

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

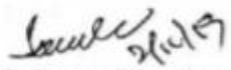
4 Years B.Tech. (Electronics and Communication Engineering) Course Structure: (2019-20)

I YEAR I SEMESTER

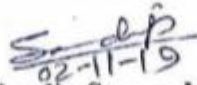
Sl. No.	Course Code	Course Category	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19199101	BSC	Mathematics-I	3	0	0	3	30	70	100
2	19199102	HSMC	Communicative English-I	3	0	0	3	30	70	100
3	19199103	BSC	Engineering Physics	3	0	0	3	30	70	100
4	19195104	ESC	Problem Solving & Programming in C	3	0	0	3	30	70	100
5	19193175	ESC	Engineering Graphics	1	0	3	2.5	30	70	100
6	19199196	MC	Environmental Studies	2	0	0	0	30*	-	-
7	19199111	HSMC	Communicative English Laboratory-I	0	0	3	1.5	50	50	100
8	19199112	BSC	Engineering Physics Laboratory	0	0	3	1.5	50	50	100
9	19195113	ESC	Problem Solving & Programming Laboratory with C	0	0	3	1.5	50	50	100
TOTAL				15	0	12	19	300	500	800
BSC 7.5	HSMC 4.5	ESC 7	MC 0							

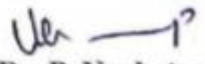

Dr. M. Sailaja
(University Nominee)



Dr. P. Rajesh Kumar
(Subject Expert)


Mr. S. Surya Shankar
(Industrial Expert)



Dr. S. V. R. K. Rao
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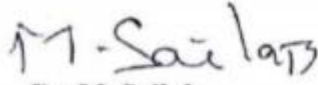

Mr. G. V. Vinod
(Member, BOS)

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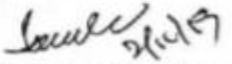
4 Years B.Tech. (Electronics and Communication Engineering) Course Structure: (2019-20)

I YEAR II SEMESTER

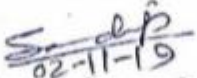
Sl. No.	CourseCode	Course Category	Subject Title	Periods per week			C	Scheme of ExaminationMaximum Marks		
				L	T	P		Int.	Ext.	Total
1	19199201a	BSC	Mathematics-II	3	0	0	3	30	70	100
2	19199202	HSMC	Communicative English-II	3	0	0	3	30	70	100
3	19199203	BSC	Applied Chemistry	3	0	0	3	30	70	100
4	19192204	ESC	Basic Electrical & Electronics Engineering	3	0	0	3	30	70	100
5	19195205	ESC	Python Programming	3	0	0	3	30	70	100
6	19199296b	MC	Professional Ethics & Human Values	2	0	0	0	30*	-	-
7	19199211	HSMC	Communicative English Laboratory-II	0	0	3	1.5	50	50	100
8	19199212	ESC	Basic Electrical & Electronics Engineering Laboratory	0	0	3	1.5	50	50	100
9	19195213	ESC	Python Programming Laboratory	0	0	3	1.5	50	50	100
10	19199214	BSC	Engineering Chemistry Laboratory	0	0	3	1.5	50	50	100
TOTAL				17	0	12	21	350	550	900
BSC 7.5	HSMC 4.5	ESC 9	MC 0							

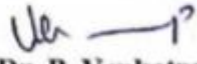

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

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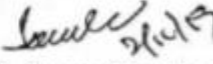
4 Years B.Tech. (Electronics and Communication Engineering) Course Structure: (2019-20)

II YEAR I SEMESTER


Sl. No.	Course Code	Course Category	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19149301	BSC	Complex Variables & Transform Techniques	3	0	0	3	30	70	100
2	19142302	ESC	Network Analysis	3	0	0	3	30	70	100
3	19140303	PCC	Electronic Devices & Circuits	3	0	0	3	30	70	100
4	19140304	PCC	Switching Theory & Logic Design	3	0	0	3	30	70	100
5	19140305	PCC	Signals and Systems	3	0	0	3	30	70	100
6	19140306	PCC	Electromagnetic Waves & Transmission Lines	3	0	0	3	30	70	100
7	19140387	MC	Design Thinking & Product Innovation	2	0	0	0	30*	-	-
8	19142311	ESC	Network Analysis Laboratory	0	0	3	1.5	50	50	100
9	19140312	PCC	Electronic Devices & Circuits Laboratory	0	0	3	1.5	50	50	100
TOTAL				20	0	6	21	280	520	800
BSC 3	PCC 13.5	ESC 4.5								



