

Significant Activities and Contributions Made by IQAC in 2017-2018



Internal Quality Assurance Cell



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

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Significant Activities and contributions made by IQAC in 2017-2018

The following important decisions were taken by the IQAC, guidelines were issues and compliance was sought to ensure effective implementation. The initiatives were taken as follows:

1. Flexible Academic Curriculum :

- It was deliberated that a flexible academic curriculum should be implemented w.e.f. Academic Year 2018-19 and there should be provision for credit transfer through MOOCs.
- The Flexible Scheme for the Flexible Curriculum was framed by the Institute and approved by the Academic Council.

2. Academic Audit :

- It was decided that two Academic Audits should be conducted every year, one by Internal Audit Committee (IAC) and one by external experts.
- In compliance to the decision, the Academic Audits by Internal Audit Committee were conducted on 18th February 2017 (24-parameters) & 5th August 2017 (12-lab parameters).
- The IAC and two external experts (Dr. Susheel Kumar, Former Professor, Civil Engineering, MANIT, Bhopal & Dr. J.S. Chauhan, Director SATI, Vidisha) conducted academic audit on 17th February 2018 on a revised 30-point format addressing all the important teaching-learning parameters.

3. Feedback Collection and Analysis :

- The feedback was collected from students, on-line, w.e.f. January-June 2018 Semester. It is collected *twice* in a semester, analysed and appropriate corrective actions taken.
- A uniform model and comprehensive summary of the feedback analysis and action taken for each department has been prepared for the analysis of feedback.
- A *Faculty Feedback Index (FFI)* has been computed for each faculty on a scale of 5 (five) by taking weighted average of student responses in 5 classes (Excellent, Very Good, Good, Average & Below Average) for 14 (Fourteen) criteria
- Based on the index, (i) areas of appreciation and (ii) areas needing improvement are communicated to each faculty by the concerned Head of the Department.
- It is decided that appreciation letter/awards will be given to faculty members who get very good feedback.

4. MITS-MOODLE :

The MITS-MOODLE was launched on the 15th of August 2017 for providing an e-learning environment for interactive teaching, learning and evaluation for students and faculty.

- All the 4600 plus students, faculty members and staff are registered on it.
- A team consisting of 34 faculty members from various departments has been constituted to coordinate the following activities at the department level:
 - ✓ On-line quiz conduction
 - ✓ Direct/indirect assessment of course outcomes (COs), Programme outcomes (POs) and Programme Educational Objectives (PEOs).
 - ✓ Feedback and its analysis
 - ✓ Uploading lecture notes /Assignments/Tutorial Sheets/Question Banks
 - ✓ On-line assessment of assignments
 - ✓ Dissemination of any other academic information



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- Between 15th to 22nd December 2018 on-line quiz using MOODLE was conducted for all I year students for trial purpose. In January-April 2018 Session, on-line quiz was conducted for all the students.
 - ✓ Feedback was taken on COs and Curriculum
 - ✓ The quiz performance was analysed student wise, course wise, question wise
- The CO attainment (Direct +Indirect) for July-December 17 & January-April 2018 Semester has already been computed using MOODLE.
- The attainment of Programme Outcomes (POs) & Programme Educational Objectives (PEOs) for academic year July17-June 18 is currently being computed using MOODLE.
- GET (General Enterprising Tendency) test was conducted for all the students of the Institute for identifying students with entrepreneurial mind set for further grooming.
- The course entitled “**Sustainability in Built Environment**” under Global Initiative of Academic Network (GIAN), an initiative of Human Resource Development, Govt. of India during 19th-30th March 2018 was totally conducted (delivered and evaluated) on MOODLE.

5. Implementation of On-line Learning Through Platforms such as SWAYAM :

- The NPTEL (National Programme on Technology Enhanced Learning) Local Chapter became functional from 30th Oct. 2017 to provide e-learning through on line Web and Video courses.
- One SWAYAM Manager and a team of SWAYAM coordinators appointed to monitor and motivate students for self-learning.
- The students of II and III year were registered for one SWAYAM course compulsorily, in the January-May 2018 session against self-study/seminar courses in curriculum.
- Subject Matter Experts (SMEs) were assigned to guide and monitor the progress of students.
- The MITS Chapter secured a position in top 100 SWAYAM-NPTEL Local Chapters (87th position) for the Jan to April, 2018 semester.

