MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous Institute Affiliated to RGPV Bhopal)

COMPLIANCE/ACTION TAKEN REPORT ON DECISIONS OF IQAC ON MAY 30TH 2018

In Compliance to the decisions taken by IQAC in the meeting on 30th May 2018, following actions have been taken:

1: Conduction of 'Value Added Courses' for Curriculum Enrichment

- *An institute level coordinator has been appointed for managing the conduction of Value Added Courses*
- *Meeting of Heads of Departments and Deans was held on 31st July 2018 to decide the modalities for conducting these courses*
- ***Sixteen Courses** were identified and developed by the various departments for conduction. The details are enclosed in Annexure-I*

2: Conduction of Summer Internship programme-I for students admitted in Academic Session 2017-2018 in compliance with Flexible Curriculum.

- The Summer Internship Programme –I (SIP-I) for the First Year students was conducted by the institute for the first time in May 2018.
- Out of the 42 hands-on training modules developed by the institute, students got registered in 36 modules. *The feedback received from the participating students is enclosed in Annexure-II*

3: Conduction of Induction Programme in compliance with AICTE guidelines for First Year students admitted in Academic Session 2018-19

- The Induction Programme for the newly admitted first year students was conducted from 16th August to 1st September.
- *The schedule and report is enclosed as Annexure-III*.

4: Attainment of PO and PEO

- As decided in the previous meeting, an in-house workshop was organized under the IQAC on "**Assessment of CO- PO -PEO Attainment**" for the Academic Session 2017-18 (June-Dec 17 & January-May 18 semesters) on 5th & 6th July 2018 for all the Outcome Based Education (OBE) coordinators.

- The idea was
  - To develop a uniform model (using the institute MOODLE) for the implementation and evaluation of OBE and to review the level of attainment and discuss corrective measures to be taken for improvement.
  - To reduce the time spent by the faculty members in computing the OBE parameters
- During the workshop, the attainment of POs and PEOs for all the programmes was computed using direct and indirect assessment.
- The feedbacks from students (for CO evaluation), passing out batch (for PO evaluation) and employers (for PEO evaluation) were taken on-line using MOODLE and Google Forms.
- Rubrics were also developed for assessment in labs, seminars etc.
- The following mappings were carried out for computing the attainments:
  - *Mapping of question paper with Course Outcomes (COs)*
  - *Mapping of Course Outcomes with Programme Outcomes (POs)*
  - *Mapping of Programme Outcomes with Programme Educational Objectives (PEOs)*
- The OBE manager presented the developed model on 22nd August 2018 in the meeting of NBA/OBE coordinators, Departmental Heads, Deans with the **Chairman HR Dr. K.K. Aggarwal.** Discussions were held on further improving the indirect assessment process by including components on student attitudes, behaviours, their participation and performance in projects, seminars etc.
- After discussion in the meeting it is noted that (i) A review and detailed analysis of attainments of CO,PO and PEO is required (ii) Assessment parameters/tools for CO,PO and PEO to be reviewed and updated to include factors such as placements, participation in events/activities, projects etc (iii) Inclusion and reflection of rubrics in computation of attainment
- *The detailed report is enclosed as Annexure-IV*

5: Free In-house GATE Training for final/pre-final year students

- After following proper tendering process according to TEQIP-III norms, order has been placed with M/S GATE ACADEMY, Bangalore for providing the In-House GATE training services.
- The coaching classes will be conducted after college hours & on weak ends/holidays for about 8-10 courses each of 8 branches of Engineering; total teaching hours ranging from 300-350 Hours, to be completed during September 2018 to January 2019.
- Classes have been started from 4th September 2018.
- *The detailed report is enclosed as Annexure- V*

6: Result Analysis and Measures for Improvement

- A result analysis was conducted for April-May 2018 examination and the pass percentage was recorded for all regular courses where the comparative performance was lower than other courses.
- The previous examination (Nov-Dec 2017 for I Year & May-June 2017 for others) pass percentage was also included for reference. The departments analysed the factors responsible for comparatively poor performance in some subjects and submitted a report on corrective measures in teaching– learning.
- *The report is enclosed as Annexure-VI*

7: Status of activities of the start-up/Innovation Cell

- Start-up cell has been established as per the guidelines of NPIU Delhi (under TEQIP-III project) and governed through Start-up policy of AICTE-2016.
- This Cell provides a platform - to motivate, facilitate and extend necessary primary level support in promoting start-up mindset/ early stage Entrepreneurs. Under the provisions of TEQIP-III, students are being supported (in terms of required financial and technical support) to present their innovative ideas in various Start-Up /innovation related events.
- In the recent past, with the financial support from MITS Start-up Cell, some students of the institute with their Start-up idea named "Bookchair" have participated in the Start-up India Madhya Pradesh Yatra-2018 and won prize money worth Rs. 25,000/- along with the certification.

8: Appointment of adjunct Faculty/ Resource persons from Industry

- In response to the advertisement floated at the National Level a few applications have been received. Suitable candidates are being identified for appointment as Adjunct Faculty. In response 13 applications have been received.
- The Adjunct Faculty should be an eminent Professional/ Scientist/ Engineer having recognition at national/ international level and having outstanding published work. The Adjunct Faculty is required to engage minimum 25 hours per semester.

9: **Report on self- learning courses conducted in the January-May 2018 Session**

- The MITS Chapter ranked among the top 100 Active NPTEL local Chapters of the country for Academic year 2017-18. (87^{th} rank in 1242 NPTEL Local Chapters)

- The SWAYAM Team of the Institute did a very good job in creating awareness about the online courses conducted through NPTEL/SWAYAM/MOOCS among the students. The NPTEL awarded certificates to the following achievers in recognition to their performance.
  - 11 faculty members (recognized as mentors/top mentors by NPTEL) and
  - 07 students (recognized as Gold/Elite by NPTEL)
- The institute also bestowed certificates of Appreciation to these faculty and students on 15th August 2018.
- To further create awareness about the on-line self-learning courses, all the Assistant Professors of the institute have registered for at least one SWAYAM/NPTEL course.
- *The faculty and student achievements are enclosed as Annexure- VII.*

10: Events & Activities conducted by Professional Society Chapters/students clubs /SPIC-MACAY etc (Society for the Promotion of Indian Classical Music and Culture Amongst Youth).

- As directed by the House, the institute conducted Rajsthani Folk Dance Kalbelia, Ghoomer and Bhawai by a renowned Rajsthani Folk Group under the SPIC-MACAY banner on 7th August 2018.
- The event was attended by more than 300 students and about 100 faculty members.
- The student clubs were also re-organized and renamed on the basis of past performance. The activities conducted by the Student Chapters and Clubs will be presented in the next meeting.

11: Regarding financial support to meritorious students from economically weaker sections of the society

- In response to the offer from M/s Smart Control to sponsor and mentor one student each from the Electronics Engineering & Computer Science Departments for the full duration of the degree programme a committee was constituted and on-line applications were invited from interested students of II year CSE&Elex**.**
- The committee carefully reviewed the 28 on-line applications received from the II year students of CSE & Electronics. After careful study of the compiled data the committee resolved that
  - Applicants having more than 75% Academic Grade Point (AGP) (Computed by averaging the marks of X, XII, I Sem & II Sem B.E) and without any backlog should be called for verification of documents provided the annual income of their father is less than Rs. 2.5 Lacs.
  - The candidates are notified to report for verification on 13th September 2018 at 11.00 am in the Autonomy Cell.
- A committee (Consisting of one coordinator, six faculty members and four supporting staff is constituted on 19th May 2018) was constituted to create a fund for partially supporting deserving, meritorious students belonging to economically weaker sections of society has identified agencies and has approached them contributions/donations etc.

- *Efforts being made in this direction are reported in Annexure VIII*.

12: **Regarding the status of Research Activities**

- Research Associate (RA) fellowship with financial assistance from TEQIP-III was provided to *TWO* eligible candidates after following a proper selection process.
- The fellowship of Rs. 25,000/- per month, consolidated, for one year, (extendable to maximum three years/ TEQIP-III project duration) has been provided with a provision for six monthly review and condition of communication of at least one research paper in reputed Journal/Conference for continuing the fellowship.
- ***Seven*** candidates have been admitted under the ***National Doctoral Fellowship*** **Programme** w.e.f. Academic session 2018-19.
- Financial support for research project proposals under the "***Innovative Research Scheme–2018"*** **(IRS-2018)** are invited, the last date for submission of proposals in 29th September 2018. Based on the applications, support will be provided to the identified proposals submitted by the faculty members w.e.f. Academic session 2018-19.
- *A report is enclosed in Annexure IX*.

13: Status of Additional Classes for remedial purposes

- Departments have made efforts
  - To motivate weak students to attend additional classes for performance improvement.
  - List of backlog students was prepared
  - Phone calls/emails were sent to all the students
  - Time-Table for these classes is uploaded on the website with names and mobile numbers of faculty in-charge giving students the flexibility to contact these teachers on Saturdays, or any other mutually convenient time
- *The detailed reports received from the departments are enclosed as Annexure X.*
- It was observed that very few students have reported for remedial classes during July and August. It is expected that the attendance will increase in coming months, as the examination approaches nearer. The institute is committed to conduct these additional classes for the benefit of students.

14: Conduction of Academic Audit

- In compliance to the directions of IQAC *two* Academic Audits, are being conducted in a year; one by internal and the other by external experts.

- The performance parameters in the Academic Audit format are continuously being updated to keep pace with norms revised from time to time by NBA, AICTE and NAAC.
- The number of parameters in the Audit conducted in February 2017 was 24, which was updated to 30 in February 2018. The number of parameters in the recent audit on 25th August&1st September was 50.
- *The previous reports and present format are enclosed as Annexure XI.*

15: Alumni and Employer Satisfaction Survey

- Alumni Feedback was collected from students who graduated between 2002 to 2016. A mix of alumni from all branches, working in Private Sector/ Government Sector/ and other Interdisciplinary areas from all over India was selected.
- A total of 70 responses on 10 general parameters, as shown below on the scale of 5 to 1 (Strongly Disagree to Strongly Agree) was selected for analysis.
- Similarly, employer satisfaction survey was conducted. Responses were received from 25 employers.
- Based on the responses, Alumni and Employer Satisfaction indices were computed on a scale of 5.
- *A detailed report is enclosed as Annexure XII.*

Value Added Courses
July-December 2018

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S.No.	Course name	Course coordinators/ Faculty	Department	Course Highlights
1	Android Based Application Development	Prof. Mahesh Parmar (9977825839)	CSE & IT	Build and deploy Android application. Understand the operation of the application, application life cycle, configuration files, intents, and activities. Understanding of the UI components, layouts, event handling, and screen orientation.
2	C++ Programming	Prof. Sheo Kumar (9713056463)	CSE & IT	Object Oriented Approach, raction, Encapsulation, Inheritance, Polymorphism Classes and Objects: Encapsulation, information hiding, abstract data types, Object &classes. Constructors and destructors, dynamic memory allocation, Operator overloading, Files and Exception Handling.
3	Programming with Python	Prof. Dheeraj Gurjar (8989571867)	CSE & IT	Basic principles of computers, Python interpreter, Control Structures, Dictionaries, Data types, Functions, Designing and Debugging, Numpy Module, NetworkX Module.
4	Computer Aided Drug Design	Dr. Sharad Verma (9650732772) Prof. Rahul Anand Prof. Vinod Jatav	Biotechnology	Lead identification, Structure and target based drug design, molecular modeling, drug likeness properties, QSAR and pharmacokinetic and dynamics using several freely available software, Docking.
5	MATLAB for Engineers	Dr. L. Srivastava Dr. M. Pandit Dr. A.K. Wadhwani Dr. S. Wadhwani Dr. H.M. Dubey Prof. V. Chaudhary (9926245805) Prof. Punjan Dohre Mr. Nikhil Paliwal	Electrical Engineering	Basic Mathematical Operations, Hands on Training on: Simulation; Optimization and Genetic Algorithm, Artificial Neural Network and Fuzzy Logic; Signal and Image Processing Toolboxes

6	Circuit Design Using LTSPICE	Prof. Rishabh Shukla, (8140427346) Prof. George Samuel	Electronics Engineering	Spice, Basic components: resistors, capacitors, Inductors, Designing of basic circuits using spice schematic editor. Characteristics of Diode, BJT MOSFETs. Designing of Rectifier, Clipper, Clamper, Voltage limiter; RC Coupled amplifier, Basic Op-amp Circuits; RC. Phase shift Oscillator, Multivibrator; Schmitt trigger, Window detector; precision half and full wave rectifier; Half/Full adder, Flip Flops; Counter, Analog to Digital and Digital to Analog converter.
7	MATLAB for Electronics Engineers	Prof. Awadhesh Gupta (9198670096) Dr. Rahul Dubey	Electronics Engineering	Introduction to MATLAB tool box. Plotting operations. Waveform generation. Signal operations and system analysis using MATLAB, Fourier analysis. Digital filter design. Signal Sources. Analog and Digital modulation/ demodulation. Performance evaluation. Pulse shaping, filters and channel modelling. System interconnections, gain and dynamics. Compensator design. Image display and exploration, GUI tools.
8	C-Language	Prof. Prabhakar Sharma (9425339330)	MCA	Problem identification, analysis, design, coding, testing & debugging, implementation, modification & maintenance; Characteristics of a good program, Data types, Operators, Control constructs, Loops Modular programming, Recursion , Arrays; Pointers, Dynamic memory management functions, String; Enumerated data type, Basics Structure; of stream and files Preprocessor directives.

ANNEXURE – II

MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE GWALIOR

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Report

Summary of Feedback for Summer Internship Programme-I (SIP-I)

(MAY 2018)

Submitted By

Prof. Praveen Bansal
(Co-coordinator, Summer Internship Programme)

Summary of Feedback for Summer Internship Programme-I

S. No.	Department Name	Name of Module Coordinator	Module Name	No. of Students	Weighted average Score (Out of 5)
1	Applied Science	Dr.Prachi Sharma	3-D Scientific Photography	6	4.51
2	CSE/IT	Prof.Mahesh Parmar	Android Application Development	25	4.26
3	MCA	Prof.Parul Saxena	Animation Creation	15	3.96
4	Chemical Engineering	Prof.S.R	Application of measuring devices in chemical process industries	9	4.92
5	EDC	Er.Satish Sharma	Basics of Refrigeration and Air Conditioning (RAC)	5	4.20
6	Biotechnology	Dr.Pragyan Ranjan Rout	Bio-monitoring of water quality	1	4.22
7	Civil Engineering	Prof.Pratibha Singh	Building Elements- Model Making	13	4.23
8	Civil Engineering	Prof.Shivendra Singh Kushwah	Civil Engineering Structures Model Making	24	4.63
9	EDC	Mr.Akshat Agrawal	Computer Fundamentals with Web Concepts	8	4.47
10	CSE/IT	Prof.Dheeraj Gurjar	Computer Hardware & Networking	20	3.79
11	Mechanical Engineering	Dr.Amit Ahirwar	Conventional machine	17	4.31
12	Electrical Engineering	Prof.Kuldeep Swarnkar & Prof.Praveen Bansal	Designing and modeling of Electrical Components	17	3.81
13	Electrical Engineering	Dr.Modem Sudhakar	Designing and modeling of Electronics Components	5	4.17
14	Electronics Engineering	Prof.Awadesh Gupta	Digital Circuit Design	17	3.87
15	Mechanical Engineering	Prof.Vaibhav Shivhare	Dismantling & assembling of two strokes & four Stroke Engine.	22	4.12
16	Electronics Engineering	Prof.Rishab Shukla	Electrical Circuit Design Using LT-Spice	8	4.38
17	Electrical Engineering	Prof.Vishal Chaudhary	Electricity usage for Domestic and Industrial application	18	3.32
18	EDC	Dr.Prabhakhar Singh Bhadhoria	Entrepreneurship Awareness Program	3	4.40
19	CSE/IT	Prof.Abhilash Sonkar	Google Services	30	4.40

20	MCA	Dr.Anshu Chaturvedi	Graphic Design	19	4.03
21	Mechanical Engineering	Prof.Utkarsh Srivastava	Introduction to Auto CAD for Engineering Application	22	4.10
22	Electrical Engineering	Prof. Punjan Dohare	Introduction to MATLAB programming for Engineering applications	28	3.79
23	Electronics Engineering	Dr.Ashish Gupta	MATLAB	25	4.28
24	Mechanical Engineering	Prof.Ajay Rajput	Mechanical Testing and Measurement	16	4.11
25	CSE/IT	Prof.Vikas Sejwar	Microprocessor & Interfacing Techniques	16	4.04
26	Electronics Engineering	Dr.Rahul Dubey	O.S. Installation & Networking	18	3.73
27	Electronics Engineering	Dr.Vikas Mahor	PCB Designing & Circuit Wizard	27	4.48
28	CSE/IT	Prof.Shoe Kumar	Problem Solving Through Programming	27	3.83
29	Mechanical Engineering	Dr.Dharmanedra Jain	Repair and maintenance of a vehicle.	29	4.03
30	Civil Engineering	Prof.Shivam Gupta	Surveying using Total Station and Conventional methods	21	4.33
31	Electronics Engineering	Dr.Sarthak Singhal	TV &Motherboard	7	3.93
32	CSE/IT	Prof.Amit Manjhvar	User Interface Design	20	3.31
33	Chemical Engineering	Dr.Shailendra Kumar Pandey	Utility of Heat transfer in process industry	4	3.72
34	MCA	Prof.Ram Pathak	Web Designing	29	4.11
35	Civil Engineering	Prof.Nupur Verma	Working Model of Water Harvesting System	16	4.34

Name of Module: 3D Scientific Photography
No. of students: 06
Faculty Coordinators: Dr. Prachi Sharma (Applied Science)
Feedback Report

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	4	2	0	0	0	4.66
The lecture sequence was well planned	3	3	0	0	0	4.50
The teaching aids effectively used	3	2	1	0	0	4.33
The course exposed to practical exercises	4	1	0	0	0	4.80
I have better understanding of concepts, theories and skills during my Internship	4	2	0	0	0	4.66
The Level of the module course is	2	1	1	0	0	4.25
The work I performed are challenging and stimulating	3	1	1	0	0	4.40
This Internship help me to grow professionally	2	2	0	0	0	4.50
I would recommend this Internship to other students in future	3	3	0	0	0	4.50
					Average Indexing	4.51

Name of Module: Android application development
No. of students: 25
Faculty Coordinators: Prof. Mahesh Parmar (CSE/IT)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	4	2	0	0	0	4.44
The lecture sequence was well planned	3	3	0	0	0	4.36
The teaching aids effectively used	3	2	1	0	0	4.32
The course exposed to practical exercises	4	1	0	0	0	4.40
I have better understanding of concepts, theories and skills during my Internship	4	2	0	0	0	4.24
The Level of the module course is	2	1	1	0	0	4.12
The work I performed are challenging and stimulating	3	1	1	0	0	4.24
This Internship help me to grow professionally	2	2	0	0	0	4.08
I would recommend this Internship to other students in future	3	3	0	0	0	4.22
					Average Indexing	4.26

Name of Module: Animation creation
No. of students: 15
Faculty Coordinators: Prof. Parul Saxena (MCA)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	7	5	2	1	0	4.20
The lecture sequence was well planned	5	7	0	1	2	3.80
The teaching aids effectively used	7	3	3	0	2	3.86
The course exposed to practical exercises	10	4	0	0	1	4.46
I have better understanding of concepts, theories and skills during my Internship	4	10	0	1	0	4.13
The Level of the module course is	3	7	3	0	2	3.60
The work I performed are challenging and stimulating	5	7	3	0	0	4.13
This Internship help me to grow professionally	4	4	5	1	1	3.60
I would recommend this Internship to other students in future	5	6	2	0	2	3.80
					Average Indexing	3.95

