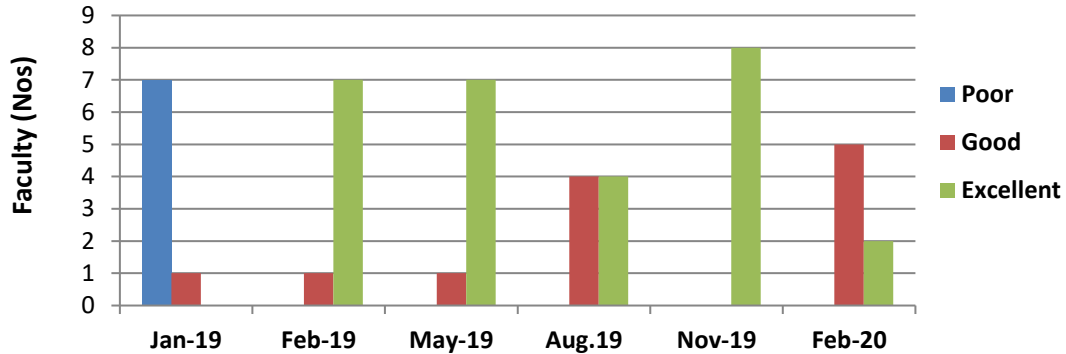
Automobile Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	7	1	0
Feb-19	0	1	7
May-19(Semester End)	0	1	7
Aug.19 (Semester Beginning)	0	4	4
Nov-19	0	0	8
Feb-20(Semester End)	0	5	2

Electrical Engineering
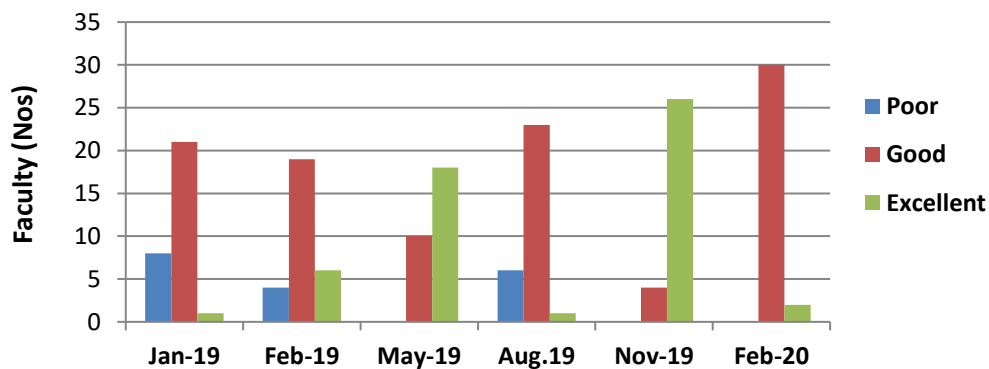
Electrical Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	8	21	1
Feb-19	4	19	6
May-19(Semester End)	0	10	18
Aug.19 (Semester Beginning)	6	23	1
Nov-19	0	4	26
Feb-20(Semester End)	0	30	2

Electronics Engineering
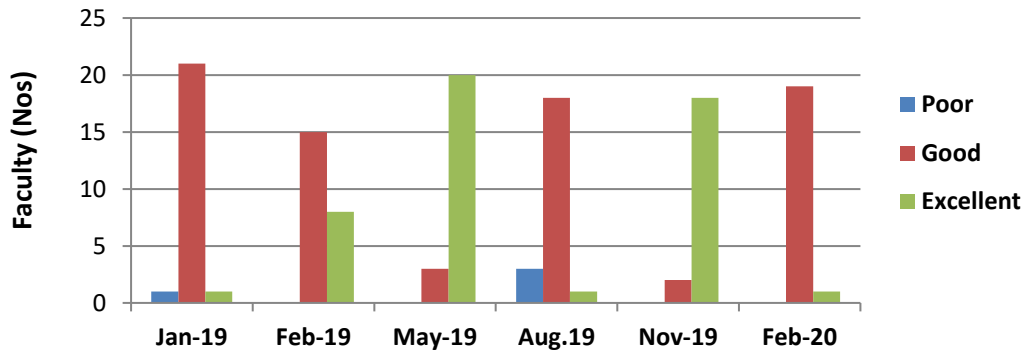
Electronics Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	1	21	1
Feb-19	0	15	8
May-19(Semester End)	0	3	20
Aug.19 (Semester Beginning)	3	18	1
Nov-19	0	2	18
Feb-20(Semester End)	0	19	1

