



# GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Autonomous)

Department Of Electronics and Communication Engineering

## GRBT20 - COURSE STRUCTURE I B.Tech – I Semester

S. No.	Course Category	Course code	Subject Title	Hours			Credits	Internal	External	Total
				L	T	P				
1	BSC		Mathematics - I	3	0	0	3	30	70	100
2	HSMC		Communicative English - I	3	0	0	3	30	70	100
3	BSC		Applied Physics	3	0	0	3	30	70	100
4	ESC		Introduction to Electronics Engineering	3	0	0	3	30	70	100
5	ESC		Problem Solving & Programming in C	3	0	0	3	30	70	100
6	BSC		Applied Physics Laboratory	0	0	3	1.5	50	50	100
7	ESC		Electronic Engineering workshop	0	0	3	1.5	50	50	100
8	ESC		Problem Solving & Programming in C Lab	0	0	3	1.5	50	50	100
9	MC		Environmental Science	2	0	0	0	100*	0	100
<b>TOTAL</b>				<b>17</b>	<b>0</b>	<b>9</b>	<b>19.5</b>	<b>400</b>	<b>500</b>	<b>900</b>
BSC = 7.5 ESC = 9 HSMC = 3										

 Dr M Sailaja University Nominee	 Dr P Rajesh Kumar Subject Expert	 Mr S Surya Sankar Industrial Exper
 Dr B Srinivas Raja Chairman - BoS	 Dr SVRK Rao BoS Member - Internal	 Dr Sandip Swarnakar BoS Member - Internal
 Mr Biswaranjan Bariçk BoS Member - Internal	 Mr G Vinod BoS Member - Internal	 Mrs M Sarita Devi BoS Member - Internal





# GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY GUNTUR

(AUTONOMOUS)

Approved by AICTE, Accredited by NBA & NAAC 'A' Grade, Recognized under 2(f) and 12(b) of UGC, Permanently Affiliated to JNTUK, Kakinada

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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		PCC	Electronic Devices and Circuits	3	1	0	3	30	70	100
2		PCC	Network Analysis	3	1	0	3	30	70	100
3		PCC	Switching Theory and Logic Design	3	1	0	3	30	70	100
4		PCC	Signals and Systems	3	1	0	3	30	70	100
5		BSC	Mathematics-III	3	1	0	3	30	70	100
6		PCC	Programming with Java Lab	0	0	3	1.5	50	50	100
7		PCC	Electronic Devices and Circuits Lab	0	0	3	1.5	50	50	100
8		PCC	Network Analysis Lab	0	0	3	1.5	50	50	100
9		SOC	English for career	0	1	2	2	-	50	50
TOTAL				15	6	11	21.5	300	550	850
BSC 3	PCC 16.5	SOC 2								

Dr. M. Sailaja  
(University Nominee)

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(Subject Expert)

Mr. S. Surya Shankar  
(Industrial Expert)

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(Chairman, BOS)

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

Dr. A.V. Pratap Kumar  
(Member, BOS)

Mr. Biswaranjan Barik  
(Member, BOS)

Mrs. R. Jyothi  
(Member, BOS)

Mr. G. Vinod  
(Member, BOS)



# GODAVARI INSTITUTE OF ENGINEERING & TECHNOLOGY GRBT-19

(AUTONOMOUS)

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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		PCC	Electronic Circuit Analysis	3	1	0	3	30	70	100
2		PCC	Analog Communications	3	1	0	3	30	70	100
3		ESC	Random Variable and Stochastic Process	3	1	0	3	30	70	100
4		PCC	Electromagnetic Waves And Transmission Lines	3	1	0	3	30	70	100
5		HSS	Managerial Economics And Financial Analysis	3	1	0	3	30	70	100
6		PCC	Electronic Circuit Analysis Lab	0	0	3	1.5	50	50	100
7		PCC	Analog Communication Lab	0	0	3	1.5	50	50	100
8		PCC	Switching Theory and Logic Design Lab	0	0	3	1.5	50	50	100
9		SOC	Programming with Python Lab	0	1	2	2	-	50	50
10		MC	Constitution of India	2	0	0	-	30	70	100
<b>TOTAL</b>				<b>17</b>	<b>6</b>	<b>11</b>	<b>21.5</b>	<b>330</b>	<b>620</b>	<b>950</b>
<b>HSS</b> 3	<b>PCC</b> 13.5	<b>ESC</b> 3	<b>SOC</b> 2							

