

**Structure of  
M. Tech.  
(Automobile Engineering)**



K. E. Society's

Rajarambapu Institute of Technology, Rajaramnagar

Department of Automobile Engineering

Curriculum Structure

M. Tech. Automobile Engineering

## Semester - I

Subject Code	Subject	Teaching Scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min for Passing	Max	Min for Passing
AE501	Design of Experiments and Research Methodology	3	1	--	4	ISE	20	40	--	--
						MSE	30		--	--
						ESE	50		--	--
AE503	Fuels and Combustion	4	1	--	5	ISE	20	40	--	--
						MSE	30		--	--
						ESE	50		--	--
AE505	Finite Element Analysis and CFD	4	1	--	5	ISE	20	40	--	--
						MSE	30		--	--
						ESE	50		--	--
AE507	Transmission System Theory and Design	4	1	--	5	ISE	20	40	--	--
						MSE	30		--	--
						ESE	50		--	--
AE509 AE511 AE513 AE515 AE517 AE519	Elective – I Tractor and Farm Equipments Hydraulics and Pneumatics Automotive NVH Autotronics Automotive Safety Transport Management	3	1	--	4	ISE	20	40	--	--
						MSE	30		--	--
						ESE	50		--	--
AE551	Transmission System Theory and Design Lab.	--	--	2	1	ISE	--	--	60	40
						ESE	--	--	40	
AE553	I. C. Engine Lab.	--	--	2	1	ISE	--	--	60	40
						ESE	--	--	40	
AE555	Seminar – I	--	--	2	2	ISE	--	--	60	40
						ESE	--	--	40	
Total		18	5	06	27	--	--	--	--	--

Total Credits: 27

Total Contact Hours/Week : 29 hrs

**Note:**

ISE: In Semester Evaluation      MSE : Mid Semester Evaluation      ESE: End Semester Exam,



**K. E. Society's**  
**Rajarambapu Institute of Technology, Rajaramnagar**  
**Department of Automobile Engineering**  
**Curriculum Structure**  
**M. Tech. Automobile Engineering**

## Semester - II

Subject Code	Subject	Teaching Scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min for Passing	Max	Min for Passing
AE502	Engine Design	4	--	--	4	ISE	20	40	--	--
						MSE	30		--	--
						ESE	50		--	--
AE504	Chassis and Body Engg	4	1	--	5	ISE	20	40	--	--
						MSE	30		--	--
						ESE	50		--	--
AE506	Vehicle Dynamics	4	1	--	5	ISE	20	40	--	--
						MSE	30		--	--
						ESE	50		--	--
AE508	Simulations of Automobile Systems	3	--	--	3	ISE	20	40	--	--
						MSE	30		--	--
						ESE	50		--	--
AE510	Elective – II Vehicle Maintenance and Fleet Management	3	1	--	4	ISE	20	40	--	--
MSE						30	--		--	
ESE						50	--		--	
AE512						Automobile Air Conditioning				
AE514	Alternative Fuels and Power Systems									
AE516	Combustion Engineering									
AE518	Special Purpose Vehicles									
AE552	Engine Design and Simulation Lab.	--	--	2	1	ISE	--	--	60	40
						ESE	--	--	40	
AE554	Vehicle Testing Lab.	--	--	2	1	ISE	--	--	60	40
						ESE	--	--	40	
AE554	Seminar – II	--	--	2	2	ISE	--	--	60	40
						ESE	--	--	40	
Total		18	3	6	25	--	--	--	--	--

Total Credits: 25

Total Contact Hours/Week : 27 hrs

**Note:**

ISE: In Semester Evaluation

MSE : Mid Semester Evaluation

ESE: End Semester Exam,

**Structure of M. Tech.  
Civil  
(Structure)**



**K. E. Society's**  
**Rajarambapu Institute of Technology, Rajaramnagar**  
**Department of Civil Engineering**  
**Curriculum Structure**  
**M. Tech. Civil (Structures)**  
**Semester - I**

