



Rajarambapu Institute of Technology, Rajaramnagar
(An Empowered Autonomous Institute, affiliated to Shivaji University, Kolhapur)
Curriculum Structure and Evaluation Scheme
To be implemented for 2022-26 Batch
Department of Electronics and Telecommunication Engineering
Rev: EC Course Structure/RIT/02/2022-26

B. Tech in Electronics and Telecommunication Engineering with Multidisciplinary Minor



Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks)		Practical (Marks)		
							Max	Min. % for passing	Max.	Min.% for passing	
EC259	Analog Circuits	3	-	-	3	ISE	20	40	40	----	----
						UT1	15			----	----
						UT2	15	40		----	----
						ESE	50			----	----
EC2014	Digital Design	3	-	-	3	ISE	20	40	40	----	----
						UT1	15			----	----
						UT2	15	40		----	----
						ESE	50			----	----
EC2034	Analog Communication	3	-	-	3	ISE	20	40	40	----	----
						UT1	15			----	----
						UT2	15	40		----	----
						ESE	50			----	----
EC2054	Network Theory	3	-	-	3	ISE	20	40	40	----	----
						UT1	15			----	----
						UT2	15	40		----	----
						ESE	50			----	----
	Multidisciplinary Minor-I	3	-	-	3	ISE	20	40	40	----	----
						UT1	15			----	----
						UT2	15	40		----	----
						ESE	50			----	----
SH2174	Environmental Science	1	-	2	2	ISE	50	40	40	--	---
						ESE	50	40		---	---
EC2074	Analog Communication Lab	-	-	2	1	ISE	----	----		100	50
EC2094	Digital Design lab			2	1	ISE	----	----		50	50
						ESE	----	----		50	50
EC261	Analog Circuits & PCB Design Lab	-	-	2	1	ISE	----	----		50	50
						ESE	----	----		50	50
EC2114	Technical Aptitude-I	-	-	2	1	ESE	----	----		100	50
	Professional Skills Development and Foreign Languages	-	-	2	1	ISE	----	----		100	50
	TOTAL	16	-	12	22						
	TOTAL CONTACT HOURS	28									

ISE = In Semester Evaluation, UT-I = Unit Test-I, UT-II = Unit Test-II, ESE = End Semester Examination

Total Contact Hours/week : 28

Total Credits : 22

Technical Aptitude-I courses: Analog circuits, Digital Design, Analog Communication and Network theory.

Note: ISE of the Environment Science course will be the project on application of technology in Environmental concerns. If student fails in ISE (i.e. project), he/she will not be eligible for ESE of the course. In time table allow one hour for theory and two hours for Environmental Science-project (batch wise).





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Professional Skills Development and Foreign Languages:

Sr. No.	Subject Name		Course Code
1.	Professional Skills Development and Foreign Languages	Professional Leadership Skills	SH2634
2.		Interpersonal Skills	SH2614
3.		Innovation Tools and Methods for Entrepreneurs	SH2694
4.		Personal Effectiveness and Body Language	SH2594
5.		German Language – III	SH2734
6.		Japanese Language – III	SH2714

Note:

1. A student has to complete any two courses out of six choices offered under Choice Based Professional Skills Development Programme. A course in each semester will be allocated without any repetition.
2. Foreign Language course selected in F. Y. B. Tech Sem-I will remain the same with next levels in Sem-III & IV. (No new entries in S. Y. B. Tech Sem-III)



Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks)			Practical (Marks)	
							Max	Min.% for passing		Max	Min. % for passing
EC260	Mathematics for ECE	2	-	-	2	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15	40		---	---
						ESE	50			40	---
EC2024	Digital Communication	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15	40		---	---
						ESE	50			40	---
EC2044	Microcontroller	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15	40		---	---
						ESE	50			40	---
EC2064	Linear Integrated Circuits	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15	40		---	---
						ESE	50			40	---
	Multidisciplinary Minor-II	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15	40		---	---
						ESE	50			40	---
	Modern Indian Language	2	-	-	2	ISE	100	50	---	---	---
EC2084	Digital Communication Lab	-	-	2	1	ISE	---	----	---	50	50
						ESE	---	----	--	50	50
EC2104	Microcontroller Lab	-	-	2	1	ISE	---	----	---	50	50
						ESE	---	----	--	50	50
EC2124	Linear Integrated Circuits Lab	-	-	2	1	ISE	---	----		50	50
						ESE	---	---		50	50
EC2144	Programming with C++ Lab	-	-	2	1	ISE	---	---		100	50
EC2164	Technical Aptitude-II	-	-	2	1	ESE	---	---		100	50
	Professional Skills Development and Foreign Languages	-	-	2	1	ISE	-	-		100	50
	Total	16	-	12	22						
	Total Contact Hours	28									

