



Semester - 1

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303105102	Programming for Problem Solving	4.00	3	2	0	20	20	20	60	30	40	25	150
303106101	Basic Electrical Engineering	4.00	3	2	0	20	20	20	60	30	40	25	150
303109101	Engineering Graphics	4.00	2	4	0	20	20	20	60	30	40	25	150
303191101	Mathematics-I	4.00	4	-	-	20	-	20	60	-	40	-	100
303193103	Communication Skills	2.00	-	-	2	-	-	100	-	-	40	-	100
	Elective - 1 (Compulsory Subjects :1)	4.00	3	2	0	40	20	-	60	30	-	-	150
	Total	22.00	15	10	2								800

Semester - 1 Elective - 1

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303192102	Engineering Physics-II	4.00	3	2	0	20	20	20	60	30	40	25	150

Lect - Lecture, Tut - Tutorial, Lab - Lab, T - Theory, P - Practical, CE - CE, T - Theory, P - Practical
Theory Passing % : 40 Practical Passing % : 50

**Semester - 2**

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
303100101	Workshop	2.00	0	4	0	-	40	-	-	60	-	50	100
303104105	Environmental Science	0.00	1	0	0	-	-	50	-	-	20	-	50
303104155	Mechanics of Solids	4.00	3	2	0	20	20	20	60	30	40	25	150
303107151	Basic Electronics	4.00	3	2	0	20	20	20	60	30	40	25	150
303109102	Elements of Mechanical Engineering	4.00	3	2	0	20	20	20	60	30	40	25	150
303191151	Mathematics-II	4.00	4	-	-	20	-	20	60	-	40	-	100
303193152	Advanced Communication & Technical Writing	2.00	-	-	2	-	-	100	-	-	40	-	100
Total		20.00	14	10	2								800

Lect - Lecture, Tut - Tutorial, Lab - Lab, T - Theory, P - Practical, CE - CE, T - Theory, P - Practical
Theory Passing % : 40 Practical Passing % : 50

**Semester - 3**

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203106209	Electrical Machines	3.00	3	0	0	20	-	20	60	-	40	-	100
203106210	Electrical Machines Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203107203	Digital System Design	3.00	3	0	0	20	-	20	60	-	40	-	100
203107204	Digital System Design Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203107205	Network Theory	3.00	3	0	0	20	-	20	60	-	40	-	100
203107206	Network Theory Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203109203	Materials Engineering	3.00	3	0	0	20	-	20	60	-	40	-	100
203109204	Materials Engineering Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203111205	Control Theory	3.00	3	0	0	20	-	20	60	-	40	-	100
203111206	Control Theory Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122204	Product Realization	1.00	0	2	0	-	50	-	-	-	-	25	50
203193203	Professional Communication Skills	2.00	-	-	2	-	-	100	-	-	40	-	100
Total		23.00	15	12	2								900

Lect - Lecture, Tut - Tutorial, Lab - Lab, T - Theory, P - Practical, CE - CE, T - Theory, P - Practical
Theory Passing % : 40 Practical Passing % : 50



Semester - 4

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203113259	Basics of Signal & Systems	3.00	3	0	0	20	-	20	60	-	40	-	100
203113260	Basics of Signal & Systems Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122253	Communication Engineering	3.00	3	0	0	20	-	20	60	-	40	-	100
203122254	Communication Engineering Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122257	Sensors and Transducers	3.00	3	0	0	20	-	20	60	-	40	-	100
203122258	Sensors and Transducers Laboratory	1.00	0	2	0	-	20	-	-	30	-	25	50
203122259	Fundamental of Robotics and Robot Kinematics	4.00	4	0	0	20	-	20	60	-	40	-	100
203122260	Fundamental of Robotics and Robot Kinematics Lab	1.00	0	2	0	-	-	-	-	30	-	25	50
203122261	Manufacturing Technology	3.00	3	0	0	20	-	20	60	-	40	-	100
203122262	Manufacturing Technology Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203193252	Professional Grooming & Personality Development	1.00	-	-	1	-	-	100	-	-	40	-	100
Total		22.00	16	10	1								850

