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

Department of Mechanical Engineering

Minutes of Meeting of Board of studies in Mechanical Engineering Department

A meeting of Board of studies in Mechanical Engineering was held on 08th Feb 2021 at 12.00 PM in Conferen Room of Department. Following members attended the meeting:

1. Dr. K.K. Porwal	(Chairman)	10. Shri Vinod Parashar	(Memb
2. Prof. M.R. Nandgaonkar, COEP Pune	(External Expert)	11. Dr. Vinod Pare	(Memb
3. Prof. K.R. Aharwal, MANIT Bhopal	(External Expert)	12. Dr. B.S. More	(Memb
4. Prof. P.K. Kankar, IIT Indore	(External Expert)	13. Dr. Manoj Chouksey	(Memb
5. Prof. S.S. Maneptal	(Member)	14. Ms Swati D Chaugaonkar	(Memb
6. Dr. M.L. Jain	(Member)	15. Shri Ashok Atulkar	(Memb
7. Dr. Basant Agrawal	(Member)	16. Shri Pranbesh Ganai	(Memb
8. Dr. Sudhir Tiwari	(Member)	17. Shri Dinesh Pasi	(Member)
9. Dr. B.R. Rawal	(Member)		

Following items were reviewed:

Item 1: The Scheme of B Tech Mechanical was discussed and following changes were recommended-

Members proposed to introduce a new subject titled "Steam and Gas Power System" instead of ME368: Power Plant and Energy Management in V semester to maintain continuity and shift Power Plant and Energy Management subject as elective to VII Semester of Final Year.

Syllabus of Steam and Gas Power System was discussed and attached

Item 2: The Scheme and syllabi of M.Tech. course in CAD/CAM/CAE were discussed and updated according to AICTE model curriculum and new credit scheme. The recommended scheme of course is enclosed and will be effective from session 2021-22.

Item 3: Minor modification in syllabus and COs of subject Industrial Engineering and Production Management and Quantity Techniques taught by IPE department in Mechanical Engineering Courses were recommended as suggested by IPE department.

Item 4: Minor modifications in syllabus and COs of subjects of MTech course- Optimization technique in design, Computer Aided Design and Advance Stress Analysis, and BTech course- Vibration and Noise Control were recommended. Modified syllabi are attached.

R.K. Kumar

Signatures of members:-

1. Dr. R.K. Porwal *Rajkumar*

2. Prof. M.R. Nandgaonkar, COEP Pune

3. Prof K R Aharwal, MANIT Bhopal

4. Prof. P K Kankar, IIT Indore *P.K.*

5. Prof. S S Manepati

6. Dr. M.L. Jain *On Leave.*

7. Dr. Basant Agrawal

8. Dr. Sudhir Tiwari *S.T.*

9. Dr. B.R. Rawal *B.R.*

10. Shri Vinod Parashar

11. Dr. Vinod Pare *V.P.*

12. Dr. B.S. More *B.S.*

13. Dr. Manoj Chouksey *M.C.*

14. Ms Swati D Chaugankar

15. Shri Ashok Atulkar *A.A.*

16. Shri Pranabesh Ganai *P.G.*

17. Shri Dinesh Pasi *D.P.*

Proposed Scheme of M. Tech. course in CAD/CAD/CAE

BOS, Mechanical I

SEMESTER - I

S. No.	Subject Code	Subject	Classes per week			Credits		Maximum Marks				Total
			L	T	P	Th.	Pr.	Theory		Practical		
								Th.	CW	SW	Pr.	
1	MA SXXXX	Advanced Mathematical Methods in Engineering	4	-	-	3	-	70	30	-	-	100
2	ME SXXXX	Computer Aided Design	4	-	-	3	-	70	30	-	-	100
3	ME SXXXX	Finite Element Analysis	4	-	-	3	-	70	30	-	-	100
4		Elective-I	4	-	-	3	-	70	30	-	-	100
5		Elective-II	4	-	-	3	-	70	30	-	-	100
6	ME SXXXX	FEA Lab	-	-	4	-	2	-	-	40	60	100
7	ME SXXXX	CAD Lab	-	-	4	-	2	-	-	40	60	Grade
8	ME SXXXX	Comprehensive Viva I	-	-	-	-	-	-	-	-	Grade	700
Total			20	-	8	15	4	350	150	80	120	

SEMESTER - II

S. No.	Subject Code	Subject	Classes per week			Credits		Maximum Marks				Total
			L	T	P	Th.	Pr.	Theory		Practical		
								Th.	CW	SW	Pr.	
1	ME SXXXX	Rapid Prototyping and Tooling	4	-	-	3	-	70	30	-	-	100
2	IP SXXXX	Computer Aided Manufacturing	4	-	-	3	-	70	30	-	-	100
3	ME SXXXX	Mechatronics and Automation	4	-	-	3	-	70	30	-	-	100
4		Elective-III	4	-	-	3	-	70	30	-	-	100
5		Elective-IV	4	-	-	3	-	70	30	-	-	100
6	ME SXXXX	Rapid Prototyping and Tooling Lab	-	-	4	-	2	-	-	40	60	100
7	ME SXXXX	Mechatronics and Automation Lab	-	-	4	-	2	-	-	40	60	50
8	ME SXXXX	Memo. Project Seminar- I	-	-	2	-	1	-	-	50		Grade
9	ME SXXXX	Comprehensive Viva II	-	-	-	-	-	-	-	-	Grade	750
Total			20	-	10	15	4	350	150	130	120	