ISE = In Semester Evaluation, UT-I = Unit Test-I, UT-II = Unit Test-II, ESE = End Semester Examination

Total Contact Hours/week : 28

Total Credits : 22

Technical Aptitude-II courses: Mathematics for ECE, Digital Communication, Microcontroller, Linear Integrated Circuits.

Note: Students are required to undergo industrial / field training of minimum two weeks in the vacation of Semester-IV and its evaluation will be carried out in the Semester-V.



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Professional Skills Development and Foreign Languages:

Sr. No.	Course Name		Course Code
1	Professional Skills	Professional Leadership Skills	SH2634
2	Development and Foreign Languages	Interpersonal Skills	SH2614
3		Innovation Tools and Methods for Entrepreneurs	SH2694
4		Personal Effectiveness and Body Language	SH2594
5		German Language – IV	SH2644
6		Japanese Language – IV	SH2624

Modern Indian Language:

Sr. No.	Course Name		Course Code
1	Modern Indian Language	मराठी भाषिक कौशल्यविकास	SH202
2		हिंदी कथा साहित्य एवं प्रयोजमूलक हिंदी	SH204

Note:

1. A student has to complete any two courses out of six choices offered under Choice Based Professional Skills Development Programme. A Course in each semester will be allocated without any repetition.
2. Foreign Language course selected in F. Y. B. Tech Sem-I will remain the same with next levels in Sem-III & IV. (No new entries in S. Y. B. Tech Sem-III)





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Department of Electronics and Telecommunication Engineering

Rev: EC Course Structure/RIT/02/2022-26

Class: T. Y. B. Tech

Semester: V

Course Code	Course	Teaching Scheme				Evaluation Scheme				
		L	T	P	Credits	Scheme	Theory (Marks)		Practical (Marks)	
							Max	Min. % for Passing	Max	Min. % for passing
EC3014	Signal Processing	3	-	-	3	ISE	20	40	40	---
						UT1	15			---
						UT2	15			---
						ESE	50			---
EC3034	Electromagnetic Waves and Antenna Theory	3	-	-	3	ISE	20	40	40	---
						UT1	15			---
						UT2	15			---
						ESE	50			---
	Programme Elective-I	3	-	-	3	ISE	20	40	40	---
						UT1	15			---
						UT2	15			---
						ESE	50			---
	Open Elective-I	3	-	-	3	ISE	20	40	40	---
						UT1	15			---
						UT2	15			---
						ESE	50			---
	Multidisciplinary Minor-III	3	-	-	3	ISE	20	40	40	---
						UT1	15			---
						UT2	15			---
						ESE	50			---
	Multidisciplinary Minor-IV	2	-	-	2	ISE	20	40	40	---
						UT1	15			---
						UT2	15			---
						ESE	50			---
SH3034	Scholastic Aptitude I	2	-	-	2	ISE	20	40	40	---
						UT1	15			---
						UT2	15			---
						ESE	50			---
EC3174	Signal Processing Lab	-	-	2	1	ISE	---	---	---	100
EC3194	Electromagnetic Waves and Antenna Theory Lab	-	-	2	1	ISE	---	---	---	50
						ESE	---	---	---	50
EC3214	Technical Aptitude-III	-	-	2	1	ESE	---	---	---	100
EC3234	Summer Internship	-	-	-	2	ISE	---	---	---	50
	Total	19	-	6	24					
	Total Contact Hours	25								

ISE = In Semester Evaluation, UT-I = Unit Test-I, UT-II = Unit Test-II, ESE = End Semester Examination

Total Contact Hours/week : 25

Total Credits : 24

Technical Aptitude-III courses: Signal Processing, Electromagnetic Waves and Antenna Theory.