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50

**Semester - 5 Open Elective 01**

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203101346	Basic Aircraft Science	2.00	2	0	0	20	-	20	60	-	40	-	100
203104346	Disaster Preparedness and Planning	2.00	2	0	0	20	-	20	60	-	40	-	100
203105346	Cyber Security	2.00	2	0	0	20	-	20	60	-	40	-	100
203107346	Fundamentals of Communication Engineering	2.00	2	0	0	20	-	20	60	-	40	-	100
203108346	Internet of Things	2.00	2	0	0	20	-	20	60	-	40	-	100
203109346	Renewable Energy Sources	2.00	2	0	0	20	-	20	60	-	40	-	100

Semester - 5

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122301	Python Programming	2.00	2	0	0	20	-	20	60	-	40	-	100
203122302	Python Programming Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122303	Computer Integrated Manufacturing	3.00	3	0	0	20	-	20	60	-	40	-	100
203122304	Computer Integrated Manufacturing Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122305	Integrated Circuits and Applications	3.00	3	0	0	20	-	20	60	-	40	-	100
203122306	Integrated Circuits and Applications Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122309	Microcontrollers and Interfacing for Robotics	3.00	3	-	-	40	-	-	60	-	40	-	100
203122310	Microcontrollers and Interfacing for Robotics Lab	1.00	-	2	-	-	20	-	-	30	-	25	50
203193304	Professionalism & Corporate Ethics	1.00	-	-	1	-	-	100	-	-	40	-	100



Semester - 5

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
	Open Elective 01 (Compulsory Subjects :1)	2.00	2	0	0	40	-	-	60	-	-	-	100
	PEC 01-LAB (Compulsory Subjects :1)	1.00	0	2	0	-	20	-	-	30	-	-	50
	PEC 01 (Compulsory Subjects :1)	3.00	3	0	0	40	-	-	60	-	-	-	100
	Total	22.00	16	10	1								950

Semester - 5 PEC 01

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122331	Computer Aided Design and Analysis	3.00	3	0	0	20	-	20	60	-	40	-	100
203122333	Operational Research	3.00	3	0	0	20	-	20	60	-	40	-	100
203122335	Nonconventional Manufacturing Techniques	3.00	3	0	0	20	-	20	60	-	40	-	100

Semester - 5 PEC 01-LAB

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122332	Computer Aided Design and Analysis Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122334	Operational Research Lab	1.00	0	2	0	-	20	-	-	30	-	25	50



Semester - 5 PEC 01-LAB

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122336	Nonconventional Manufacturing Techniques Lab	1.00	0	2	0	-	20	-	-	30	-	25	50

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50



Semester - 6 Open Elective 01

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203100351	Life Science	2.00	2	0	0	60	-	40	-	-	40	-	100
203100352	Biology for Engineers	2.00	2	0	0	60	-	40	-	-	40	-	100
203100353	Engineering Geology	2.00	2	0	0	60	-	40	-	-	40	-	100
203100354	Landscape Planning and Design	2.00	2	0	0	60	-	40	-	-	40	-	100
203100355	Fundamentals of Management	2.00	2	0	0	60	-	40	-	-	40	-	100
203100356	Corporate Social Responsibility	2.00	2	0	0	60	-	40	-	-	40	-	100
203100357	Innovation and Entrepreneurship	2.00	2	0	0	60	-	40	-	-	40	-	100
203100358	Constitution of India	2.00	2	0	0	60	-	40	-	-	40	-	100
203100359	Cyber Law & Ethics	2.00	2	0	0	60	-	40	-	-	40	-	100

Semester - 6

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203113361	Industrial Automation	3.00	3	0	0	20	-	20	60	-	40	-	100
203113362	Industrial Automation Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122351	Hydraulic and Pneumatic Systems	3.00	3	0	0	20	-	20	60	-	40	-	100
203122352	Hydraulic and Pneumatic Systems Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122355	Robot Dynamics and Manipulator Design	3.00	3	0	0	20	-	20	60	-	40	-	100
203122356	Robot Dynamics and Manipulator Design Lab	1.00	0	2	0	-	20	-	-	30	-	25	50