Course Code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min. for Passing	Max	Min. for Passing
CES501	Mechanics of Structures	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES503	Dynamics of Structures	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES505	Theory of Elasticity & Plasticity	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES507	Research Methodology & Mathematical Modelling	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES509	Elective – I Design of foundation Prestressed concrete Stability of structures	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES511	Concrete structures									
CES513	Advances in concrete composites									
CES515										
CES517										
CES551	Mechanics of Structures Lab	-	-	2	1	ISE			60	40
						ESE			40	40
CES553	Dynamics of Structure Lab			2	1	ISE			60	40
						ESE			40	40
CES555	Seminar I			2**	2	ISE			60	40
						ESE			40	40
		15	5	4	24					

ISE = In Semester Evaluation, MSE = Mid Semester Examination, ESE = End Semester Examination

\*\* Average contact hours/week/student

Total contact hours/week : 26

Total credits : 24



**K. E. Society's**  
**Rajarambapu Institute of Technology, Rajaramnagar**  
**Department of Civil Engineering**  
**Curriculum Structure**  
**M. Tech. Civil (Structures)**  
**Semester - II**

Course Code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min. for Passing	Max	Min. for Pass-ing
CES502	Finite Element Analysis	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES504	Advance Design of Concrete Structures	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES506	Earthquake Resisting Structures	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES508	Structural Design of Concrete Bridges	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES510	Elective – II Theory of Plates and Shells	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES512	Steel structures									
CES514	Structural reliability									
CES516	Maintenance and rehabilitation of structures									
CES518	Design of folded plates and shell									
CES552	Advance Design of Concrete Structures Lab	-	-	2	1	ISE			60	40
						ESE			40	40
CES554	Elective II Lab			2	1	ISE			60	40
						ESE			40	40
CES556	Seminar II	2**			2	ISE			60	40
						ESE			40	40
		15	5	4	24					

ISE = In Semester Evaluation, MSE = Mid Semester Examination, ESE = End Semester Examination

\*\* Average contact hours/week/student

Total contact hours/week : 26

Total credits : 24

**Structure of M. Tech.  
Civil  
(Construction & Management)**



**K. E. Society's**  
**Rajarambapu Institute of Technology, Rajaramnagar**  
**Department of Civil Engineering**  
**Curriculum Structure**  
**M. Tech. Civil (Construction & Management)**  
**Semester - I**

Course Code	Course	Teaching scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)		
							Max	Min. for Passing	Max	Min. for Passing	
CES501	Construction Planning, Scheduling and Control	3	1	-	4	ISE	20	40			
						MSE	30				
						ESE	50				
CES503	Project Economics and Financial Management	3	1	-	4	ISE	20	40			
						MSE	30				
						ESE	50				
CES505	Construction Techniques	3	1	-	4	ISE	20	40			
						MSE	30				
						ESE	50				
CES507	Optimization Technique & Research Methodology	3	1	-	4	ISE	20	40			
						MSE	30				
						ESE	50				
CES509	Elective – I Energy Conservation Techniques in Building Construction	3	1	-	4	ISE	20	40			
						MSE	30				
						ESE	50				
CES511	TQM in Construction	3	1	-	4	ISE	20	40			
CES513	Project Safety management										
CES515	MIS in Construction										
CES517 CES519	Disaster Management Value Engineering										
CES551	Computer Lab	-	-	2	1	ISE			60	40	
CES553	Field work I	-	-	2	1	ESE			40	40	
						ISE			60	40	
CES555	Seminar I	2**			2	ISE			60	40	
						ESE			40	40	
		15	5	6	24						

ISE = In Semester Evaluation, MSE = Mid Semester Examination, ESE = End Semester Examination

\*\* Average contact hours/week/student

Total contact hours/week : 26

Total credits : 24

## Semester - II

Course Code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min. for Passing	Max	Min. for Passing
CES502	Construction Equipments	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES504	Construction Contracts, Administration and Management	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES506	Modern Construction Materials	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES508	Advanced Construction Techniques	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CES510	Elective – II International Contracting Green Construction Management Environmental Impact Assessment GIS and Applications of GIS Project Risk Analysis and Mitigation Techniques Human Resource Management in construction	3	1	-	4	ISE	20	40		
CES512						MSE	30			
CES514						ESE	50			
CES516										
CES518										
CES520										
CES552	Construction Equipment & Computer Lab	-	-	2	1	ISE			60	40
						ESE			40	40
CES554	Material Testing Lab	-	-	2	1	ISE			60	40
						ESE			40	40
CES556	Seminar II	2**			2	ISE			60	40
						ESE			40	40
		15	5	6	24					

