

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to R.G.P.V., Bhopal, M.P.)

Date: 10<sup>th</sup> June 2022

## Minutes of the Academic Council Meeting

The meeting of Academic Council (AC) was held on 10<sup>th</sup> June 2022 at 11.30 A.M. onwards in the Convention Hall of the institute. The external members have attended the meeting through Video Conferencing.

The meeting was chaired by **Dr. R. K. Pandit**, Director of the Institute. **Er. Ramesh Agarwal**, Secretary, Scindia Engineering College Society (SECS) Gwalior, **Shri Prashant Mehta**, Member, Board of Governors (Nominee of Hon'ble Chairman, BoG) attended the meeting. **Dr. Saroj Kaushik**, Former Professor, IIT Delhi and Special Invitee **Dr. Rommel Mehta**, Former Professor, School of Planning & Architecture, New Delhi attended the meeting. **Prof. Mohan Sen**, Joint Director DTE Bhopal (Nominee of the Hon'ble Vice Chancellor, RGPV Bhopal) has also attended the meeting. While the nominees of BoG, Prof. Gajendra Dixit, Professor, MANIT Bhopal and Prof. R. K. Singh, Professor, University of Delhi could not attend the meeting. Other nominee of the Hon'ble Vice Chancellor of RGPV Bhopal, Prof. R.S. Rajput, Registrar RGPV Bhopal could not attend the meeting.

### **The following internal members attended the meeting:**

S. No.	Name	Designation	Status in AC
1.	Dr. R. K. Pandit	Director	Chairperson
2.	Dr. Manjaree Pandit	Professor (Electrical Engineering) & Dean (Academics)	Member
3.	Dr. Sulochana Wadhvani	Professor & Head, Electrical Engineering	Member
4.	Dr. Sanjay Tiwari	Professor & I/C Head, Civil Engineering	Member
5.	Dr. Anjali S Patil	Associate Professor & Head, Architecture	Member
6.	Dr. M. K. Gaur	Professor & Head, Mechanical Engineering	Member
7.	Dr. Akhilesh Tiwari	Professor & Head, Department of Information Technology	Member Secretary
8.	Dr. Manish Dixit	Professor & Head, Department of Computer Science & Engineering	Member
9.	Dr. Laxmi Shrivastava	Associate Professor & Head, Electronics Engineering	Member
10.	Dr. Abhay Mishra	Professor & Head, Applied Science	Member
11.	Dr. V. Shinde	Professor & Head, Engineering Mathematics and Computing	Member
12.	Dr. Sanjeev Khanna	I/C HoD, Humanities	Member
13.	Prof. Swati Gupta	Assistant Professor & Coordinator, Chemical Engineering	Member

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14.	Dr. Trilok Pratap Singh	Assistant Professor & Coordinator, Management	Member
15.	Prof. Archana Tiwari	Professor, Civil Engineering	Member
16.	Dr. R. S. Jadon	Professor, MCA	Member
17.	Prof. Anil Kumar Dwivedi	Associate Professor, Civil Engineering	Member

Prof. Praveen Bansal, SWAYAM Manager, Dr. Sunita Sharma, Dy. Controller (Exams), Dr. R. Kansal, Professor (Civil Engineering) & Dean (Students Welfare), Dr. P. K. Singhal, Professor, Electronics Engineering & Controller Examination attended the meeting as **special invitees**.

**Following internal members / invitees could not attend the meeting**

1.	Dr. Pratesh Jayaswal	Professor, Mechanical Engineering & Registrar
2.	Prof. Rajendra Prasad Kori	Assistant Professor, Mechanical Engineering