Name of Module: Application of measuring devices in chemical process industries
No. of students: 09
Faculty Coordinators: Prof.S.R (Chemical Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	4	4	1	0	0	4.33
The lecture sequence was well planned	4	3	2	0	0	4.22
The teaching aids effectively used	4	5	0	0	0	4.44
The course exposed to practical exercises	5	2	2	0	0	4.33
I have better understanding of concepts, theories and skills during my Internship	4	3	2	0	0	4.22
The Level of the module course is	2	5	2	0	0	4.00
The work I performed are challenging and stimulating	2	3	4	0	0	3.77
This Internship help me to grow professionally	5	3	1	0	0	4.44
I would recommend this Internship to other students in future	4	4	1	0	0	4.33
					Average Indexing	4.23

Name of Module: Basics of refrigeration and air conditioning (RAC)
No. of students: 05
Faculty Coordinators: Er. Satish Sharma (EDC)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	2	2	1	0	0	4.20
The lecture sequence was well planned	1	3	1	0	0	4.00
The teaching aids effectively used	1	2	2	0	0	3.80
The course exposed to practical exercises	4	1	0	0	0	4.80
I have better understanding of concepts, theories and skills during my Internship	1	4	0	0	0	4.20
The Level of the module course is	2	2	1	0	0	4.20
The work I performed are challenging and stimulating	1	3	1	0	0	4.00
This Internship help me to grow professionally	1	3	1	0	0	4.00
I would recommend this Internship to other students in future	3	2	0	0	0	4.60
					Average Indexing	4.20

Name of Module: Bio- Monitoring water quality
No. of students: 01
Faculty Coordinators: Dr. Pragyan Ranjan Rout (Biotechnology)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	1	0	0	0	0	5
The lecture sequence was well planned	0	1	0	0	0	4
The teaching aids effectively used	0	1	0	0	0	4
The course exposed to practical exercises	0	1	0	0	0	4
I have better understanding of concepts, theories and skills during my Internship	0	1	0	0	0	4
The Level of the module course is	0	1	0	0	0	4
The work I performed are challenging and stimulating	1	0	0	0	0	5
This Internship help me to grow professionally	0	1	0	0	0	4
I would recommend this Internship to other students in future	0	1	0	0	0	4
					Average Indexing	4.22

Name of Module: **Building elements model making**
No. of students: 13
Faculty Coordinators: Prof. Pratibha Singh (Civil Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	9	3	0	1	0	4.53
The lecture sequence was well planned	5	5	1	1	1	3.92
The teaching aids effectively used	6	4	1	2	0	4.07
The course exposed to practical exercises	10	1	1	1	0	4.53
I have better understanding of concepts, theories and skills during my Internship	10	2	0	1	0	4.61
The Level of the module course is	3	5	4	0	1	3.69
The work I performed are challenging and stimulating	4	7	2	0	0	4.15
This Internship help me to grow professionally	8	3	1	1	0	4.38
I would recommend this Internship to other students in future	6	4	2	1	0	4.15
					Average Indexing	4.23

Name of Module: **Civil engineering structures model making**
No. of students: 24
Faculty Coordinators: Prof. Shivendra Singh Kushwah (Civil Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	23	1	0	0	0	4.95
The lecture sequence was well planned	17	6	1	0	0	4.66
The teaching aids effectively used	17	6	1	0	0	4.66
The course exposed to practical exercises	19	4	1	0	0	4.75
I have better understanding of concepts, theories and skills during my Internship	17	7	0	0	0	4.70
The Level of the module course is	8	11	5	0	0	4.12
The work I performed are challenging and stimulating	13	8	3	0	0	4.41
This Internship help me to grow professionally	20	2	2	0	0	4.75
I would recommend this Internship to other students in future	18	5	1	0	0	4.70
					Average Indexing	4. 63

Name of Module: **Computer fundamental with web concept**
No. of students: 08
Faculty Coordinators: Mr. Akshat Agrawal (EDC)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	6	1	1	0	0	4.62
The lecture sequence was well planned	7	0	1	0	0	4.75
The teaching aids effectively used	7	1	0	0	0	4.87
The course exposed to practical exercises	7	0	1	0	0	4.75
I have better understanding of concepts, theories and skills during my Internship	5	2	1	0	0	4.50
The Level of the module course is	4	1	2	0	1	3.87
The work I performed are challenging and stimulating	4	2	1	0	1	4.00
This Internship help me to grow professionally	6	1	1	0	0	4.62
I would recommend this Internship to other students in future	4	2	2	0	0	4.25
					Average Indexing	4.47

Name of Module: **Computer hardware and networking**
No. of students: 20
Faculty Coordinators: Prof. Dheeraj Gurjar (CSE/IT)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	4	8	7	0	1	3.70
The lecture sequence was well planned	5	7	6	0	2	3.65
The teaching aids effectively used	4	10	5	0	1	3.80
The course exposed to practical exercises	6	8	5	0	1	3.90
I have better understanding of concepts, theories and skills during my Internship	6	6	6	0	2	3.70
The Level of the module course is	2	8	10	0	0	3.60
The work I performed are challenging and stimulating	4	8	6	0	1	3.73
This Internship help me to grow professionally	7	7	5	0	1	3.95
I would recommend this Internship to other students in future	7	8	5	0	0	4.1
					Average Indexing	3.79

Name of Module: **Conventional machine**
No. of students: 17
Faculty Coordinators: Dr.Amit Ahirwar (Mechanical Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	9	6	0	1	1	**4.23**
The lecture sequence was well planned	10	5	1	0	1	**4.35**
The teaching aids effectively used	8	6	2	1	0	**4.23**
The course exposed to practical exercises	10	5	1	1	0	**4.41**
I have better understanding of concepts, theories and skills during my Internship	12	4	1	1	0	**4.50**
The Level of the module course is	6	5	1	1	1	**4.00**
The work I performed are challenging and stimulating	8	5	1	1	1	**4.12**
This Internship help me to grow professionally	9	3	0	0	1	**4.461**
I would recommend this Internship to other students in future	11	3	1	1	0	**4.50**
					Average Indexing	**4.31**

Name of Module: **Designing and modeling of electrical components**
No. of students: 17
Faculty Coordinators: Prof. Kuldeep Swarnkar & Prof. Praveen Bansal (Electrical Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	**7**	**5**	**2**	**1**	**2**	**3.82**
The lecture sequence was well planned	**4**	**8**	**4**	**0**	**1**	**3.82**
The teaching aids effectively used	**5**	**8**	**3**	**0**	**1**	**3.94**
The course exposed to practical exercises	**7**	**8**	**2**	**0**	**0**	**4.29**
I have better understanding of concepts, theories and skills during my Internship	**7**	**7**	**2**	**0**	**1**	**4.11**
The Level of the module course is	**2**	**8**	**6**	**0**	**1**	**3.58**
The work I performed are challenging and stimulating	**1**	**8**	**7**	**0**	**1**	**3.47**
This Internship help me to grow professionally	**2**	**11**	**1**	**0**	**3**	**3.52**
I would recommend this Internship to other students in future	**4**	**7**	**5**	**0**	**1**	**3.76**
						3.81

Name of Module: **Designing and modeling of electronics components**
No. of students: 05
Faculty Coordinators: Dr. Modem Sudhakar (Electrical Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	1	4	0	0	0	4.20
The lecture sequence was well planned	1	2	2	0	0	3.80
The teaching aids effectively used	1	3	1	0	0	4.00
The course exposed to practical exercises	3	1	1	0	0	4.40
I have better understanding of concepts, theories and skills during my Internship	3	2	0	0	0	4.60
The Level of the module course is	2	1	2	0	0	4.00
The work I performed are challenging and stimulating	2	0	3	0	0	3.80
This Internship help me to grow professionally	3	1	1	0	0	4.40
I would recommend this Internship to other students in future	3	1	1	0	0	4.40
						4.17

Name of Module: **Digital circuit design**
No. of students: 17
Faculty Coordinators: Prof. Awadesh Gupta (Electronics Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	8	6	1	2	0	4.17
The lecture sequence was well planned	11	2	0	1	3	4.00
The teaching aids effectively used	7	5	2	2	1	3.88
The course exposed to practical exercises	8	3	5	1	0	4.05
I have better understanding of concepts, theories and skills during my Internship	5	9	0	2	1	3.88
The Level of the module course is	1	9	4	0	3	3.29
The work I performed are challenging and stimulating	2	9	4	1	1	3.58
This Internship help me to grow professionally	7	6	1	1	2	3.88
I would recommend this Internship to other students in future	8	5	2	2	0	4.11
						3.87

Name of Module: **Dismantling and assembling of two strokes and four strokes engine**
No. of students: 22
Faculty Coordinators: Prof.Vaibhav Shivhare (Mechanical Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	8	13	0	0	1	4.22
The lecture sequence was well planned	10	9	1	1	1	4.18
The teaching aids effectively used	9	8	2	0	3	3.90
The course exposed to practical exercises	15	6	1	0	0	4.63
I have better understanding of concepts, theories and skills during my Internship	8	8	6	0	0	4.09
The Level of the module course is	4	15	2	0	1	3.95
The work I performed are challenging and stimulating	4	13	4	0	1	3.86
This Internship help me to grow professionally	5	11	4	0	2	3.77
I would recommend this Internship to other students in future	12	9	1	0	0	4.50
						4.12

Name of Module: **Electrical circuit using LT-Spice**
No. of students: 8
Faculty Coordinators: Prof.Rishab Shukla (Electronics Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	7	0	0	1	0	4.62
The lecture sequence was well planned	6	1	0	1	0	4.5
The teaching aids effectively used	5	2	0	0	1	4.25
The course exposed to practical exercises	5	2	0	1	0	4.37
I have better understanding of concepts, theories and skills during my Internship	4	3	0	1	0	4.25
The Level of the module course is	3	4	1	0	0	4.25
The work I performed are challenging and stimulating	5	3	0	0	0	4.62
This Internship help me to grow professionally	5	2	0	0	1	4.25
I would recommend this Internship to other students in future	5	2	0	1	0	4.37
						4.38

Name of Module: Electricity usage for domestic and industrial applications
No. of students: 18
Faculty Coordinators: Prof. Vishal Chaudhary (Electrical Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	6	5	1	4	2	3.50
The lecture sequence was well planned	4	6	2	3	3	3.27
The teaching aids effectively used	3	6	3	3	3	3.16
The course exposed to practical exercises	5	6	2	3	2	3.50
I have better understanding of concepts, theories and skills during my Internship	4	7	1	3	3	3.33
The Level of the module course is	1	7	4	2	4	2.94
The work I performed are challenging and stimulating	5	3	4	3	3	3.22
This Internship help me to grow professionally	4	6	3	3	2	3.38
I would recommend this Internship to other students in future	6	5	2	3	2	3.55
						3.32

Name of Module: **Entrepreneurship awareness programme**
No. of students: 03
Faculty Coordinators: Dr. Prabhakhar Singh Bhadhoria (EDC)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	3	0	0	0	0	5.0
The lecture sequence was well planned	2	1	0	0	0	4.66
The teaching aids effectively used	1	2	0	0	0	4.33
The course exposed to practical exercises	1	2	0	0	0	4.33
I have better understanding of concepts, theories and skills during my Internship	2	1	0	0	0	4.66
The Level of the module course is	1	0	2	0	0	3.66
The work I performed are challenging and stimulating	1	1	1	0	0	4.00
This Internship help me to grow professionally	1	2	0	0	0	4.33
I would recommend this Internship to other students in future	2	1	0	0	0	4.66
						4.40

Name of Module: **Google services**
No. of students: 30
Faculty Coordinators: Prof. Abhilash Sonkar (CSE/IT)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	15	12	2	1	0	4.36
The lecture sequence was well planned	10	14	5	1	0	4.10
The teaching aids effectively used	10	14	5	1	0	4.10
The course exposed to practical exercises	13	16	0	1	0	4.36
I have better understanding of concepts, theories and skills during my Internship	13	11	5	1	0	4.20
The Level of the module course is	4	13	10	2	1	3.56
The work I performed are challenging and stimulating	3	15	9	2	1	3.56
This Internship help me to grow professionally	11	11	7	1	0	4.06
I would recommend this Internship to other students in future	10	15	3	2	0	4.10
						4.40

Name of Module: **Graphic design**
No. of students: 19
Faculty Coordinators: Dr. Anshu Chaturvedi (MCA)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	9	7	2	0	1	4.21
The lecture sequence was well planned	11	4	2	0	2	4.15
The teaching aids effectively used	6	8	2	2	1	3.84
The course exposed to practical exercises	5	10	3	1	0	4.00
I have better understanding of concepts, theories and skills during my Internship	5	11	2	1	0	4.05
The Level of the module course is	6	10	5	0	0	4.04
The work I performed are challenging and stimulating	8	5	5	0	1	4.00
This Internship help me to grow professionally	7	7	4	1	0	4.05
I would recommend this Internship to other students in future	6	8	3	2	0	3.94
						4.03

Name of Module: **Introduction to AUTOCAD for engineering applications**
No. of students: 22
Faculty Coordinators: Prof. Utkarsh Srivastava (Mechanical Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	11	8	1	0	2	4.18
The lecture sequence was well planned	6	11	4	0	1	3.95
The teaching aids effectively used	9	7	4	0	2	3.95
The course exposed to practical exercises	13	7	1	0	1	4.40
I have better understanding of concepts, theories and skills during my Internship	16	4	1	0	1	4.54
The Level of the module course is	5	8	5	1	3	3.50
The work I performed are challenging and stimulating	8	7	5	0	2	3.86
This Internship help me to grow professionally	7	13	2	0	0	4.22
I would recommend this Internship to other students in future	11	9	1	0	1	4.31
						4.10

Name of Module: **Introduction to MATLAB Programming for engineering applications**
No. of students: 28
Faculty Coordinators: Prof. Punjan Dohare (Electrical Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	6	9	12	0	1	3.67
The lecture sequence was well planned	6	12	9	0	1	3.78
The teaching aids effectively used	8	11	6	2	1	3.82
The course exposed to practical exercises	11	9	5	2	1	3.96
I have better understanding of concepts, theories and skills during my Internship	10	10	4	1	3	3.821
The Level of the module course is	2	14	10	0	2	3.50
The work I performed are challenging and stimulating	5	14	8	0	1	3.78
This Internship help me to grow professionally	6	13	7	2	0	3.82
I would recommend this Internship to other students in future	11	9	6	0	2	3.96
						3.79

Name of Module: **MATLAB**
No. of students: 25
Faculty Coordinators: Dr.Ashish Gupta (Electronics Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	12	9	4	0	0	4.32
The lecture sequence was well planned	16	7	2	0	0	4.56
The teaching aids effectively used	11	12	2	0	0	4.36
The course exposed to practical exercises	12	9	4	0	0	4.32
I have better understanding of concepts, theories and skills during my Internship	11	2	1	0	1	4.46
The Level of the module course is	5	11	9	0	0	3.84
The work I performed are challenging and stimulating	5	16	3	0	1	3.96
This Internship help me to grow professionally	12	7	6	0	0	4.24
I would recommend this Internship to other students in future	13	11	1	0	0	4.48
						4.28

Name of Module: **Mechanical testing and measurement**
No. of students: 16
Faculty Coordinators: Prof. Ajay Rajput (Mechanical Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	7	6	3	0	0	4.25
The lecture sequence was well planned	7	5	2	0	2	3.93
The teaching aids effectively used	7	5	4	0	0	4.18
The course exposed to practical exercises	7	7		0	0	4.50
I have better understanding of concepts, theories and skills during my Internship	6	8	2	0	0	4.25
The Level of the module course is	2	6	8	0	0	3.62
The work I performed are challenging and stimulating	4	10	1	0	1	4.00
This Internship help me to grow professionally	7	9	0	0	0	4.43
I would recommend this Internship to other students in future	5	8	1	0	2	3.87
						4.11

Name of Module: **Microprocessor and interfacing technique**
No. of students: 16
Faculty Coordinators: Prof. Vikas Sejwar (CSE/IT)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	11	1	2	1	1	4.25
The lecture sequence was well planned	9	5	2	0	0	4.43
The teaching aids effectively used	9	5	2	0	0	4.43
The course exposed to practical exercises	8	6	1	0	1	4.25
I have better understanding of concepts, theories and skills during my Internship	8	5	2	0	1	4.18
The Level of the module course is	2	7	5	0	2	3.43
The work I performed are challenging and stimulating	3	5	7	1	0	3.62
This Internship help me to grow professionally	5	6	3	0	2	3.75
I would recommend this Internship to other students in future	7	3	6	0	0	4.06
						4.04

Name of Module: **O.S. Installation and working**
No. of students: 18
Faculty Coordinators: Dr.Rahul Dubey (Electronics Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	7	3	6	1	1	3.77
The lecture sequence was well planned	9	3	5	0	1	4.05
The teaching aids effectively used	7	7	2	1	1	4.00
The course exposed to practical exercises	6	3	5	1	3	3.44
I have better understanding of concepts, theories and skills during my Internship	7	5	5	1	0	4.00
The Level of the module course is	5	4	5	0	4	3.33
The work I performed are challenging and stimulating	5	7	4	0	2	3.72
This Internship help me to grow professionally	4	6	4	2	2	3.44
I would recommend this Internship to other students in future	6	5	5	2	0	3.83
						3.73

Name of Module: **PCB designing and circuit wizard**
No. of students: 27
Faculty Coordinators: Dr.Vikas Mahor (Electronics Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	19	7	0	0	1	4.59
The lecture sequence was well planned	17	9	0	0	1	4.51
The teaching aids effectively used	20	5	1	1	0	4.62
The course exposed to practical exercises	18	8	0	1	0	4.59
I have better understanding of concepts, theories and skills during my Internship	18	6	2	0	1	4.48
The Level of the module course is	9	11	7	0	0	4.07
The work I performed are challenging and stimulating	14	10	3	0	0	4.40
This Internship help me to grow professionally	16	9	1	0	1	4.44
I would recommend this Internship to other students in future	20	4	2	1	0	4.59
						4.48

Name of Module: Problem solving through Programming
No. of students: 27
Faculty Coordinators: Prof. Shoe Kumar (CSE/IT)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	10	11	5	0	1	4.07
The lecture sequence was well planned	9	9	8	0	1	3.92
The teaching aids effectively used	8	12	4	1	2	3.85
The course exposed to practical exercises	11	7	6	1	2	3.88
I have better understanding of concepts, theories and skills during my Internship	8	11	5	0	3	3.77
The Level of the module course is	3	11	10	1	2	3.44
The work I performed are challenging and stimulating	6	11	7	1	2	3.66
This Internship help me to grow professionally	8	10	7	2	0	3.88
I would recommend this Internship to other students in future	10	9	6	1	1	3.96
						3.83

Name of Module: Repair and maintenance of a vehicle
No. of students: 29
Faculty Coordinators: Dr. Dharmanedra Jain (Mechanical Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	14	11	2	1	1	4.24
The lecture sequence was well planned	9	10	9	1	0	3.93
The teaching aids effectively used	9	10	9	1	0	3.93
The course exposed to practical exercises	17	8	2	1	1	4.34
I have better understanding of concepts, theories and skills during my Internship	14	8	6	1	0	4.20
The Level of the module course is	5	12	9	1	2	3.58
The work I performed are challenging and stimulating	7	13	6	1	2	3.75
This Internship help me to grow professionally	13	9	5	1	1	4.10
I would recommend this Internship to other students in future	12	11	5	1	0	4.17
						4.03