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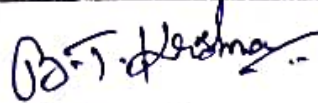
Mrs. K. Jyothi  
(Member, BOS)


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

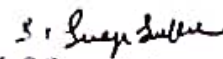


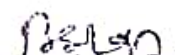
III YEAR - I SEMESTER COURSE STRUCTURE (GRBT20)

S. No.	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P		Int.	Ext.	Total
1	PC	Linear and Digital IC Applications	3	0	0	3	30	70	100
2	PC	Digital Communications	3	0	0	3	30	70	100
3	PC	Antenna and Wave Propagation	3	0	0	3	30	70	100
4	OE	Open Elective - 1	3	0	0	3	30	70	100
5	PE	<b>Professional Elective-I</b> a. Electronic Measurements and Instrumentation b. Control Systems c. Computer Architecture Organization d. Artificial Neural Networks	3	0	0	3	30	70	100
6	PC	Linear and Digital IC Applications Lab	0	0	3	1.5	50	50	100
7	PC	Digital Communications Lab	0	0	3	1.5	50	50	100
8	SAC	Analog and Digital Circuit Design Using Multisim	0	1	2	2	-	50	50
9		Internship (Mandatory) after second year (to be evaluated during V semester)	0	0	0	1.5	100	-	100
10	MC	Quantitative Aptitude and Reasoning	2	0	0	-	30	70	100
		Total				21.5	380	570	950
Honors / Minor courses (The hours distribution can be 3-0-2 or 3-1-0 also)			4	0	0	4			

  
Dr. B T Krishna  
(University Nominee)

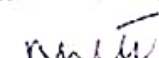
  
Dr. P. Rajesh Kumar  
(Subject Expert)

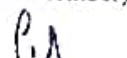
  
Mr. S. Surya Sankar  
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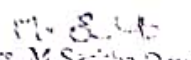
  
Dr. B. Srinivas Raja  
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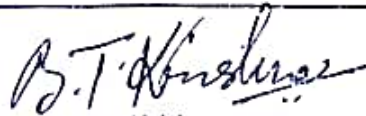
  
Mrs. M. Saritha Devi  
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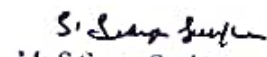
GODAVARI INSTITUTE OF ENGINEERING AND TECHNOLOGY (AUTONOMOUS)  
NH-16, Chaitanya Knowledge City, Rajahmundry  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

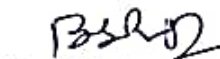
III YEAR – II SEMESTER COURSE STRUCTURE (GRBT20)

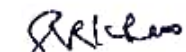
S. No.	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P		Int.	Ext.	Total
1	PC	Microprocessors and Microcontrollers	3	1	0	3	30	70	100
2	PC	Digital Signal Processing	3	1	0	3	30	70	100
3	PC	Microwave & Optical Communication Engineering	3	1	0	3	30	70	100
4	OE	Open Elective – 2	3	1	0	3	30	70	100
5	PE	Professional Elective-2 Radar Engineering Mobile & Cellular Communication Digital Image Processing VLSI Design	3	1	0	3	30	70	100
6	PC	Microwave & Optical Communication Engineering Lab	0	0	3	1.5	50	50	100
7	PC	Microprocessors and Microcontrollers Lab	0	0	3	1.5	50	50	100
8	PC	Digital Signal Processing Lab	0	0	3	1.5	50	50	100
9	SAC	ARM based / Arduino based Programming	0	1	2	2	-	50	50
10	MC	IPR and Patents	2	0	0	-	30	70	100
TOTAL						21.5	330	570	950
Honors /Minor courses (The hours distribution can be 3-0-2 or 3-1-0 also)			4	0	0	4			
<b>Internship (Mandatory) 2 Months during summer vacation</b>									

  
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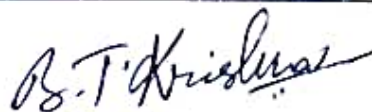
  
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IV YEAR - I SEMESTER COURSE STRUCTURE (GRBT20)

