

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

Department of Mechanical Engineering

MINUTES OF MEETING OF BOARD OF STUDIES (BoS)

A meeting of following members (external and internal) was held on 28th November, 2020 at 11:30 AM through online mode (Google Meet Link <http://meet.google.com/qui-tqjj-vjc>).

Following members were present:

- (1) Dr. Manish Kumar Sagar, Head of the Department and Chairman of the Committee
- (2) Prof. A.K. Agrawal, Professor, IIT BHU
- (3) Dr. K. K. Jain, Professor, NITTTR, Bhopal
- (4) Dr. Prashant Kumar Jain, Associate Professor, IIITDM, Jabalpur, External Expert
- (5) Er. Rajiv Singh Bais, Chief Manager R&D, Siemens Ltd. Gurgaon, External Expert
- (6) Dr. Pratesh Jayswal Member
- (7) Dr. Manoj K. Gaur Member
- (8) Dr. C. S. Malvi Member
- (9) Mr. R. P. Kori Member
- (10) Mr. Vedansh Chaturvedi Member
- (11) Dr. Jyoti Vimal Member
- (12) Mr. Sharad Agrawal Member
- (13) Mr. Vaibhav Shivhare Member
- (14) Dr. Amit Aherwar Member
- (15) Mr. Bhupendra K Pandey Member

Following members were absent:

- (1) Prof. P. M. V. Subbarao Professor, IIT, Delhi
- (2) Dr. Pavan Kumar Kankar Associate Professor, IIT, Indore, External Expert
- (3) Mr. Rajesh Dixit Zonal Head, Yuken India Ltd. New Delhi

Chairman welcomed the external expert members for attending the Board of Studies (BoS) meeting on 28th November, 2020. Online meeting held to finalize the Scheme and syllabus of B.Tech (Mechanical Engineering and Automobile Engineering) and M.Tech. (Production Engineering and Product Design) students.

Agenda of the BoS

To propose the list of courses which the students can opt from SWAYAM/ NPTEL/ MOOC Platform, to be offered in online mode under Departmental Elective (DE) category, for credit transfer in the VIII Semester (Batch admitted in 2017-18): applicable during January-June 2021 academic session.

Departmental Elective-5 (VIII SEM) Automobile Engg.				Departmental Elective-5 (VIII SEM) Mechanical Engg.			
S.No.	Subject Code	Subject Name	Mentor Name	S.No.	Subject Code	Subject Name	Mentor Name
1	190851	Wheeled Mobile Robots	Dr. D Jain	1	120851	Quality Design and Control	Mr. V. Chaturvedi
2	190852	Steam and Gas Power Systems	Mr. S.C. Pal	2	120852	Robotics: Basics and Selected Advanced Concepts	Mr. Neeraj Mishra
3	190853	Design, Technology and Innovation	Mr. Sharad Agrawal	3	120853	Steam and Gas Power Systems	Mr. Puneet Nema

Attached Annexure-I

[Handwritten signatures and initials]

To propose the list of courses which the students can opt from SWAYAM/ NPTEL/ MOOC Platform to be offered (for students of other departments) in *online mode under Open Category (OC)* for credit transfer in the *VIII Semester (Batch admitted in 2017-18): applicable during January-June 2021 academic session.*

Open Category-4 (OC) for other department's students			Open Category-5 (OC) for other department's students		
S.No.	Subject Name	Mentor Name	S.No.	Subject Name	Mentor Name
1	Waste to Energy Conversion	Mr. N. Sikarwar	1	Mechatronics	Mr. Vaibhav Shivhare
2	Product Design and Manufacturing	Dr. Amit Aherwar	2	Elements of Solar Energy Conversion	Dr. R. K. Ranjan
3	Automatic Control	Mr. Kostubh Khot	3	Traditional and Non-Traditional Optimization Tools	Mr. Gyanesh Sharan

Attached Annexure-II

To propose the list of "Additional Courses" which can be opted for getting an

- (i) *Honours (for students of the host department)*
- (ii) *Minor Specialization (for students of other departments)*

[These will be offered through SWAYAM/NPTEL/MOOC based Platforms for the VI semester (for the batch admitted in 2018-19) and for VIII semester students (for the batch admitted in 2017-18)] applicable during January-June 2021 academic session.

S.No.	Honors Subjects (For Mechanical/Automobile Engg. Students)		Minors Subjects (other than Mechanical/Automobile Engg. students)	
	VI (for the batch admitted in 2018-19)	VIII (for the batch admitted in 2017-18)	VI (for the batch admitted in 2018-19)	VIII (for the batch admitted in 2017-18)
1	Conduction and convection heat transfer	Fundamentals of Nuclear Power Generation	Introduction to fluid mechanics	Computational Fluid Dynamics for Incompressible Flows
2	Failure analysis and prevention	Mechanics of Human Movement	Operation Management	Mechanics of Machining
3	Six sigma	Processing of Polymers and Polymer Composites		

Attached Annexure-III

To review and finalize the list and syllabi for all *Departmental Elective (DE) Courses* of *VI Semester* to be offered to *(the batch admitted in 2018-19)* under the flexible curriculum along with their COs ; { *applicable During Jan-June 2021.*

DE-1 (Through Offline Mode) Mechanical Engineering			DE-1 (Through Offline Mode) Automobile Engineering		
S.No.	Subject Code	Subject Name	S.No.	Subject Code	Subject Name
1	120611	Vibration and Noise Engineering	1	190611	Automotive Material
2	120612	Statistical Quality Control	2	190612	Work Study and Ergonomics
3	120613	Work Study and Ergonomics	3	190613	Automotive Pollution and Control
4	120614	Turbo Machinery	4	190614	Automotive Component Design