Name of Module: Surveying using total stationed conventional methods
No. of students: 21
Faculty Coordinators: Prof. Shivam Gupta (Civil Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	15	3	1	1	1	4.42
The lecture sequence was well planned	13	4	2	1	1	4.28
The teaching aids effectively used	13	4	2	0	2	4.23
The course exposed to practical exercises	14	2	4	1	0	4.38
I have better understanding of concepts, theories and skills during my Internship	14	4	1	1	1	4.38
The Level of the module course is	8	8	4	1	0	4.09
The work I performed are challenging and stimulating	12	5	2	1	1	4.23
This Internship help me to grow professionally	15	4	1	1	0	4.57
I would recommend this Internship to other students in future	15	2	2	1	1	4.38
						4.33

Name of Module: TV & Motherboard
No. of students: 07
Faculty Coordinators: Dr. Sarthak Singhal (Electronics Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	4	2	1	0	0	4.42
The lecture sequence was well planned	2	3	1	1	0	3.85
The teaching aids effectively used	1	5	1	0	0	4.00
The course exposed to practical exercises	2	3	1	1	0	3.85
I have better understanding of concepts, theories and skills during my Internship	2	2	2	1	0	3.71
The Level of the module course is	3	3	1	0	0	4.28
The work I performed are challenging and stimulating	0	5	1	1	0	3.57
This Internship help me to grow professionally	2	3	1	1	0	3.85
I would recommend this Internship to other students in future	2	3	1	1	0	3.85
						3.93

Name of Module: User Interface Design
No. of students: 20
Faculty Coordinators: Prof. Amit Manjhvar (CSE/IT)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	4	7	2	2	5	3.15
The lecture sequence was well planned	4	8	2	3	3	3.35
The teaching aids effectively used	3	7	4	3	3	3.20
The course exposed to practical exercises	3	10	2	1	4	3.35
I have better understanding of concepts, theories and skills during my Internship	3	8	3	0	6	3.10
The Level of the module course is	2	6	6	2	4	3.00
The work I performed are challenging and stimulating	3	9	6	1	1	3.60
This Internship help me to grow professionally	5	5	8	1	1	3.60
I would recommend this Internship to other students in future	5	8	2	2	3	3.50
						3.31

Name of Module: Utility of Heat transfer in process industry
No. of students: 04
Faculty Coordinators: Dr. Shailendra Kumar Pandey (Chemical Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	2	1	1	0	0	4.25
The lecture sequence was well planned	1	2	0	1	0	3.75
The teaching aids effectively used	1	1	1	0	1	3.25
The course exposed to practical exercises	1	3	0	0	0	4.25
I have better understanding of concepts, theories and skills during my Internship	1	1	1	0	1	3.25
The Level of the module course is	2	1	1	0	0	4.25
The work I performed are challenging and stimulating	1	1	1	0	1	3.25
This Internship help me to grow professionally	1	2	0	0	1	3.50
I would recommend this Internship to other students in future	2	1	0	0	1	3.75
						3.72

Name of Module: Web designing
No. of students: 29
Faculty Coordinators: Prof. Ram Pathak (MCA)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	15	12	2	0	0	4.44
The lecture sequence was well planned	13	6	8	1	1	4.00
The teaching aids effectively used	11	11	7	0	0	4.13
The course exposed to practical exercises	15	13	1	0	0	4.48
I have better understanding of concepts, theories and skills during my Internship	11	10	7	1	0	4.06
The Level of the module course is	4	15	7	1	2	3.62
The work I performed are challenging and stimulating	7	15	7	0	0	4.00
This Internship help me to grow professionally	12	11	4	0	2	4.06
I would recommend this Internship to other students in future	13	10	5	0	1	4.17
						4.11

Name of Module: Working model of water harvesting system
No. of students: 16
Faculty Coordinators: Prof. Nupur Verma (Civil Engineering)
Feedback Report:

	Excellent	V.Good	Good	Poor	V.Poor	Weighted sum
Module Coordinator clearly defines the goals at the beginning of the Internship	12	2	1	1	0	4.56
The lecture sequence was well planned	12	1	2	0	1	4.43
The teaching aids effectively used	11	4	0	0	1	4.50
The course exposed to practical exercises	10	2	4	0	0	4.37
I have better understanding of concepts, theories and skills during my Internship	11	3	1	0	1	4.43
The Level of the module course is	7	4	4	0	1	4.00
The work I performed are challenging and stimulating	10	2	3	0	1	4.25
This Internship help me to grow professionally	10	3	2	0	1	4.31
I would recommend this Internship to other students in future	11	2	1	0	2	4.25
						4.34

ANNEXURE – III

Induction Program

B. Tech./B.Arch. 1st year Students

As per the AICTE guidelines, it has been made mandatory to have at least a 15-day induction program for the newly admitted B. Tech / B. Arch students. MITS Gwalior conducted a 15-day induction program from 16th August to 1st September 2018 for around 930 newly admitted students under various under graduate programs.

Student Induction Program is to help new students adjust and feel comfortable in the new environment, inculcate in them the ethos and culture of the institution, help them build bonds with other students and faculty members, and expose them to a sense of larger purpose and self-exploration.

The events organized under the induction program were as per the schedule attached in the given Annexure.

16 August 2018:

- All the new entrants reported and got registered in their respective departments.
- Inaugural session was addressed by Dr. Rajeev Kansal (Dean, Student Welfare), Dr. Manjaree Pandit (Dean, Academics), Dr. R.K. Pandit (Director,MITS), Er. Ramesh Agrawal (Secretary, ScindiaEngineering Society), Mr. Prashant Mehta (Member, BoG MITS) and Chief Guest Dr. S.G Deshmukh(Director, IIITM).

17 August 2018:

- Due to the unfortunate demise of Ex- Prime Minister Sh. Atal Bihari Vajpayee, the deliberations were postponed to 20th August, Monday.

18 August 2018:

- In the morning session, Diagnostic Test (English)was coordinated by Dr. SanjeevKhanna, Head, Department of Humanities.
- Diagnostic Test (PCM& Computer) was coordinated by Dr. Abhay Mishra, Head, Dept. of Applied Science and Prof. Prabhakar Sharma, I/C Central Computer Centre in the post lunch session.

20 August 2018:

- The HoDs gave a detailed description of the Vision and Mission of the department and also the various activities also being conducted. During their address, the Heads familiarized the students about different procedures to be followed in the department.
- During the afternoon session, the administrative officer of MITS, Er. Shailendra Singh Bhadoria, informed the students about the various facilities and services available to them in the institute.
- Exam Controller of the Institute, Dr. P K Singhal gave a detailed description about the pattern of examination followed at the institute under the guidelines of Rajiv Gandhi ProdyogikiVidyalaya(RGPV), Bhopal.
- Dr. R S Jadon, Proctor of the institute welcomed the students and introduced them to the members of the Proctoral board.
- Chief Warden, Dr.Alok Sharma described the rules and regulations to be followed in the institute hostels. Training & Placement in charge, Mr. Vikram Singh Rajput, informed the students about the activities that would lead to skill development essential for getting good placements.
- The detailed description of Moodle and IMS portal was given by Mr. AtulChauhan and Prof. Rajni RanjanMakwana. Dr. Manish Sagar, Coordinator, NSS informed the students about the activities conducted by NSS. Dr. Sunita Sharma, Prof I/C NPTEL/Swayam informed the

students about the Swayam portal and Prof. Vishal Chaudhary explained about the various facilities provided to students for qualification of GATE.

21 August 2018:

- The session on Tuesday was taken by Ms. SumanYadav, Counselor, ScindiaKanyaVidyalaya. She emphasized on human values and discussed ways to develop them.
- The students were given bridge classes on Physics, Chemistry & Mathematics in order to scale the gap between school level study and in engineering of these subjects from 4:00-5:00 P.M

22 August 2018:

- The newly admitted students were taken for sightseeing in Gwalior where they visited Jai Vilas Palace, GopachalParvat, DB Mall, Gwalior Zoo, Jayendraganj, old High Court and Bada.

23 August 2018:

- The morning session on Thursday was taken by Dr. Mansee Bal Bhargava, (Entrepreneur, researcher, social worker & scientist) where she discussed on various aspects of Social Engineering in life.
- During the post lunch session, the students were given various topics for extempore under the literary activity. Prof. Sachin Singh, DrArti Pipariya, Prof. Bhawna Shrey, Dr. Urvashi Garud & Prof. Umesh Guramwar conducted a discussion on the topic named “Think, Pair, Share”.
- In the later half, the students were given bridge classes on Physics, Chemistry &Mathematics in order to scale the gap between school level study and in engineering of these subjects from 4:00-5:00 P.M.

24 August 2018:

- The students were addressed by Dr. Deepak B Phatak, IIT Bombay, where he spoke on "Building India where dreams come true - journey to an exciting professional career".
- Later, Prof. K. K. Agrawal, (Member BoG, MITS) motivated the students to contribute towards society and develop positive attitude in life.

25 August 2018:

- In the morning session, the students were made to practice various Yoga asanas and Surya namaskar and informed about the necessity of a healthy body, mind and soul.The program was conducted by Dr.Anjula Gaur & Dr. Namrata Singh.
- In the afternoon session, Dr. Manish Sagar, NSS Coordinator, guided and motivated the studentsfor a tree plantation drive across the campus. He emphasized on the importance of this activity.

27 August 2018:

- The session on Monday was taken by Ms. Suman Yadav, Counselor, Scindia Kanya Vidyalaya. She emphasized on stress management and discussed ways of reducing & managing stress.
- In the continuation of morning session Ms.Shuchi Mathur, Founder and Director of Ekadha, Lucknow and Ms. Prachi Mittal, HOD Dept. of FoundationDesign, Indian Institute of Art and Design, Delhi were invited to familiarise students with the fundamentals of Design and Creativity. The students were given hands-on activity for the same in the post-lunch session.

28 August 2018:

- Morning session started with the address by Er. Ramesh Agarwal, Secretary, Scindia Engineering Society. He enlightened them about the rich history of the institute and laid stress on the importance of participation in sports & cultural programs along with studies.
- Ms. Shuchi Mathur and Ms. Prachi Mittal continued with the creative arts & design session where they created awareness about the different aspects of design and the abilities of a competent designer.
- Post lunch session was a culmination of literary, creative arts and music activities.

29 August 2018:

- Mr. Ramesh Shrivastava, motivational speaker and alumnus of 1996 batch, spoke on"Value along Motivation" in the morning session. He advised the students to be always positive, irrespective of the situation and adopt a joyful approach while at work.
- Lectures on different modules were conducted for the students through which they were able to get acquainted branches apart from theirs.
- The post lunch session started with the address by Mr. Anupam Tiwari, Founder President, JCI Gwalior Metro, where he emphasized on the significance of Universal Ethical Values.
- Later, the students were briefed about the activities of the Asimov Robotics Club of the institute.

30 August 2018:

- Shri Krishna Das from Akshay Patra Foundation addressed the students during the morning session, where he spoke about the various activities of the Foundation. He also talked about human values and qualities one should acquire for becoming a good student.
- The post lunch session was handled by Dr. Arvind Mittal, MBBS where he enlightened the students about "Health Issues: Beliefs and Myths".
- The students were given bridge classes on Physics, Chemistry & Mathematics in order to scale the gap between school level study and in engineering of these subjects from 4:00-5:00 P.M

31 August 2018:

- A meditation session was conducted by Mr. Sandeep Pradhan, alumnus of the institute, for the students in the morning. He also explained about the importance of meditation for having internal harmony.
- Prof. Vishal Chaudhary, Faculty Coordinator ISTE, briefed the students about the various activities of the ISTE student chapter of the institute.
- Mr. Prashant Mehta, senior IAS, Ex-Director General (Admin) and Member BoG, motivated the students to maintain pace with the rapidly changing world of today. He also emphasized on the improvement of ones thinking skills and the significance of adapting lateral thinking approach.
- Post lunch, the students visited their respective departments where they were familiarized with the faculty, program and lab facilities.

01 September 2018:

- The morning session was organized for information sharing regarding different cells and centers active in the institute. Dr. Sunita Sharma, I/C NPTEL/SWAYAM, provided information related with online courses run by NPTEL and SWAYAM.
- In-charge Central Computer Centre Prof. Prabhakar Sharma represented the various facilities available in the computer centre and the institute premises.
- Cultural Coordinator of the institute, Dr. Manish Dixit, spoke about various cultural clubs and activities running in the institute.
- Dr. Sanjay Tiwari, I/C Value Added Courses, informed the students about the various courses like C++, JAVA, MATLAB, waste water treatment, solid waste management etc meant for value addition of the students.
- Dr. Hari Mohan Dubey, I/C GIANtold about the GIAN portal and various courses available through GIAN.
- Prof. JamvantKumre, I/C PM Special Scholarship Scheme (PMSSS) for J & K students informed the students about this scheme available in the institute.
- Dr. C. S. Malvi, I/C Innovation Cell briefed about practices and projects at MITS functioning under the umbrella of innovation cell.
- Dr. Akhilesh Tiwari, I/C Start Up Cell, asked the students to think out of the box and come up with technologically enabled ideas which could be funded under the cell.

- Prof. KuldeepSwarnkar, I/C Summer Internship explained the Summer Internship component of the new flexible scheme incorporated according to AICTE.
- Prof. PrabhakarBhadoria, told about the different programs and activities carried out by the Entrepreneurship Development Cell.
- Later, Dr. R. K. Pandit, Director MITS, addressed the students on various avenues and opportunities available to the first-year students which they can make use of. He motivated the students to build confidence and work on set targets. He informed them about the Open Dialogue session. He advised the students to learn from the failures and develop passion for their profession. He also stated that a teacher is a mere facilitator of knowledge.
- The induction program got concluded with the evaluation of students' knowledge acquired during the induction program followed by the feedback session.

Amul

AKSHAYA PATRA
The Problem
The Mission
The Action
To Feed 5 Million Children by 2020

MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE, GWALIOR

(A Govt. aided UGC Autonomous NAAC Accreditated Institute Affiliated to RGPV, Bhopal)

No. 2694 **Date: 08.08.2018**

ORDER

The Induction Program for newly admitted first year B. E./B.Arch. students is being organized in the Institute from 16th August to 1st Sept. 2018. Following committees are constituted to coordinate the various events being organized at institute and department level.

Program Coordination Committee

1. Dr. Rajeev Kansal, Dean Student Welfare
2. Dr. Manish Dixit
3. Dr. Sanjeev Khanna
4. Dr. Anjula Gaur
5. Dr. Anjali Patil

Note: All First year Class Co-ordinators are required to be present.

Schedule of Induction Program

DATE : 16 August 2018		
Time	**Events**	**Event Coordinators**
10:00 a.m. -1:00 pm	All new entrants will report to desk of respective department in the porch of the institute. Students will occupy seats in Student Activity Centre, Conference Hall, Central Computer Centre and Conclave Centre. Interested parents will be seated in L series and shall watch the program live.	**Registration committee** 1. Dr. Rekha Gupta 2. Dr. Saurabh Bhattacharya 3. Dr. Angad Singh Ojha 4. Prof. J. K. Muthele 5. Mr. Rustam Singh 6. Mr. M.D.Gaur **Technical Committee** **(16 Aug. to 01 Sept. 2018)** 1. Prof. Prabhakar Sharma 2. Shri Atul Chauhan 3. Mr. Santosh Sharma 4. Mr. Deepak Soni 5. Mr. Rajesh Tomar 6. Mr. Sanjay Aarolia 7. Ms. Priyanka 8. Mr. D. Waris
2:00 - 4:00 p.m.	Inaugural Session - Address by: • Dean, Student Welfare • Dean, Academic • Director, MITS • Guests	 Dr. Rajeev Kansal Dr. Manjaree Pandit Dr. R.K. Pandit
4.00- 5.00 p.m.	Interaction with Parents	
DATE : 17 August 2018		
10:00 am -1:00 pm	Know Your Institute - Information will be provided by :	
	i) Administrative Officer	Er. Shailendra S. Bhadoria
	ii) Controller Exams & Chairman Library	Dr. P.K.Singhal
	iii) Chief Warden	Dr. Alok Sharma
	iv) Proctor	Dr. R.S.Jadon
	v) IMS Coordinator	Prof. R.R. Makwana
	vi) I/C MOODLE	Sh. Atul Chauhan
	vii) Prof. I/C NPTEL/Swayam	Dr. Sunita Sharma
	viii) Prof. I/C International Affairs	Dr. R.K. Gupta
	ix) Coordinator - NSS & Liason officer (SC/ST Cell)	Dr. Manish Sagar
	x) I/C NCC & Sports	Dr. B.P.S.Bhadoriya
	xi) Prof. I/C CCC & EDC	Prof. Prabhakar Sharma
	xii) Cultural Co-ordinator	Dr. Manish Dixit

DATE : 31August 2018		
10:00 a.m. -1:00 pm	Discussions & Finalization of Presentations (within each group)	Coordinated by – All First year Class Co-ordinators
2.00 pm - 5.00 pm	Program Report by each group & Feedback	
DATE : 01 September 2018		
10:00 a.m. -1:00 pm	Test of Creative Art	Coordinated by - Creative Art & Universal Human Value Team.
2.00 pm - 5.00 pm	Test of Universal Human Value	
Other Events		
6:30 am-7:15 am (daily)	Mild exercise/Yoga session for hostlers	Coordinated by – Prof. Vishal Chaudhary Dr. Vijay Bhuria Dr. Anjula Gaur
5.15 pm- 6.30 pm(daily)	Games	Coordinated by – Dr. B.P.S.Bhadoria
8.30 – 9.30 pm (on alternate days)	Informal interaction in first year hostels	Coordinated by – As per order
Stage Management & Compeering		
Daily as per schedule		Dr. Manish Dixit Dr. Anjula Gaur Dr. Anjali Patil Dr. Sunita Sharma Dr. Saurabh Bhattacharya Prof. Sufia Azim Prof. Bhawna Shrey

Regular Classes will commence from Tuesday , 04th September 2018.

(**Dr. R. K. Pandit**) 8.8.18
Director

Copy to:

1. Concerned faculty/staff member of the committees
2. All First year Class Co-ordinators
3. All Deans/HODs/ Section Incharge
4. Establishment
5. Registrar
6. Director office

ANNEXURE – IV

Programme Name : B.E./B.Tech.