ISE = In Semester Evaluation, MSE = Mid Semester Examination, ESE = End Semester Examination

\*\* Average contact hours/week/student

Total contact hours/week : 26

Total credits : 24

**Structure  
of  
M. Tech. Computer Science  
and Engineering**



**K. E. Society's**  
**Rajarambapu Institute of Technology, Rajaramnagar**  
**Department of Computer Science and Engineering**

**Curriculum Structure**

**M. Tech. Computer Science and Engineering**

**Semester - I**

Subject code	Subject	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks%)	
							Max	Min for passing	Max	Min for passing
CS501	Mathematical Foundations of Computer Science	3	1	--	4	ISE	20	40		
						MSE	30			
						ESE	50			
CS 503	Design & Analysis of Algorithms	3	1	--	4	ISE	20	40		
						MSE	30			
						ESE	50			
CS 505	Research Methodology	3	1	--	4	ISE	20	40		
						MSE	30			
						ESE	50			
CS507	Advance Networks	3	1	--	4	ISE	20	40		
						MSE	30			
						ESE	50			
CS 509	<b>Elective-I</b> Soft Computing	3	1	--	4	ISE	20	40		
CS 511	Multicore Architecture & Programming					MSE	30			
CS 513	Enterprise Information Systems					ESE	50			
CS551	Seminar-I	--	2	--	2	ISE	-	-	60	40
						ESE	-		40	
CS553	Advanced Computing Lab-I	--	--	4	2	ISE	-	-	60	40
						ESE	-		40	
		15	7	4	24					

Total Contact Hours / week = 26 Total Credits = 24

ISE – In Semester Evaluation, MSE – Mid Semester Exam., ESE – End Semester Exam.



K. E. Society's

Rajarambapu Institute of Technology, Rajaramnagar

Department of Computer Science and Engineering

Curriculum Structure

M. Tech. Computer Science and Engineering

Semester - II

Subject code	Subject	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min for passing	Max	Min for passing
CS502	Design of Databases Systems	4	1	--	5	ISE	20	40		
						MSE	30			
						ESE	50			
CS504	Parallel Algorithms & Design	4	1	--	5	ISE	20	40		
						MSE	30			
						ESE	50			
CS506	Natural Language Processing	3	--	--	3	ISE	20	40		
						MSE	30			
						ESE	50			
CS508	Advance Distributed system	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CS 510 CS 512 CS 514	<b>Elective-II</b> Wireless Sensor Networks Computer Vision & Virtual Reality Bio-informatics	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
CS552	Seminar –II	-	2	-	2	ISE	-	-	60	40
						ESE	-		40	
CS554	Advanced Computing Lab-II	-	-	2	1	ISE	-	-	60	40
						ESE	-		40	
		17	06	2	24					

Total Contact Hours / week = 25 Total Credits = 24

ISE – In Semester Evaluation, MSE – Mid Semester Exam., ESE – End Semester Exam.

**Structure  
of  
M. Tech.  
Electrical Engineering  
(Power Systems)**



K. E.

**Society's**  
**RAJARAMBAPU INSTITUTE OF TECHNOLOGY,**  
**RAJARAMNAGAR**  
**Department of Electrical Engineering**  
**Curriculum structure for**  
**M. Tech. Electrical Engineering (Power Systems)**

**Semester - I**

Course Code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	C	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min. for Passing	Max	Min. for Passing
EE501	Research Methodology	3	1	--	4	ISE	20	40		
					MSE	30				
					ESE	50				
EE503	Advanced Power System Protection	4	--	--	4	ISE	20	40		
					MSE	30				
					ESE	50				
EE505	Power System Deregulation	4	--	--	4	ISE	20	40		
					MSE	30				
					ESE	50				
EE507	Computer Aided Power System Analysis	4	--	--	4	ISE	20	40		
					MSE	30				
					ESE	50				
EE509	(Elective – I) Grid Integration of Renewable Energy	4	--	--	4	ISE	20	40		
EE511	Electrical Power Quality					MSE	30			
EE513	Power Converters					ESE	50			
EE551	Advanced Power System Protection Lab	-	-	2	1	ISE			60	40
						SEE			40	40
EE553	Computer Aided Power System Analysis Lab	-	-	2	1	ISE			60	40
						ESE			40	40
EE555	Seminar I	-	-	2	2	ISE			60	40
						ESE			40	
		19	01	06	24					