List of Electives

Elective - I	Elective - II	Elective - III	Elective - IV
Advanced Machine Design	Hydraulic and Pneumatic Control	Product Design and Development	Quantitative Techniques
Advanced Engineering materials	Bio mechanics	Advanced Stress Analysis	Optimization Techniques
Analysis and Synthesis of Mechanism	Design for Manufacturing and Assembly	Advanced Finite Element Methods	Computational Fluid Dynamics
Computer Aided Process Planning	MEMS and NEMS	Design of Thermal System	Robotics

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Scheme of M. Tech. course in CAD/CAD/CAE

SEMESTER III

S. No.	Subject Code	Subject	Classes per week			Credits		Maximum Marks				
			L	T	P	Th.	Pr.	Theory		Practical		Total
								Th.	CW	SW	Pr.	
1.	ME 8xxxx	Dissertation Phase - I	-	-	20	-	10	-	-	40	60	100
2.	ME 8xxxx	*Industrial Training/ Term Paper/ Seminar II	-	-	8	-	4	-	-	50	-	50
3.	MA 8xxxx	*Research Methodology & IPR	2	-	-	2	-	70	30	-	-	100
Total			2	-	28	2	14	70	30	90	60	250

*Industrial training to be carried out between II and III semester during vacation

** This course can be studied online with prior permission of HOD, however, End-semester examination will be conducted in the Institute.

SEMESTER - IV

S. No.	Subject Code	Subject	Classes per week			Credits		Maximum Marks				
			L	T	P	Th.	Pr.	Theory		Practical		Total
								Th.	CW	SW	Pr.	
1.	ME 8xxxx	Dissertation Phase - II	-	-	32	-	16	-	-	80	120	200
Total			-	-	32	-	16	-	-	80	120	200

Total Credits: $19 + 19 + 16 + 16 = 70$

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SEMESTER - V

S. No.	Subject Category	Sub. Code	Subject	Classes per Week			Credit		Maximum Marks				Total
				L	T	P	Th.	Pr.	Theory		Practical		
									Th.	CW	SW	Pr.	
1	PCC	ME36001	Dynamics of Machines	4	1	2	4	1	70	30	40	60	200
2	PCC	ME36003	Measurement and Automatic Control	4	-	2	3	1	70	30	40	60	200
3	PCC	ME36006	Heat & Mass Transfer	4	-	2	3	1	70	30	40	60	200
4	PCC	ME36xxx	Steam and Gas Power System	4	-	-	3	-	70	30	-	-	100
5	PCC	IP36562	Manufacturing Processes-II	4	-	2	3	1	70	30	40	60	200
Total				20	1	8	16	4	350	150	160	240	900

Optional Subject(s)

6	OC	OC	Open Category-III (Audit only)	-	-	-	-	-	-	-	-	-	-
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Semester VI

S. No.	Subject Category	Sub. Code	Subject	Classes per Week			Credit		Maximum Marks				Total
				L	T	P	Th.	Pr.	Theory		Practical		
									Th.	CW	SW	Pr.	
1	PCC	ME36501	Refrigeration and Air-conditioning	4	-	2	3	1	70	30	40	60	200
2	PCC	ME36xxx	Machine Design II	4	-	4	3	2	70	30	40	60	200
3	PCC	ME36506	Fluid Machinery	4	-	2	3	1	70	30	40	60	200
4	PLC	ME36509	Internal Combustion Engines	4	-	2	3	1	70	30	40	60	200
5	IISMC	IP360xx	Industrial Engineering and Production Management	4	-	-	3	-	70	30	-	-	100
6	PROJ	ME36xxx	Industrial Training / Minor Project	-	-	4	-	2	-	-	100	-	100
Total				20	-	14	15	7	350	150	260	240	1000

Optional Subject(s)

7	OC	OC	Open Category-IV (Audit only)	-	-	-	-	-	-	-	-	-	-
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10/11/2022

Semester VII

S. No.	Subject Category	Sub. Code	Subject	Class per Week			Credit		Maximum Marks				Total
				L	T	P	Th.	Pr.	Theory		Practical		
									Th.	CW	SW	Pr.	
1	PEC	ME46008	Automobile Engineering	4	-	-	3	-	70	30	-	-	100
2	PEC	ME46061	Vibration and Noise Control	4	-	2	3	1	70	30	40	60	200
3	PEC	ME46010	Computer Aided Design	4	-	2	3	1	70	30	40	60	200
4	PEC		Elective-I	4	-	-	3	-	70	30	-	-	100
5	PEC		Elective-II	4	-	-	3	-	70	30	-	-	100
7	PROJ	ME46xxx	Industrial Training	-	-	-	-	2	-	-	100	-	100
8	PROJ	ME46499	Major Project Phase-I (AB group)	-	-	8	-	4	-	-	60	90	150
9	PROJ	ME46999	Major Project Phase-II (BA Group)	-	-	8	-	4	-	-	60	90	150
Total				20	-	12	15	8	350	150	240	210	950

Optional Subject(s)

7	OC	OC	Open Category-V (Audit only)	-	-	-	-	-	-	-	-	-	-
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List of Electives

Elective-I			Elective-II		
S. No.	Sub. Code	Subject	S. No.	Sub. Code	Subject
1	ME46xxx	Advanced Machine Design	1	XX 460xx	Operational Research
2	ME460xx	Design of Air Conditioning Equipment	2	ME 46325	Hydraulic, Pneumatic & Fluidic Control
3	ME460xx	Industrial Tribology and Maintenance	3	ME460xx	Bio - Mechames
4	ME460xx	Mechatronics and Automation	4	ME460xx	Manufacturing Automation & CAM
5	XXxxxxx	Artificial Intelligence	5	XXxxxxx	Data Science
			6.	ME460xx	Power Plant and Energy Management

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Represented by