Civil Engineering

Programme Outcomes		Attainment		Overall
		Direct	Indirect	
PO1	Graduates will be able to apply knowledge of mathematics, science & design principles to solve the problems in civil engineering.	57.95	83.28	65.55
PO2	Graduates will be able to identify, formulate and analyse engineering problems with substantial conclusions using analytical tools appropriate to civil engineering.	57.36	82.95	65.04
PO3	Graduates will be able to design civil engineering systems within realistic constraints to meet desired needs of economy, environment, society, health and safety.	55.02	80.66	62.71
PO4	Graduates will be able to conduct investigations of complex problems by use of research based knowledge & methods including experimentation, interpretation of data & synthesis of information to provide valid conclusion.	57.95	79.67	64.46
PO5	Graduate will be able to use the technical skills and modern engineering / computational tools for broadly defining engineering activities.	55.02	83.61	63.59
PO6	Graduate will be able to assess safety & legal issues and the consequent responsibilities relevant to the professional civil engineering practice.	48.98	77.70	57.60
PO7	Graduates will be able to understand the impact of the professional civil engineering solutions in relation to societal needs, environmental concern & sustainable development.	46.59	80.98	56.91
PO8	Graduates will be able understand the importance of professional ethics and norms of civil engineering practice.	46.07	85.25	57.82
PO9	Graduates will be able to function effectively as a member or leader in diverse teams.	55.85	81.64	63.59
PO10	Graduates will be able to communicate effectively with engineering community and society at large by being able to comprehend and write effective reports, prepare documentation and make effective presentation.	48.82	79.67	58.08
PO11	Graduates will be able to demonstrate knowledge of management and financial principles to civil engineering projects.	38.20	82.62	51.53
PO12	Graduates will be able to engage in lifelong learning & adapt to rapid changes in civil engineering and its allied areas.	54.04	84.92	63.31
PSO1	Graduates will be able to evaluate the use of codal provisions like IRC, IS, NBC, CPHEEO manuals for planning & designing of civil infrastructures.	55.40	81.31	63.17
PSO2	Graduates will be able to understand uncertainty & risk of the project during critical decision making and subsequently mitigate the uncertainty.	48.29	79.67	57.70

Programme Educational Objectives		Attainment		Overall
		Direct	Indirect	
PEO1	Graduates of the programme will excel in technical & professional career by acquiring knowledge in civil engineering.	47.95	74.79	56.00
PEO2	Graduates of the programme will analyse real world problems and design civil engineering systems by adopting & practising solutions that are technically sound, in line with advanced technologies, economically feasible & socially acceptable.	55.77	75.24	61.61
PEO3	Graduates of the programme will exhibit professionalism, ethical attitude, effective communication skills & team work spirits	48.45	74.79	56.35

Mechanical Engineering

Programme Outcomes		Attainment		Overall
		Direct	Indirect	
PO1	Graduates will be able to apply knowledge of mathematics and science in mechanical systems	50.81	71.76	61.29
PO2	Graduates will be able to identify, formulate and solve mechanical related engineering problems.	45.26	77.44	61.35
PO3	Graduates will be able to design mechanical system, components or processes that meet the specified needs of society.	45.20	74.87	60.03
PO4	Graduates will be able to design and conduct experiments on mechanical systems, as well as to analyse and interpret data.	38.50	72.31	55.40
PO5	Graduates will be able to apply the techniques, skills and modern engineering tools necessary for engineering projects.	42.58	73.33	57.96
PO6	Graduates will be able toutilize the engineering practices, techniques, skills to meet needs of the health, safety, legal, cultural and societal issues.	40.69	75.38	58.04
PO7	Graduates will be able to understand impact of engineering solutions in the societal context and demonstrate the knowledge for sustainable development.	43.03	77.95	60.49
PO8	Graduates will be able to apply ethical principles and commit to professional ethics and responsibility and norms of the engineering practice.	42.83	71.28	57.06
PO9	Graduates will be able to function on multi-disciplinary teams as a team member/leader and create user friendly environment.	45.03	71.79	58.41
PO10	Graduates will be able to communicate effectively in both verbal and written form.	44.05	69.23	56.64
PO11	Graduates will be able to provide leadership in managing complex engineering projects at multi-disciplinary environment and to become a professional engineer.	40.69	73.33	57.01
PO12	Graduates will be able to recognize the need and will be able to engage in lifelong learning to keep abreast with technological changes.	46.33	71.79	59.06
PSO1	Graduates will be able to acquire self-learning abilities and imbibe technical skills to become Technocrats and Entrepreneurs and develop attitude to work on emerging fields and pursue higher education.	45.49	68.21	56.85
PSO2	Graduates will learn managerial skills to work effectively in a team and in a society by adopting ethical and environmental practices.	44.29	68.72	56.51

Programme Educational Objectives		Attainment		Overall
		Direct	Indirect	
PEO1	To have successful technical and professional career.	50.94	83.38	60.67
PEO2	Develop attitude of lifelong learning to make graduate adaptable to ever changing dynamic industrial & social environment	57.15	83.51	65.06
PEO3	Design mechanical system by using skills & knowledge of core competency along with allied engineering skill	59.73	82.86	66.67
PEO4	Undertake interdisciplinary research in the societal technological area like environment & sustainability by inculcating professional, ethical value, teamwork, leadership, communication & managerial skill	57.77	83.51	65.49

Electrical Engineering

Programme Outcomes		Attainment		Overall
		Direct	Indirect	
PO1	Graduates will be able to demonstrate knowledge of Electrical Engineering and basic science subjects Mathematics, Physics, Chemistry and Engineering discipline.	54.26	56.10	54.81
PO2	Graduates will be able to identify, formulate, and solve Electrical Engineering problems.	52.14	65.97	56.29
PO3	Graduates will get the ability to design electrical power system/ component to meet desired needs within realistic constraints.	51.03	60.78	53.96
PO4	Graduates will be able to use research based knowledge and research methods to model, analyze and interpret electrical systems and conduct experiments according to variable input data and hence effectively contribute towards problem solving.	46.07	67.53	52.51
PO5	Graduate will be able to use latest techniques / modern engineering tools like virtual instrumentation: Lab View, MATLAB, PLC/SCADA necessary for engineering practice.	47.60	60.78	51.55
PO6	Graduate will be able to understand the impact of the professional Engineering solutions in societal contexts, and demonstrate the knowledge of, and the need for society developments.	41.32	65.45	48.56
PO7	raduates will be able to appreciate the impact of industrial activities on global warming and finding the sustainable technical solutions through independent and reflective learning.	48.31	64.68	53.22
PO8	Graduates will be able to fullfill the assigned responsibilities with professionalism and ethical conduct.	45.34	67.01	51.84
PO9	Graduates will get the ability to undertake project in emerging areas to function effectively as an individual, and as a member or leader in diverse team	46.60	67.79	52.96
PO10	Graduates will be able to communicate effectively in both oral and written form.	46.34	69.61	53.32
PO11	Graduates will be able to manage projects and finance working in multidisciplinary environments as member/leader of a team.	50.78	72.21	57.21
PO12	Graduates will be able to acquire the aptitude to constantly update themselves with changing technological environments and needs.	45.44	70.91	53.08
PSO1	Graduates will be able to acquire self learning abilities and motivation to imbibe advances in their chosen fields.	47.63	68.05	53.76
PSO2	Graduates will be able to develop awareness of latest technological developments, proficiencies in communication & interactive learning skills.	44.87	65.71	51.13

Programme Educational Objectives		Attainment		Overall
		Direct	Indirect	
PEO1	Graduates of the programme will have successful technical and professional careers	46.67	83.38	57.68
PEO2	Graduates of the programme will continue to learn and adapt in a world of constantly evolving technology	52.40	83.51	61.74
PEO3	Graduates of the programme will be able to apply, analyze, design and create products and solutions for real life Electrical Engineering problems	53.03	82.86	61.98
PEO4	Graduates of the programme will be able to manage projects catering to current societal and industrial needs in an ethical manner working as members/leaders of multidisciplinary teams	52.67	83.51	61.92

Electronics Engineering

Programme Outcomes		Attainment		Overall
		Direct	Indirect	
PO1	Graduates will be able to demonstrate knowledge of Mathematics, Science and Engineering in field of Electronics and Telecommunications.	53.05	79.29	60.92
PO2	Graduates will be able to identify, design, formulate, and solve Electronics and Communication Engineering based design problems and experiments, as well as able to analyze& interpret the concepts.	47.32	81.00	57.42
PO3	Graduates will get the ability to design a System, Component, or Process to meet desired needs with in realistic constraints.	47.17	77.14	56.16
PO4	Graduates will be able to use research based knowledge and research methods to model, analyze and interpret electronics devices and circuits & conduct experiments according to variable input data and hence contribute towards problem solving.	42.09	80.56	53.63
PO5	Graduate will be able to Create, select, and apply appropriate techniques, resources, and modern engineering and soft computing tools like CST, Lab view, NS2, MULTISIM & MATLAB including prediction and modeling to complex engineering activities with an understanding of the limitations.	45.34	75.50	54.39
PO6	Understand the impact of the professional engineering solutions in societal contexts, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice	34.24	79.05	47.68
PO7	Graduates will be able to appreciate the impact of industrial activities on environmental issues and finding the sustainable technical solutions through independent and reflective learning.	46.61	80.51	56.78
PO8	Graduates will be able to acquire professional and ethical responsibilities	36.51	79.55	49.42
PO9	Graduates will get the ability to undertake project in emerging areas of Electronics to function effectively as an individual, and as a member or leader in diverse team, and in multidisciplinary group.	42.55	82.44	54.52
PO10	Graduates will be able to communicate effectively in both oral and written form.	39.66	81.58	52.24
PO11	Graduates will be able to understand the importance of financial and manergial aspects in power system infrastructure development.	49.00	83.50	59.35
PO12	Graduates will be able to acquire skills and ability for independent and life - long learning.	47.84	81.03	57.80
PSO1	Graduates will be able to clearly understand the basic concepts and applications in the field of Electronics/ Electronics & Telecommunication Engineering and to apply them in various areas, like Electronics, Communications, Signal processing, VLSI, Embedded systems etc., in the design and implementation of complex systems.	47.80	80.00	57.46
PSO2	Graduates will be able to formulate, plan, administrate and execute projects in the various field of Electronics/ Electronics Telecommunication Engineering viz. digital and analog electronics, telecommunication and control areas etc.	47.43	81.40	57.62

Programme Educational Objectives		Attainment		Overall
		Direct	Indirect	
PEO1	Graduates of the program will be successful global collaborators with thriving technical and professional careers in the field of Electronics and Communication Engineering	41.30	74.77	51.34
PEO2	Graduates will have the ability to adapt latest technologies to contribute for sustainable development of society with effective research and entrepreneurship attitude.	38.70	74.82	49.54
PEO3	Graduates will have the teamwork, professional excellence, communication, and interpersonal skills to enable them to work effectively with interdisciplinary teams in Industry, Government, and Academia.	39.35	75.24	50.11

Computer Science &Engineering

Programme Outcomes		Attainment		Overall
		Direct	Indirect	
PO1	Graduate will be able to apply the knowledge of fundamental concepts of science, mathematics and engineering field to solve computer science and engineering problems.	50.83	78.14	59.03
PO2	Graduate will be able to demonstrate analytical, logical and problem solving skills.	43.73	80.47	54.75
PO3	Graduate will be able to design, develop, test and debug the computer based system, program, process, or component to meet the specified requirements.	35.71	78.14	48.44
PO4	Graduate will be able to identify, formulate and analyze complex computer science and engineering problems by designing experiments and analysis & interpretation of data.	40.29	80.47	52.35
PO5	Graduate will be able to use current techniques, skills and IT tools necessary for computing practice.	34.63	80.47	48.38
PO6	Graduate will be able to analyze the impact of computing on individual, organization, society and environment.	29.53	80.00	44.67
PO7	Graduate will be able to understand and assess cross culture, societal, professional, legal issues as it pertain to computer engineering.	39.11	80.47	51.52
PO8	Graduate will be able to understand the impact of issues pertaining to ethics in computing.	34.39	81.82	48.62
PO9	Graduate will be able to work individually, as a team member or a leader in multidisciplinary teams.	40.60	82.79	53.26
PO10	Graduate will be able to effectively communicate technical information by preparing design documents, writing technical reports and making presentations.	48.32	79.53	57.68
PO11	Graduate will be able to design, develop, test and debug the project within realistic economic constraints and in multidisciplinary environment.	35.70	80.00	48.99
PO12	Graduate will be able to acquire continuing education and for lifelong learning.	48.06	80.00	57.64
PSO1	Graduate will be able to exhibit analytical & logical skills and apply knowledge of Computer Science to design, develop, test and maintenance of software solutions.	42.10	80.00	53.47
PSO2	Graduate will be able to identify, formulate and resolve real life/social problems by using current computer technology.	44.77	80.95	55.62

Programme Educational Objectives		Attainment		Overall
		Direct	Indirect	
PEO1	Work productively as Information Technology professional including supportive and leadership roles on multidisciplinary teams.	53.34	74.79	59.78
PEO2	Communicate effectively, recognize and incorporate societal needs and constraints in their professional endeavors with high regard to legal and ethical responsibilities.	51.24	75.24	58.44
PEO3	Engage in life-long learning to remain current in their profession and be ready to undertake challenging problems.	51.48	73.25	58.01

Chemical Engineering

Programme Outcomes		Attainment		Overall
		Direct	Indirect	
PO1	Engineering knowledge: Apply basic knowledge of science and engineering for solving a multidisciplinary problem.	51.55	67.69	56.39
PO2	Problem analysis: Identify, formulate and analyze the complex chemical engineering problems using the first principles of natural science, mathematics and engineering science	46.77	78.46	56.28
PO3	Design/development of solutions: Design and conduct experiments safely and to develop a process that meets desired specifications with consideration of environmental, safety, economic and ethical criteria.	38.62	73.85	49.19
PO4	Conduct investigations of complex problems: conduct independent research, analyze and interpret the data to arrive at the valid conclusion on the basis of extensive literature review.	30.97	70.77	42.91
PO5	Modern tool usage: Develop the skills and engineering tools necessary for complex chemical engineering problem analysis.	33.31	75.38	45.94
PO6	The engineer and society: Exhibit understanding of societal and environmental issue relevant to professional engineering practice.	27.17	80.00	43.02
PO7	Environment and sustainability: Interpret the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.	28.36	75.38	42.47
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.	25.97	76.92	41.26
PO9	Individual and team work: Organize effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.	29.72	78.46	44.34
PO10	Communication: Plan effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.	36.40	75.38	48.09
PO11	Project management and Finance: Relate most recent financial aspects with professional activities and show expertise in undertaking projects with effective control over finance and time.	27.61	73.85	41.48
PO12	Life-long learning: Recognised the need for continuous lifelong learning and be aware of latest development in the area of Chemical Engineering.	39.74	81.54	52.28
PSO1	Apply computational and simulation tools to solve chemical engineering problems, design and optimize chemical processes.	38.59	69.23	47.78
PSO2	Design Unit Operations and Unit processes to solve engineering problems using basic principles and methods and exhibit proficiency in applying technology to industry, society and environmental concerns.	39.82	76.92	50.95

Programme Educational Objectives		Attainment		Overall
		Direct	Indirect	
PEO1	Develop innovative products and services in the field of Chemical Engineering and Allied Engineering disciplines.	30.43	74.79	43.73
PEO2	Make use of Chemical Engineering with modern experimental and computational skills in higher education and research.	38.19	75.24	49.31
PEO3	Demonstrate professional excellence, ethics, soft skills and leadership qualities.	42.74	73.25	51.89
PEO4	Internalize lifelong learning according to changing professional and societal needs.	42.58	75.24	52.38

Biotechnology

Programme Outcomes		Attainment		Overall
		Direct	Indirect	
PO1	Graduates will be able to demonstrate knowledge of Biotechnology, Engineering Science (Physics, Chemistry and Mathematics) and Life Science subjects	43.36	57.14	47.49
PO2	Graduates will be able to identify, diagnose, formulate and solve Healthcare, Environmental, Food, Agricultural and related problems	41.99	66.67	49.39
PO3	Graduates will be able to design Biological products and provide services for Academics, Research and Industrial needs	40.53	61.90	46.94
PO4	Graduates will be able to investigate the complex multi variable problems in Biochemistry, Molecular Biology, Bioprocess Engineering, Food Engineering, etc	37.65	66.67	46.36
PO5	Graduates will be able to handle Bio-instrumentation Softwares, Computational Softwares (AutoDock and GROMACS), Bioinformatics Tools (Sequence Alignment and Phylogenetic Tools), Bioprocess Simulation Tools (SIMULINK), etc	39.02	64.29	46.60
PO6	Graduates will be able to demonstrate, explain and contribute to the solution of societal problems using Biotechnology	34.22	61.90	42.53
PO7	Graduates will be able to identify, interpret and solve Environmental problems using Sustainable Bio-techniques	35.52	66.67	44.86
PO8	Graduates will be able to acquire and practice various Bioethics & Professional Ethics	34.84	61.90	42.96
PO9	Graduates will be able to undertake and accomplish Individual Tasks as well as Group Activities by involving in Projects, Internships and Group Discussions	35.87	64.29	44.39
PO10	Graduates will be able to communicate effectively in both oral and written forms	42.28	66.67	49.60
PO11	Graduates will be able to explain the importance of financial and managerial aspects	40.42	66.67	48.29
PO12	Graduates will be able to acquire skills & abilities for Life Long Learning	45.07	59.52	49.41
PSO1	Graduates will be able to plan and apply skills of Microbiology, Biochemistry, and Environmental Engineering	45.10	57.14	48.71
PSO2	Graduates will be able to demonstrate ideas and skill in Bioinformatics, food biotechnology and Drug Design	42.82	66.67	49.98

Programme Educational Objectives		Attainment		Overall
		Direct	Indirect	
PEO1	Graduates of the program will be able to apply knowledge of Biotechnology as an individual or in a team to excel in higher studies, research, teaching and industry.	47.72	74.79	55.84
PEO2	Graduates of the program will be able to analyse societal problems and find solutions with social and ethical responsibilities via bioengineering skills.	45.66	75.24	54.54
PEO3	Graduates of the program will be able to engage in lifelong learning with knowledge of contemporary issues related to applied or allied biotechnology disciplines.	47.70	73.25	55.36

Master of Computer Application

Programme Outcomes		Attainment		Overall
		Direct	Indirect	
PO1	Graduates will get the ability to identify, formulate, and design computer programs/ applications upto the desired needs within realistic constraints.	47.90	74.44	55.86
PO2	Graduates will be able to use research based knowledge and research methods to model, analyze and interpret computer problems and design programs according to variable input data and hence effectively contribute towards problem solving.	42.26	68.33	50.08
PO3	Graduate will be able to use latest techniques/languages like Unix, MATLAB, PHP, .NET, servers for application development practice.	42.44	72.22	51.38
PO4	Graduate will be able to understand the impact of the professional computer application solutions in societal contexts, and demonstrate the knowledge of, and the need for society developments.	42.37	74.44	51.99
PO5	Graduates will be able to appreciate the impact of industrial activities on eco-friendly software development and finding the sustainable technical solutions through independent and reflective learning.	39.65	74.44	50.09
PO6	Graduates will be able to acquire professional and ethical responsibilities.	43.73	80.00	54.61
PO7	Graduates will get the ability to undertake project in emerging areas to function effectively as an individual, and as a member or leader in diverse team	41.84	79.44	53.12
PO8	Graduates will be able to communicate effectively in both oral and written form.	44.23	81.67	55.46
PO9	Graduates will be able to understand the importance of financial and managerial aspects in software development.	41.04	73.89	50.89
PO10	Graduates will be able to acquire skills and ability for life-long learning.	43.24	83.89	55.44
PSO1	Graduates will be able to do complete end-to-end business analytics to derive the comprehensive software solutions.	41.33	69.44	49.76

Programme Educational Objectives		Attainment		Overall
		Direct	Indirect	
PEO1	Graduates of the program will be successful global collaborators with thriving technical and professional careers in the field of Computer Applications.	53.19	74.79	59.67
PEO2	Graduates will have the ability to adapt latest technologies to contribute for sustainable development of society with effective research and entrepreneurship attitude.	50.61	75.24	58.00
PEO3	Graduates of the programme will be able to apply, analyze, design and create products and solutions for real life computer applications	52.40	73.25	58.66
PEO4	Graduates will have the teamwork, professional excellence, communication, and interpersonal skills to enable them to work effectively with interdisciplinary teams in Industry, Government, and Academia.	53.52	75.24	60.04

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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GATE Report

- With reference to notice number 719 dated 07.08.2018, regarding free **In-house GATE Training**, following are the number of students of pre-final & final year students submitted the application form to respective GATE coordinator of Department.

Branch	III Year	IV Year	Total
Mechanical	47	20	67
EC	80	75	155
Electrical	78	42	120
CSE	46	39	85
IT	34	27	61
Civil	63	59	122
Chemical	34	44	78
Biotech	10	6	16
Grand Total	392	312	704

- The M/S GATE ACADEMY, Bangalore may be permitted to place the order for providing the services for the In-House GATE training as per the terms & condition of quotation.