**The following deliberations took place in the meeting.**

Item: AC-1	<p>To confirm the minutes of the last Academic Council Meeting held on 28<sup>th</sup> December 2021.</p> <p><b>The compliance status of the key aspects approved in the previous academic council was discussed and appraised, as per the following</b></p> <ul style="list-style-type: none"> <li>• Authorization to the Registrar of the institute as one of the signatory, in place of the Director, on the Examination Tabulation Registers (TRs) and Mark sheets, as part of decentralization and empowerment.</li> </ul> <p><b>As per the approval of the Council and to promote decentralization and empowerment process in the institute, Registrar of the institute has been authorized to be a signatory on the Examination Tabulation Registers (TRs) and Mark sheets in place of the Director of the institute.</b></p> <ul style="list-style-type: none"> <li>• Regarding “not conferring the gold medal” for the batches (appeared in online mode examination) graduated during Covid-19 Pandemic period.</li> </ul> <p><b>Considering the approval of the council, no gold medals have been awarded for the batches, falling under the COVID-19 pandemic duration, wherein teaching learning and assessment was conducted in online mode.</b></p> <ul style="list-style-type: none"> <li>• Inclusion of courses: (i) Universal Human Values &amp; Professional Ethics (HVPE) (ii) Economics, Entrepreneurship &amp; Management, at UG Engineering level for the batch admitted in 2020-21 onwards.</li> </ul> <p><b>As per the authorization of the Academic Council, the Academic Development Cell (ADC) has made the provision for the inclusion of aforementioned courses as ‘Mandatory Audit Course’ / under other suitable category, at appropriate level of all UG programmes in Engineering. Moreover, as per the approval of the house, the said courses will also be inducted for the Batch Admitted in the 2022-23 and onwards with reorientation (in terms of sequencing and alignment) by determining the level (semester/year) at which the course is to be offered for effective outcomes.</b></p> <ul style="list-style-type: none"> <li>• Imposing qualifying criteria for Mandatory Audit Courses (MACs) at UG Engineering level for the batch admitted in 2020-21 onwards.</li> </ul> <p><b>As per the approval of the council, a ‘mandatory to qualify’ criteria for the courses under the “Mandatory Audit Course” category, has been implemented. The semester/year promotion will not be affected if a student fails to qualify in these courses under the “Mandatory Audit Courses (MACs)” category.</b></p>
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	<p><b>However, unless such students qualify in these MACs, they will not be considered eligible to get the UG degree.</b></p> <ul style="list-style-type: none"> <li>• Admission / Processing of Ph.D. programmes as per UGC norms, at the institute level under the academic autonomy granted by UGC and RGPV Bhopal.</li> </ul> <p><b>As per the approval and recommendation of the council, the relating proposal has been submitted to the affiliating university (Rajiv Gandhi Proudyogiki Vishwavidyalaya (RGPV) Bhopal) for further possible consideration through its Executive Council (EC) meeting.</b></p> <ul style="list-style-type: none"> <li>• Regarding consideration of normalized marks of institute level examinations, against the SWAYAM / NPTEL examinations.</li> </ul> <p><b>As per the approval, to maintain parity between the two examinations, the results were declared after normalization of marks with the marks obtained in corresponding courses in the proctored examination conducted by the course offering agency, i.e SWAYAM / NPTEL. The normalization was considered as per the formulae decided by the duly constituted committee.</b></p> <ul style="list-style-type: none"> <li>• Review and subsequent approval of Recommendations by different Board of Studies (BoS) (meeting held in the month of December 2021 through video conferencing), regarding the scheme/curriculum/courses for January- June 2022 Semester.</li> </ul> <p><b>As per the approval of the house, the scheme/curriculum and relating courses were offered during the January- June 2022 Semester.</b></p> <p><b><u>The minutes of the previous Academic Council meeting held on 28<sup>th</sup> December 2021 were confirmed and efforts made towards implementation of the same were appreciated</u></b></p>
Item: AC-2	<p>To discuss and approve the proposal for starting new Novel Engaging Courses (NEC) as a part of activities and practices for Holistic Development under the implementation of National Education Policy 2020.</p> <p><b>Under the implementation of National Education Policy 2020, the institute is already offering diversified Novel Engaging Courses, for the Holistic development of the students for the batch admitted 2020-21 session onwards. To further enhance the scope of the courses and to provide coverage of untouched significant areas, it was proposed to include more courses under the said arrangement (as per Annexure-I), with effect from the batch/ academic session 2022-23.</b></p> <p><b><u>The house has noted and approved the proposal</u></b></p>
Item: AC-3	<p>To consider the proposal regarding the learning teaching for Mandatory Audit Courses (MAC) through institute MOOCs under the faculty mentorship.</p> <p><b>It was proposed that the teaching learning activity (in the near future) for all the Mandatory Audit Courses (MACs) to be made through MOOCs with faculty mentorship arrangement. This will help the students to become a good self-learner and also unburden them.</b></p> <p><b><u>The house approved the proposal</u></b></p>
Item: AC-4	<p>To consider the proposal for extending flexibility towards completion of courses under Mandatory Audit Courses (MAC) at any stage of four years UG programme.</p> <p><b>It was proposed to make the provision, wherein students can complete their Mandatory Audit Courses (MACs) in flexible manner i.e. as and when they want to complete it, at any stage during the period of four years of UG programme, with effect from the batch 2022-23. Accordingly, a list of Mandatory Audit Courses (MACs) will be prepared with associated modalities and displayed /shared (as a part of</b></p>