Eletronics and Telecom. Engineering
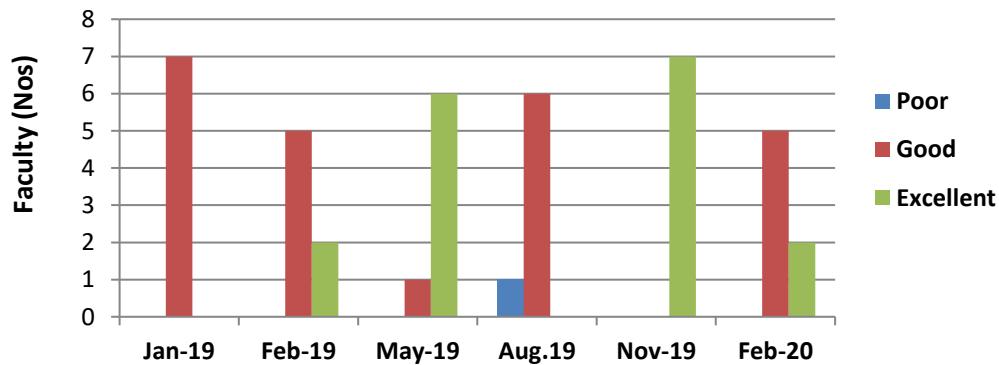
Electronics and Telecommunication Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	0	7	0
Feb-19	0	5	2
May-19(Semester End)	0	1	6
Aug.19 (Semester Beginning)	1	6	0
Nov-19	0	0	7
Feb-20(Semester End)	0	5	2

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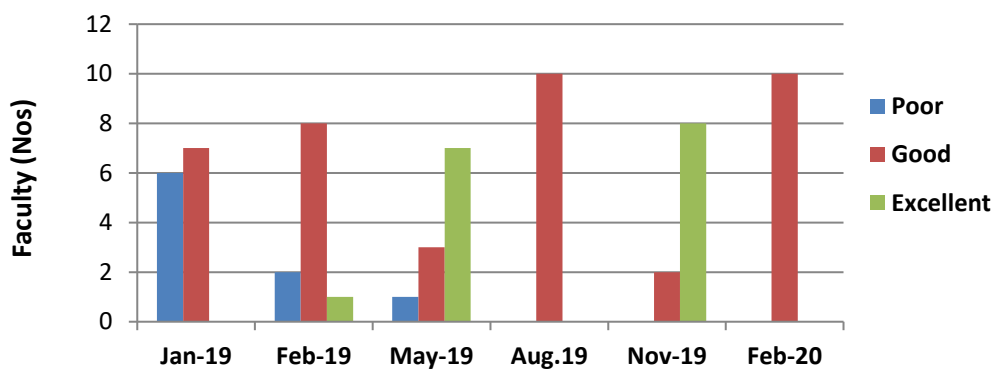(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