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Department of Electronics and Telecommunication Engineering

Rev: EC Course Structure/RIT/02/2022-26

Program Elective-I

Sr.No	Course Code	Domain	Course
1.	EC3054	Communication	Information Theory and Coding
2.	EC3074		Wireless Communication
3.	EC3094	VLSI and Signal Processing	RTL Simulation and Synthesis
4.	EC3114		Digital Image Processing
5.	EC3134	Embedded Systems and Automation	Real-Time Operating System
6.	EC3154		Computer Architecture and Organization

Open Elective-I

Open Elective-I			
Sr. No	Course Code	Course Name	Offered By Department
1	OE345	Soft Computing	Computer Science & Information Technology
2	OE361	Object Oriented Modeling and Design	Computer Science & Information Technology
3	OE343	Data Science	Computer Science & Engineering (Artificial Intelligence and Machine Learning)
4	OE347	New Product Design & Development	Mechanical Engineering
5	OE349	Non-Conventional Energy Sources	Mechanical Engineering
6	OE351	Hydrogen & Fuel Cell Technology	Mechanical Engineering
7	OE3044	Renewable Energy Sources	Automobile Engineering
8	OE353	Factory Automation	Mechatronics Engineering
9	OE355	Cyber Physical Systems	Mechatronics Engineering
10	OE3104	Network Administration	Computer Science & Engineering
11	OE3064	Environmental Impact Assessment	Civil Engineering
12	OE350	Operations Research	Civil Engineering
13	OE341	Energy Auditing and Management	Electrical Engineering
14	OE357	Internet of Things	Electronics & Telecommunication Engineering
15	OE359	Drone Technology	Electronics & Telecommunication Engineering



Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks)			Practical (Marks)	
							Max	Min. % for passing		Max	Min. % for passing
EC3024	CMOS Digital VLSI Design	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
EC3044	Power Electronics	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
EC3064	Research Methodology	2	-	-	2	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
	Program Elective-II	2	-	-	2	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
	Open Elective-II	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
	Multidisciplinary Minor-V	3	-	-	3	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
SH3044	Scholastic Aptitude II	2	-	-	2	ISE	20	40	40	---	---
						UT1	15			---	---
						UT2	15			---	---
						ESE	50			40	---
EC3104	CMOS Digital VLSI Design Lab	-	-	2	1	ISE	---	---	---	50	50
						ESE	---	---	---	50	50
EC3124	Power Electronics Lab	-	-	2	1	ISE	---	---	---	100	50
	Program Elective-II Lab	-	-	2	1	ISE	---	---	---	100	50
EC3164	Python Programming Lab	-	-	2	1	ISE	---	---		100	50
EC3184	Technical Aptitude IV	-	-	2	1	ESE	---	---		100	50
EC3204	Capstone Project Phase- I	-	-	2	1	ISE	---	---		100	50
	Total	18	-	12	24						
	Total Contact Hours	30									

ISE = In Semester Evaluation, UT-I = Unit Test-I, UT-II = Unit Test-II, ESE = End Semester Examination

Total Contact Hours/week : 30

Total Credits : 24

Technical Aptitude-IV courses: CMOS Digital VLSI Design and Power Electronics.



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Program Elective-II

Sr.No	Course Code	Domain	Course
1.	EC364	Communication	Advanced Mobile Communication
2.	EC3084		Microwave Engineering
3.	EC366	VLSI and Signal Processing	Computer-Aided Design for VLSI
4.	EC368		Speech Processing
5.	EC370	Embedded Systems and Automation	Embedded Processors
6.	EC372		Data Structure and Algorithms

Program Elective-II Laboratory

Sr. No	Course Code	Domain	Course
1.	EC374	Communication	Advanced Mobile Communication Lab
2.	EC3144		Microwave Engineering Lab
3.	EC376	VLSI and Signal Processing	Computer-Aided Design for VLSI Lab
4.	EC378		Speech Processing Lab
5.	EC380	Embedded Systems and Automation	Embedded Processors Lab
6.	EC382		Data Structure and Algorithms Lab