Page 3 of 9

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	<p>scheme/curriculum). The course offering pattern will also be adjusted accordingly, so that the courses must be on offer in both (even and odd) semesters.</p> <p><b><u>The house approved the proposal</u></b></p>
Item: AC-5	<p>To conduct of institute level examination for final year UG students (case specific matters) on account of courses through SWAYAM/NPTEL platform.</p> <p>Considering the request submitted by the students (admitted batch 2017-18) mentioning their family circumstances /problems, post pandemic impact and their inability/failure to participate in the registration process/opted wrong courses for credit transfer through SWAYAM/NPTEL platform, may be allowed to appear in the institute level examination, being conducted in the month of June 2022. In this context, it is proposed to grant the <u>one-time permission</u> to consider their institute level examination, looking at the future of these students and in the interest of their careers.</p> <p><b><u>The house has noted and approved</u></b></p>
Item: AC-6	<p>To ratify the normalization factor adopted at the institute level for the institute level examination (on account of SWAYAM/NPTEL courses) marks for the students who failed to earn the pass certificate from SWAYAM/NPTEL platform.</p> <p>The normalization model was proposed by the duly constituted committee and subsequently, approved by the Director of the institute. As per the normalization model, all the end semester marks of NPTEL subjects conducted at institute level in online mode, were normalized as per the following, only for end term examination</p> <p><b>Normalization Factor:</b></p> $\alpha = \frac{\text{(Average marks in the subject under consideration for pass students only)}}{\text{(Average marks in the subject under consideration for the examination conducted at institute level)}}$ <p>Modified marks for institute level examinations</p> $= (\text{marks obtained by a student at the institute level examination}) \times \alpha$ <p><b><u>The house has noted and approved</u></b></p>
Item: AC-7	<p>To consider the proposal for provisioning of one and half hour duration for conducting the MCQ examination (except the MCQ based exam on account of SWAYAM/NPTEL subjects) under the prevailing practice of Multiple Mode Logical Pattern Examination system.</p> <p>It was proposed that the duration of end term examination for MCQ based subjects (as per the defined modes of exam under Multiple Mode Logical Pattern Examination), may be fixed to one and half hour duration. This will again unburden the students from high stake examination.</p> <p><b><u>The house approved the proposal</u></b></p>
Item: AC-8	<p>To consider the proposal for starting Mandatory Audit Courses (MAC) on <b>Engineering Physics</b> and <b>Engineering Chemistry</b> at UG First Year level.</p> <p>It was proposed to facilitate the modules of Engineering Physics and Engineering Chemistry at UG First Year level as Mandatory Audit Courses (MACs). This will help to attain the basic level understanding of subject matter and also bridge the gap in the knowledge for target / desirous students or wherever needed.</p> <p>The module of Engineering Physics and Engineering Chemistry will be of 30 Hrs. duration and offering</p>

arrangement may be implemented, as per the following for the mentioned disciplines/branches in the Odd /Even Semester.

First Semester (ODD): Engineering Physics Second Semester (Even): Engineering Chemistry	First Semester (ODD): Engineering Chemistry Second Semester (Even): Engineering Physics
<ul style="list-style-type: none"> <li>• Civil Engineering</li> <li>• Mechanical Engineering</li> <li>• Automobile Engineering</li> <li>• Chemical Engineering</li> <li>• Computer Science and Design (CSD)</li> <li>• Computer Science &amp; Engineering</li> <li>• Mathematics and Computing (MAC)</li> </ul>	<ul style="list-style-type: none"> <li>• Electrical Engineering</li> <li>• Internet of Things (Electrical Engineering)</li> <li>• Electronics Engineering</li> <li>• Electronics &amp; Telecommunication</li> <li>• Information Technology</li> <li>• Internet of Things (IoT) (Information Technology)</li> <li>• Information Technology (AI and Robotics)</li> <li>• Artificial Intelligence &amp; Data Science</li> <li>• Artificial Intelligence &amp; Machine Learning</li> </ul>

