

Minor Specializations

S. No.	Minor Specialization Offered by ECE dept.	Credits	
1	Embedded System	20	
2	Internet of Robotics Things	20	

Minor Specialization-1: Embedded System

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits	Sem.
				L	T	P	Total		
1.	18B11EC920	ECE	Electronic Circuit Design	3	0	0	3	3	III
2.	18B11EC914	ECE	Transducer Engineering	3	0	0	3	3	IV
3.	18B17EC974	ECE	Transducer Engineering Lab	0	0	2	2	1	IV
4.	18B11EC919	ECE	Digital Control System	3	0	0	3	3	V
5.	18B11EC915	ECE	Microcontroller and Embedded System	3	0	0	3	3	VI
6.	18B17EC976	ECE	Microcontroller and Embedded System lab	0	0	2	2	1	VI
7.	18B11EC916	ECE	Embedded Control System	3	0	0	3	3	VII/V III
8.	18B11EC918	ECE	Real Time Embedded System Design	3	0	0	3	3	VII/V III
			Total				22	20	

Minor Specialization-2 offered by ECE dept. with CSE dept. : Internet of Robotics Things for ECE and CSE students)

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits	Sem.
				L	T	P	Total		
1.	18B11EC314 18B11EC919	ECE	Measurement & Instrumentation (for CSE)/ Digital Control System (for ECE)	3	0	0	3	3	V
2.	18B11EC911	ECE	Sensors, Actuators & Signal Processing	3	0	0	3	3	IV
3.	18B11CI916	CSE	Statistical Methods and Data Analysis	3	0	0	3	3	III
4.	18B17CI976	CSE	Statistical Methods and Data Analysis Lab	0	0	2	2	1	III
5.	18B11EC913	ECE/ CSE	Robotics & Machine Vision	3	0	0	3	3	VII/V III
6.	18B17EC973	ECE	Robotics Programming Lab	0		2	2	1	VII/V III
7.	18B17CI997	CSE	Internet of Things Lab	0	0	2	2	1	VII/V III
8.	18B11CI937	CSE	Internet of Things Technology and Applications	2	0	0	2	2	VII/V III
9.	18B11CI918	CSE	Machine Learning	3	0	0	3	3	VI
			Total				23	20	

*Students of ECE will be registered in course of 'Introduction to Artificial Intelligence' as prerequisite of 'Artificial Intelligence and Applications'.

Minor Specialization offered by Mechanical Engg. dept. with ECE dept. (for ECE and MEC students):

Industrial Automation

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits	Sem.
				L	T	P	Total		
1	18B11EC914	ECE	Transducers Engineering	3	0	0	3	3	IV
2	18B17EC974	ECE	Transducers Engineering Lab	0	0	2	2	1	IV
3	18B11ME911	MEC	Robotics	3	0	0	3	3	V
4	18B11EC919/ 21B11EC921	ECE	Digital Control System (for ECE students) /Microprocessors based Control System (For MEC students)	3	0	0	3	3	V
5	18B17ME971	MEC	Robotics/CIM Lab	0	0	2	2	1	V
6	18B11ME913	MEC	Industrial Automation	3	0	0	3	3	VI
7	18B11ME914	MEC	Control of Industrial Automation	3	0	0	3	3	VI
8	18B11ME912	MEC	Special Purpose Vehicle	3	0	0	3	3	VII
			Total				22	20	

Minor Specialization offered by Mechanical Engg. dept. with ECE dept. (for ECE and MEC students):

Mechatronics

S. No.	Course Code	Dept.	Title of Course	Contact Hours				Credits	Sem.
				L	T	P	Total		
1	18B11EC914	ECE	Transducers Engineering	3	0	0	3	3	IV
2	18B17EC974	ECE	Transducers Engineering Lab	0	0	2	2	1	IV
3	18B11ME917	MEC	Vehicle Dynamics	3	0	0	3	3	V
4	18B11ME915	MEC	Computer Integrated Manufacturing	3	0	0	3	3	V
5	18B17ME975	MEC	CIM Lab	0	0	2	2	1	V
6	18B11ME918	MEC	Control of Mechanical System	3	0	0	3	3	VI
7	18B11EC915	ECE	Micro-controller and Embedded System	3	0	0	3	3	VI
8	18B11ME916	MEC	Automated Guided Vehicles	3	0	0	3	3	VII
			Total				22	20	