Open Elective-II

Open Elective-II			
Sr. No	Course Code	Course Name	Offered By Department
1	OE3401	Cyber security	Computer Science & Information Technology
2	OE360	Distributed Systems	Computer Science & Information Technology
3	OE342	Data Mining	Computer Science & Engineering (Artificial Intelligence and Machine Learning)
4	OE3024	Reliability Engineering	Automobile Engineering
5	OE344	Supply Chain Analytics	Mechatronics Engineering
6	OE346	Mobile Robotics	Mechatronics Engineering
7	OE348	Information Technology Foundation Program	Computer Science & Engineering
8	OE3381	Disaster Management	Civil Engineering
9	OE3084	Materials Management	Civil Engineering
10	OE358	Plumbing (Water and Sanitation)	Civil Engineering





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Open Elective-II			
Sr. No	Course Code	Course Name	Offered By Department
11	OE3182	Industrial Drives	Electrical Engineering
12	OE352	Image Processing	Electronics & Telecommunication Engineering
13	OE354	Fuzzy logic and Neural Network	Electronics & Telecommunication Engineering
14	OE3284	Supply Chain Management	Mechanical Engineering
15	OE3324	Entrepreneurship Development	Mechanical Engineering
16	OE356	Project Management	Mechanical Engineering



Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks)		Practical (Marks)		
							Max.	Min. % for passing	Max.	Min. % for passing	
EC4014	Internet of Things	3	-	-	3	ISE	20	40	40	---	---
						MSE	30				
						ESE	50				
EC4034	Computer Communication Network	3	-	-	3	ISE	20	40	40	---	---
						MSE	30				
						ESE	50				
EC461	RTOS and Embedded Linux	3	-	-	3	ISE	20	40	40	---	---
						MSE	30				
						ESE	50				
	Program Elective-III	3	-	-	3	ISE	20	40	40	---	---
						MSE	30				
						ESE	50				
	Program Elective-IV	3	-	-	3	ISE	20	40	40	---	---
						MSE	30				
						ESE	50				
EC475	RTOS and Embedded Linux Lab	-	-	2	1	ISE	--	---	---	50	50
						ESE	--	---	---	50	50
	Program Elective-III Lab	-	-	2	1	ISE	--	---	---	50	50
						ESE	--	---	---	50	50
EC4294	Capstone Project-II	-	-	6	3	ISE	--	---	---	50	50
						ESE	--	---	---	50	50
	TOTAL	15	-	10	20						
	TOTAL CONTACT HOURS	25									

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

Total Contact Hours/week: 25

Total Credits : 20



Program Elective-III

Sr.No	Course Code	Domain	Course
1.	EC4054	Communication	Microwave Engineering
2.	EC4074		Wireless Sensor Network
3.	EC4094	VLSI and Signal Processing	System Verilog
4.	EC463		Biomedical Signal Processing
5.	EC4114	Embedded Systems and Automation	Industry Automation
6.	EC4134		Soft Computing

Program Elective-IV

Sr.No	Course Code	Domain	Course
1.	EC4154	Communication	Satellite Communication
2.	EC465		Radar and Optical Fiber Communication
3.	EC467	VLSI and Signal Processing	VLSI Testing
4.	EC469		Pattern Recognition
5.	EC471	Embedded Systems and Automation	Instrumentation for Robotics and Automation
6.	EC4174		AI and ML

Program Elective-III Laboratory

Sr.No	Course Code	Domain	Course
1.	EC4194	Communication	Microwave Engineering Lab
2.	EC4214		Wireless Sensor Network Lab
3.	EC4234	VLSI and Signal Processing	System Verilog Lab
4.	EC473		Biomedical Signal Processing Lab
5.	EC4254	Embedded Systems and Automation	Industry Automation Lab
6.	EC4274		Soft Computing Lab



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Choice based Internship Model
Model I: Industry Internship (II)

Class: Final Year B. Tech

Semester: VIII

Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks)		Practical (Marks)		
							Max.	Min. % for passing	Max.	Min. % for passing	
OE4382	Finance for Engineers (Online Course)	2	-	-	2	ISE	25	40	40	---	---
						ESE	75	40		---	---
OE4362	Engineering Management & Economics (Online Course)	2	-	-	2	ISE	25	40	40	---	---
						ESE	75	40		---	---
IP4024	Industry Internship & Project	-	-	-	12	ISE	---	----		50	50
						ESE	---	---		50	50
	TOTAL	-	-	-	16						

ISE = In Semester Evaluation, ESE = End Semester Examination

Total Contact Hours/week : --

Total Credits : 16

Note:

1] Weekly Contact hours are not mentioned as student is expected to be in industry regularly for 20 weeks. However, student needs to report to Institute mentors as and when required.

