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Shri G. S. Institute of Technology & Science, Indore

Department of Mechanical Engineering

Date: 12th July, 2023

Minutes of BOS Meeting held on 12th July 2023

A Board of Studies (BOS) meeting of Mechanical Engineering was held in hybrid (both offline & online) mode on 12th July 2023 for Implementation of the National Education Policy of India 2020 (NEP 2020) and to reviewing the course structure and syllabus of UG and PG courses.

Following members have attended the meeting:

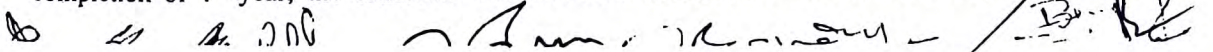
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|--|-----------------|
| 1. Dr. B. R. Rawal, Professor, Department of Mechanical Engineering, SGSITS-Indore | Chairman |
| 2. Dr. B.K. Gandhi, Professor, Department of Mechanical Engineering, IIT-Roorkee | Expert Member |
| 3. Dr. S.V. Modak, Professor, Department of Mechanical Engineering, IIT-Delhi | Expert Member |
| 4. Dr. Ashesh Tiwari, Professor, Department of Mechanical Engineering, IET DAVV-Indore | Expert Member |
| 5. Dr. Pavan Kumar Kankar, Associate Professor, IIT-Indore | Expert Member |
| 6. Shri. Vidyadhar Pande, Director, ABHIKALP Design Studio, Indore | Industry Expert |
| 7. Dr. Smita Manepatil | Member |
| 8. Dr. M. L. Jain | Member |
| 9. Dr. Rajkumar Porwal | Member |
| 10. Dr. Basant Agrawal | Member |
| 11. Dr. Sudhir Tiwari | Member |
| 12. Dr. Vinod Pare | Member |
| 13. Shri. Vinod Parashar | Member |
| 14. Smt. Swati Chaugaonkar | Member |
| 15. Dr. Bhupendra Singh More | Member |
| 16. Dr. Manoj Chouksey | Member |
| 17. Dr. Prabnesh Ganai | Member |
| 18. Dr. Ashok Atulkar | Member |
| 19. Shri. Ravi Jatola | Member |
| 20. Shri. Gangaram Mourya | Member |

Meeting could not be attended by

1. Shri. Dinesh Pasi
2. Shri Anil Mulewa

The deliberations of the meeting are as under:

Item No.1 – BOS proposed exit policy after B.Tech. 1st and 2nd year. After successful completion of 1st year, the candidate can exit with certificate in mechanical engineering.



Additional 10 credits (out of which atleast 6 credits of industrial training/internship) is to be earned for getting engineering certificate.

Similarly, after successful completion of 2nd year, the candidate can exit with UG diploma in mechanical engineering. For this 10 additional credits (out of which atleast 6 credits of industrial training/internship) is to be earn for getting diploma in mechanical Engineering.

However, the expert suggested following points on this matter:

- Certificate after 1st year and diploma after 2nd year may be given without earning additional credits of industrial training.
- In the light of the above industrial training may be offered in semester break.
- Addition subjects may be taught during semester only if required.

Item No. 2 – Minor modification in the syllabus of subject ME26005 & ME46219 are suggested. The syllabus are enclosed.

- The elective subject Artificial Intelligence is shifted from VII to VIII semester.
- Basic Electronics Engineering (EC26563) has been replaced with Advance Electronics.
- Elective subject Data Science (ME46317) is renamed as Data Science & Machine Learning.

Item No. 3 – Experts also suggested to review the whole scheme of UG Mechanical Engineering in future to make it more relevant to current requirement of industries.

The meeting ended with a vote of thanks to the chair.