Attached Annexure-IV

Item ME5: To review and finalize the list of Courses from SWAYAM/NPTEL/MOOC Platform to be offered *(for batch admitted in 2018-19)* in online mode under *Departmental Elective (DE) Courses* for credit transfer in the *VI Semester (applicable during January-June 2021 academic session).*

M. S. ... P.H. ...

Mechanical Engineering				Automobile Engineering			
S.No.	Subject Code	Subject Name	Mentor Name	S.No.	Subject Code	Subject Name	Mentor Name
1	120651	Viscous Fluid Flow	Mr U Srivastava	1	190651	Viscous Fluid Flow	Mr B Pandey
2	120652	Fundamental of Welding Science and Technology	Mr S. F. Ahmad	2	190652	Robotics and Control: Theory and Practice	Mr K. K. Yadav
3	120653	Gear and Gear unit Design: Theory and Practice	Dr. J. Vimal	3	190653	Fundamental of Automotive System	Mr S Srivastava

Attached Annexure-V

To review and finalize the Courses & Syllabi to be offered (for batch admitted in 2018-19) under the **Open Category (OC) Courses** for VI semester students of other departments along with their Cos.

Open Category (OC-1)		
S.No.	Subject Code	Subject Name
1	900101	Robotics
2	900102	Product Design

Item ME6:

Attached Annexure-VI

To review and finalize the Courses & Syllabi to be offered (to the batch admitted in 2018-19) under **Departmental Core (DC) Courses** for the IV & VI semester students along with their Cos.

Mechanical Engineering VI Sem (for batch admitted 2018-19)			
S.No.	Subject Code	Category Code	Subject Name
1.	120601	DC	Advance Production Technology
Automobile Engineering VI Sem (for batch admitted 2018-19)			
1.	190601	DC	Automotive Transmission
Mechanical Engineering IV Sem (for batch admitted 2018-20)			
1.	120401	DC	Theory of Machines -II
2.	120402	DC	Design of Machine Elements
3.	120403	DC	Manufacturing Process
4.	120404	DC	Engineering Thermodynamics
Automobile Engineering IV Sem (for batch admitted 2018-20)			
1.	190401	DC	Theory of Machines -I
2.	190402	DC	Automotive Electrical and Electronics System
3.	190403	DC	Engineering Thermodynamics
4.	190404	DC	Manufacturing Process

Item ME7:

Attached Annexure-VII

To review and finalize the **Scheme & Syllabi (I & II semester)** of the **NEW B. Tech.** programme(s) to be started by the departments w.e.f. the batch admitted in 2020-21
Annexure

Attached Annexure VIII

To identify gaps in CO attainment levels for Jan-June 2020 semester and propose corrective measures for improvement.

Attached Annexure-IX

To prepare and propose the equivalence list of courses for B. Tech programmes (for 2017-18, 2018-2019, 2019-2020 & the 2020 admitted batch)

Attached Annexure - X

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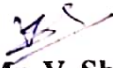
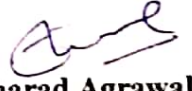
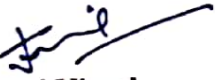
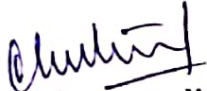

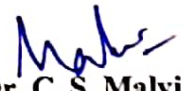

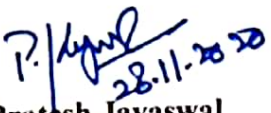
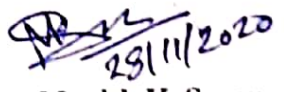
Item	Any other matter (Scheme and Syllabus of M.Tech. Production Engg. And Product Design)
ME11:	Attached Annexure -XI

Apart from the above, following suggestions given by experts which are listed below;

1. The subject name of Production Engineering-I (M.Tech.) should be replaced with Advanced Casting & Welding Processes.
2. The subject name of Production Engineering-II (M.Tech.) should be replaced with Advanced Manufacturing Processes.
3. Proposed subject through online platform "Modelling and Simulation of Dynamic Systems" should be replace by "Mechanics of Human Movement".
4. Laboratory facility (Equipment's/Software) in the Department must be updated as per revised/updated curriculum.

It is decided that, suggestions may be incorporated as it is or with some modifications as per applicability in the syllabus or scheme at the time of finalization.

The meeting was ended with vote of thanks to the chairperson and committee members.

 Mr. B. K. Pandey (BoS Member)	 Dr. Amit Ahirwar (BoS Member)	 Mr. V. Shivhare (BoS Member)	 Mr. Sharad Agrawal (BoS Member)
 Dr. Jyoti Vimal (BoS Member)	 Mr. V. Chaturvedi (BoS Member)	 Mr. R. P. Kori (BoS Member)	 Dr. C. S. Malvi (BoS Member)
 Dr. Manoj K. Gaur (BoS Member)	 Dr. Pratesh Jayaswal (BoS Member)	<i>on line present</i> Er. Rajiv Singh Bais (Industry Expert)	<i>on line Present</i> Dr. Prashant K. Jain (RGPV Nominee)
<i>on line Present</i> Dr. K K Jain (AC, Nominee)	<i>on line present</i> Prof. A.K. Agrawal (AC Nominee)		 Dr. Manish K. Sagar (BoS Chairman)