The house approved the proposal

Item: To reorient the Course offering provision for the courses “Technical Language” and “Language Lab” in the Even and Odd semesters of UG Engineering for the batch admitted 2022-23 onwards

AC-9

It was proposed to provision the course; “*Technical Language*” and “*Language Lab*”, as per the following arrangement (discipline/branches) for the scheme of / batch admitted 2022-23 and onwards

First Semester (ODD)	Second Semester (Even)
<ul style="list-style-type: none"> <li>• Civil Engineering</li> <li>• Mechanical Engineering</li> <li>• Automobile Engineering</li> <li>• Electrical Engineering</li> <li>• Internet of Things (Electrical Engineering)</li> <li>• Electronics Engineering</li> <li>• Electronics &amp; Telecommunication</li> </ul>	<ul style="list-style-type: none"> <li>• Computer Science and Design (CSD)</li> <li>• Computer Science &amp; Engineering</li> <li>• Information Technology</li> <li>• Internet of Things (IoT) (Information Technology)</li> <li>• Information Technology (AI and Robotics)</li> <li>• Artificial Intelligence &amp; Data Science</li> <li>• Artificial Intelligence &amp; Machine Learning</li> <li>• Mathematics and Computing (MAC)</li> <li>• Chemical Engineering</li> </ul>

This load distribution pattern will help in proper and balanced resource management.

The house approved the proposal

Item: To consider the proposal for imposing the criteria of “pass percentage” as 45 percent in each subject / course / Internship modules/ Novel Engaging Course, as per the requirement of Council of Architecture for the Architecture discipline UG level students.

AC-10

As per the requirement laid down by Council of Architecture, it is necessary to acquire the criteria of “pass percentage” as 45 % in each subject block and minimum 40% marks in the end semester exam. If a candidate fails in theory or practical block due to insufficient marks i.e. less than 45%, he shall have to reappear for the same block in the next end semester examinations as well as in internal Exam/assessment. Further, for passing Novel Engaging Course, Summer Internship Program, Skill Enhancement Program; the students must acquire 45% marks.

The house approved the proposal

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Item: To review the minutes of the meeting /proceedings of the Board of Studies (BoS) of various departments/disciplines, held in the month of May – June 2022 through video conferencing.

AC-11 **The deliberation of Board of Studies (BoS) were presented by the HoDs/Chairpersons/Coordinators of the following departments:**

**[Civil, Mechanical, Electrical, Electronics, Computer Science & Engineering, Information Technology, Engineering Mathematics and Computing, Chemical Engineering, Architecture, Applied Sciences, Humanities].**

*The presentation covered the following Agenda points of the respective BoS:*

**Instructions for preparing BoS Proceedings**

*{All information is to be uploaded on the webpage under suitable heading (such as Board of Studies) and separate links to be provided for each category mentioned below}*

Minutes should have a summary/cover page mentioning all the significant changes made in the following Given format

Courses where revision was carried out*							
(Course/subject name)	Course Code	Year/Date of introduction	Year/Date of revision	Percentage of content added or replaced	Agenda Item No.	Page No.	Link of relevant documents/minutes

1.

Courses focusing on employability/entrepreneurship/ skill development*					
(Course/subject name)	Course Code	Activities/contents which have a bearing on increasing skill and employability	Agenda Item No.	Page No.	Link of relevant documents/minutes

New Courses added*					
(Course/subject name)	Course Code	Activities/contents which have a bearing on increasing skill and employability	Agenda Item No.	Page No.	Link of relevant documents/minutes

Feedback on curriculum received from stakeholders: Analysis& ATR\*

Stakeholder	Student	Faculty	Alumni	Employer
No. of responses				
Link of Analysis				

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ATR Link				
Link showing Excel sheet of Google Form details of stakeholders				

\* Separate page(s) for each of the above four points; Agenda point wise minutes to be appended with each point and a separate link to be given in the appropriate column for each point