- **Instructions:**

➢ The training in each discipline shall be as follows OR may be decided by the Institute as per requirement

- Electrical Engineering : 350 Hrs
- Mechanical Engineering : 350 Hrs
- Electronics Engineering : 300 Hrs
- Civil Engineering : 300 Hrs
- CSE & IT Engineering : 350 Hrs
- Chemical Engineering : 300 Hrs
- Biotech Engineering : 300 Hrs

➢ The training shall be conducted during weekdays and weekends as per given schedule in the institution for pre-final year and final year students OR (Summer/Winter Vacation/any other schedule convenient to Institution)

Weekdays- Evening	3 Hours daily
Weekends and Holidays	9 Hours

ANNEXURE – VI

The reports received from the following Departments for the listed courses are available in File.

Report on Result Analysis and Future Corrective Actions (April-May 2018)

S. No.	Course Code	Name of Course	Pass	Total	Pass %		
					June '18	**June, '17**	**Dec '17**
1	100101	Engineering Chemistry	489	414	84.66	87.05	61.7
2	100102	Engineering Mathematics-I	489	424	86.71	71.79	78.92
3	100201	Engineering Physics	375	311	82.93	96.7	96.98
4	100205	Basic Civil Engg. & Mechanics	375	336	89.6	—	87.3
5	100105	Engineering Graphics	489	413	84.46	87.19	68.12
6	100203	Basic Computer Engineering	375	326	86.93	-	87.90
Department of Civil Engineering					**June '18**	**June, '17**	
7	BCEL402	Fluid Mechanics - I	147	126	85.71	94	
8	BCEL403	Environmental Engg. I	152	121	79.61	86	
Department of Mechanical Engineering					**June, '18**	**June, '17**	
9	BMEL404	Fluid Mechanics	136	114	83.82	90	
10	MEL803	Refrigeration & Air Conditioning	128	124	96.88	99.26	
Department of Automobile Engineering					June '18	June, '17	
11	BAUL 404	Fluid Mechanics	65	39	60	59	
Department of Electrical Engineering					**June '18**	**June, '17**	
12	BEEL402	Electrical Machines - I	146	121	82.88	97	
13	BEEL603	Power Electronics	125	97	77.6	78.52 (EEL602)	
S.No.	**Subject Code**	**Name of subject**	**Pass**	**Total**	**Pass %**		
Department of Electronics Engineering					**June '18**	**June, '17**	
14	BELL404	Network Synthesis and Filter Design	140	120	85.71	85	
15	BELL405	Signal and Systems	140	123	87.86	86	
16	BELL602	Digital Signal Processing	122	104	85.25	86.47	
17	BELL603	Data Communication	122	104	85.25	87.22	
18	ELL803	TV and Radar Engineering	129	121	93.8	100	
19	ELL804	Neural Networks and Fuzzy System	129	121	93.8	100	

Department of Electronics & Telecommunication Engineering					**June, '18**	**June, '17**
20	BETL402	Electronics II	47	41	87.23	95
21	BETL403	Analog Communication	47	42	89.36	87
22	BETL404	Network Synthesis and Filter Design	47	40	85.11	93
23	BETL603	Data Communication	57	49	85.96	--
Department of Computer Science & Engineering					**June, '18**	**June, '17**
24	BCSL404	Computer Networks	146	110	75.34	81
Department of Information Technology					June, '18	June, '17
25	BITL402	Design & Analysis of Algorithms	72	60	83.33	91
26	BITL404	Computer Networks	72	61	84.72	93
Department of Chemical Engineering					**June, '18**	**June, '17**
27	BCHL403	Mass Transfer - I	56	50	89.29	88
28	BCHL404	Process Dynamics & Control	56	49	87.5	98
Department of Biotechnology					**June, '18**	**June, '17**
29	BBTL402	Recombinant DNA Technology	9	7	77.78	86

ANNEXURE – VII

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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FACULTY ACHIEVEMENTS RECOGNIZED BY National Programme for Technology Enhance learning (NPTEL)

S.No.	Name	Department	Subject	Performance/ Achievement
1.	Prof. Praveen Bansal	Electrical	Basic Electronics	Mentor & Single point of contact (SPOC)
2.	Prof. Rajni Ranjan Singh Makwana	CSE & IT	Programming, Data Structures and Algorithms using C	Top Performing Mentor
3.	Prof. Madhav Singh	Electronics	Basic Electronics	Top Performing Mentor
4.	Prof. Shyamveer Singh Chauhan	Civil	Electronic Waste Management – Issues and Challenges	Top Performing Mentor
5.	Prof. Sharad Agrawal	Mechanical	Basics of Finite Element Analysis – I	Mentor
6.	Prof. Pooja Mishra	CSE & IT	Programming, Data Structures and Algorithms using C	Mentor
7.	Prof. Deepa Sharma	Electronics	Microprocessors and Microcontrollers	Mentor
8.	Prof. Rahul Anand	Biotech.	Human Molecular Genetics	Mentor
9.	Prof. Sunita Sharma	Biotech.	Introduction to Proteomics	Mentor
10.	Prof. Utkarsh Shrivastava	Mechanical	Steam and Gas Power Systems	Mentor
11.	Prof. Wajid Hussain	Civil	Earth Sciences for Civil Engineering Part I & II	Mentor

STUDENTS ACHIEVEMENTS RECOGNIZED BY NPTEL

S. No	Name of the student	Class/Deptt.	Name of Course	Achievement among top 5 & top 2
1.	Ms.Ashma Parween	Final yr Civil	Electronic Waste Management –Issues and Challenges"	Gold Medal – top 1%
2.	Ms. Monika Khare	Final yr Civil	Electronic Waste Management –Issues and Challenges"	Gold Medal – top 1%
3.	Mr.Mohammad Faizaan Qureshi	III yr. Electronics	Basic Electronics	Gold Medal – top 2%
4.	Mr.Anoop Rathore	Final yr Civil	Electronic Waste Management –Issues and Challenges	top 5%
5.	Mr..Mayank Shakya	Final yr Civil	Electronic Waste Management –Issues and Challenges	top 5%
6.	Mr.Sarthak Somani	III yr. CSE	Programming, Data Structures using Algorithm in C	top 2%
7.	Mr.Ashutosh	Final yr. Electrical	Matlab Programming for Numerical Computation	top 5%

The following faculty members successfully passed SWAYAM Courses by securing Elite Certificate

S.No.	Name of Faculty	Department	Name of Course	Achievement
1.	Dr. Sunita Sharma	Biotechnology	Introduction to Proteomics	Elite
2.	Prof. Priya Gupta	Architecture	i) Housing Policy& Planning ii) Introduction to Geographic Information Systems	Elite Elite

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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SMART CONTROL SCHOLARSHIP

Minutes of Meeting

Agenda: To discuss modalities for selecting meritorious but financially weaker students (from CSE & Electronics as specified by M/s Smart Controls) for financial sponsorship of tuition money from M/s Smart Controls Ltd for the 2017-21 batch

With reference to Letter dated 09/08/2018, a meeting of the following concerned and relevant members was conducted on **16th August 2018** to decide the modalities of selecting meritorious but financially weaker students, one each, from CSE & Electronics departments for financial sponsorship of tuition money from M/s Smart Controls Ltd. The company has asked the Institute to identify the students for support

1. Dean Academics (Dr. Manjaree Pandit)
2. HOD CSE (Dr. Akhilesh Tiwari)
3. HOD Electronics Engg. (Dr. Pramod Kumar Singhal)
4. Dr. Vandana Vikas Thakare, Class Coordinator
5. Prof. Mahesh Parmar, Class coordinator
6. Mr. Atul Chauhan, (Activity coordinator from the Dean Academics Office)

The following points were discussed and approved by the members**.**

(A) Eligibility criteria: (Decided on the basis of letter from Smart Controls)

1. Only II year students are allowed to apply (Computer Science and Electronics).
2. Scholarship is intended to go to someone who demonstrates academic excellence and low economic factors.
3. Only those students are eligible for the scholarship who are not getting any scholarship from any other organization.
4. Eligibility/Document verification will be done in the campus itself.

(B) Schedule

1. The scheme will be announced on-line on MOODLE and students can apply on-line from 23rd -31st August 2018.
2. An application form, which is accessible through MOODLE will be designed by Shri Atul Chauhan.
3. In case of less number of applications, last date will be extended till 4th September 2018.
4. Result will be analysed in the presence of Dean Academics in next meeting on 5th September 2018.
5. Document verification shall be done by the committee on 6th September 2018 and a data sheet will be prepared.

6. Final Result will be handed over to the Dean Academics to be communicated to the agency by 11th September 2018.

A meeting of the committee constituted vide order no 3029 dated 4/9/2018 was conducted in the office of the Dean Academics at 4.0 pm on 5th September 2018.

Agenda of the meeting was to identify/select two candidates (Meritorious but economically weak) for scholarship (Tuition Fee reimbursement) from M/s Smart Controls, Gwalior.

The committee carefully reviewed the on-line applications submitted by II year students of CSE and Electronics. After careful study of the compiled data (enclosed) of 28 applicants the committee resolved that

1. Applicants having more than 75% Academic Grade Point (AGP) (Computed by averaging the marks of X, XII, I Sem & II Sem B.E) should be called for verification of documents provided the annual income of their father is less than Rs. 2.5 Lacs.
2. The candidates should be asked to report on 13th September 2018 at 11.00 am in the Autonomy Cell.
3. The eligible applicants should not have any backlog and should not be getting any other scholarship.

(Atul Chauhan) (Prof. Mahesh Parmar) (Dr. Vandana Vikas Thakare)

(Dr. Akhilesh Tiwari) (Dr. Pramod Kumar Singhal) (Dr. Manjaree Pandit)

Submitted for approval

(Dr. R.K.pandit)
Director

ANNEXURE – IX

CALL FOR PROPOSALS
UNDER
"INNOVATIVE RESEARCH SCHEME– 2018"

An Initiative for Innovative Research Promotion

by

Internal Quality Assurance Cell

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

No. **Date: 30.07.2018**

CALL FOR PROPOSALS UNDER "INNOVATIVE RESEARCH SCHEME– 2018"

The Institute invites Innovative research proposals from faculty members in the prescribed format on various topics under the broad identified thrust areas.

Objective: The objective of the scheme is to utilize the expertise available in the institution to solve industry specific problems for the larger benefit of society.

Support will be given under the "Innovative Research Scheme – 2018" to recognize, encourage and support translational research by individuals to achieve excellence in engineering, innovation and technology development.

The Scheme is aimed at addressing and providing solutions to the most relevant engineering challenges faced by the nation by translating knowledge into viable technology (products or processes) in selected technology domains to enable, empower and embolden the nation for inclusive growth and self-reliance.

Eligibility:

(a) Full time regular faculty of Engineering & Technology Departments of the Institute with research experience and publications.

(c) The preliminary research facilities should be available in the Department.

(d) Only one proposal from one PI (Principal Investigator) will be considered for sanction.

Nature of Proposals to be supported:

The scheme is aimed at supporting ideas that address a well-defined problem of industrial & societal relevance. Routine proposals that address conventional problems and those not related to industry, or with already established approaches are not encouraged. Ideally, the proposal must contain the characteristics of any of the following:

1. Proposals that adopt an innovative approach to solve a problem faced by the industry.
2. Proposals whose outcomes will bring new scientific and technological innovations.
3. Solution driven research that aid technology transfer and commercialization.

Nature & Duration of the Support:

Grant-in-aid, under the "INNOVATIVE RESEARCH SCHEME– 2018" , is available for the research proposals with a time duration of 1 year. The research study will have an average allocation broadly ranging between Rs 1 to 2 lakhs, disbursed in two instalments. Limited extension of time may be granted by the Expert committee after a formal presentation. However, there shall be no financial

enhancement in the initially sanctioned grant amount by Institution. The budget estimates for these proposals are required to be prepared on the basis of following heads of expenditure:

- Expense on characterization of sample of R&D project undertaken by faculty
- Seed grant for research to faculty members to venture into innovative research
- Commercialization of research products
- Patenting of research products
- Travel support (National Level) for attending seminars, conferences, workshops and in Continuing Education Programmes etc. on the same area of Research.
- Travel support (National Level) for industrial visit to explore the joint research.

Selection & Mode of Application:

- Proposals should be made in the prescribed application format as attached. Proposals prepared by the Principal Investigator (PI) should be forwarded by the Head of the Department.
- The proposals can be submitted on or before 29.09.2018 in the office of DIRECTOR, MITS Gwalior in a sealed envelope mentioning the "**PROPOSAL UNDER "INNOVATIVE RESEARCH SCHEME– 2018"**
- The proposal may be jointly submitted by the faculty members as Principal Investigator and the Co-investigator from the same department or interdisciplinary department.
- The selection will be based on scientific and technical feasibility of the proposal, track record of the PI & Co-PI (if any), and commercial/patentability potential.
- The IP generated shall be shared between the investigator(s) and the Institution.

Thrust areas:

(These may include, but are not limited to the following topics):

1. New materials;
2. New production technologies;
3. New testing technologies;
4. Industry and enterprise enhancements and solutions.
5. Sustainability – these include recyclability / renewability / - zero or low environmental impact ;
6. Competitive advantages for industries;
7. Disaster Management
8. Advances for society.
9. Nuclear Engineering and Allied Technologies
10. CAD/CAM, Robotics and Mechatronics
11. Product Design & Development
12. Design & Maintenance
13. Energy Efficiency, Renewable and sustainable Energy, alternative energy modifications.
14. *Environmental* issues
15. Electric and Hybrid Mobility
16. Smart Cities, Housing and Transportation

17. IoT, I2oT and Embedded Systems
18. Nano Science and Technology
19. Big Data, Machine Learning and AI
20. Drug modelling and development
21. Biomedical and Rehabilitation
22. Smart Technologies for Agriculture and Food Industry
23. Water purification, conservation and management
24. Smart Transportation
25. ITeS
26. Modular system designs for habitation
27. Communication Technologies
28. Mini, Micro and Smart Grid Technologies
29. Digital Signal Processing, Soft Computing, Micro-controllers and Applications
30. Power **Electronics**

Expected Outcomes:

- Generation of IP (Patents and copyrights etc.)
- Research papers in high impact indexed journals
- Paper presentation in standard conferences organized by reputed organizations
- Impact on research guidance (M.Tech. dissertations/Ph.D. produced) in the same area
- Development of Industrial Collaborations
- Impact on industrial/societal needs

Any publications or IP arising out of the scheme must clearly mention and acknowledge the support given by the institute under the **INNOVATIVE RESEARCH SCHEME-2018,** both in print as well as on electronic media.

Performance Evaluation

i. The Principal Investigator will submit a Six Monthly Progress Report of the project along with a certified statement of expenditure actually incurred and an estimate of expenditure for the next quarter/six months in the prescribed format. The release of subsequent instalment is subject to satisfactory progress of the work.

ii. For the purpose assessment of the progress report submitted by the Principal Investigator the institute will hold a six monthly review meeting. The next instalment will be released only after the report is found to be satisfactory.

iii. The Six monthly review will be conducted by a duly appointed committee to evaluate the performance.

Procedure for Award & terms & Conditions

i. Research project proposals will be evaluated by an Expert/ Review Committee set up for screening the proposals.

ii. Thereupon, shortlisted proposals will be forwarded to the Expert/ Review Committee which in turn may hold interactive sessions/presentations of the research proposal by the prospective Principal Investigator to discuss the academic and financial details.

iii. All research proposals selected for research grant will be placed before the appropriate authority for final approval.

iv. The formal sanction order will be issued to the Principal Investigator after final approval.

v. Second Instalment subsequent to the first will be released on the basis of the receipt of progress reports, including statement of expenditure incurred on the project. The recommendations of the Committee will be placed before the appropriate authority for final decision.

vi. The said awards will be subject to the provisions for termination of project to be decided by the Expert/ Review Committee, in case the progress report of the grantee will not be found satisfactory.

vii. After completion of the project a **Project Completion Report** must be submitted in the prescribed format..

viii. For all disputes arising in the process of inviting, processing, awarding the research grant, the final decision will remain with Director of the Institute.

ix. The Principal Investigator already having ongoing research projects from any other funding agency shall not be considered unless the ongoing projects are completed.

x. The Principal Investigator has the primary responsibility for the implementation of the project.

xi. Once the project is sanctioned, the Institute shall not consider any request for additional grant.

Above mentioned financial assistance under "IRS-2018" will be provided to deserving faculty members of MITS Gwalior, subjected to the availability of the funds and recommendations of the committee constituted by the Director.

(Dr. R. K. Pandit)
DIRECTOR

Copy to:

a. All Head of the Departments to circulate among faculty members.
b. Dean (Academics)
c. Coordinator IQAC
d. PA to Director
e. Web manager

APPLICATION FORMAT

Section-A

1. Name, Designation & Department of the Principal Investigator:
2. Name, Designation & Department of the Co-investigator:
   (In case the Principal Investigator leaves the Institution or goes on long leave, the Co-Investigator would be allowed to continue with the project, subject to approval of Director of the Institute.)
3. Detail of Principal Investigator:
   a. Email address
   b. Mobile No.:
   c. Date of Joining in the Institute:
   d. Qualification Details:

Degree	Specialization	Institute	Affiliating University	Year of Passing/Award	%/Grade
UG (BE/B.Tech /B.Arch./other)					
PG(ME/M.Tech/ M.Arch./MCA/ other)					
Ph.D.					
	Title:				
Any Other					

e. Teaching Experience at Degree Level as on date of submission of application:

S. No	Name and Address of Employer /Institution	From (Date)	To (Date)	Years-Months	Designation

f. Industrial/ Research Experience as on date of submission of application:

S. N	Name of the Organization	From (Date)	To (Date)	Years-Months	Designation

g. Short Term Courses attended

S. N	Name of the Course & Category	Organizer	Days	From	To

h. Research Papers/Book

S. N	Title of Paper/Book	Name of Author(s)	Name of Journal/Conference	Year	Vol.	Pages

i. Details of Previous project undertaken/ongoing:

S. No.	Name of Scheme	Funding Agency	Amount of grant received	Duration of project	Date of Project Sanctioned	Date of Completion of Project	status

10. Any other information to support the claim of award of project:

Section-B

1. Broad area under which the application is being submitted:
2. Title of the Project:
3. Duration of the Project:
4. Detailed project proposal:
   a) Abstract:
   b) Objectives & relevance of the Research Project:
   c) Research Problem: (Provide a clear and simple description of the research problem)
   d) Detailed methodology:
   e) Year-wise work plan:
   f) Practical relevance/utility of the project (Technical novelty and utility):
   g) Expected and other physical outcomes of the project:
   h) Beneficiaries who can utilize the results of the project:
   i) Commercial feasibility of the project:
   j) Expected/possible patentability of the research outcomes:
5. Total Budget: Amount (INR):
6. Project Budget Estimates:

Sr. No.	Budget Head* (Ex: Equipment/components/Travel/contingency & Consumables)	Item/Activity	Amount	Justification
TOTAL				

* Please refer nature and duration of the support: section in the scheme document

Declaration:

(a) The research work proposed does not in any way duplicate the work already done or being carried out elsewhere on the subject.

(b) The same project work has not been submitted elsewhere for financial support.

(c) I agree to abide by the terms and conditions of INNOVATIVE RESEARCH SCHEME– 2018 & the Institute prescribed from time to time.

(d) I solemnly confirm and verify that the information submitted in respect of this proposal for seeking grant from Institute under Innovative Research Scheme-2018 is true and correct to the best of my knowledge and belief.

