

Annexure 'E & F'

GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)

Approved by AICTE, Accredited by NBA & NAAC 'A' Grade, Recognized under 2(f) and 12(b) of UGC, Permanently Affiliated to JNTUK, Kakinada.

COURSE STRUCTURE AND DETAILED SYLLABUS



NBA ACCREDITED & NAAC 'A' GRADE

For

M.Tech. MECHANICAL BRANCH

Specialization:

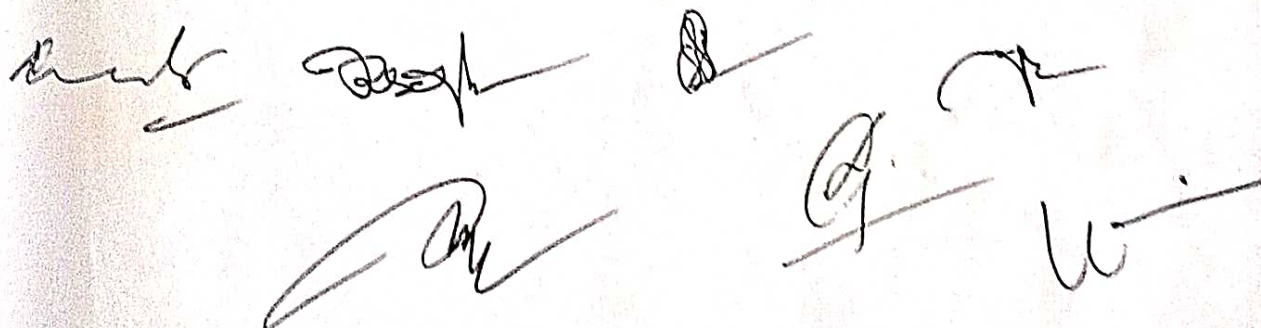
THERMAL ENGINEERING

DEPARTMENT OF MECHANICAL ENGINEERING

M.Tech Specialization : THERMAL ENGINEERING

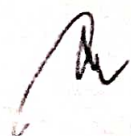
I SEMESTER

S.NO	SUBJECT	L	P	C
1	OPTIMIZATION TECHNIQUES & APPLICATIONS	4	0	3
2	ADVANCED THERMODYNAMICS	4	0	3
3	ADVANCED HEAT & MASS TRANSFER	4	0	3
4	ADVANCED FLUID MECHANICS	4	0	3
5	ELECTIVE – I GAS DYNAMICS REFRIGERATION & AIR CONDITIONING RENEWABLE ENERGY TECHNOLOGIES THEORY AND TECHNOLOGIES OF FUEL CELLS	4	0	3
6	ELECTIVE – II	4	0	3
	ADVANCED IC ENGINES			
	SOLAR ENERGY TECHNOLOGY			
	TURBO MACHINES			
	ALTERNATIVE FUELS TECHNOLOGIES			
7	THERMAL ENGINEERING LAB	0	4	2
	TOTAL			20



II SEMESTER

S.NO.	SUBJECT	L	P	CREDITS
1	FUELS, COMBUSTION & ENVIRONMENT	4	0	3
2	ENERGY MANAGEMENT	4	0	3
3	FINITE ELEMENT METHOD	4	0	3
4	COMPUTATIONAL FLUID DYNAMICS	4	0	3
5	ELECTIVE- III MATERIALS FOR THERMAL ENGG CONVECTIVE HEAT TRANSFER THERMAL AND NUCLEAR POWER PLANTS	4	0	3
	ADVANCED AUTOMOBILE ENGG			
6	ELECTIVE- IV THERMAL MEASUREMENTS AND PROCESS CONTROLS CRYOGENIC ENGINEERING JET PROPULSION AND ROCKETRY EQUIPMENT DESIGN FOR THERMAL SYSTEMS	4	0	3
7	THERMAL SYSTEMS DESIGN LAB	0	6	4
	TOTAL			22