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

4 Years B.Tech. (Electronics and Communication Engineering) Course Structure: (2019-20)

II

YEAR II SEMESTER


Sl. No.	Course Code	Course Category	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19149401	BSC	Random variable and stochastic process	3	0	0	3	30	70	100
2	19143462 19145462 19142462 19144462 19141462 19147462 19146462	OEC	Open Elective-I ▪ Robotics ▪ Fundamentals of Operating Systems ▪ Utilization of Electrical Energy ▪ Internet of Things ▪ Environmental Pollution & Control ▪ Basic Automobile Engineering ▪ Elements of Mining Technology	3	0	0	3	30	70	100
3	19140403	PCC	Electronic Circuit Analysis	3	0	0	3	30	70	100
4	19140404	PCC	Analog Communications	3	0	0	3	30	70	100
5	19140405	PCC	Pulse and Digital Circuits	3	0	0	3	30	70	100
6	19140411	PCC	Electronic Circuit Analysis Lab	0	0	3	1.5	50	50	100
7	19140412	PCC	Pulse and Digital Circuits Lab	0	0	3	1.5	50	50	100
8	19140413	PCC	Analog Communication Lab	0	0	3	1.5	50	50	100
9	19140421	PR	Community Service Oriented Project	0	0	1	0.5	100	-	100
TOTAL				15	0	10	20	400	500	900
BSC	PCC	PR	OEC							



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

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4 Years B.Tech. (Electronics and Communication Engineering) Course Structure: (2019-20)

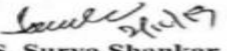
3	13.5	0.5	3							
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III YEAR I SEMESTER


Sl. No.	Course Code	Course Category	Subject Title	Periods per week			C	Scheme of ExaminationMaximum Marks		
				L	T	P		Int.	Ext.	Total
1	19149501	HSMC	Soft Skills	0	0	3	1.5	50	50	100
2	19143562 19145562 19142562 19144562 19141562 19147562 19146562	OEC	Open Elective-II ▪ MEMS ▪ Information Security ▪ Energy Management ▪ Digital Image Processing ▪ Solid Waste Management ▪ Hybrid and Electrical Vehicles ▪ Disasters Management in Mining	3	0	0	3	30	70	100
3	19140503	PCC	Linear & Digital IC Applications	3	0	0	3	30	70	100
4	19140504	PCC	Digital Communication	3	0	0	3	30	70	100
5	19140505	PCC	Antenna and Wave Propagation	3	0	0	3	30	70	100
6	19140566A 19140566B 19140566C 19140566D	PEC	Professional Elective-I ▪ Electronic Measurement and Instrumentation ▪ Computer Architecture and Organization ▪ Information Theory and Coding ▪ Artificial Neural Networks and Fuzzy Logic	3	0	0	3	30	70	100



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

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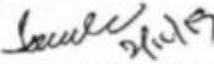
4 Years B.Tech. (Electronics and Communication Engineering) Course Structure: (2019-20)

III YEAR I SEMESTER

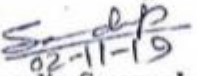
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				L	T	P		Int.	Ext.	Total
7	19149507	MC	Constitution of India	2	0	0	0	30*	-	-
8	19140511	PCC	Linear IC Applications Laboratory	0	0	3	1.5	50	50	100
9	19140512	PCC	DSD& Digital IC Applications Laboratory	0	0	3	1.5	50	50	100
10	19140513	PCC	Digital Communications Laboratory	0	0	3	1.5	50	50	100
11	19140521/ 19140581	PR	Mini Project – 1/Study Project/Internship	0	0	0	2	100	-	100
TOTAL				17	0	12	23	450	550	1000
OECC 3	PCC 13.5	PR 2	HSMC 1.5	PEC 3						

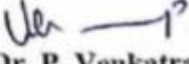

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

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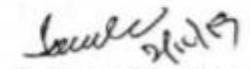
4 Years B.Tech. (Electronics and Communication Engineering) Course Structure: (2019-20)