Total contact hours/week : 26 ISE = In Semester Evaluation, MSE = Mid Semester

Total credits : 24 ESE = End Semester Examination



**K. E. Society's**  
**RAJARAMBAPU INSTITUTE OF TECHNOLOGY,**  
**RAJARAMNAGAR**  
**Department of Electrical Engineering**  
**Curriculum structure for**  
**M. Tech. Electrical Engineering (Power Systems)**

**Semester – II**

Course Code	Course	Teaching Scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min. for Passing	Max	Min for Passing
EE502	Power System Planning and Reliability.	4	--	--	4	ISE	20	40		
					MSE	30				
					ESE	50				
EE504	Power System Dynamics	4	--	--	4	ISE	20	40		
					MSE	30				
					ESE	50				
EE506	Power System Optimization Techniques	4	--	--	4	ISE	20	40		
					MSE	30				
					ESE	50				
EE508	Elective-II Advanced Control of Electric Drives Energy Management and Energy Audit	4	--	--	4	ISE	20	40		
EE510						MSE	30			
						ESE	50			
EE512	Elective – III Distribution System Engineering Smart Grid Technologies & Applications Advanced Digital Signal Processing	4	--	--	4	ISE	20	40		
EE514						MSE	30			
EE 516						ESE	50			
EE552	Power System Dynamics Lab	-	-	2	1	ISE			60	40
						ESE			40	40
EE554	Power System Optimization Techniques Lab	-	-	2	1	ISE			60	40
						ESE			40	40
EE 556	Seminar II	-	-	2	2	ISE			60	40
						ESE			40	
		20	-	06	24					

Total contact hours/week : 26

Total credits : 24

**Structure of M. Tech  
Electronics  
(Digital Systems)**



**K. E. Society's**  
**RAJARAMBAPU INSTITUTE OF TECHNOLOGY,**  
**RAJARAMNAGAR**  
**Department of Electronics Engineering**  
**M Tech. Electronics (Digital Systems)**

**SEMESTER – I**

Course code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min for passing	Max	Min for passing
DE501	Advanced Digital Signal Processing	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC503	CMOS VLSI Design	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
DE 505	Digital Design	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC 507	Research Methodology	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
DE 509 DE 511	Elective-I Wireless Sensor Networks Soft Computing	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
DE 551	Seminar-I	0	0	2	2	ISE	-	-	60	40
						ESE	-	-	40	40
DE553	ADSP Lab	0	0	2	1	ISE	-	-	60	40
						ESE	-	-	40	40
DE555	Digital & CMOS VLSI Design Lab	0	0	2	1	ISE	-	-	60	40
		15	5	6	24	ESE	-	-	40	40

ISE = In Semester Evaluation, MSE = Mid Semester Examination, ESE = End Semester Examination\*

Average contact hours/week/student

Total contact hours/week : 26

Total credits : 24



**K. E. Society's**  
**RAJARAMBAPU INSTITUTE OF TECHNOLOGY,**  
**RAJARAMNAGAR**  
**Department of Electronics Engineering**  
**M Tech. Electronics (Digital Systems)**

**SEMESTER – II**

Course code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min for passing	Max	Min for passing
DE502	Digital System Design using VHDL	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
DE504	VLSI Signal Processing	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC506	Embedded Systems	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC502	Digital Communication Techniques	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
DE510 DE512	Elective-II Mechatronics System Nano Technology	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
DE552	Seminar –II	0	0	2 * *	2	ISE	-	-	60	40
						ESE	-	-	40	40
DE554	VHDL Lab	0	0	2	1	ISE	-	-	60	40
						ESE	-	-	40	40
EC556	Embedded Systems Lab	0	0	2	1	ISE	-	-	60	40
						ESE	-	-	40	40
		15	5	6	24					

ISE = In Semester Evaluation, MSE = Mid Semester Examination, ESE = End Semester Examination