2] For online course, lecture videos of each unit will be made available through college platform to the students. For each unit there will be separate assignment. Students need to submit all assignments within specified time.

Weightage: 25% weightage for unit wise assignments + 75% weightage for final exam. Final exam will be held at college campus.



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Model II: Research Internship (RI)

Class: Final Year B. Tech

Semester: VIII

Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks%)			Practical (Marks%)	
							Max.	Min. % for passing		Max.	Min. % for passing
OE4382	Finance for Engineers (Online Course)	2	-	-	2	ISE	25	40	40	---	---
						ESE	75	40		---	---
OE4362	Engineering Management & Economics (Online Course)	2	-	-	2	ISE	25	40	40	---	---
						ESE	75	40		---	---
RE4044	Research Internship	-	-	-	12	ISE	---	---		50	50
						ESE	---	---		50	50
	TOTAL	-	-	-	16						

ISE = In Semester Evaluation, ESE = End Semester Examination

Total Contact Hours/week: ---

Total Credits : 16

Students who opt for a research internship need to undergo a minimum of one month of research internship in outside research organizations or laboratories.

Note:

- 1] Weekly Contact hours are not mentioned as student is expected to be in outside research organization regularly for 20 weeks. However, student needs to report to Institute mentors as and when required.
- 2] For online course, lecture videos of each unit will be made available through college platform to the students. For each unit there will be separate assignment. Students need to submit all assignments within specified time.
- 3] Students who opt for a research internship need to undergo a minimum of one month of research internship in outside research organizations or laboratories.

Weightage: 25% weightage for unit wise assignments + 75% weightage for final exam. Final exam will be held at college campus.



Class: Final Year B. Tech

Semester: VIII

Course Code	Course	Teaching Scheme			Credits	Evaluation Scheme					
		L	T	P		Scheme	Theory (Marks)			Practical (Marks)	
							Max	Min. % for passing		Max	Min. % for passing
ED4104	Project Management (Online Course)	2	-	-	2	ISE	25	40	40	-	-
						ESE	75	40		-	-
ED4044	Commercial Aspects of the Project (Online Course)	2	-	-	2	ISE	25	40	40	-	-
						ESE	75	40		-	-
ED4064	Entrepreneurship Development Program (EDP)	-	-	-	1	ISE				100	50
ED4084	Entrepreneurial Internship	-	-	-	11	ISE				50	50
						ESE				50	
		-	-	-	16						

ISE = In Semester Evaluation, ESE = End Semester Examination

Total Contact Hours/week: -

Total Credits : 16

Students who opt for an entrepreneurial internship need to undergo a one-month internship at an outside reputed organization or firm.

Note:

1] Weekly Contact hours are not mentioned as student is expected to be in outside research organization regularly for 20 weeks. However, student needs to report to Institute mentors as and when required.

2] For online course, lecture videos of each unit will be made available through college platform to the students. For each unit there will be separate assignment. Students need to submit all assignments within specified time.

Weightage: 25% weightage for unit wise assignments + 75% weightage for final exam. Final exam will be held at college campus.

3] A one week Entrepreneurship Development Program (EDP) will be conducted after completion of 7th semester and before start of 8th semester.

4] Students who opt for an entrepreneurial internship need to undergo a one-month internship at an outside reputed organization or firm

Multidisciplinary Minor

Note:

- Student should choose any one specialization given by the department and complete all the five courses under the specialization to earn 170 Credits.
- Following are the baskets of multidisciplinary minor courses

Multidisciplinary Minor Baskets					
MDM BasketName	Sr. No.	Course Code	Course Name	Semester	Offered by Department
Automobile Engineering	1	ATMD201	Automobile Systems	III	Automotive Technology
	2	ATMD202	I.C. Engines	IV	
	3	ATMD301	Automotive Safety & Ergonomics	V	
	4	ATMD303	Automotive Engineering Lab.	V	
	5	ATMD302	Electric Vehicles	VI	
Construction Engineering	1	CEMD201	Building Construction and Planning	III	Civil Engineering
	2	CEMD202	Building Estimation and Valuation	IV	
	3	CEMD301	Infrastructure Engineering	V	
	4	CEMD303	Smart Cities and Sustainable Development	V	
	5	CEMD302	Environmental Engineering	VI	
Software Programming	1	CSMD201	Introduction to Data Structures	III	Computer Science & Engineering
	2	CSMD202	Problem solving using JAVA	IV	
	3	CSMD301	Fundamentals of Database Systems	V	
	4	CSMD303	Object-oriented Programming in Python	V	
	5	CSMD302	Artificial Intelligence	VI	