(e) In case, at any point of time it is found that information provided in this proposal is false or incorrect, Institute will be at liberty to withdraw the grant given to me and i shall be liable to refund the entire amount of the grant with interest thereon and also liable for any other action that the Institute may deem fit. I also understand that Institute may not consider my future proposal in this circumstance.

Place & Date: Signature of the applicant

Forwarded by

Name & Signature of Head of the Department

ANNEXURE – X

DEPARTMENT OF MECHANICAL ENGINEERING

Date: 31.08.2018

Report on Remedial/ Special Classes (July-Aug. 2018)

Department of Mechanical Engineering is conducting remedial classes on every working Saturday and according to the availability of faculty members.

Time table of session (July- Dec. 2018) is displayed on institute website and departmental notice board with faculty name and mobile number.

Subject wise list of students who have failed in subject is prepared and distributed to concern faculty members.

Attendance of remedial classes is compiling by concern faculty members and at the end of semester they will hand over overall attendance to departmental coordinator.

Impact analysis of previous semester (July-Dec. 2017) remedial classes is already done and found that these classes are very effective for improvement of student's performance.

Following faculty members are engaged in remedial classes during session (July- Dec. 2018).

S.No	Name of Faculty	Subject
1	Dr. M. K. Gaur/Prof. R. P. Kori Prof. V. Chaturvedi/Prof. D. Kasdekar	Engineering Graphics
2	Dr. J. Vimal/Prof. S. Agrawal Dr. A. Aherwar/Prof. V. Agrawal	Basic Mechanical Engineering
3	Prof. U. Shrivastava	Thermodynamics & Thermal Engg.
4	Prof. D. Kushwah	MOM
5	Prof. B. Pandey	Thermal Engg.
6	Prof. Amit soni	Material Science
7	Prof. V. Shivhare	K&DoM
8	Prof. S. Singh	FM
9	Prof. S. Agrawal	MD-I
10	Dr. D. Jain	TOM
11	Prof. S. C. Pal	Thermal Engg.
12	Prof. V. Chaturvedi	Metal Cutting

A subject in which failing percentage of students is more (Engineering Graphics and Fluid Mechanics) is given extra emphasis by faculty for attending classes.

In Month of July- Dec. 2018 average attendance of students who attended the remedial classes is 25-30%. It will increase in remaining semester as the effort/Motivation is continuously made by faculty members.

Electrical Engineering

The status of subject wise remedial classes during **Session July – August 2018 is given below**

S.No	Subject Code	No. of students Failing	No. of the Students Present	No. of classes	Faculty Signature
1.	**100104**	**-**	**01**	**10**	
2.	**100202**	**-**	**00**	**00**	
3.	BEEL301	02	00	00	
4.	BEEL 302	02	00	00	
5.	BEEL 303	01	00	00	
6.	BEEL 305	07	00	00	
7.	BEEL 402	28	00	00	
8.	BEEL 403	06	00	00	
9.	BEEL 404	12	00	00	
10.	BEEL 405	11	00	00	
11.	BEEL 503	01	00	00	
12.	BEEL 505	01	00	00	
13.	BEEL 601	02	00	00	
14.	BEEL 603	23	00	00	
15.	BEEL 605	03	00	00	
16.	BEEL 606	05	00	00	

The time table of remedial classes (on working Saturday's) has been uploaded on institute website containing the names of faculty members along with their contact numbers taking various courses

REMEDIAL CLASSES REPORT OF ARCHITECTURE DEPARTMENT- (July-August 2018)

Till now mentioned below students haven't reported in the classes. They have been contacted and informed about the same.

List of Remedial Classes Students- Architecture Department

S.No.	Name of Student	Enrollment No	Semester	Class	Subject Code	Subject Name
01	Adarsh Malviya	0901AR171001	01	I Year	210106	English
02	Deepam Gurung	0901AR171011	01	I Year	210106	English
03	Deepam Gurung	0901AR171011	02	I Year	210204	Analysis of Structure
		0901AR171011	02	I Year	210205	History of Architecture
04	Abhisek Soni	0233AR151001	04	II YEAR	AR404	Structure-IV
05	Ayush Gour	0901AR1611010	4	II Year	AR404	Structure-IV

NOTE: Student **Mansi Churaisa** failed in(A 411- Design V, A421- Thesis, A422- Adv. Building Construction, A 416- Dissertation, A422- Urban Design, A424- Elective-I)and **Pratima Panth** failed in(A 315- Structure) are on their professional training.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING AND INFORMATION TECHNOLOGY

Date: 31.08.2018

Report on Remedial/ Special Classes (July-Aug. 2018)

Department of Computer Science & Engineering is conducting remedial classes as per following details:

Identification of weaker and fail students in all subjects and prepared time table of remedial class for those subjects in which more students are failure.

BE IT IV Sem

BITL -402 DAA		BITL -403 DBMS		BITL -404 Computer N/W		BITL -405 CSO		Total weaker Student
No. of Students		No. of Students		No. of Students		No. of Students		
Fail	Weak	Fail	Weak	Fail	Weak	Fail	Weak	
12	15	2	4	11	15	7	12	46

BE IT VI Sem

BITL -601 ITC		BITL -602 Mobile Computing		BITL -603 SPM		BITL -604 Compiler Design		BITL -605 N/W & Web Sec.		Total weaker Student
No. of Students		No. of Students		No. of Students		No. of Students		No. of Students		
Fail	Weak	Fail	Weak	Fail	Weak	Fail	Weak	Fail	Weak	
0	1	1	3	0	0	4	5	0	1	13

BE CSE IV Sem

BCSL -402 DAA		BCSL -403 DBMS		BCSL -404 Computer N/W		BCSL -405 CSO		Total weaker Student
No. of Students		No. of Students		No. of Students		No. of Students		
Fail	Weak	Fail	Weak	Fail	Weak	Fail	Weak	
11	19	4	7	37	48	13	17	91

BE CSE VI Sem

BCSL -601 Cloud Computing		BCSL -602 Mobile Computing		BCSL -603 SPM		BCSL -604 Compiler Design		BCSL -605 N/W & Web Sec.		Total weaker Student
No. of Students		No. of Students		No. of Students		No. of Students		No. of Students		
Fail	Weak	Fail	Weak	Fail	Weak	Fail	Weak	Fail	Weak	
1	5	0	1	0	1	4	8	4	7	22

1. Conduction on every working Saturday and as per the availability of faculty members.

2. Time table of session (July- Dec. 2018) is displayed on institute website and departmental notice board with faculty name and mobile number.

3. Attendance of remedial classes is compiling by concern faculty members and at the end of semester they will hand over overall attendance to departmental coordinator.

4. Impact analysis of previous semester (July-Dec. 2017) remedial classes is done and found that these classes are very effective for improvement of student's performance.

5. Following faculty members are engaged in remedial classes and number of classes held during session (July- Dec. 2018).

S. No.	Name of Faculty	Branch	Subject	Total Number of Classes Held	Number of Benefited Students
1	Prof. Namrata Agrawal	B.E. (Computer Science & Engineering)	BCSL 402: Analysis and Design of Algorithm	2	3
2	Prof. Abhilash Sonker	B.E. (Computer Science & Engineering)	BCSL 404: Computer Network	2	6
3	Prof. Dheeraj Gurjar	B.E. (Computer Science & Engineering)	BCSL 405: Computer System Organization	1	1
4	Prof. Namrata Agrawal	B.E. (Information Technology)	BITL 402: Analysis and Design of Algorithm	0	0
5	Prof. Kirti Gaur	B.E. (Information Technology)	BITL 404: Computer Network	0	0
6	Prof. Dheeraj Gurjar	B.E. (Information Technology)	BITL 405: Computer System Organization	0	0

Department of Computer Application

Time table for remedial classes (Session: July-Dec 2018)

S.No	Name of Subject	No. of the Students for the subject	Date of Class	No. of the Student Present In the class	Remark
1	680101 (SAD & Software Engineering)	01	28/07/18	01	
2	MCA405 (Computer Network & Communication)	05	28/07/18	03	
			04/08/18	03	

The time table of remedial classes (on working Saturday's) has been uploaded on institute website containing the names of faculty members along with their contact numbers taking various courses

CIVIL ENGINEERING DEPARTMENT

REPORT OF REMEDIAL CLASSES (JULY – AUG. 2018)

As per the results of the May – June 2018 examination, remedial classes for various courses of B.E. Civil Engineering has been arranged in the current academic session for the students who have failed in those courses. The details are as below:

Course Code & Course Name	Name of the Faculty Member's who will take the Classes along with their Contact No.
100205, Basic Civil Engg. & Mechanics	Mr. Priyank Goyal (903923043) & Mr. Shivam Gupta (8006465755)
BCEL 402, F. M. - I	Mr. Gagan Mudgal (8668274805)
BCEL 403, Env. Engg. - I	Mrs. Sonam Mishra (7415737138)
CEL 502 / 5112/ BCEL 503, Water Resources Engg.	Ms. Nupur Verma (7838081181)
BCEL 604, Geotechnical Engg. – I	Ms. Pratibha Singh (8077138901)
CEL 605 / 6115 / BCEL 605, S. D. D. – II (Steel)	Prof. Archana Tiwari (7748884150)

The time table of remedial classes (on working Saturday's) has been uploaded on institute website containing the names of faculty members along with their contact numbers taking various courses. The students can also contact faculty members for clearance of any doubts / topics in the free time during any working day too. An email has been sent to all these students regarding the conduction of remedial classes. Course wise list of students who have to attend the remedial classes along with their contact details has been prepared & given to respective faculty members.

Till date very few students have approached respective faculty members in some of the courses: **100205 (1 student), BCEL 604 (1 student) & BCEL 605 (1 student).** All the faculty members are regularly contacting the students & motivating them to attend these classes. Regular emails are being sent to the students regarding attending the remedial classes.

Department Of Applied Science

The department has started the conduction of Remedial Classes from July2018 onwards. However, in the month of July no student has reported for the remedial classes. Further a few students have reported for the same in August 2018. The Remedial Class Time Table is mentioned on the website.

Subject	**Assigned Faculty**
Engg. Physics	Prof. Deobrat Singh
Engg. Chemistry	Dr. Preeti Gupta
Engg. Mathematics-1	Prof. Angad Ojha
Engg. Mathematics-2	Dr. V.P. Shinde
Engg. Mathematics-3	Dr. D.K. Jain
Discrete Structure	Dr. Ashish Verma
MCA-102	Prof. Dilip Mishra
MCA-301	Prof. J.K. Muthele

The time table of remedial classes (on working Saturday's) has been uploaded on institute website containing the names of faculty members along with their contact numbers taking various courses.

Department Of Electronics Engineering

- An Email has been sent to all the students.
- Students have beEn contacted by phone calls.
- List of backlog students prepared.
- Students are motivated to attend remedial classes.
- Classes held till date 31/08/2018 as follows:

S. No.	Name of subject	No. of classes held
1	BELL/BETL 402 Electronics II	03
2	BELL/BETL 403 Analog communication	02
3	BELL/BETL 404 Network Synthesis and Filter Design	04
4	BELL/BETL 405 Signal and Systems	02
5	BELL/BETL 601 Antenna & Wave Propagation	00
6	BELL/BETL 604 Electronic System Design	03
7	BELL 802 Satellite communication	03
8	BELL 803 TV and Radar Engg	04

The time table of remedial classes (on working Saturday's) has been uploaded on institute website containing the names of faculty members along with their contact numbers taking various courses.

Department Of Chemical Engineering

Department has identified students who failed in various subjects from Ist year to IV year and discuss with them reasons for their failure. Then separate time table was prepared for these students and motivated to attend regular classes. **But no student has attended any class for their respective subjects.** The time table of remedial classes (on working Saturday's) has been uploaded on institute website containing the names of faculty members along with their contact numbers taking various courses.

ANNEXURE – XI

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

Results of Previous Audits

Engineering Departments

Date of Audit	Civil	Mechanical & Automobile	Electrical	Electronics & ET	CSE & IT	Chemical	Biotech.
Academic Audit 18-2-2017	83	83	81	66	92	60	73
Lab Audit 5-8-2017	24	34	39	35	36	27	29
Academic Audit 17-2-2018	65	98	99	81	85	80	96
Total Points Obtained	**172**	**215**	**219**	**182**	**213**	**167**	**198**
Aggregate Points# (Total Parameters for BE 23+12+29 = 64)	**320**	**320**	**320**	**320**	**320**	**320**	**320**
Percentage	**53.75**	**67.19**	**68.44**	**56.88**	**66.56**	**52.19**	**61.88**
Rank	**VI**	**II**	**I**	**V**	**III**	**VII**	**IV**

 # Based on applicable parameters

Other Departments

Date of Audit	Applied Sciences	Humanities	Architecture	MCA
Academic Audit 18-2-2017	53	0	79	59
Lab Audit 5-8-2017	29	0	0	31
Academic Audit 17-2-2018	70	61	88	59
Total Points Obtained	**152**	**61**	**167**	**149**
Aggregate Points# (Total Parameters for MCA 23+12+29 = 64 and Architecture = 50)	240	100	250	285
Percentage	**63.33**	**61.00**	**66.80**	**52.28**
Rank	**II**	**III**	**I**	**IV**

 # Based on applicable parameters

Compiled by :

(Dr. Manjaree Pandit)
Dean (Academics)

ACADEMIC AUDIT ON 18-2-2017

Name of the Department	**Civil**	**Mech. & Automobile**	**Elect.**	**Elex. & ET**	**CSE & IT**	**Chem. Engg.**	**Biotech.**	**Arch.**	**App. Sciences**	**MCA**
Class Time Table & Faculty Time Table	Very Good	Very Good	Very Good	Very Good	Very Good	Good	Good	Good	Good	Very Good
Students Roll List And Attendance	Very Good	Good	Good	Very Good	Excellent	Very Good	Good	Good	Good	Very Good
Faculty Course Files	Very Good	Very Good	Very Good	Very Good	Very Good	Good	Good	Good	Good	Good
Preparation of Lecture Plan	Very Good	Very Good	Very Good	Good	Very Good	Good	Very Good	Good	Good	Good
Preparation of Tutorial Questions	Very Good	Good	Good	Very Good	Very Good	Good	Good	Good	Good	Good
Allotment of B.E./B.Arch Projects	Very Good	Very Good	Good	Good	Very Good	Good	Good	Excellent	Not Applicable	Not Applicable
Allotment of M.E./MCA Projects	Very Good	Very Good	Good	Good	Excellent	Good	Good	Good	Not Applicable	Good
Lab Manuals/Instruction Sheets	Very Good	Very Good	Very Good	Very Good	Very Good	Good	Very Good	Very Good	Very Good	Good
Lab Records of Students	Good	Very Good	Good	Good	Very Good	Good	Very Good	Excellent	Very Good	Good
Seminar Presentation Records-BE	Very Good	Excellent	Very Good	Good	Very Good	Good	Very Good	Good	Not Applicable	Not Applicable
Seminar Presentation Records-M.E./MCA	Very Good	Very Good	Good	Good	Very Good	Good	Good	Not Applicable	Not Applicable	Good
Dissertation Presentation Records-M.E./MCA	Very Good	Very Good	Very Good	Very Good	Very Good	Good	Good	Not Applicable	Not Applicable	Good
Student Assignments And Evaluation	Average	Very Good	Good	Not Available	Very Good	Good	Not Available	Very Good	Good	Good
Question Paper Analysis (Mid-Semester Examination Papers)	Very Good	Good	Very Good	Good	Not Available	Good	Good	Very Good	Very Good	Very Good

Name of the Department	**Civil**	**Mech. & Automobile**	**Elect.**	**Elex. & ET**	**CSE & IT**	**Chem. Engg.**	**Biotech.**	**Arch.**	**App. Sciences**	**MCA**
Question Paper Analysis (End- Semester Examination Papers)	Very Good	Good	Very Good	Not Available	Very Good	Good	Good	Very Good	Very Good	Excellent
Analysis of Quiz Conducted	Very Good	Not Available	Very Good	Not Available	Very Good	Good	Good	Very Good	Very Good	Not Available
Records of Industry Visits/Tours	Very Good	Good	Good	Good	Very Good	Below Average	Good	Very Good	Not Applicable	Not Available
Remedial/Bridge/ Language Lab Classes	Good	Good	Good	Good	Very Good	Good	Good	Very Good	Very Good	Not Available
Attendance During Expert Lectures	Good	Good	Very Good	Good	Very Good	Not Available	Excellent	Very Good	Not Applicable	Not Available
Faculty Feedback Analysis	Good	Very Good	Good	Good	Excellent	Average	Excellent	Very Good	Very Good	Very Good
Award of Internal Evaluation Marks	Average	Very Good	Good	Not Available	Very Good	Good	Very Good	Very Good	Good	Very Good
Result Analysis	Very Good	Very Good	Very Good	Very Good	Very Good	Not Available	Very Good	Very Good	Very Good	Very Good
Minutes of Meetings of Department	Good	Excellent	Very Good	Excellent	Very Good	Average	Not Updated	Very Good	Not Available	Good

(Dr. Manjaree Pandit)
Chairperson, Internal Audit Cell

ACADEMIC AUDIT ON 5-8-2017									
Name of the Department	**Civil**	**Mech. & Automobile**	**Elect.**	**Elex. & ET**	**CSE & IT**	**Chem. Engg.**	**Biotech.**	**App. Sciences**	**MCA**
List of laboratory courses/simulation labs/ seminar classes as per schemes	Good	Good	Good	Good	Good	Good	Good	Good	Good
List of experiments/ assignments/ seminar topics/ idea generation activities/ other activities being conducted in each of the above(separate file for each course)	Good	Very Good	Good	Average	Very Good	Good	Good	Good	Good
New equipment/ experimental set up purchased during the last academic year	No	Very Good	Very Good	Good	No	No	Good	Very Good	No
New experiments added/made functional during the last academic year	No	Very Good	Very Good	Good	Very Good	Good	Good	Very Good	Good
List of equipment not working	List not available	Available	Available	Available	Not applicable	Available	Available	Nil	Available
Steps/corrective actions taken for making them functional	Yes	Steps taken	Steps taken	Steps taken	Yes	Yes, Note Sheet moved	Yes, in process	Not applicable	Yes
Ambience of labs/ arrangement of equipment/cleanliness	Good	Average	Very Good	Good	Very Good	Good	Below Average	Good	Very Good

Name of the Department	Civil	Mech. & Automobile	Elect.	Elex. & ET	CSE & IT	Chem. Engg.	Biotech.	App. Sciences	MCA
Attendance records	Good	Good	Very Good	Very Good	Very Good	Good	Good	Good	Very Good
Records of internal viva	Good	Good	Very Good	Very Good	Excellent	Yes	Good	Good	Good
List of Programming/ simulation exercises conducted in labs	No	Good	Very Good	Very Good	Very Good	Average	Good	Not applicable	Very Good
Lab manuals/ instruction sheets	Good	Good	Excellent	Very Good	Very Good	Good	Good	Good	Very Good
Quality of student Journals/lab files	Average	Good	Average	Good	Good	Very Good	Average	Good	Average

Manjaree Pandit
Chairperson (Internal Audit Cell)

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

Ref./DA/MP/18/626 Date: 23/02/2018

With reference to Order No 492 dated 12th February 2018 the Academic Audit was conducted by a team consisting of the Internal Audit Cell of the institute and two external experts. The salient points are being communicated.

- The Departments are required to take necessary steps and corrective measures wherever necessary and submit a **crisp action taken report (ATR) by 30th April 2018.**
- The Departments should also identify their strengths and work to improve them further.