6. Result Analysis and Corrective Measures for Improvement :

- The result analysis was performed and the courses for which the pass percentage was not up to mark were identified; the findings were communicated to the concerned departments to propose/implement necessary corrective measures.
- The departments have submitted a report on corrective measures to be taken.
- An overall faculty coordinator and one faculty In-charge from each department has been appointed to take steps to increase the attendance in remedial/Bridge classes.
The duty of this team is to
 - ✓ Prepare time table for the above classes/ monitor and maintain attendance
 - ✓ Identify and motivate all the backlog and less privileged students/ to attend classes
 - ✓ Provide necessary counselling and guidance to them by conducting a few sessions
 - ✓ Take all necessary steps to bring these students in the main stream
 - ✓ Solve problems related to examination

7. Initiatives for Academically Weaker Students :

- It was decided to put in place a mechanism to improve student performance and to reduce failure rate through effective conduction of remedial/performance improvement classes.
- One Professor is appointed as In-Charge with a team of 12 faculty coordinators at the department level for attendance monitored on weekly basis. The fast learners were also motivated to guide the slow learners.
- Students needing special attention were identified, course and department wise.
- The team provided necessary counselling to students and helped in solving their problems.
- The overall percentage of students who attended these classes in January-April 2018 session is about 26% which is expected to improve in the next semester.

8. Examination Reforms :



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- **Digitization of valuation:** It was decided that Answer Books of end-term examination should also be shown to the students to maintain transparency and credibility. The digitization of answer books and digital valuation for First Year students was started from April-May 2018 examination. The valued answer books were shown to the students.
- **Displaying Model Answer Sheet:** *Model answer sheet is being prepared by the faculty members on the day of the examination and it is uploaded on MOODLE on the same day, so that students can review their performance.*
- **Integrated valuation:** *On a pilot basis, a few M.E./M.Tech papers are being evaluated by multiple valuers in the ongoing April-May 2018 examination.*
- **On-line question paper feedback:** *On-line question paper feedback is taken till 6.0 pm on the day of the examination to get students' opinion on the difficulty level, quality of the question paper and to know about discrepancies if any*

9. Administrative Audit :

- It was decided that an Administrative Audit should be conducted once every year.
- Administrative Audit was conducted on 22nd Feb. 2018 for following supporting departments: General Office, HR / Establishment, Security, Housekeeping / Guest House / Garden, EDC, Dispensary, Hostels
- Corrective actions were taken based on the report for improving the systems at the above departments.

10. Revision of Honorarium for Paper Setting/Checking/Conducting Practical Examinations in MITS-Autonomy :

- On the basis of recommendations of a duly constituted committee, the honorarium to external examiners for conducting practical viva-voce examination has been doubled and for evaluating UG student projects has also been substantially raised.
- The honorarium to external and internal examiners for evaluating PG dissertations has been brought at par.

11. Full Time Ph.D. Fellowship and Promotion of Research Culture in the Institute :

- It was decided that full time Ph.D. fellowship should be started in the Institute.
- Norms for providing Research Associate (RA) fellowships with financial assistance from TEQIP-III in eligible departments have been formed and the programme will be started from Academic Session 2018-19.
- The All India Council of Technical Education (AICTE) has recognized the Institute as a research centre for **National Doctoral Fellowship (NDF) Programme** w.e.f. Academic session 2018-19.
- Financial support for research project will be provided to the identified proposals submitted by faculty members w.e.f. Academic session 2018-19.

12. Initiatives Taken for Increasing Effectiveness of Outcome Based Education (OBE) :

- To increase the effectiveness of learner centric environment, the institute has appointed Outcome Based Education (OBE) coordinators at institute and department levels.
- OBE student groups are also formed for effective involvement of the students in the process
- The IQAC conducted one-week short term course (STC) on OBE in March 2018.
- A two-day workshop on OBE in collaboration with NPIU was also conducted for all the faculty members of the institute in March 2018.
- It was decided that question paper setting has to be based on Course Outcomes (COs)



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- Guidelines were prepared for paper setters regarding difficulty level, distribution of marks, and for aligning question paper with Revised Bloom's Taxonomy.
- To train faculty members, two-day 5 workshop on "Effective techniques of Question Paper Setting-An OBE Approach" was organized during 7th-8th February 2018.
- To apprise all stakeholders about the OBE process, syllabi with COs will be uploaded on the Institute website.
- With effect from May-June 2018 examination the questions papers are being set based on Course Outcomes (COs).
- Attainments of COs, POs and PEOs are being computed using direct and indirect assessment using MOODLE.

