Institute of Engineering & Technology

Master of Engineering (Fulltime)

ME – Mechanical Engineering with Specialization in Design & Thermal Engg.)

Duration and seats: 2 Yrs. (Full Time) – 18 seats

Eligibility: A candidate seeking admission to the program should have passed with 60% (or Equivalent) in BE/B.Tech. (or Equivalent) in an allied branch of engineering from recognized Institute/ University and Valid GATE Score in the relevant/allied branch of Engineering / Technology.

AGE LIMIT: As per the directives of Government of Madhya Pradesh, there is no upper age limit for admission in the programme.

Fees Structure:

Semester	Academic Fee	Development & Maintenance Fee	Students' Services Fee		Examination Fee	Total (Rs.)	
			Boys	Girls		Boys	Girls
First	15000	31000	3300	3111	2500	51800	51611
Second	15000	-	2911	2722	2500	20411	20222
Third	15000	31000	3300	3111	2500	51800	51611
Fourth	15000	-	2911	2722	2500	20411	20222

- Caution money (Refundable) of Rs. 4000/- will be charged additionally in the first semester.
- Alumni Fee of Rs. 500/- will be charged extra in the first semester.
- If a student repeats a paper(s) in a semester, an additional fee of Rs.500/- per paper shall be payable.
- For NRI/ FN/ PIO Candidates, a fee of US$ 3500 Per Annum shall be payable on yearly basis. They will have to pay a refundable deposit of US$ 500 once at the time of admission.
- Hostel Fee and Central Library Fee will be extra.

OBJECTIVES:

Apply scientific and engineering principles to analyze and design aspects of engineering systems that relate to conduction, convection and radiation heat transfer; use appropriate analytical and computational tools to investigate conduction, convection ,radiation heat transfer, Tribology, Vibrations, CAD/CAM; are both competent and confident in interpreting results of investigations related to heat transfer and Design Engineering , recognize the broad technological and historical context of where Thermal Engineering & Design Engineering is important.

OUTCOMES:

Ability to apply knowledge of Thermal Engineering & Design Engineering to solve Engineering problems; ability to design, analyze, and interpret data; ability to identify, formulate, and solve related problems; recognition of the importance of Thermal Engineering & Design Engineering historically as well as in contemporary engineering systems.

Curriculum & Syllabus

S. No.	Category	No. of Credits			
		SEM I	SEM II	SEM III	SEM IV
1.	Course Compulsory	15	15	-	-
2.	Generic Elective	4	4	-	-
3.	Programme Elective	5	5	-	-
4.	Skill development	2	2	-	-
5.	Seminar/ Workshop	2	2	-	-
6.	Dissertation Phase	-	-	12	12
Actual Credits per Semester		**28**	**28**	**12**	**12**
Total actual Programme Credits					**80**
7.	Virtual Credited	4	4	4	4
Total Credits per Semester		**32**	**32**	**16**	**16**
Total Programme Credits					**96**

SEM I				
S.NO	**Sub Code**	**Sub Name**	**Number of Credit L-T-P**	**Sub Type**
1.	DTR1C1	Tribology	3-1-1	PC1
2.	DTR1C2	Design of Internal Combustion Engine Systems	3-1-1	PC2
3.	DTR1C3	Advanced Machine Design	3-1-1	PC3
4.	DTR1Gx	Generic Elective I	3-1-0	GE1
5.	DTR1Ex	Elective I	3-1-1	PE1
6.	ASR1S1	Soft Skills -1	2-0-0	
7.	DTR1W1	Seminar/ Res. Tool/Work Shop-1	0-2-0	
8.	DTR1V1	Comprehensive Viva I	0-0-4	
Total Credit for SEM I			**28 actual + 4 Virtual credits**	
List of Generic Elective I			**L-T-P**	
1.	DTR1G1	Advanced Thermodynamics	3-1-0	
2.	DTR1G2	Non Conventional Energy Systems	3-1-0	
3.	DTR1G3	Management Information System	3-1-0	

4.	DTR1G4	Finite Element Analysis	3-1-0	
List of Elective I			**L-T-P**	
1.	DTR1E1	Advanced Mechanics of Solids	3-1-1	
2.	DTR1E2	Fatigue Creep and Fracture	3-1-1	
3.	DTR1E3	Mechanism and Robot Kinematics	3-1-1	
4.	DTR1E4	Thermal Systems : Simulation and Design	3-1-1	
SEM II			**L-T-P**	
1.	DTR2C1	Machinery Fault Diagnosis and Signal Processing	3-1-1	PC4
2.	DTR2C2	Advanced Refrigeration and Air Conditioning	3-1-1	PC5
3.	DTR2C3	Computer AidedDesign	3-1-1	PC6
4.	DTR2Gx	Generic Elective II	3-1-0	GE2
5.	DTR2Ex	Elective II	3-1-1	PE2
6.	ASR2S2	Soft Skills -2	2-0-0	
7.	DTR2W 2	Seminar/ Res. Tool/Work Shop-2	0-2-0	
8.	DTR2V2	Comprehensive Viva II	0-0-4	
Total Credit for SEM II			**28 actual + 4 Virtual credits**	
List of Generic Elective II				
1.	DTR2G1	Advanced Heat Transfer	3-1-0	
2.	DTR2G2	Rapid Prototyping	3-1-0	
3.	DTR2G3	Cogeneration and Waste Heat Recovery	3-1-0	
4.	DTR2G4	Mechatronics in Manufacturing Systems	3-1-0	
List of Elective II				
1.	DTR2E1	Machine Vibrations Analysis	3-1-1	
2.	DTR2E2	Experimental Stress Analysis	3-1-1	
3.	DTR2E3	Applied Elasticity and Plasticity	3-1-1	
4.	DTR2E4	Automotive Systems: Analysis and Design	3-1-1	

SEM III			**L-T-P**	
1.	DTR3D1	Dissertation Phase I	0-0-12	
2.	DTR3V3	Comprehensive Viva III	0-0-4	
Total Credit for SEM III			**12 actual + 4 Virtual credits**	
SEM IV			**L-T-P**	
1.	DTR4D2	Dissertation Phase II	0-0-12	
2.	DTR4V4	Comprehensive Viva IV	0-0-4	
Total Credit for SEM IV			**12 actual + 4 Virtual credits**	
Total Credits			**80 actual + 16 Virtual credits**	