CSE/IT
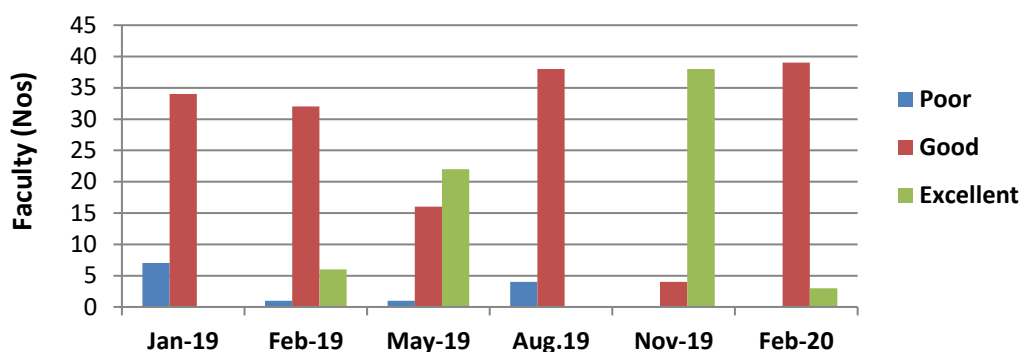
CSE/IT

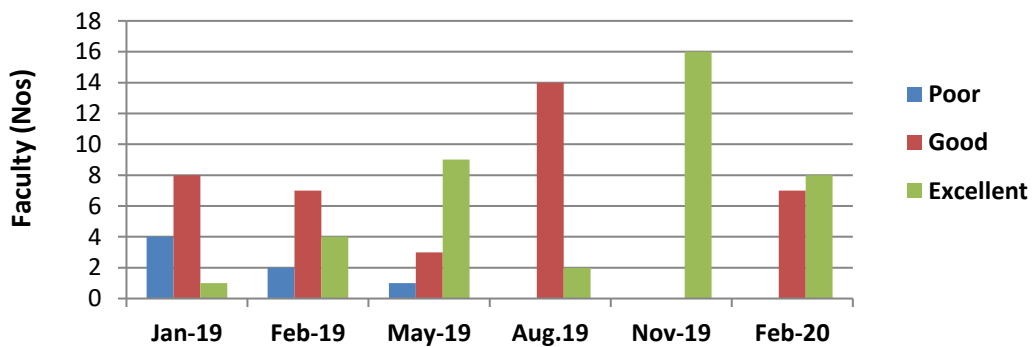|	Poor	Good	Excellent
Jan-19 (Semester Beginning)	7	34	0
Feb-19	1	32	6
May-19(Semester End)	1	16	22
Aug.19 (Semester Beginning)	4	38	0
Nov-19	0	4	38
Feb-20(Semester End)	0	39	3

Chemical Engineering

Chemical Engineering

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	6	7	0
Feb-19	2	8	1
May-19(Semester End)	1	3	7
Aug.19 (Semester Beginning)	0	10	0
Nov-19	0	2	8
Feb-20(Semester End)	0	10	0
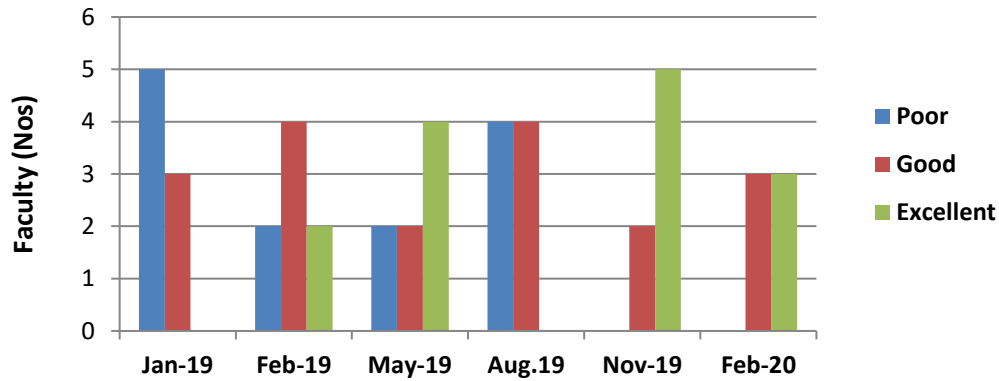
Humanities