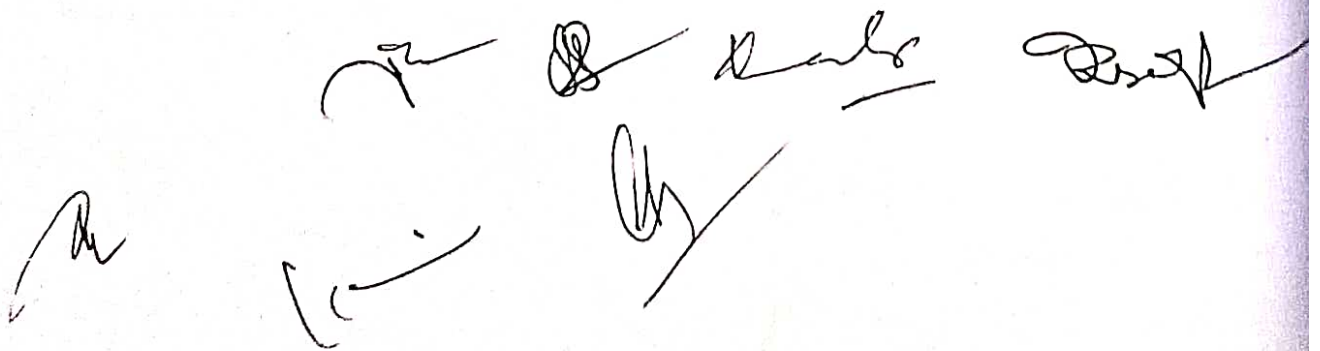






II SEMESTER

S.NO.	SUBJECT	L	P	CREDITS
1	FUELS, COMBUSTION & ENVIRONMENT	4	0	3
2	ENERGY MANAGEMENT	4	0	3
3	FINITE ELEMENT METHOD	4	0	3
4	COMPUTATIONAL FLUID DYNAMICS	4	0	3
5	ELECTIVE- III MATERIALS FOR THERMAL ENGG CONVECTIVE HEAT TRANSFER THERMAL AND NUCLEAR POWER PLANTS	4	0	3
	ADVANCED AUTOMOBILE ENGG			
6	ELECTIVE- IV THERMAL MEASUREMENTS AND PROCESS CONTROLS CRYOGENIC ENGINEERING JET PROPULSION AND ROCKETRY EQUIPMENT DESIGN FOR THERMAL SYSTEMS	4	0	3
7	THERMAL SYSTEMS DESIGN LAB	0	6	4
	TOTAL			22



III SEMESTER

1	SEMINAR - I	0	3	2
2	COMPREHENSIVE VIVA VOCE			2
3	PROJECT - PART I			14
	TOTAL			18

IV SEMESTER

1	SEMINAR -II	0	3	2
2	PROJECT PART II & VIVA VOCE			18
	TOTAL			20

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**COURSE STRUCTURE
AND DETAILED
SYLLABUS**



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For

M.Tech. MECHANICAL BRANCH

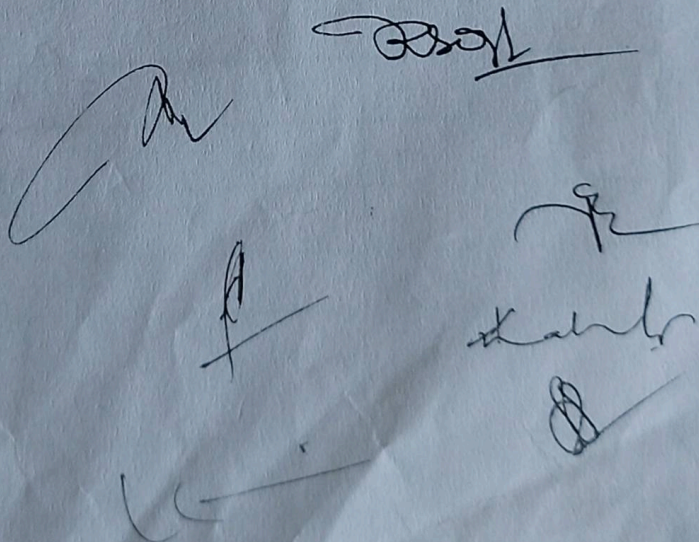
Specialization :

CAD/CAM

M.Tech Specialization : CAD /CAM
COURSE STRUCTURE

I SEMESTER

S.NO	SUBJECT	L	P	C
1	INDUSTRIAL ROBOTICS	4	—	3
2	COMPUTER AIDED MANUFACTURING	4	—	3
3	SPECIAL MANUFACTURING PROCESSES	4		3
4	GEOMETRIC MODELING	4	—	3
5	ELECTIVE I COMPUTATIONAL METHODS IN ENGINEERING MECHANICAL VIBRATIONS NANO TECHNOLOGY	4	—	3
6	ELECTIVE II DESIGN FOR MANUFACTURING MECHATRONICS COMPUTER AIDED PROCESS PLANNING	4	—	3
7	ADVANCED CAD LAB	—	3	2
	TOTAL			20



II SEMESTER

1	SIMULATION MODELING OF MANUFACTURING SYSTEMS	4	—	3
2	OPTIMIZATION AND RELIABILITY	4	—	3
3	✓ COMPUTER GRAPHICS	4	—	3
4	FINITE ELEMENT METHOD	4	—	3
5	ELECTIVE III QUALITY ENGINEERING IN MANUFACTURING FRACTURE MECHANICS ✓ CONCURRENT ENGINEERING	4	—	3
6	ELECTIVE IV MECHANICS AND MANUFACTURING			

	METHODS OF COMPOSITES ✓ MATERIALS TECHNOLOGY INTELLIGENT MANUFACTURING SYSTEMS	4	—	3
7	✓ MODELING AND ANALYSIS OF MANUFACTURING PROCESSES LAB	—	6	4
	TOTAL			22

III SEMESTER

S.NO.	SUBJECT	L	P	C
1	COMPREHENSIVE VIVA	—	—	2
2	SEMINAR-I	—	—	2
3	PROJECT WORK PART - I	—	—	14
	TOTAL			18

IV SEMESTER

S.NO.	SUBJECT	L	P	C
1	SEMINAR-II	—	—	2
2	PROJECT WORK PART - II	—	—	18
	TOTAL			20