Summary of Academic Audit

General Points observed by Team /suggested by External Experts

1. Lecture plan should reflect the planned as well as actual course completed on that date. So one more column may be added.
2. All documents shown to the team should have signature of concerned, date, session, subject name etc. marled clearly
3. Only numerical problems to be given in tutorials, theoretical questions in assignments.
4. Records of Action Taken Report (ATR) on departmental meetings/HoD meetings/Feedback/any other such matter to be
5. In individual faculty timetable additional institutional charge resting with the faculty member such as HoD/Dean/ TEQIP-III charges/ Warden/ Class co-coordinator/Other activity co-coordinator/Club or Student Chapter advisor etc. should also be mentioned.
6. A master time table must also be available in the Time-Table file.
7. Model Lab Records with full report/Graph/calculation/ results etc. to be prepared for each lab. (The NPIU faculty may be given this responsibility)
8. Mid-semester, End-semester question paper analysis to be performed on a regular basis to identify deficiencies and answer books shown to students for maintaining transparency.
9. **Students should be asked to give a presentation on their B.E. Projects for both internal/external evaluations.**
10. Old GATE examination questions must be included in tutorial sheets/assignments to be uploaded on the website.
11. The departments must develop a few Best Practices which can be shared by other departments.
12. The strength-weakness-opportunities-Challenges (SWOC) analysis must be done carefully, from time to time.
13. BE project/ME Dissertation allotment process must be transparent and documented.
14. Students to be motivated for attending special classes as per Time Table for clearing their doubts/bridging gaps etc.
15. MOODLE and other on-line platforms of innovative teaching-learning should be utilized for content deliver/evaluation etc.
16. A list of discipline specific problems being faced by industry/society and some /latest innovations must be identified as topics by the departments for student Seminar/projects etc.

Best Practices/Strengths as observed in the Academic audit

1. Civil

- CO attainment and feedback done meticulously; Direct/Indirect both assessment done

2. Mechanical & Automobile:

- Class Time Table & Faculty Time Table
- Faculty Course Files/Attendance/ Lecture plan
- Allotment of M.E. projects
- Result Analysis & action taken
- Minutes of meetings of department
- Faculty profile on website

3. Electrical:

- Records of Industry visits/tours, record in album is appreciated
- Award of Internal evaluation marks
- Research projects (Sanctioned, Ongoing, Completed & UC sent during this period) is very good
- Papers (Journals/conferences) very good contribution
- Papers (Journals/conferences): Student/faculty papers in IEEE conferences and Scopus indexed
- Any other relevant achievements: Excellent (MODROB Grant received, IET student chapter activities and student participation, NBA accreditation of ME(ISD), Ph.D. awarded to H.M. Dubey ISTE student chapter activities coordinated, e-kart winner)

4. Electronics & IT:

- Papers (Journals/conferences)

5. CSE&IT:

- Faculty feedback analysis
- Award of Internal evaluation marks
- Status/attendance of SWAYAM courses
- Papers (Journals/conferences)

6. Chemical:

- Faculty feedback analysis
- Award of Internal evaluation marks
- Status/attendance of SWAYAM courses
- CO attainment and feedback

7. Biotechnology:

- Time-Table/attendance of Remedial classes, counseling done
- Attendance during expert lectures

- Faculty feedback analysis
- Result Analysis & action taken
- Minutes of meetings of department
- Status/attendance of SWAYAM courses
- CO attainment and feedback
- Faculty profile on website
- Any other relevant achievements: Student performance in GATE, TOEFL, NPTEL certificates achieved

8. Applied Sciences:

- Time-Table/attendance of Remedial classes, counseling done
- Award of Internal evaluation marks
- Records of MOODLE utilization

9. Humanities:

- CO attainment and feedback
- Research projects (Sanctioned, Ongoing, Completed & UC sent during this period): MODROB grant received (Rs. 12.50)

10. Architecture:

- Records of Industry visits/tours
- Attendance during expert lectures
- Award of Internal evaluation marks
- Any other relevant achievements: Award for best thesis

11. **Computer Applications**:

- Minutes of meetings of department
- Status/attendance of SWAYAM courses: 100% registered

(Dr. Manjaree Pandit)
Dean (Academics)

Copy to:
1. All HoDs for compliance
2. Director Office

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

ACADEMIC AUDIT REPORT (2017 – 18)

(Please present all information using soft copies (word file/pdf, wherever possible, use hard copies only where it is unavoidable)

S. No.	Name of the Department Civil/ Mechanical/ Automobile/ Elect/ Elex/ ET/ CSE/ IT/ Chem/ BT/ Applied sciences/ Humanities/ Architecture							
	Date: 25th August 2018/1st September 2018 (Please tick applicable date)	Observations						
		Poor	Below average	Average	Good	Very Good	Excellent	Comments/ Action to be taken
	Criterion I: Availability of Records & Data Management							
	Weight/ Points	Zero	One	Two	Three	Four	Five	
1.	Class Time Table & Faculty Time-Table							
2.	Question paper analysis report (end/mid-term & action taken)							
3.	Files of various Departmental Coordinators **(List of Departmental Coordinators,/Incharge assigned by Deptt. for various activities and record of assigned**							
4.	Compilation of quarterly e-news letter**(Availability on deptt. page on Institute website)**							
5.	Result Analysis & action taken report							
6.	CO & CO attainment for academic year 2017 - 18 for all courses (Actions taken for improvement where COs fall below the target)							
7.	PO & PSO attainment for academic year 2017-18							
8.	Status of department page on institute website, (Uploading of achievements, photos, up to date information for branding and marketing of the department)							
9.	Analysis & action taken reports on previous Audit							
10.	List of departmental files, maintenance of general records							

11.	Faculty feedback analysis/Corrective action(Computation of FFI on a 5 point scale for two feedbacks in each semester,signed records of each faculty)							
12.	Minutes of meetings of department							
	Criterion II: Teaching Learning Practices							
13.	Faculty Course Files including students' Attendance record & Lecture plan							
14.	Availability of course material on MOODLE (Ref. DA/ MP/ 18/ 677 dated 31st may 2018 : Lecture plans, syllabus, Notes, PPTs, Unit Wise Question banks, previous year papers, Gate oriented questions, etc)							
15.	Records of MOODLE utilization, analysis of on-line quiz, assignments on MOODLE, its evaluation, (any other innovative teaching methods in practice)							
16.	Allotment of B.E. projects(List, classification, assessment & evaluation tools)							
17.	Allotment of M.E. dissertation topics(List, classification, assessment & evaluation tools)							
18.	Dissertation presentation records-ME/M. Tech./M.Arch.							
19.	Lab manuals/instruction sheets given to students							
20.	Lab utilisation/access register/record							
21.	Lab records of students/Report made by students							
22.	Seminar presentation records-ME/M.Tech/M.Arch (List of topics, mode of conduction)							
23.	Records of SWAYAM/NPTEL courses conduction **(Attendance, evaluation, award of marks)**							
24.	Number of faculty members registered for SWAYAM/NPTEL Course/ Number who cleared exam and Earned credits							

25.	Criteria for awarding Internal marks (Records)							
26.	Collaborations established with industry, institute, research organization & activities conducted							
27.	Annual Success Index, with /without backlog **(Number of students who have graduated from the program with/without backlog)/(Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry)**							
28.	Academic Performance Index of last 3 years **(Mean of 2nd year CGPA of all successful students) x (Number of successful students/Number of students appeared in the examination) Successful students: Those who proceed to the third year**							
29.	Placement Index = (Number of students placed on/off campus + Students who went for higher studies + started their own business)/Total final year students							
Criterion III: Quality Improvement Initiatives								
30.	Curriculum development **(**BoS files, minutes of workshops, meeting, feedback of stakeholders)							
31.	New equipment/facilities created/labs developed							
32.	Record of students' participation in extra & co-curricular activities within and outside the Institute							
33.	List of available ProfessionalSocieties/chaptersand Technical events conducted under Societies.Chapters							
34.	Records of attendance of Remedial classes, counselling (Impact analysis and measures for improvements)							
35.	Records & report of Industry visits/tours							
36.	Events and activities conducted by the department (workshop/FDPs/Seminar/Training etc.)							

37.	Extension activities conducted at the department level **(Format: Title, collaborating agency such as NGO, Govt. Organizations, Red cross, industry, community clubs and organizations if any,number of teachers involved, no. of students participated, separate count for Male/ Female in case of Gender Equity activities)**							
38.	Records of expert lectures conducted **(Dates, resource person, topic, student attendance)**							
39.	Training programmes attended by faculty **(Format:S.No.,Faculty name, title, place duration)**							
40.	Training programmes attended by staff **(Format:S.No., name of staff, title, venue/place, duration)**							
41.	Workshops/seminars/conferences attended by faculty **(Format:S.No.,Faculty name, title, place duration)**							
42.	Research projects (Submitted, Sanctioned, ongoing, Completed & UC sent during evaluation period) **(Format: Faculty,agency, file number, duration, amount, status)**							
43.	Papers published (Journals/conferences) (Format: Authors, title,volume, page nos, year,Impact factor, whether SCI, UGC approved, Scopus or other indexing)							
44.	Faculty as resource persons (Format:Name, activity, place, duration, title **(for expert** lectures), venue, Role (such as committee member outside institution as an expert, reviewer, delivered expert/invited talk, organizing committee member etc)							
45.	Patents(published/awarded/filed/initiatives taken)							
46.	Books and Book Chapters published by Faculty							
47.	Best practices of the department (any two, in format provided)							

48.	SWOT/SWOC analysis							
49.	Any other relevant achievements							
50.	Overall comments/Remark (if any)							

(Dr. P.K.Singhal) (Dr. R.K. Kansal) (Dr. PrateshJayaswal) (Dr. C.S.Malvi) (Dr. Akhilesh Tiwari) (Head of Department)
(Members of Internal Audit Committee)

(Dean Academics)

(Dr. R.K. Pandit)
Director

ANNEXURE – XII

Employer Satisfaction Survey Report

Sample Size: 25

Employer feedback is collected on a routine basis, whenever company executives come for recruitment and also after the campus placement process is over.

The following feedback was received from the 25 companies listed below on the performance of our students a few years after joining their organization.

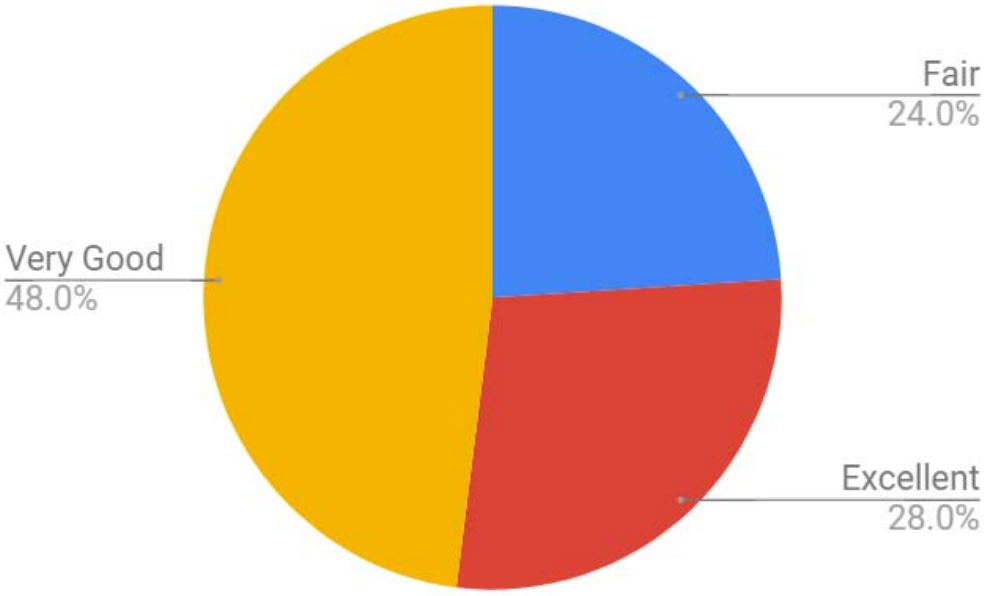
Delhi International Airport Ltd	Zensar Technologies Pvt. Ltd.	The Indian Hume Pipe Co. Ltd.
GPC Sheopur	Gartner	Grasim Industries limited Unit-Indian
Persistent Systems Ltd.	MPWater Resource Development	Dilip Buildcon Limited Bhopal
Quikr	MPMKVVCL BHOPAL	Schneider Electric Infrastructure Ltd
VEM Technologies	Xavient Digital Powered by Telus International	Bharat Oman Refinery Limited
Persistent Systems Private Limited	HCIL, Gurgaon	Department of Revenue, MP
Samrat Ashok Technological Institute, Vidisha M.P.	Britannia Industries Limited	Madhya Pradesh Rural Engineering Services
Accenture	MP Rural Road Development Authority	Jamna Auto Industries Limited
		Lovely Professional University

Computation of Employer Satisfaction Index (Sample Size: 25)

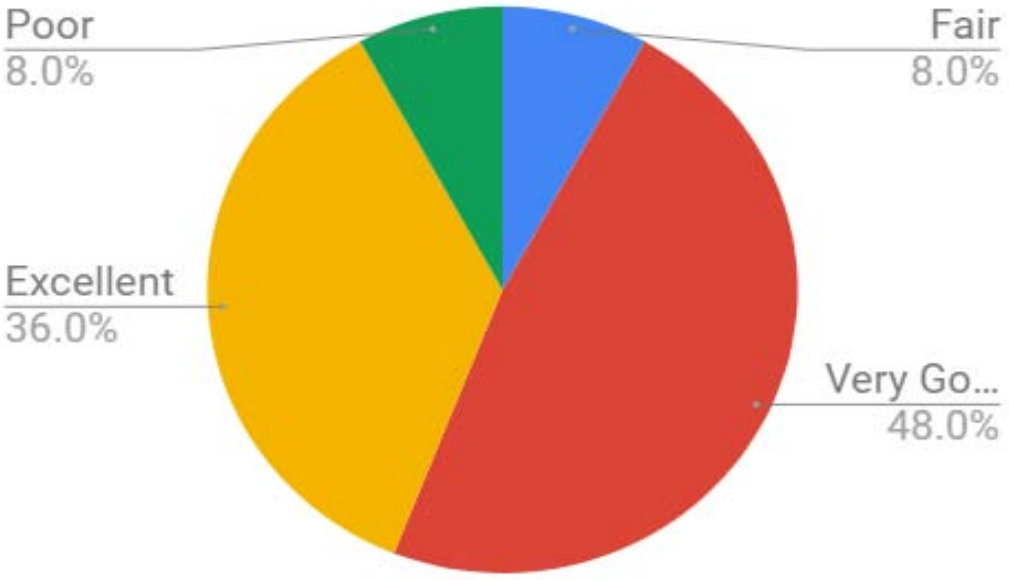
	Very Poor	Poor	Fair	Very Good	Excellent	**Employer Satisfaction Index**
Level of technical contribution	0	0	6	12	7	**4.04**
Ability to learn new areas, engage in professional development, and adapt to technological changes	0	2	2	12	9	**4.12**
Do they deserve elevation to higher level	0	1	3	11	10	**4.2**
Level of ethical and social responsibility	1	0	4	11	9	**4.08**
Demonstrated ability to work well on a team	1	0	2	10	12	**4.28**

Feedback on accomplishments of graduates from MITS Gwalior, (focusing on their few years performance after graduation) on the following points:-

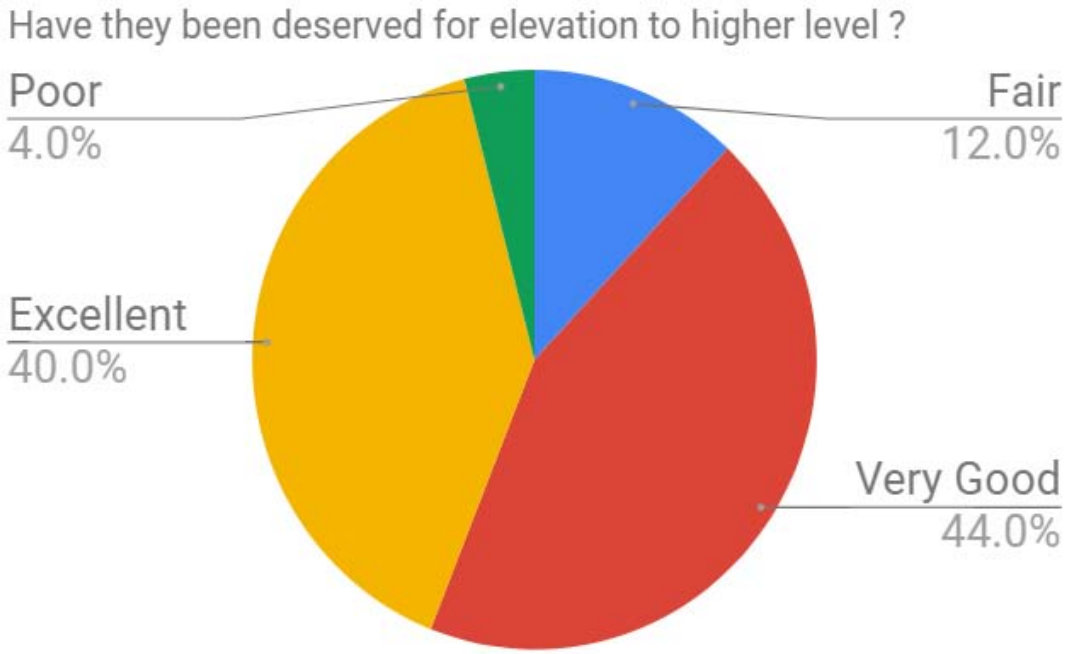
1. Level of technical contribution



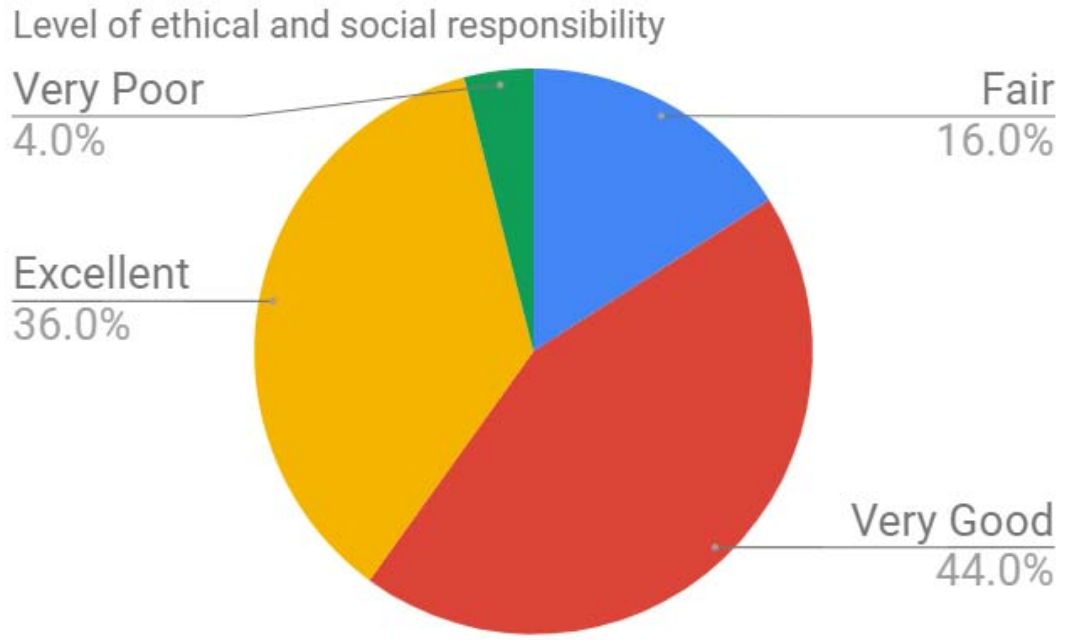
2. Level of success in learning new areas, engaging in professional development, and adapting to technological change



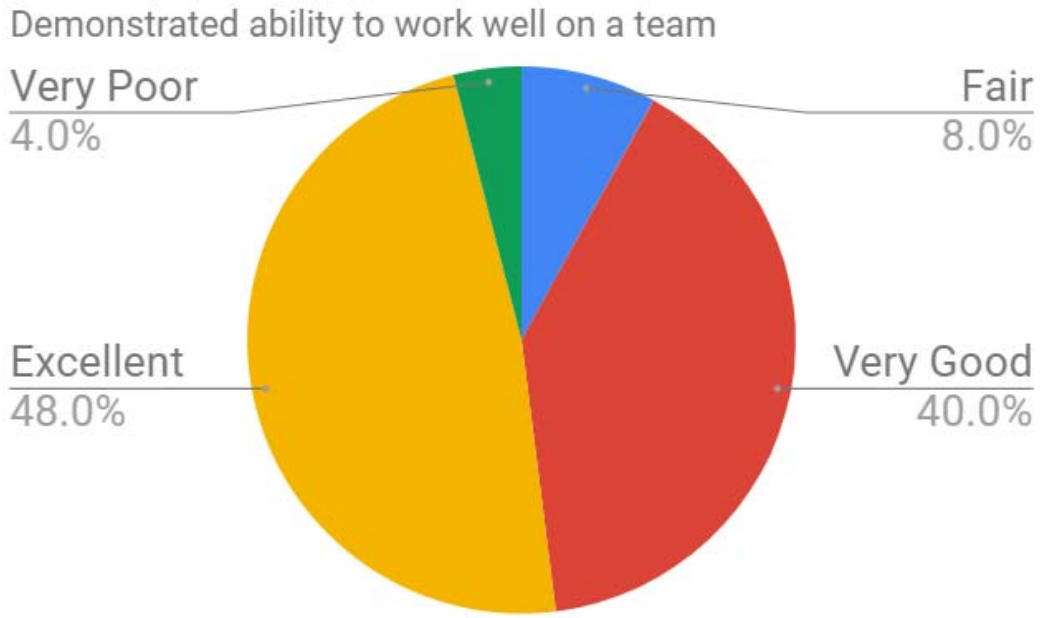
3. Do they deserve elevation to higher level ?