\* \*Average contact hours/week/student

Total contact hours/week : 26

Total credits : 24

**Structure of  
M. Tech.  
(Electronic Engineering)**



**K. E. Society's**  
**Rajarambapu Institute of Technology, Rajaramnagar**  
**Department of Electronic Engineering**

**Curriculum Structure**

**M. Tech. Electronic Engineering**

**SEMESTER – I**

Course code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min for passing	Max	Min for passing
EC501	Network Security System	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC503	CMOS VLSI Design	3	1	0	4	MSE	30	40		
						ESE	50			
EC505	Power Electronics Systems	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC507	Research Methodology	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC509 EC511	Elective-I Microwave Engineering –I Digital Image Processing	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC 551	Seminar-I	0	0	2	2	ISE	-	-	60	40
						ESE	-	-	40	40
EC553	Power Electronics Systems Lab	0	0	2	1	ISE	-	-	60	40
						ESE	-	-	40	40
EC555	CMOS VLSI Design Lab	0	0	2	1	ISE	-	-	60	40
		15	5	6	24	ESE	-	-	40	40

ISE = In Semester Evaluation, MSE = Mid Semester Examination, ESE = End Semester Examination

Total Contact Hours/Week : 26

Total Credits : 24



K. E. Society's

Rajarambapu Institute of Technology, Rajaramnagar

Department of Electronic Engineering

Curriculum Structure

M. Tech. Electronic Engineering

SEMESTER – II

Course code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min for passing	Max	Min for passing
EC502	Digital Communication Techniques	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC504	Advanced Digital Signal Processing	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC506	Embedded Systems	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC508	Advanced Process Control	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC510	Elective-II Microwave Engg. –II	3	1	0	4	ISE	20	40		
						MSE	30			
						ESE	50			
EC512	Pattern Recognition									
EC552	Seminar -II	0	0	2	2	ISE	-	-	60	40
						ESE	-	-	40	40
EC554	Advanced Digital Signal Processing Lab	0	0	2	1	ISE	-	-	60	40
						ESE	-	-	40	40
EC556	Embedded Systems Lab	0	0	2	1	ISE	-	-	60	40
						ESE	-	-	40	40
		15	5	6	24					

ISE = In Semester Evaluation, MSE = Mid Semester Examination, ESE = End Semester Examination

Total Contact Hours/Week : 26

Total Credits : 24

**Structure of M. Tech.  
Mechanical  
(Design Engineering)**



**K. E. Society's**  
**RAJARAMBAPU INSTITUTE OF TECHNOLOGY,**  
**RAJARAMNAGAR**

**Department of Mechanical Engineering**

**M. Tech. Mechanical (Design Engineering)**

**Semester – I**

Course Code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min. for Passing	Max	Min. for Passing
MED501	Design of experiments & Research Methodology	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MED503	Theory of elasticity	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MED505	Experimental Stress Analysis	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MED507	Design for Manufacturing, Assembly & Reliability	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MED509	Elective – I	3	1	-	4	ISE	20	40		
MED511	Nanotechnology					MSE	30			
MED513	Material Handling					ESE	50			
MED515	Equipment design									
MED517	Machine Tool Design									
	Artificial Intelligence									
	Computational Techniques in Design Engineering									
MED551	Advanced Instrumentation Lab	-	-	2	1	ISE			60	40
						ESE			40	
MED553	Design Engineering Lab. – I	-	-	2	1	ISE			60	40
						ESE			40	
MED555	Seminar I	2**			2	ISE			60	40
						ESE			40	
		15	5	4	24					

\*\* Average contact hours/week/student

Total contact hours/week : 26 ISE = In Semester Evaluation, MSE = Mid Semester Examination

Total credits : 24 ESE = End Semester Examination



**K. E. Society's**  
**RAJARAMBAPU INSTITUTE OF TECHNOLOGY,**  
**RAJARAMNAGAR**

**Department of Mechanical Engineering**

**M. Tech. Mechanical (Design Engineering)**

**Semester – II**

Course Code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min. for Passing	Max	Min. for Passing
MED502	Product Design and Development	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MED504	Vibration and Acoustics	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MED506	Tribology and Condition Monitoring	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MED508	Synthesis & Analysis of Mechanisms & Machines	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MED510	Elective – II Composites & Smart Materials	3	1	-	4	ISE	20	40		
MED512	Reverse Engineering and Bench Marking					MSE	30			
MED514	Mechatronic System design					ESE	50			
MED516	Process Equipment Design									
MED518	Fracture Mechanics									
MED552	Design Engineering Lab. – II	-	-	2	1	ISE			60	40
						ESE			40	
MED554	NVH lab	-	-	2	1					
MED556	Seminar II	2**			2	ISE			60	40
						ESE			40	
		15	5	4	24					