Minor Specialization-1: Human Resource Management (offered by HSS dept.)								
S. No.	Course Code	Dept.	Title of Course	L	T	P	Contact Hours	Credits
1	18B11HS911	HSS	Human Resource Management	3	0	0	3	3
2	18B11HS912	HSS	Team Building and Leadership	3	0	0	3	3
3	18B11HS913	HSS	Performance Management	3	0	0	3	3
4	18B11HS914	HSS	Training & Development	3	0	0	3	3
5	18B11HS915	HSS	Organizational Change	3	0	0	3	3
6	18B11HS916	HSS	Negotiation & Counselling	3	0	0	3	3
7	18B17HS971	HSS	Minor Project	0	0	4	4	2
Total							22	20

Minor Specialization-2: Financial Management (offered by HSS dept.)								
S. No.	Course Code	Dept.	Title of Course	L	T	P	Contact Hours	Credits
1	18B11HS918	HSS	Fundamentals of Accounting	3	0	0	3	3
2	18B11HS919	HSS	Financial Management	3	0	0	3	3
3	18B11HS920	HSS	Financial Modelling	3	0	0	3	3
4	18B11HS921	HSS	Fundamentals of Financial Markets	3	0	0	3	3
5	18B11HS922	HSS	Security Analysis & Investment Management	3	0	0	3	3
6	18B11HS923	HSS	International Financial Management	3	0	0	3	3
7	18B17HS972	HSS	Minor Project	0	0	4	4	2
Total							22	20

Minor Specialization-3: Digital Marketing (offered by HSS dept.)								
S. No.	Course Code	Dept.	Title of Course	L	T	P	Contact Hours	Credits
1	18B11HS925	HSS	Consumer Behaviour	3	0	0	3	3
2	18B11HS926	HSS	Ethics, IPR and Cyber laws	3	0	0	3	3
3	18B11HS927	HSS	Digital Marketing research	3	0	0	3	3
4	18B11HS928	HSS	Introduction to Social Media Marketing	3	0	0	3	3
5	18B11HS929	HSS	Digital Marketing	3	0	0	3	3
6	18B11HS930	HSS	Digital Marketing Analytics	3	0	0	3	3
7	18B17HS973	HSS	Minor Project	0	0	4	4	2
Total							22	20

Minor Specialization-4: Marketing (offered by HSS dept.)								
S. No.	Course Code	Dept.	Title of Course	L	T	P	Contact Hours	Credits
1	18B11HS932	HSS	Consumer Behaviour	3	0	0	3	3
2	18B11HS933	HSS	Marketing Management	3	0	0	3	3
3	18B11HS934	HSS	Marketing Research	3	0	0	3	3
4	18B11HS935	HSS	Services Marketing	3	0	0	3	3
5	18B11HS936	HSS	Brand Management	3	0	0	3	3
6	18B11HS937	HSS	Sales and Distribution Management	3	0	0	3	3
7	18B17HS974	HSS	Minor Project	0	0	4	4	2
Total							22	20

Department of Electronics & Communication Engineering

Micro-Specializations

S. No	Micro specialization	Head Course(s)			Elective Courses		
		Course Name	Semester	Credits	Course Name	Semester	Credits
1	VLSI Design	Digital Circuit Design	IV	4	Digital Hardware Design	V	3
					FPGA Based System Design	VI	3
		Digital Circuit Design Lab	IV	1	IC Technology	VII	3
					VLSI Verification and Testing	VIII	3
2	Advance Communication Technologies[5G]	Analog and Digital Communication	IV	4	Emerging Technologies- Beyond 5 G	V	3
					Machine Learning for Communication Systems	VI	3
		Analog and Digital Communication Lab	IV	1	Green Communication Technologies	VII	3
					Data Analytics for 5 G	VIII	3
3	IOT with Machine Learning	Measurement & Instrumentation	III	3	Internet of Things	V	3
					Machine Learning	VI	3
		Measurement & Instrumentation Lab	III	1	Artificial Intelligence of Things	VII	3
					Industrial IoT	VIII	3