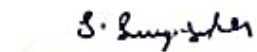
S. No.	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P		Int.	Ext.	Total
1	PE	<b>Professional Elective – 3</b> Wireless Sensor Networks Software Defined Radio Cognitive Radio Information Theory and Coding	3	1	0	3	30	70	100
2	PE	<b>Professional Elective – 4</b> Embedded System Design Real time operating systems Digital Signal Processors and Architecture Soft Computing Techniques	3	1	0	3	30	70	100
3	PE	<b>Professional Elective – 5</b> Internet of Things and Cloud Computing Digital IC Design using CMOS Computer Networks Pattern Recognition & Machine Learning	3	1	0	3	30	70	100
4	OE	<b>Open Elective – 3</b>	3	0	0	3	30	70	100
5	OE	<b>Open Elective – 4</b>	3	0	0	3	30	70	100
6	HSSE	UHV – 2	3	0	0	3	30	70	100
7	SAC	Verilog /HDL Programming LAB	1	0	2	2	-	50	100
8	Industrial Internship	Internship 2 Months (Mandatory) after third year (to be evaluated during VII semester)	0	0	0	3	100	-	100
<b>TOTAL</b>						23	280	470	750
<b>Honors / Minor courses (The hours distribution can be 3-0-2 or 3-1-0)</b>			4	0	0	4			



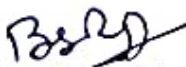
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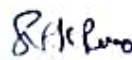
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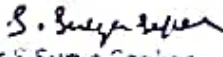


IV YEAR - II SEMESTER COURSE STRUCTURE (GRBT20)

S. No.	Course Type	Course Title	Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P		Int.	Ext.	Total
1	Major Project	Project Project work, seminar and internship in Industry	0	0	4	12	60	140	200
Total						12	60	140	200

  
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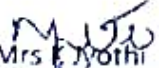
  
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**LIST OF OPEN ELECTIVE SUBJECTS (GRBT20)**

**III B.Tech – I Sem (Open Elective -1)**

SNO	Name of the Branch	Name of the subject
1	Civil	Environmental Pollution & Control
2	EEE	Fundamentals of Utilization of Electrical Energy
3	MECH	Robotics
4	ECE	Microprocessors and its interfacing
5	CSE, CSC, CSM	Foundations of Operating Systems
6	Petroleum	Fundamentals of Petroleum Engineering
7	Mining	Elements of Mining Technology
8	Automobile	Basic Automobile Engineering
9	MBA	Principles of Management

**III B.Tech -- II Sem (Open Elective -2)**

SNO	Name of the Branch	Name of the subject
1	Civil	Solid Waste Management
2	EEE	Concepts of Power System Engineering
3	MECH	Introduction to MEMS
4	ECE	IoT and its Applications
5	CSE, CSC, CSM	Fundamentals of Databases
6	Petroleum	Basic Concepts In Petroleum Drilling Engineering
7	Mining	Open Pit Slope Analysis and Design
8	Automobile	Hybrid and Electric Vehicles
9	MBA	Operations Management



**LIST OF OPEN ELECTIVE SUBJECTS (GRBT20)**

**IV B.Tech – I Sem (Open Elective -3)**

SNO	Name of the Branch	Name of the subject
1	Civil	Building Technology
2	EEE	Fundamentals of smart grid technologies
3	MECH	Nano Technology and its Applications
4	ECE	Introduction to Embedded Systems
5	CSE, CSC, CSM	Information Security
6	Petroleum	Introduction to Petroleum Production Engineering
7	Mining	Mining and Its Importance
8	Automobile	Modern Vehicle Technology
9	MBA	Entrepreneurship for Engineers

**IV B.Tech – I Sem (Open Elective -4)**

SNO	Name of the Branch	Name of the subject
1	Civil	Safety Engineering
2	EEE	Basics of Electrical Measurements and Instrumentation
3	MECH	Introduction to Operations Research
4	ECE	Fundamentals of Digital Image Processing
5	CSE, CSC, CSM	Human Computer Interaction
6	Petroleum	Basic concepts in petroleum reservoir engineering
7	Mining	Remote Sensing & GIS in Mining
8	Automobile	Alternative Energy Resources for Automotives
9	MBA	Digital Marketing