2. The course committees constituted vide Dean Academics Notice no 1297 dated 15/4/2021 need to be reconstituted this year to accommodate the newly joined faculty members.
3. The BoS minutes along with the cover/summary page (under point number 1, above) must be uploaded on the departmental web page and link for the same must be shared with the office of the Dean Academics.
4. Stakeholder feedback analysis must also contain an action taken report (ATR).  
The details/data of the stakeholder responded through GOOGLE form (such as Name, organization, mail id, phone no if available) must also be shared along with the feedback for the alumni/employer.
5. The following must be uploaded on the departmental web page and link for the same must be shared with the office of the Dean Academics.
  - (i) The Stakeholder feedback collected & analyzed to find the index out of five
  - (ii) Action taken report
  - (iii) Google form showing responses from alumni, employer, student, faculty etc.
6. Minutes should have a footer with department name, page number, month of meeting.
7. Each page should be signed by all faculty, scanned and then submitted to the Dean Academics office.

#### BoS Agenda Items

<b>Item 1</b>	To confirm the minutes of previous BoS meeting held in the month of December 2021
<b>Item 2</b>	To prepare and finalize the <b>scheme structure of B.Tech. VII Semester</b> with the provision of <i>Two Departmental Electives (DEs) and Two Open Category (OC) Course (in which one Departmental Elective is to be offered in online mode with credit transfer)</i> for the batch admitted in 2019-20.
<b>Item 3</b>	To prepare and finalize the syllabus of courses to be offered ( <i>for batch admitted in 2019-20</i> ) under <b>Departmental Elective (DE) Course</b> (in traditional mode) for B.Tech. <b>VII Semester</b> along with their COs
<b>Item 4</b>	To propose the list of courses which the students can opt from SWAYAM/NPTEL/MOOC based Platforms, to be offered in <b>online mode under Departmental Elective (DE) Course</b> , with credit transfer in the B.Tech. <b>VII Semester under</b> the flexible curriculum ( <i>Batch admitted in 2019-20</i> )
<b>Item 5</b>	To prepare and finalize the syllabus of courses to be offered ( <i>for batch admitted in 2019-20</i> ) under the <b>Open Category (OC) Courses</b> (in traditional mode) for B.Tech. <b>VII semester</b> students of other departments along with their COs
<b>Item 6</b>	To prepare and finalize the Experiment list/ Lab manual for Departmental Laboratory Course (DLC) to be offered in B.Tech. VII semester ( <i>for batches admitted in 2019-20</i> )

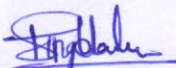
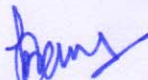
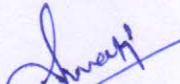