Humanities

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	5	3	0
Feb-19	2	4	2
May-19(Semester End)	2	2	4
Aug.19 (Semester Beginning)	4	4	0
Nov-19	0	2	5
Feb-20(Semester End)	0	3	3

Applied Sciences

Applied Sciences

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	4	8	1
Feb-19	2	7	4
May-19(Semester End)	1	3	9
Aug.19 (Semester Beginning)	0	14	2
Nov-19	0	0	16
Feb-20(Semester End)	0	7	8

Architecture
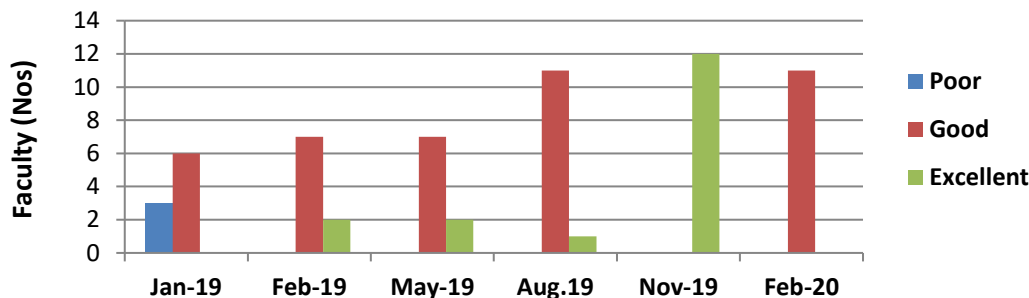
Architecture

	Poor	Good	Excellent
Jan-19 (Semester Beginning)	3	6	0
Feb-19	0	7	2
May-19(Semester End)	0	7	2
Aug.19 (Semester Beginning)	0	11	1
Nov-19	0	0	12
Feb-20(Semester End)	0	11	0

➢ As the objective of MWI computation was to motivate the faculty members for MOODLE utilization and now every faculty is using MOODLE for maximum utilization, therefore IQAC has decided to discontinue the practice of MWI computation.

Item 29: To apprise the house about activities of the Girls Grievances Cell.

➢ The house reviewed the following activities conducted by Girls Grievances Cell:
  o The Girls Grievance Cell organized an **online poster making competition** during the pandemic **on नारी द आदि शक्ति (Naari-the Aadi Shakti)**. The e-certificates were given to the winners and participants.
  o A meeting of the cell was held on 23.11.2020 in which along with the further planning, the rest of the members of the cell were briefed about the safety measures and precautions to be taken. Committee members were also briefed about Leelavati Award as announced by AICTE. Suggestions were taken from faculty members regarding the activities to be carried out in this respect.
  o A meeting of the cell was held on 25.01.2021. The process to select new **Gender warrior**s was discussed with members. An awareness meeting was organized for the students with the help of the respective class coordinators. The next step would be to make students (those interested) fill the form online, which would be scrutinized and after that selected students would be made to appear for an online interview before the committee.
  o Interested students filled the google forms. After scrutiny of these forms 80 students were called for online interview. Among these around **40 students qualified for becoming Gender Warriors**.

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- o These Gender Warriors were then trained by expert **Ms. Prerna Priya, Faculty at SoS in Lifelong Extension Education and Social Work, Jiwaji University, Gwalior** in an on-line workshop on 27th February 2021.

30. Any other matter with the permission of the Chair.

- ➢ Student Representatives, Ms. Muskan Gupta and Mr. Pranav Mishra have provided the feedback on online Teaching-Learning practices adopted by the Institute w.e.f. March 2020 due to COVID-19. Both the students have appreciated the initiatives taken by the Institute and students are happy with online teaching-learning and suggested to continue the online teaching learning practices through blended mode even after the impact of COVID pandemic.

(Dr. Pratesh Jayaswal)   **(Dr. R. K. Pandit)**
Coordinator IQAC   DIRECTOR

Date: 06.03.2021