4. Level of ethical and social responsibility



5. Demonstrated ability to work well on a team



6. Other Comments Posted by Employers:-

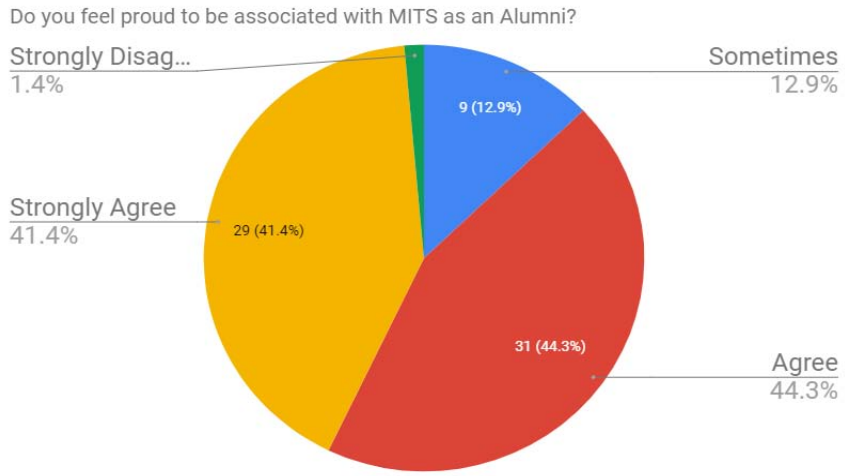
Good technical knowledge
GOOD. KEEP IT UP
Hardworking & smart students
He is having good technical knowledge as well as great dedication and attitude towards any given task. He is having great potential to grow in our organization.
Mr Tushar is sincere and hard working.and is an asset to the university.
Nicholas is a great addition to the team. He has shown good acumen to research new technology and solutions and find the best possible usage out of that.
Overall Good Candidates
Please make your study environment as per private companies standard.
Positive, dynamic, fast learner, good team performer.
Require more Co -Operation and Co-Ordination.

Alumni Satisfaction Survey 2018

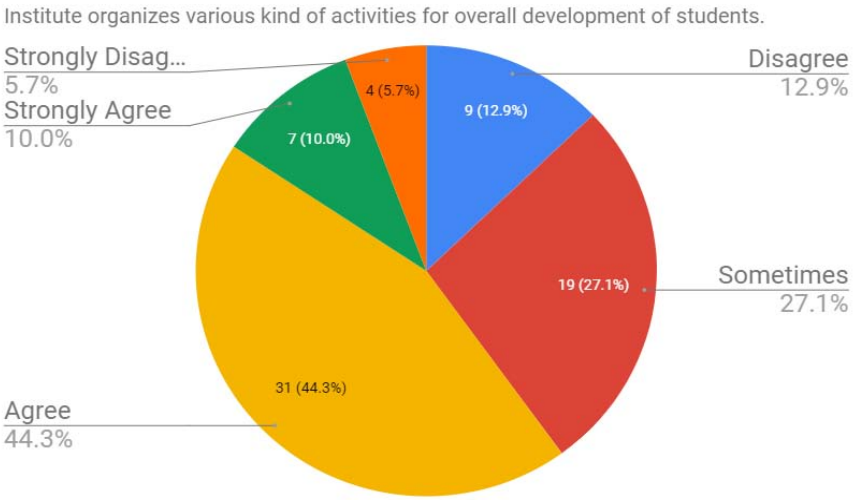
Sample Size: 70

Alumni Feedback is being collected from students who have graduated between 2002 to 2016. A mix of alumni from all branches, working in Private Sector/ Government Sector/ and other Interdisciplinary areas from all over India is selected. A total of 70 responses on 10 general parameters, as shown below on the scale of 5 to 1 (Strongly Disagree to Strongly Agree) has been selected for analysis:

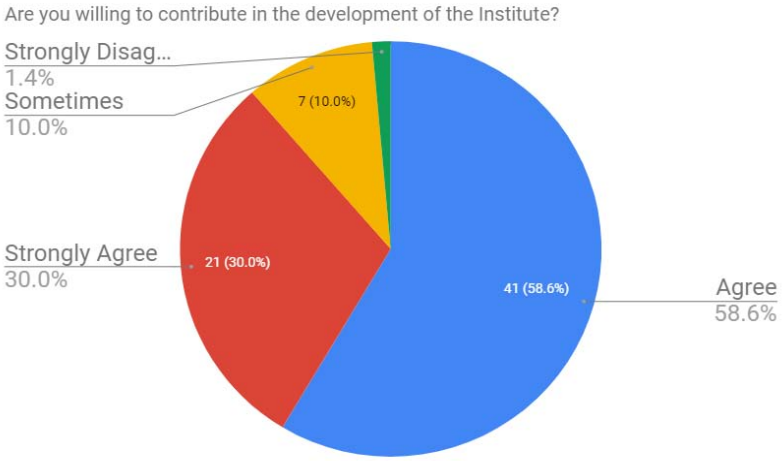
1. Do you feel proud to be known as an MITS Alumnus?



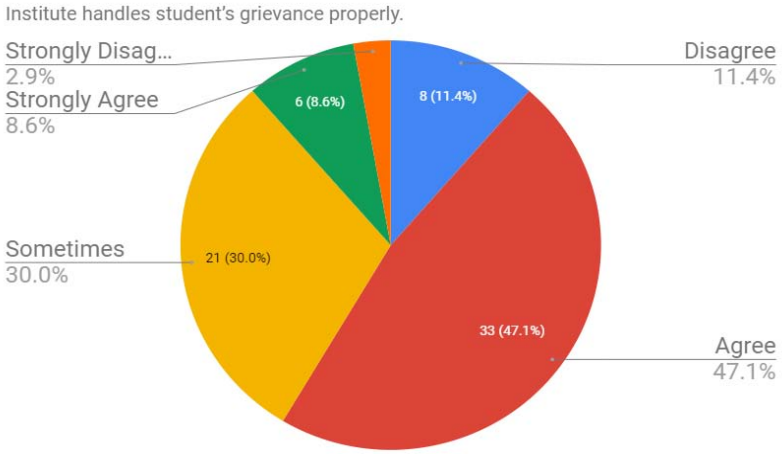
2. Institute organizes various kinds of activities for the overall development of students.



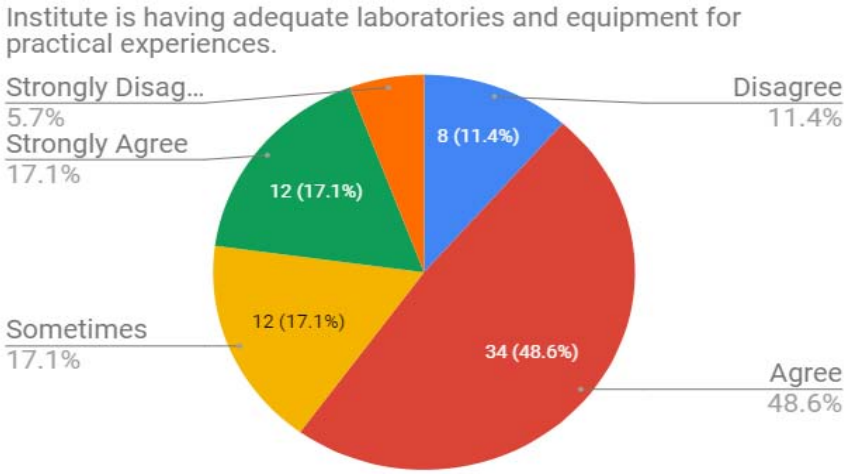
3. Are you willing to contribute in the development of the Institute?



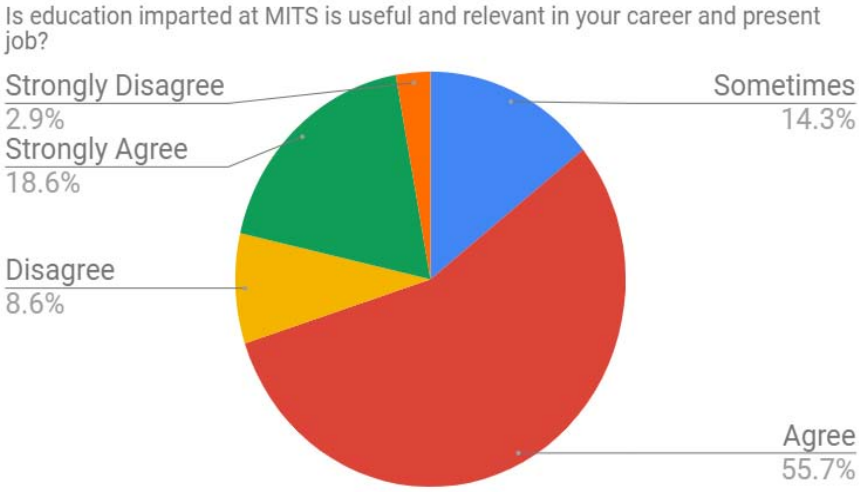
4. Institute handles student's grievances properly.



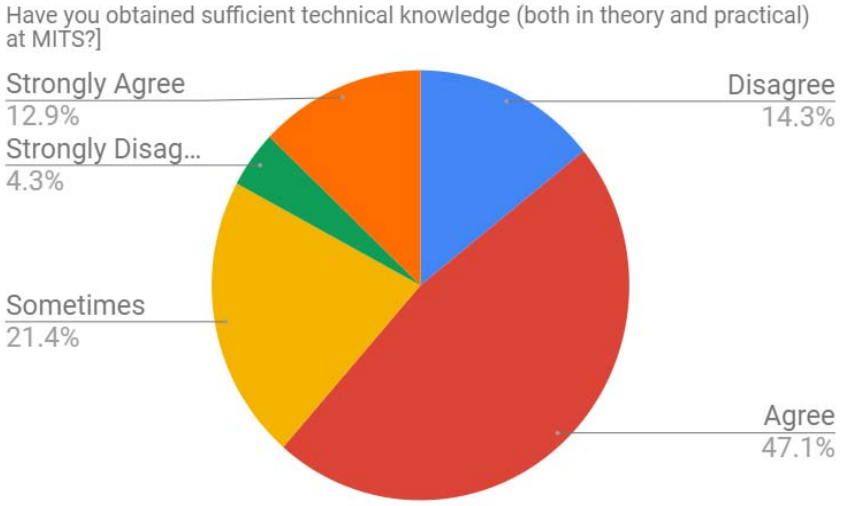
5. Institute has adequate laboratories and equipment for practical exposure to students.



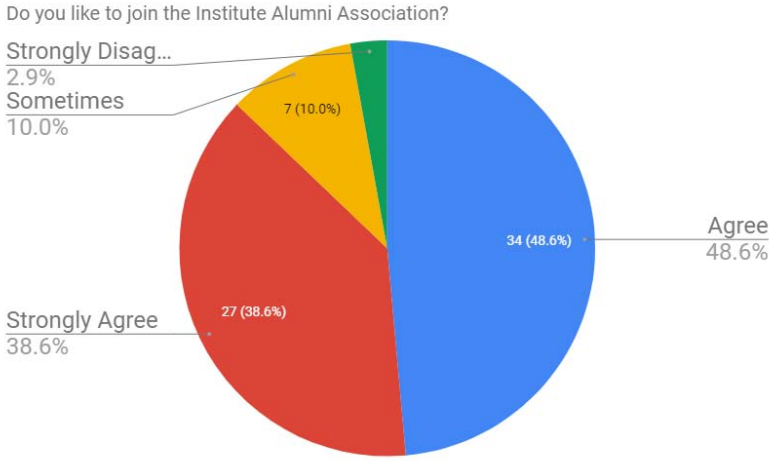
6. The education imparted at MITS is useful and relevant in your career and present job.



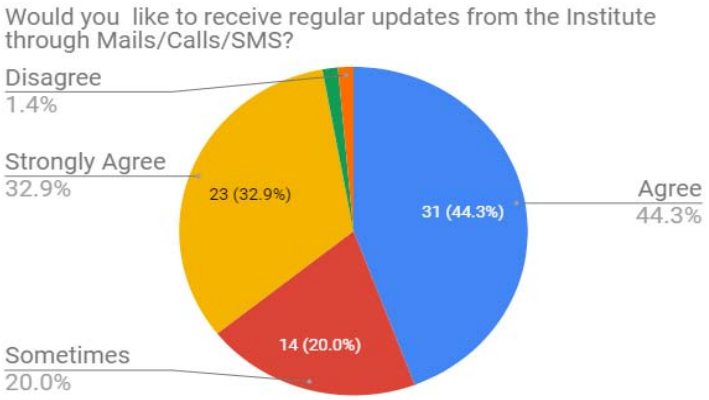
7. Have you obtained sufficient technical knowledge (both in theory and practical) at MITS?



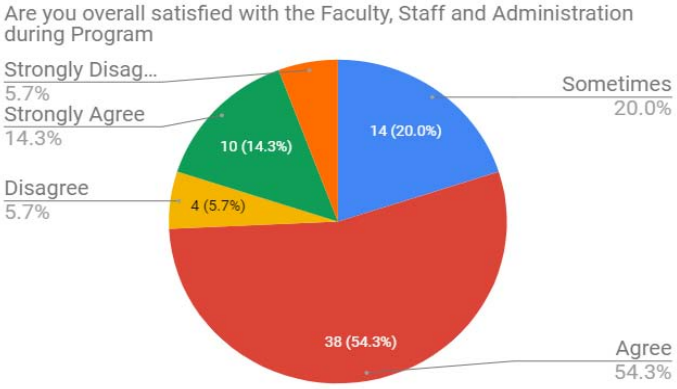
8. Do you like to join the Institute Alumni Association?



9. Would you like to receive regular updates from the Institute through Mails/Calls/SMS?



10. Overall are you satisfied with the Faculty, Staff and Administration during Program



Computation of Alumni Satisfaction Index

General parameters	Strongly Disagree	Disagree	Sometimes	Agree	Strongly Agree	**Alumni Satisfaction Index (Out of 5)**
You feel proud to be known as an MITS Alumnus	1	0	9	31	29	**4.24**
Institute organizes various kinds of activities for the overall development of students	4	9	19	31	7	**3.4**
Are you willing to contribute in the development of the Institute	1	0	7	41	21	**4.16**
Institute handles student's grievances properly	2	8	21	33	6	**3.47**
Institute has adequate laboratories and equipment for practical exposure to students	4	8	12	34	12	**3.6**
The education imparted at MITS is useful and relevant in your career and present job	2	6	10	39	13	**3.78**

Have you obtained sufficient technical knowledge (both in theory and practical) at MITS	3	10	15	33	9	**3.5**
Do you like to join the Institute Alumni Association	2	0	7	34	27	**4.2**
Would you like to receive regular updates from the Institute through Mails/Calls/SMS?	1	1	14	31	23	**4.05**
Overall are you satisfied with the Faculty, Staff and Administration during Program	4	4	14	38	10	**3.65**

Summary of Alumni Suggestion for improvement

S. No.	Suggestion	Corrective Actions
1.	Need to update the laboratory as per new technology available in market so hat students have sufficient knowledge after graduating from the institute. Students strongly feel that there is a need to have more focus on Practical exposure. Conduct more field trips to nearby industries Small project on real scenario should be part of curriculum Project component must be added as the final evaluation of all the courses Allow students to go for internships, don't block them in name of attendance. In today's time most of the internships get converted to full time very easily. More industrial case studies, visits and counselling will help student plan their career in the field itself	• Laboratory modernization is in process • Departments have been issued instructions to allot Industry Focused Projects with co-guides from industry (if possible) • MoUs to be signed with industries to enhance interaction • Field trips and industry visits are mandatory; arranged by all departments • Experts from Industry are invited for lectures and interaction • Internships are mandatory; provision for internship for full term in VIII semester • Career counselling sessions are conducted on a routine basis
2.	Need to update curriculum from time to time	• Syllabi is being updated regularly • Flexible curriculum has been implemented • SWAYAM/NPTEL courses are being conducted mandatorily at II and III year levels, to familiarize students with on-line courses. • Value added courses are launched to increase student skills and employability options
3.	More elective courses should be offered. . All the permanent faculty is Post graduate I guess, so they can offer courses in the area of their	In the Flexible curriculum that is implemented w.e.f batch admitted in academic session July 2017 there is a ratio of core/departmental/open electives in

	specialization	percentage is 30:12:9.
4.	More faculty members need to be hired to reduce the load on faculty	• Full-time Faculty from NPIU and contract faculty available in all departments to support regular faculty. • Recruitment of permanent faculty is also in process.
5.	Encourage students to participate in competitive programming. Institute should provide more exposure to students for their all round development	• There are 07 professional society chapters and more than 30 active clubs in the institute. • Many such events are routinely organized by the professional society chapters and student clubs. • Many students also go to other institutes for participating in events. • At the final year level one credit has been assigned to Innovative Technical Contribution to encourage student participation in such events
6.	There should be a research and innovation lab in every department.	Innovations are supported by the institute when proper proposals are received.
7.	Development of entrepreneurial cell and guidance to students for better career growth. Involvement in curriculum activities will also make a huge difference.	Start-up cell ahs started functioning in the Institute Student feedback is taken before the Board of Studies meeting
8.	Library should be open for 24*7.	Timings are increased whenever there is a higher demand for library