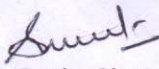
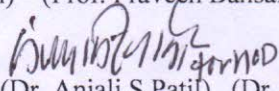
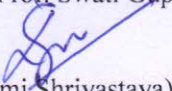
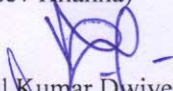
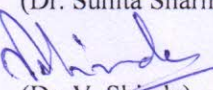
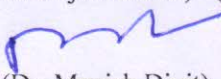
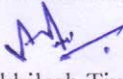
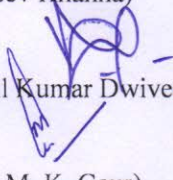
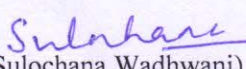
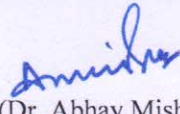
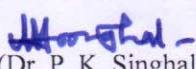
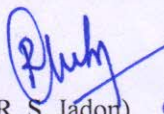
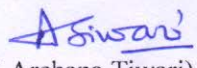
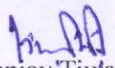
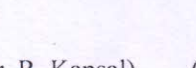
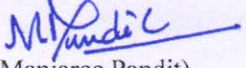
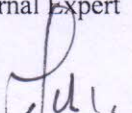
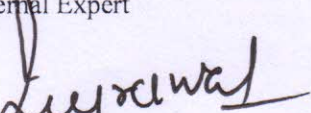
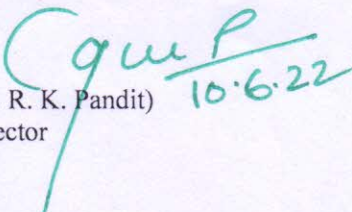
Item 7	To propose the list of “Additional Courses” which can be opted for getting an  (i) <b>Honours (for students of the host department)</b> (ii) <b>Minor Specialization (for students of other departments)</b> [These will be offered through SWAYAM/NPTEL/MOOC based Platforms for the B.Tech. VII semester students (for the batch admitted in 2019-20)] and for B.Tech. V semester (for the batch admitted in 2020-21)]
Item 8	To prepare and recommend the <b>scheme structure of B.Tech. V Semester under</b> the flexible curriculum (Batch admitted in 2020-21)  [This will also include all the emerging area programmes]
Item 9	To prepare and recommend the syllabi for all <b>Departmental Core (DC) Courses</b> of B.Tech. V Semester (for batch admitted in 2020-21) under the flexible curriculum along with their COs.  [This will also include all the emerging area programmes]
Item 10	To prepare and recommend the Experiment list/ Lab manual for all the Laboratory Courses to be offered in B.Tech. V semester (for batch admitted in 2020-21)  [This will also include all the emerging area programmes]
Item 11	To prepare and recommend the suggestive list of projects which can be assigned under the ‘Skill based mini-project’ category in various laboratory component based courses to be offered in B.Tech. V Semester (for the batch admitted in 2020-21).  [This will also include all the emerging area programmes]
Item 12	To propose the list of courses from SWAYAM/NPTEL/MOOC Platforms to be offered (for batch admitted in 2020-21) in online mode under <b>Self-Learning/ Presentation</b> , in the B.Tech. V Semester  [This will also include all the emerging area programmes]
Item 13	To prepare and recommend the <b>Scheme &amp; Syllabi (along with the Course Outcomes) of B.Tech. III semester of the newly started B. Tech. programmes in the emerging areas (AI &amp; ML, AI &amp; DS, CSD) (started from 2021-22 Session) {Applicable for the concerned departments}</b>
Item 14	To prepare and recommend the list of experiments and skill based mini projects of <b>B.Tech. III semester of the newly started B. Tech. programmes in the emerging areas (AI &amp; ML, AI &amp; DS, CSD) (started from 2021-22 Session) {Applicable for the concerned departments}</b>
Item 15	To review, prepare, finalize and recommend the <b>Scheme &amp; Syllabi (along with the Course Outcomes) of III semester B. Tech. programmes (batch admitted 2021-22 Session) {(all traditional and emerging area programmes (IT-IoT, AIR, EE-IoT, MAC))}</b>
Item 16	To review, prepare, finalize and recommend the list of experiments/ Lab manual and skill based mini projects for various laboratory courses to be offered in III Semester (for the batch admitted in 2021-22). {(all traditional and emerging area programmes (IT-IoT, AIR, EE-IoT, MAC))}
Item 17	To propose the list of courses from SWAYAM/NPTEL/MOOC Platforms to be offered (for batches admitted in 2021-22) in online mode under <b>Self-Learning/ Presentation</b> , in the <b>III Semester</b> {(all traditional and emerging area programmes (IT-IoT, AIR, EE-IoT, MAC, AI&DS, AI& ML, CSD))}
Item 18	To review the <b>Scheme &amp; Syllabi, list of experiments and skill based mini projects of First semester of the B. Tech. programmes (for the batch 2022-23).</b> (all traditional and emerging area programmes)
Item 19	To review the CO attainments, to identify gaps and to suggest corrective measures for the improvement in the CO attainment levels for (i) I year November 2021 – February 2022 Semester (ii) July-December 2021 Session for II to IV year students

PK  
 [Handwritten signatures and initials in blue ink, including names like 'Hemant', 'Dhruv', 'Anish', 'Soni', 'D.S.', 'Om', 'Anish', 'mb']



Item 20	To review PO attainment of 2017-2021 batch, CO-PO mapping matrix with attainments and gap analysis
Item 21	To review curricula feedback from various stakeholders, its analysis and impact <b>{Stakeholder feedback analysis must also contain an Action Taken Report (ATR) and the details/data of the stakeholders who have responded through GOOGLE form (such as Name, organization, mail id, phone no., if available) must also be shared along with the feedback of the alumni/employer}</b>
Item 22	To review the Course Outcomes (COs) feedback of various courses, its analysis, and ATR
Item 23	Any other matter
<b><u>The house approved the minutes and recommendations made by different Board of Studies (BoS)</u></b>	

The meeting ended with the vote of thanks to the Chair.