III YEAR II SEMESTER

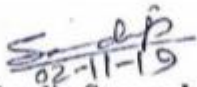
Sl. No.	Course Code	Course Category	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1		OEC	Open Elective - III	3	0	0	3	30	70	100
	19143661		▪ Nano Technology							
	19145661		▪ Human Computer Interaction							
	19142661		▪ Renewable Energy Resources							
	19144661		▪ Data Communication							
	19141661		▪ Global Environment: Problems & Policies							
	19147661		▪ Modern Vehicle Technology							
	19146661		▪ Remote Sensing & GIS in Mining							
2	19144602	PCC	Computer Networks	3	0	0	3	30	70	100
3	19144603	PCC	Microprocessors and Microcontrollers	3	0	0	3	30	70	100
4	19144604	PCC	Digital Signal Processing	3	0	0	3	30	70	100
5	19144605	PCC	Microwave Engineering	3	0	0	3	30	70	100

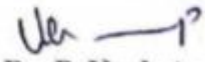

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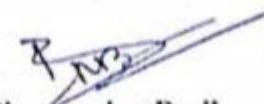

Mr. S. Surya Shankar
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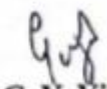

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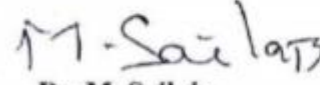

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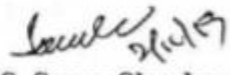
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III YEAR II SEMESTER

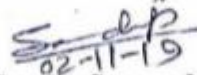
Sl. No.	Course Code	Course Category	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
6	19140665A 19140665B 19140665C 19140665D	PEC	Professional Elective - II ▪ Wireless and Mobile Communication ▪ Digital System Design Using Verilog ▪ Control Systems ▪ Telecommunication Switching Systems and Networks	3	0	0	3	30	70	100
7	19140611	PCC	Digital Signal Processing Laboratory	0	0	3	1.5	50	50	100
8	19140612	PCC	Microprocessors and Microcontrollers Laboratory	0	0	3	1.5	50	50	100
TOTAL				18	0	6	21	280	520	800
OEC 3	PCC 15	PEC 3								

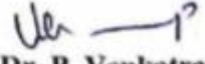

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

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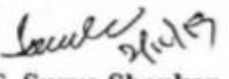
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IV YEAR I SEMESTER

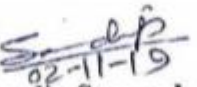
Sl. No.	Course Code	Course Category	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19149701a 19149701b 19149701c 19149701d 19149701e 19149701f 19149701g 19149701h 19149701i	OEC	Open Elective - IV ▪ MEFA ▪ Entrepreneurship Qualities for Engineers ▪ Principles of Management ▪ Financial Management for Engineers ▪ Operation Management ▪ Digital Marketing ▪ Total Quality Management ▪ Organizational Behavior ▪ Human Resource Management	3	0	0	3	30	70	100
2	19140702	PCC	VLSI Design	3	0	0	3	30	70	100
3	19140703	PCC	Optical Communication	3	0	0	3	30	70	100
4	19140704	PCC	Digital Image Processing	3	0	0	3	30	70	100
5	19149795	MC	Intellectual Property Rights and Patents	2	0	0	0	30*	-	-



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

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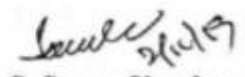
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				L	T	P		Int.	Ext.	Total
6	19140706A 19140706B 19140706C 19140706D	PEC	Professional Elective - III ▪ Bio Medical Instrumentation ▪ Embedded System Design ▪ Digital Signal Processors and Architecture ▪ Wireless Sensor Networks	3	0	0	3	30	70	100
7	19140711	PCC	Microwave Engineering and Optical Communication Laboratory	0	0	3	1.5	50	50	100
8	19140712	PCC	VLSI Laboratory	0	0	3	1.5	50	50	100
9	19140721/ 19140781	PR	Mini Project – 2/Internship	0	0	0	2	100	-	100
TOTAL				17	0	6	20	350	450	800
OEC 3	PCC 12	PR 2	PEC 3							



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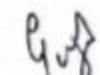

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

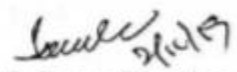
4 Years B.Tech. (Electronics and Communication Engineering) Course Structure: (2019-20)