13. Financial Support to Meritorious Students from Economically Weaker Sections :

- A faculty coordinator is appointed to coordinate activities and to create a fund for partially supporting deserving, meritorious students belonging to economically weaker sections of society.
- For generating fund for this efforts are being made to get assistance through
 - ✓ The Corporate Social Responsibility (CSR) fund of leading public sector companies
 - ✓ The Alumni (Alumni already come forward with offer to support two students)
 - ✓ Social contributions/donations

14. Enhancing Collaboration with Other Institutions/Organizations :

- Abhigyan Abhikaushalam Students' Forum (AASF) in collaboration with ABV-IIITM has been started (MoUs signed) for collaborating and conducting inter-institute events and knowledge sharing among students.
- The Institute is collaborating with PDPM Indian Institute of Information Technology Design & Manufacturing (IIITDM), Jabalpur under the Electronics & ICT Academy (an initiative of Ministry of Electronics and Information Technology, Govt. of India) for conducting Joint Faculty Development Programmes.
- As a consequence, Institute will be recognized as Nodal (Remote) Center of Electronics & ICT Academy PDPM IIITDM Jabalpur. Under this collaboration, different training programmes/courses relating to emerging interdisciplinary trends/areas will be organized. In the near future, it is proposed to organize following summer programmes
 - ✓ ANN and Deep Learning (11-15 June 2018)
 - ✓ Internet of Things (IoT) (18-22 June 2018)
- The Institute has become a partner under the initiative Called "Making Deep Learning and AI skills mainstream in India by **"Royal Academy of Engineering, UK"** to fulfil trilateral needs of entrepreneurship, Industry-Academia partnership and application-inspired Engineering Research".
 - ✓ As a Partner, Faculty members and students of MITS Gwalior will be trained on the aspects relating to AI and deep learning technologies with the opportunity to work at Supercomputing lab of Bennett University.
 - ✓ Moreover, students will be offered internship opportunity based on selection criteria

15. Events & Activities Conducted by Professional Society Chapters/Students Clubs :

A total of 86 activities were conducted in the Academic Year 2017-18 by the various Student Clubs, Professional Society Chapters and under Sports.

The following activities were organized in collaboration with other institutes.

- *Chimera X: A zonal level Quiz Contest organized with ISTE- MANIT Bhopal*
- *Pan India Quiz Contest JQL-2017 in collaboration with Jaipuria Institute of Management, Indore*
- *Workshop on ANSYS Workbench & Android App Development in association with Emotech Software Solution Pvt Ltd, City Centre, Gwalior*



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16. The Initiatives Taken for Up-gradation of the IT Infrastructure :

The institute has augmented the IT infrastructure by procuring separate servers for:

- **Data Centre:** to store various information about the Institute staff, academic related information, various documents in digitized form
- **IMS:** To store confidential examination data of the students
- For Massive Open Online Courses, Account of students/staff, Lectures, assignment etc
- **Proxy Server** - To distribute controlled and monitored internet in the Institute.
- **Telnet server** - to store various software that can be downloaded from anywhere in the LAN of the Institute
- **Linux Server** - To provide programming support for the students of the Institute

17. Institutional Values & Social Responsibility :

- The IQAC is constantly promoting collaborative workshops on gender Sensitization, Woman Empowerment, Various Awareness Programmes, Blood Donation Camps, Students Counselling & Motivation are being conducted regularly with different organizations.

A total of 21 activities have been conducted by the NSS team and all II year students (for whom it is mandatory to join NSS), some of which are

- ✓ *Rally on AIDS Awareness*
- ✓ *Gender sensitization workshop*
- ✓ *Dental Camp, Eye Camp, Anti Tobacco Seminar and Yoga Programme*
- ✓ *Rally on Pollution free Deepawali*
- ✓ *Swachchhaya Bharat Rally*
- ✓ *Blood Donation Camp*
- ✓ *One Day Camp for deaf-dumb children*
- ✓ *One week workshop on social awareness programmes*
- ✓ *Seminar on Traffic Awareness*
- ✓ *Seminar on Solid Waste Management*
- ✓ *Plantation programme*
- ✓ *Sadbhavana Divas Oath*
- ✓ *Literacy cum Awareness Programme for under privileged children*
- The Rotaract Club (a service club and partner organization of the international body 'The Rotary Club') was started in the institute on 28th May 2018. It is a service, leadership, professional and community service organization for young men and women between the ages 18–30. It focuses on the development of young adults as leaders in their communities and workplaces.

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10/08/2018
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