\*\* Average contact hours/week/student

Total contact hours/week : 26

Total credits : 24

**Structure of  
M. Tech.  
(CAD/CAM/CAE)**



**K. E. Society's**  
**RAJARAMBAPU INSTITUTE OF TECHNOLOGY,**  
**RAJARAMNAGAR**

**Department of Mechanical Engineering**

**M. Tech. (CAD/CAM/CAE)**

**Semester - I**

Course Code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min. for Passing	Max	Min. for Passing
MEC501	Advanced Machine Design	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEC503	Computer Aided Manufacturing	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEC505	Design of experiments & Research Methodology	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEC507	Finite Element Analysis	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEC509	Elective – I Advanced Materials & Processes Tribology & Surface Engineering Technology Management MEMS & Nanotechnology Mechatronic System Design	3	1	-	4	ISE	20	40		
MEC511						MSE	30			
MEC513						ESE	50			
MEC515						ISE	20			
MEC517						MSE	30			
MEC551	3D Modeling and CNC Code Generation Lab.	-	-	2	1	ISE			60	40
						ESE			40	
MEC553	Design & Analysis Lab.-I	-	-	2	1	ISE			60	40
						ESE			40	
MEC555	Seminar I	2**			2	ISE			60	40
						ESE			40	
		15	5	4	24					

\*\* Average contact hours/week/student

Total contact hours/week : 26 ISE = In Semester Evaluation, MSE = Mid Semester

Total credits : 24 Examination, ESE = End Semester Examination

**K. E. Society's**  
**RAJARAMBAPU INSTITUTE OF TECHNOLOGY,**  
**RAJARAMNAGAR**  
**Department of Mechanical Engineering**  
**M. Tech. (CAD/CAM/CAE) Semester – II**

Course Code	Course	Teaching Scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min. for Passing	Max	Min for Passing
MEC502	Optimization Techniques	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEC504	Industrial Automation & Robotics	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEC506	Manufacturing Systems Design	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEC508	Product Lifecycle Management	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEC510	Elective – II Computational Fluid Dynamics	3	1	-	4	ISE	20	40		
MEC512	Rapid Manufacturing					MSE	30			
MEC514	Quality & Reliability Engineering					ESE	50			
MEC516	System Dynamics & Simulation									
MEC518	Artificial Intelligence									
MEC520	Automatic Control Engineering									
MEC522	CAD/CAM/CAE Practices in Metal Forming									
MEC552	Automation & Simulation Lab.	-	-	2	1	ISE			60	40
						ESE			40	
MEC554	Design & Analysis Lab. - II	-	-	2	1	ISE			60	40
						ESE			40	
MEC556	Seminar II	2**			2	ISE			60	40
						ESE			40	
		15	5	4	24					

\*\* Average contact hours/week/student

Total contact hours/week : 26

Total credits

: 24

**Structure Of  
M. Tech.  
Mechanical  
(Production Engineering)**



**K. E. Society's**  
**RAJARAMBAPU INSTITUTE OF TECHNOLOGY,**  
**RAJARAMNAGAR**

**Department of Mechanical Engineering**

**M. Tech. Mechanical (Production Engineering)**

**Semester - I**

Course Code	Course	Teaching scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)	
							Max	Min.	Max	Min.
MEP501	Design of experiment and research Methodology	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEP503	Production & Operation Management	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEP505	Advanced Manufacturing Processes	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEP507	Metal Forming Technology	3	1	-	4	ISE	20	40		
						MSE	30			
						ESE	50			
MEP509	Elective – I Precision Engineering Facility planning & Design Human Resource Management	3	1	-	4	ISE	20	40		
MEP511						MSE	30			
MEP513						ESE	50			
MEP551	Advanced Measurement Lab.	-	-	2	1	ISE			60	40
						ESE			40	
MEP553	Advanced Manufacturing Lab.	-	-	2	1	ISE			60	40
						ESE			40	
MEP555	Seminar – I	2**			2	ISE			60	40
						ESE			40	
		15	5	4	24					