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| 1. Dr. B. R. Rawal | 11. Dr. Sudhir Tiwari |
| 2. Dr. B.K. Gandhi | 12. Dr. Vinod Pare |
| 3. Dr. S.V. Modak (Present online) | 13. Shri. Vinod Parashar |
| 4. Dr. Ashesh Tiwari | 14. Smt. Swati Chaugaonkar |
| 5. Dr. Pavan Kumar Kankar (Present online) | 15. Dr. Bhupendra Singh More |
| 6. Shri. Vidyadhar Pande (Present online) | 16. Dr. Manoj Chouksey |
| 7. Dr. Smita Manepatil | 17. Dr. Prabnesh Ganai |
| 8. Dr. M. L. Jain | 18. Dr. Ashok Atulkar |
| 9. Dr. Rajkumar Porwal | 19. Shri. Ravi Jatola |
| 10. Dr. Basant Agrawal | 20. Shri. Gangaram Mourya |

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Scheme 2022-23
2023-241 YEAR B.Tech. (4YDC)
Common To All Branches

Semester - A

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	BSC	MA 10001	Mathematics - I	3	1	0	4	0	70	30	0	0	100
2	BSC	PH10016	Physics	2	1	-	3	-	70	30	-	-	100
3	ESC	EE10015	Fundamentals of Electrical Engineering	2	1	-	3	0	70	30	0	0	100
4	ESC	CE10013	Fundamentals of Civil Engineering & Applied Mechanics	2	1	-	3	0	70	30	0	0	100
5	ESC	ME10149	Engineering Graphics	3	-	-	2	-	70	30	-	-	100
6	BSC (LC)	PH10151	Applied Physics Lab	-	-	2	-	1	-	-	20	30	50
7	ESC (LC)	EE10152	Electrical Engineering Lab	-	-	2	-	1	-	-	20	30	50
8	ESC (LC)	ME10153	Engineering Graphics Lab	-	-	4	-	2	-	-	40	60	100
9	HSMC	HU10191	Extra /Co curricular Activity	-	-	2	-	1	-	-	50	0	50
10	MC		Induction program & Universal Human Values	2-3 weeks in the beginning of 1 Year & 1 hour per week during semester									
TOTAL				12	4	10	15	5	350	150	130	120	750

Semester - B

S. No.	Subject Category	Subject Code	Subject Name	Hours per Week			Credits		Maximum Marks				
				L	T	P	Th	Pr	Theory		Practical		Total
									Th.	CW	SW	Pr.	
1	BSC	MA 10501	Mathematics - II	3	1	-	4	-	70	30	0	0	100
2	BSC	CH10516	Chemistry	3	-	-	3	-	70	30	-	-	100
3	HSMC	HU10551	Technical English	2	-	-	2	-	70	30	0	0	100
4	ESC	CO10507	Programming for Problem Solving	2	1	-	3	-	70	30	0	0	100
5	ESC	EC10508	Basic Electronics Engineering	2	-	-	2	-	70	30	0	0	100
6	BSC (LC)	CH10656	Chemistry Lab	-	-	2	-	1	-	-	20	30	50
7	HSMC (LC)	HU10653	Language Lab	-	-	2	-	1	-	-	20	30	50
8	ESC (LC)	CO10654	Computer Programming Lab	-	-	2	-	1	-	-	20	30	50
9	ESC (LC)	IP10655	Manufacturing Practices	-	-	4	-	2	-	-	40	60	100
10	HSMC	HU10691	Extra /Co curricular Activity	-	-	2	-	1	-	-	50	-	50
11	MC		Induction program & Universal Human Values	2-3 weeks in the beginning of 1 Year & 1 hour per week during semester									
TOTAL				12	2	12	14	6	350	150	150	150	800

*Engineering Certificate in Mechanical Engineering shall be awarded after acquiring additional 10 credits out of which 6 credits as 2 Months industrial training within five years.