IV YEAR II SEMESTER

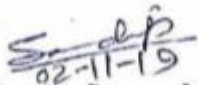
Sl. No.	Course Code	Course Category	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
				L	T	P		Int.	Ext.	Total
1	19140801A 19140801B 19140801C 19140801D	PEC	Professional Elective - IV ▪ EMI & EMC ▪ Digital IC Design ▪ Speech Processing ▪ Network Security and Cryptography	3	0	0	3	30	70	100
2	19140802A 19140802B 19140802C 19140802D	PEC	Professional Elective - V ▪ Radar System Engineering ▪ Low Power VLSI Design ▪ Multimedia Communication ▪ Internet of Things	3	0	0	3	30	70	100
3	19140841	PR	Project	0	0	18	9	80	120	200
TOTAL				6	0	18	15	140	260	400



Dr. M. Sailaja
(University Nominee)



Dr. P. Rajesh Kumar
(Subject Expert)



Mr. S. Surya Shankar
(Industrial Expert)



Dr. S. V. R. K. Rao
(Chairman, BOS)


Dr. Sandip Swarnakar
(Member, BOS)


Dr. P. Venkatrao
(Member, BOS)


Mr. S. Vamshi Krishna
(Member, BOS)


Mr. Biswaranjan Barik
(Member, BOS)


Mr. G. V. Vinod
(Member, BOS)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

4 Years B.Tech. (Electronics and Communication Engineering) Course Structure: (2019-20)

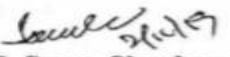
PROFESSIONAL ELECTIVES

Professional Electives	Communication	VLSI & Embedded Systems	Signal Processing	Networking
Elective - I	Electronic Measurement and Instrumentation	Computer Architecture & Organization	Information theory and Coding	Artificial Neural Networks and Fuzzy Logic
Elective - II	Wireless and Mobile Communication	Digital system design using Verilog	Control Systems	Telecommunication Switching Systems and Networks
Elective - III	Bio Medical Instrumentation	Embedded System Design	Digital Signal Processors and Architecture	Wireless Sensor Networks
Elective - IV	EMI & EMC	Digital IC Design	Speech Processing	Network Security and Cryptography
Elective - V	Radar system Engineering	Low Power VLSI Design	Multimedia Communication	Internet of Things


OPEN ELECTIVE-I	OPEN ELECTIVE-II	OPEN ELECTIVE-III	OPEN ELECTIVE-IV
Mech:	Mech:	Mech:	MEFA



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

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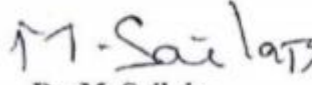

Mr. Biswaranjan Barik
(Member, BOS)


Mr. G. V. Vinod
(Member, BOS)

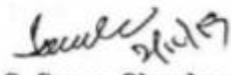
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

4 Years B.Tech. (Electronics and Communication Engineering) Course Structure: (2019-20)

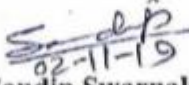
Robotics	MEMS	Nano Technology	
CSE: Operating Systems	CSE: Information Security	CSE: Human Computer Interaction	Entrepreneurship Qualities for Engineers
EEE: Utilization of Electrical Energy	EEE: Energy Management	EEE: Renewable Energy Resources	Principles of Management
ECE: Internet of Things	ECE: Digital Image Processing	ECE: Data Communication	Financial Management for Engineers
CE: Environmental Pollution & Control	CE: Solid Waste Management	CE: Global Environment: Problems & Policies	Operations management
AME: Basic Automobile Engineering	AME: Hybrid and Electric Vehicles	AME: Modern Vehicle Technology	Digital Marketing
Mining: Elements of Mining Technology	Mining: Disaster Management in Mining	Mining: Remote Sensing & GIS in Mining	Total Quality Management
			Organizational Behavior
			Human Resource Management

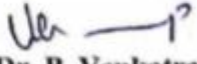

Dr. M. Sallaja
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 (Subject Expert)



Mr. S. Surya Shankar
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

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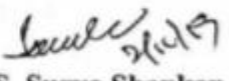
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

4 Years B.Tech. (Electronics and Communication Engineering) Course Structure: (2019-20)


CATEGORY	ECE DEPARTMENT ALLOCATED CREDITS	AICTE	APSCHE
BSC	21	25	24
HSMC	10.5	12	13
PCC	67.5	48	59
ESC	20.5	24	24
MC	0	0	0
OEC	12	18	12
PEC	15	18	12
PR	13.5	15	13
LC	-	-	03
	160	160	160



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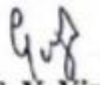

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