Electrical Power System	1	EEMD201	Electrical Power Generation	III	Electrical Engineering
	2	EEMD202	Power System	IV	
	3	EEMD301	Electrical Machines	V	
	4	EEMD303	Electrical Technology Lab	V	
	5	EEMD302	Smart Grid	VI	
Electronics System Design		ECMD201	Electronics Devices and Applications	III	Electronics & Telecommunication Engineering
	2	ECMD202	Electronics Communication Systems	IV	
	3	ECMD301	Advanced Communication Systems	V	
	4	ECMD303	Electronic Product Design	V	
	5	ECMD302	Industrial Electronics	VI	
Software Development	1	CIMD201	Data Structures	III	Computer Science & Information Technology
	2	CIMD202	Computer Algorithms	IV	
	3	CIMD301	Introduction to DBMS	V	
	4	CIMD303	OOP using Java	V	
	5	CIMD302	Software Engineering	VI	
Elements of Mechanical Engineering	1	MEMD201	Materials and Applications	III	Mechanical Engineering
	2	MEMD202	Design and Drawing of Machine Components	IV	
	3	MEMD301	Manufacturing and Assembly Process	V	
	4	MEMD303	Refrigeration and Air Conditioning	V	
	5	MEMD302	Power Plant Engineering	VI	
Mechatronics Engineering	1	MCMD201	Fundamentals of Mechatronics	III	Mechatronics Engineering
	2	MCMD202	Industrial Fluid Power	IV	
	3	MCMD301	Sensor and Instrumentation	V	
	4	MCMD303	Industrial Automation	V	
	5	MCMD302	Industrial Robotics	VI	
	1	AIMD201	Object Oriented Programming	III	Computer Science & Engineering (AI-



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Artificial Intelligence	2	AIMD202	Data Structures and Algorithms	IV	ML)
	3	AIMD301	Machine Learning	V	
	4	AIMD303	Business Intelligence	V	
	5	AIMD302	Principles of AI	VI	





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B. Tech in Electronics and Telecommunication Engineering with Double Minor (Multidisciplinary and Specialization Minor)



B.Tech. in Electronics and Telecommunication Engineering with Double Minor degree

1. It is required to complete SIX courses (each of 3 credits) from ONLINE platform to earn total of 18 credits under Double Minor (DM) certification.
2. Student must complete and earn the credits for all the six courses starting from Second Year First semester (3rd semester) to Final Year Second Semester (8th semester).
3. Basket of the DM courses and respective semester is mentioned in the following table.

Sr. No.	Semester	Course	Code
1	III	DM – I	ECDM3XXX
2	IV	DM – II	ECDM4XXX
3	V	DM – III	ECDM5XXX
4	VI	DM – IV	ECDM6XXX
5	VII	DM – V	ECDM7XXX
6	VIII	DM – VI	ECDM8XXX

4. To select course platform, first preference must be given to NPTEL.
5. Other than NPTEL, courses from COURSERA and UDEMY platforms are allowed to register only in following cases,
 - a. If timeline of NPTEL course is not in line with timeline of academic calendar.
 - b. The suitable succeeding course in line with previous course is not available on NPTEL.
 - c. If any other unavoidable circumstances occurs.
6. Platform and course selection must be as per recommendation of BOS of the department.
7. Student will get the credits of respective DM course in following conditions,
 - a. In case of course selected from NPTEL platform, student have to complete the timely assignments, PASS the exam and secure the certificate.
 - b. In case of course selected from COURSERA or UDEMY, student have to secure the certificate and appear for VIVA(oral) exam.
8. While selecting online course, following points must be taken care of,
 - a. Selected course must be of basic or fundamental level.
 - b. Contents of the course should not be covered in any of the course offered in regular curriculum or not listed in any elective (open or program elective) or in Multidisciplinary Minor (MDM)
 - c. Duration of each online course must be of EIGHT weeks for NPTEL and 30+ hours for UDEMY, COURSERA courses.