 (Dr. Trilok Pratap Singh)	 (Prof. Praveen Bansal)	 (Prof. Swati Gupta)	 (Dr. Sanjeev Khanna)
 (Dr. Sunita Sharma)	 (Dr. Anjali S Patil)	 (Dr. Laxmi Shrivastava)	 (Prof. Anil Kumar Dwivedi)
 (Dr. V. Shinde)	 (Dr. Manish Dixit)	 (Dr. Akhilesh Tiwari)	 (Dr. M. K. Gaur)
 (Dr. Sulochana Wadhvani)	 (Dr. Abhay Mishra)	 (Dr. P. K. Singhal)	 (Dr. R. S. Jadon)
 (Prof. Archana Tiwari)	 (Dr. Sanjay Tiwari)	 (Dr. R. Kansal)	 (Dr. Manjaree Pandit) Dean Academics
<i>Present online</i> (Dr. Saroj Kaushik) External Expert	<i>Present online</i> (Dr. Rommel Mehta) External Expert	<i>Present online</i> (Prof. Mohan Sen) External Expert	
 (Shri Prashant Mehta) Member BoG	 (Er. Ramesh Agarwal) Member, BoG		
 (Dr. R. K. Pandit) Director			

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

**NOVEL ENGAGING COURSES**

Sr.	Course Name & Code
1	Photo Editing Software: Adobe Photoshop (2000070)
2	Basics of Technical Analysis in Stocks (2000071)
3	Graphic Design (2000072)
4	World Heritage Sites: A Brief Overview (2000073)
5	Basic and Advanced Excel (2000074)
6	Shilpa Samhita : Philosophy of Indian Ancient Geotechnical Engineering (2000075)
7	Fire Safety and Regulation in Building (2000076)
8	Developments in Pavement Construction: Past to Future (2000077)
9	SPSS For Data Analysis (2000078)
10	Shutter Up-Flash Me Photography (2000080)
11	Science and Technology Around Us (2000081)
12	Cloud Computing: Techniques & Tools (2000083)
13	Role of MATLAB in Computations (2000084)
14	Demystifying Online Social networks (2000085)
15	Gender Sensitization (2000088)
16	IT Tools (2000089)
17	Understanding Financial Markets (2000090)
18	Intellectual Property : Rules, Drafting and Processing (2000091)
19	Modern techniques for business correspondence (2000093)
20	Integrating Engineering and Literacy (2000094)
21	Imbalance Learning (2000095)
22	Python for Image processing applications using Open CV (2000096)
23	MATLAB: Applications in Mathematical Biology (2000098)
24	Basics and Applications of Mathematica (2000099)
25	Technical Report Writing for Engineers (2000100)
26	Proficiency in Microsoft Excel (2000101)
27	Fundamentals of Electronics Devices (2000102)
28	Microsoft Visio: Scratch to Advance (2000103)
29	Renewable Energy Technology: Domestic load requirements (2000106)
30	Electrical Wiring, hazards & safety (2000107)
31	Basics of MATLAB Programming (2000108)
32	Basic Programming of Python using Google Colab (2000109)
33	LT Spice Tutorial for Circuit Simulation (2000110)
34	Research Paper Writing (2000111)
35	Understanding Logic Gates (2000114)
36	MATLAB Simulink (2000115)
37	CFD Foundation Course using ANSYS FLUENT (2000117)
38	Solar Applications (2000118)
39	Computational Methods for Engineers using MATLAB (2000119)
40	Role of Non-Destructive Testing (NDT) in modern inspection technology (2000120)
41	Creative thinking and problem solving (2000121)
42	Material Characterization Techniques for Engineering Applications (2000122)
43	System Dynamics: Using Bond Graph Approach (2000123)
44	Basics of Campus Recruitment Training (2000124)
45	Corporate Governance (2000125)
46	Professional Networking & CSR (2000126)
47	Craft practices in India (2000127)
48	Design of Heat Exchangers (2000128)
49	Smart Grid (2000129)
50	Study of Historical Monuments of Gwalior (2000130)
51	An Introduction to Queueing Systems and its Applications (2000131)
52	Image processing using MATLAB (2000132)
53	Digital Circuit Design (2000133)
54	Practical Electronics for Inventors (2000134)

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