\*\* Average contact hours/week/student

Total contact hours/week : 26 ISE = In Semester Evaluation, MSE = Mid Semester Exam.  
 Total credits : 24 Examination, ESE = End Semester Examination



**K. E. Society's**  
**RAJARAMBAPU INSTITUTE OF TECHNOLOGY,**  
**RAJARAMNAGAR**

**Department of Mechanical Engineering**

**M. Tech. Mechanical (Production Engineering)**

Semester – II

Course Code	Course	Teaching scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks %)		Practical (Marks %)		
							Max	Min.	Max	Min	
MEP502	Optimization techniques	3	1	-	4	ISE	20	40			
						MSE	30				
						ESE	50				
MEP504	Logistics & Supply Chain Management	3	1	-	4	ISE	20	40			
						MSE	30				
						ESE	50				
MEP506	Advanced Foundry Technology	3	1	-	4	ISE	20	40			
						MSE	30				
						ESE	50				
MEP508	Industrial Automation & Robotics	3	1	-	4	ISE	20	40			
						MSE	30				
						ESE	50				
MEP510	Elective – II Computer Aided Manufacturing Mechatronics Computer Aided Product Development	3	1	-	4	ISE	20	40			
MEP512						MSE					30
MEP514						ESE					
MEP552	3D Modeling and CNC Code Generation Lab.	-	-	2	1	ISE			60	40	
						ESE			40		
MEP554	Automation & Simulation Lab.	-	-	2	1	ISE			60	40	
						ESE			40		
MEP582	Seminar II	2**			2	ISE			60	40	
						ESE			40		
		15	5	4	24						

\*\* Average contact hours/week/student

Total contact hours/week : 26  
 Total credits : 24

**Structure  
Of  
Master of Business  
Administration (M.B.A.)**



**K.E.Society's**  
**Rajarambapu Institute of Technology, Sakharale**  
**Department Of Business Management Studies (MBA)**

**First Year Semester I**

Subject code	Subject	Teaching scheme			Evaluation Scheme		
		L	T	Credits	Scheme	Theory (Marks %)	
						Max	Min for passing
MB101	Principles & Practices Of Management	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB103	Management Accounting	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB105	Quantitative Analysis	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB107	Managerial Economics	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB109	Information Technology For Managers	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB111	Communication & Soft Skills	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB113	Organizational Behaviour	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB115	Legal Framework Of Business	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB 117	Business Applications (Live Problem Solving in any One Functional area)	--	3	3	ISE	100	40
<b>Total Credits/ Contact hrs</b>		<b>2</b>	<b>0</b>	<b>27</b>	<b>Total Mks</b>	<b>900</b>	
		<b>4</b>	<b>3</b>				

Total Contact hours/week/student : 27

Total Credits : 27



**K.E. Society's**  
**Rajarambapu Institute of Technology, Sakharale**  
**Department Of Business Management Studies (MBA)**

**First Year Semester II**

Subject code	Subject	Teaching scheme			Evaluation Scheme		
		L	T	Credits	Scheme	Theory (Marks %)	
						Max	Min for passing
MB102	Marketing Management	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB104	Financial Management	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB106	Human Resource Management	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB108	Operations Management	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB110	Management Information System	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB112	Operation Research	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB114	Research Methodology	3	--	3	ISE	20	40
					MSE	30	
					ESE	50	
MB116	Business Environment	3	-	3	ISE	20	40
					MSE	30	
					ESE	50	
MB 118	Business Applications (Live Problem Solving in any One Functional area)	--	3	3	ISE	100	40
<b>AUDIT COURSE</b>							
MB 120	SPSS	--	0 2	--	ISE	100	40
<b>Total Credits/ Contact hrs</b>		<b>2 4</b>	<b>0 3</b>	<b>27</b>	<b>Total Mks</b>	<b>1000</b>	

Total Contact hours/week/student : 27

Total Credits : 27