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SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE (M.P.)
II B.TECH.(4YDC) MECHANICAL ENGINEERING

Scheme 2008-09
2023-24

Semester: III

No.	Subject Category	Subject Code	Subject	Hours per Week*			Th. Credit	Pr. Credit	Maximum Marks				Total
				L	T	P			Th.	CW	SW	Pr.	
1	PCC	ME26011	Fluid Mechanics	3	-	2	3	1	70	30	40	60	200
2	PCC	ME26002	Strength of Materials	3	1	-	4	-	70	30	-	-	100
3	BSC	MA26004	Mathematics -III	3	-	2	3	1	70	30	40	60	200
4	PCC	ME26008	Material Science	3	-	2	3	1	70	30	40	60	200
5	PCC	ME26005	Engineering Thermodynamics	-	2	-	2	-	-	100	-	-	100
6	HSMC	HU26481	Values, Humanity and Professional Ethics	-	-	-	-	-	-	50	-	-	50
7	MC	HUM2001	Constitution of India*	2	-	-	-	-	-	-	-	-	50
Total				17	3	8	18	4	350	300	160	240	1050

Semester: IV

S.No.	Subject Category	Subject Code	Subject	Hours per Week*			Th. Credit	Pr. Credit	Maximum Marks				Total
				L	T	P			Th.	CW	SW	Pr.	
1	BSC	MA26556	Mathematics-IV	3	1	-	4	-	70	30	-	-	100
2	PCC	ME26551	Machine Design - I	3	-	2	3	1	70	30	40	60	200
3	PCC	ME26562	Kinematics of Machine	3	-	2	3	1	70	30	40	60	200
4	ESC		Advance Electronics	3	-	2	3	1	70	30	40	60	200
5	PCC	IP26553	Manufacturing Processes - I	3	-	-	3	-	70	30	-	-	100
6	HSMC	HU26507	Economics for Engineers	-	-	2	-	1	-	-	40	60	100
7	PCC	ME26881	Machine Drawing & Computer Graphics	-	-	-	-	-	-	-	-	-	-
Total				18	1	10	19	5	420	180	200	300	1100

Internship of 4-6 weeks between semester IV & semester V.

* Non Credit Mandatory Subject.

Diploma in Mechanical Engineering shall be awarded after acquiring additional 10 credits out of which 6 credits as 3 Months industrial training within five years

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SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE (M.P.)

Scheme 2022-23
2023-24

III B.TECH.(4YDC) MECHANICAL ENGINEERING

SEMESTER - V

S.No.	Subject Category	Subject Code	Subject	Hours per Week*			Th. Credit	Pr. Credit	Maximum Marks				
				L	T	P			Th.	CW	SW	Pr.	Total
1	PCC	ME36011	Dynamics of Machines	3	1	2	4	1	70	30	40	60	200
2	PCC	ME36003	Measurement & Automatic Control	3	-	2	3	1	70	30	40	60	200
3	PCC	ME36006	Heat & Mass Transfer	3	-	2	3	1	70	30	40	60	200
4	PCC	ME36007	Steam and Gas Power System	3	-	-	3	-	70	30	-	-	100
5	PCC	IP36062	Manufacturing Processes-II	3	-	2	3	1	70	30	40	60	200
Total				15	1	8	16	4	350	150	160	240	900

SEMESTER - VI

S.No.	Subject Category	Subject Code	Subject	Hours per Week*			Th. Credit	Pr. Credit	Maximum Marks				
				L	T	P			Th.	CW	SW	Pr.	Total
1	PCC	ME36501	Refrigeration and Airconditioning	3	-	2	3	1	70	30	40	60	200
2	PCC	ME36503	Machine Design - II	3	-	4	3	2	70	30	40	60	200
3	PCC	ME36506	Fluid Machinery	3	-	2	3	1	70	30	40	60	200
4	PEC	ME36509	Internal Combustion Engines	3	-	2	3	1	70	30	40	60	200
5	HSMC	IP36504	Industrial Engineering and Production Management	3	-	-	3	-	70	30	-	-	100
6	PROJ	ME36581	Industrial Training/ Minor Project	-	-	4	-	2	-	-	100	-	100
Total				15	0	14	15	7	350	150	260	240	1000

Internship of 4-6 weeks between semester VI & semester VII.