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B. Tech in Electronics and Telecommunication Engineering with Honor and Multidisciplinary Minor





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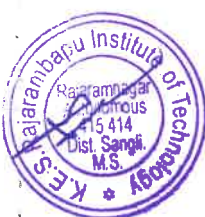
Rev: EC Course Structure/RIT/02/2022-26

**B.Tech. in Electronics and Telecommunication Engineering with Honor
and Multidisciplinary Minor degree**

1. It is required to complete SIX courses (each of 3 credits) from ONLINE platform to earn total of 18 credits under Honor certification.
2. Student must complete and earn the credits for all the six courses starting from Second Year First semester (3rd semester) to Final Year Second Semester (8th semester).
3. Basket of the Honor courses and respective semester is mentioned in the following table.

Sr. No.	Semester	Course	Code
1	III	Honor - I	ECH3XXX
2	IV	Honor - II	ECH4XXX
3	V	Honor - III	ECH5XXX
4	VI	Honor - IV	ECH6XXX
5	VII	Honor - V	ECH7XXX
6	VIII	Honor - VI	ECH8XXX

4. To select course platform, first preference must be given to NPTEL.
5. Other than NPTEL, courses from COURSERA and UDEMY platforms are allowed to register only in following cases,
 - a. If timeline of NPTEL course is not in line with timeline of academic calendar.
 - b. The suitable succeeding course in line with previous course is not available on NPTEL.
 - c. If any other unavoidable circumstances occurs.
6. Platform and course selection must be as per recommendation of BOS.
7. Student will get the credits of respective Honor course in following conditions,
 - a. In case of course selected from NPTEL platform, student have to complete the timely assignments, PASS the exam and secure the certificate.
 - b. In case of course selected from COURSERA or UDEMY, student have to secure the certificate and appear for VFVA (oral) exam.
8. While selecting online course, following points must be taken care of,
 - a. Selected course must be of advanced level and not basic or fundamental level.
 - b. Contents of the course should not be covered in any of the course offered in regular curriculum or not listed in any elective (open or program elective)
 - c. Duration of each online course must be of EIGHT weeks for NPTEL and 30+ hours for COURSERA, UDEMY courses.





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B. Tech in Electronics and Telecommunication Engineering-Honors with Research and Multidisciplinary Minor





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Honors with Research and Multidisciplinary Minor

The student will work on Research Project or Dissertation for 18 Credits in the Fourth Year in respective discipline. The distribution of 18 Credits for Research project in Sem-VII and Sem-VIII is given below. To get B.Tech. in Electrical Engineering-Honors with Research and Multidisciplinary Minor degree Student need to earn total 188 Credits which consist 170 credits of regular Multidisciplinary Minor courses and 18 credits of Research courses.

Class: Final Year B. Tech

Semester: VII

Course Code	Course	Teaching Scheme				Evaluation Scheme					
		L	T	P	Credits	Scheme	Theory (Marks %)			Practical (Marks %)	
							Max.	Min. for passing		Max.	Min. for passing
REH401	Intellectual Property Rights	-	-	-	2	ISE	50	40	40	---	---
						ESE	50	40		---	---
REH403	Research project (Synopsis) phase - I	-	-	-	2	ISE	--	--	--	50	50
						ESE	--	--		50	50
REH405	Research Specific core course - I (Online NPTEL course)	-	-	-	3	ISE	50	40	40	--	--
						ESE	50	40		--	--
	TOTAL	-	-	-	7						

ISE: In Semester Evaluation, ESE: End Semester Exam

Note: For Evaluation of Online NPTEL course ISE Marks will be marks obtained by students in the assignments given by NPTEL, students who will secure NPTEL certification will be only eligible for ESE of the same course which will be conducted at institute





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Class: Final Year B. Tech

Semester: VIII

Course Code	Course	Teaching Scheme				Evaluation Scheme						
		L	T	P	Credits	Scheme	Theory (Marks %)			Practical (Marks %)		
							Max.	Min. for passing		Max.	Min. for passing	
REH402	Research project phase - II	-	-	-	11	ISE	--	--	--	50	50	
						ESE	--	--		50		
	TOTAL	-	-	-	11							

ISE: In Semester Evaluation, ESE: End Semester Exam