Semester - 6

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122357	Power Electronics and Drives	3.00	3	0	0	20	-	20	60	-	40	-	100
203122358	Power Electronics and Drives Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203193353	Employability Skills	1.00	-	-	1	-	-	100	-	-	40	-	100
	Open Elective 01 (Compulsory Subjects :1)	2.00	2	0	0	100	-	-	-	-	-	-	100
	PEC 02 (Compulsory Subjects :1)	3.00	3	0	0	40	-	-	60	-	-	-	100
	PEC 02-LAB (Compulsory Subjects :1)	1.00	0	2	0	-	20	-	-	30	-	-	50
	Total	23.00	17	10	1								950

Semester - 6 PEC 02

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122381	VLSI Design	3.00	3	0	0	20	-	20	60	-	40	-	100
203122383	Real Time Embedded Systems	3.00	3	0	0	20	-	20	60	-	40	-	100
203122385	Wireless Communication	3.00	3	0	0	20	-	20	60	-	40	-	100



Semester - 6 PEC 02-LAB

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122382	VLSI Design Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122384	Real Time Embedded Systems Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122386	Wireless Communication Lab	1.00	0	2	0	-	20	-	-	30	-	25	50

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50



Semester - 7

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122401	Field and Service Robots	3.00	3	0	0	20	-	20	60	-	40	-	100
203122402	Field and Service Robots Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122403	Industrial Automation	3.00	3	0	0	20	-	20	60	-	40	-	100
203122404	Industrial Automation Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122405	Project-I	7.00	0	14	0	-	100	-	-	100	-	100	200
203122406	Summer Internship	1.00	0	0	0	-	50	-	-	-	-	25	50
	PEC 03 (Compulsory Subjects :1)	3.00	3	0	0	40	-	-	60	-	-	-	100
	PEC 03-LAB (Compulsory Subjects :1)	1.00	0	2	0	-	20	-	-	30	-	-	50
	Total	20.00	9	20	0								700

Semester - 7 PEC 03

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122431	Digital Signal Processing and Applications	3.00	3	0	0	20	-	20	60	-	40	-	100
203122433	Internet of Things	3.00	3	0	0	20	-	20	60	-	40	-	100
203122435	Industrial Networking	3.00	3	0	0	20	-	20	60	-	40	-	100



Semester - 7 PEC 03-LAB

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122432	Digital Signal Processing and Applications Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122434	Internet of Things Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122436	Industrial Networking Lab	1.00	0	2	0	-	20	-	-	30	-	25	50

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50



Semester - 8

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122451	Artificial Intelligence For Robotics	3.00	3	0	0	20	-	20	60	-	40	-	100
203122452	Artificial Intelligence For Robotics Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122453	Project- II	7.00	0	14	0	-	100	-	-	100	-	100	200
	PEC 04 (Compulsory Subjects :1)	3.00	3	0	0	40	-	-	60	-	-	-	100
	PEC 04-LAB (Compulsory Subjects :1)	1.00	0	2	0	-	20	-	-	30	-	-	50
	Total	15.00	6	18	0								500

Semester - 8 PEC 04

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122481	Advanced Control Systems	3.00	3	0	0	20	-	20	60	-	40	-	100
203122483	Optimization in Engineering Design	3.00	3	0	0	20	-	20	60	-	40	-	100
203122485	Vision Systems and Image Processing	3.00	3	0	0	20	-	20	60	-	40	-	100

Semester - 8 PEC 04-LAB

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122482	Advanced Control Systems Lab	1.00	0	2	0	-	20	-	-	30	-	25	50



Semester - 8 PEC 04-LAB

						Internal Marks			External Marks		Passing Marks (Theory + CE)	Passing Marks (Practical)	Total Marks
Code	Subject	Credit	Lect	Lab	Tut	T	P	CE	T	P	Int. + Ext.	Int. + Ext.	
203122484	Optimization in Engineering Design Lab	1.00	0	2	0	-	20	-	-	30	-	25	50
203122486	Vision Systems and Image Processing Lab	1.00	0	2	0	-	20	-	-	30	-	25	50

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 40 Practical Passing % : 50