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SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE (M.P.)
IV B.TECH.(4YDC) MECHANICAL ENGINEERING

SEMESTER - VII

S.No.	Subject Category	Subject Code	Subject	Hours per Week*			Th. Credit	Pr. Credit	Maximum Marks							
				L	T	P			Th.	CW	SW	Pr.	Total			
1	PEC	ME46018	Automobile Engineering	3	-	2	3	1	70	30	40	60	200			
2	PEC	ME46051	Vibration and Noise Control	3	-	2	3	1	70	30	40	60	200			
3	PEC	ME46020	Computer Aided Design	3	-	2	3	1	70	30	40	60	200			
4	PEC		Elective-I	3	-	-	3	-	70	30	-	-	100			
5	PEC		Elective-II	3	-	-	3	-	70	30	-	-	100			
	PROJ	ME46481	Industrial Training	-	-	-	-	2	-	-	100	-	100			
7	PROJ	ME46498	Major Project Phase-I (AB group)	-	-	6	-	3	-	-	40	60	100			
8	PROJ	ME46998	Major Project Phase-II (BA Group)	-	-	8	-	4	-	-	60	90	150			
Total				For AB Group			15	0	12	15	8	350	150	260	240	1000
				For BA Group			15	0	14	15	9	350	150	280	270	1050

SEMESTER - VIII

S.No.	Subject Category	Subject Code	Subject	Hours per Week*			Th. Credit	Pr. Credit	Maximum Marks							
				L	T	P			Th.	CW	SW	Pr.	Total			
1	PEC		Elective III	3	-	-	3	-	70	30	-	-	100			
2	PEC		Elective IV	3	-	-	3	-	70	30	-	-	100			
3	PROJ	ME46882	Industrial Training/Internship	-	-	-	-	4	-	-	100	-	100			
4	PROJ	ME46998	Major Project Phase- II (AB Group)	-	-	8	-	4	-	-	60	90	150			
5	PROJ	ME46498	Major Project Phase-I (BA group)	-	-	6	-	3	-	-	40	60	100			
Total				For AB Group			6	0	8	6	8	140	60	160	90	450
				For BA Group			6	0	6	6	7	140	60	140	60	400

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IV B.Tech.(4YDC) MECHANICAL ENGINEERING

List of Electives

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Elective-I			SEMESTER - VII
S.No.	Subject Category	Subject Code	Subject
1		ME46218	Mechatronics and Automation
2		ME46219	Advanced Machine Design
3.			Industrial Tribology and Maintenance
4			Design of Air Conditioning Equipment

Elective-II			SEMESTER - VII
S.No.	Subject Category	Subject Code	Subject
1		IP46316	Operational Research
2		ME46315	Hydraulic, Pneumatic & Fluidic Control
3			Bio - Mechanics
4			Manufacturing Automation & CAM
5		ME46317	Data Science and Machine Learning
6			Power Plant and Energy Management

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IV B.Tech.(4YDC) MECHANICAL ENGINEERING

List of Electives

Elective-III			SEMESTER - VIII
S.No.	Subject Category	Subject Code	Subject
1		ME46667	Composite Materials
2			Renewable Energy Sources
3			Industrial Inspection & Quality Control
4			Finite Element Methods
5		ME	Robotics
6			Rotor Dynamics
7			Artificial Intelligence

Elective-IV			SEMESTER - VIII
S.No.	Subject Category	Subject Code	Subject
1			Gas Dynamics & Fluid Flow
2			Engineering Optimization
3		ME46704	Design of Thermal Systems
4			Computational Fluid Dynamics
			Viscous Fluid Flow
		ME	3D Printing and Design

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