

**GODAVARI INSTITUTE OF ENGINEERING AND TECHNOLOGY  
(AUTONOMOUS)**

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

NH-16, Chaitanya Knowledge City, Rajahmundry – 533 296. E.G.Dt., - AP.



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING**

**4 YEARS B.TECH COURSE STRUCTURE**

**(2017-18)**

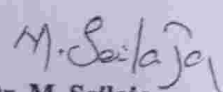
# COURSE STRUCTURE


## B. Tech. Electronics and Communication Engineering

I Year

S. No.	Subject Code	Subject Title	Periods per week			C	I Semester Scheme of Examination Maximum Marks		
			L	T	P		Int.	Ext.	Total
1.	17199101	English – I	4	1	-	3	40	60	100
2.	17199102	Mathematics – I ✓	4	1	-	3	40	60	100
3.	17199103	Computer programming. ✓	4	1	-	3	40	60	100
4.	17199104	Engineering Drawing ✓	4	1	-	3	40	60	100
5.	17195105	Mathematics –II ✓	4	1	-	3	40	60	100
6.	17199106	Professional Ethics and Human Values ✓	2	-	-	1	40	60	100
7.	17199111	English Communication Skills Lab-I ✓	-	-	3	2	50	50	100
8.	17195112	Computer Programming Lab ✓	-	-	3	2	50	50	100
9.	17199183	Engineering workshop and IT workshop ✓	-	-	3	2	50	50	100
Total			22	5	9	22	390	510	900


L- LECTURE    T- TUTORIAL    P- PRACTICAL    C- CREDITS    Int. - INTERNAL    Ext. - EXTERNAL


  
Dr. M. Sallaja  
(University Nominee)


  
Dr. K.V.Sreedhar (Subject Expert)

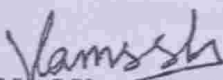
  
Dr. K. Murali Krishna  
(Industry Expert)


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

  
Ms. P. Soundarya Mala  
(BOS Member)

  
Mr. G. V. Vinod  
(BOS Member)

  
Mr. Biswaranjan Barik  
(BOS Member)

  
Mr. S. Yamsi Krishna  
(BOS Member)

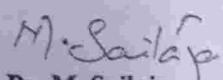
  
Mr. V. Sreevani  
(BOS Member)


# COURSE STRUCTURE


## B. Tech. Electronics and Communication Engineering

I Year						II Semester			
S. No.	Subject Code	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P		Int.	Ext.	Total
1.	17199201	English – II ✓	4	1	-	3	40	60	100
2.	17199202	Engineering Physics ✓	4	1	-	3	40	60	100
3.	17199203	Mathematics – III ✓	4	1	-	3	40	60	100
4.	17195204	Data structures ✓	4	1	-	3	40	60	100
5.	17199205	Environmental Studies ✓	4	1	-	3	40	60	100
6.	17199211	English Communication Skills Lab-II ✓	-	-	3	2	50	50	100
7.	17199212	Engineering Physics Lab ✓	-	-	3	2	50	50	100
8.	17195213	Data structures Lab ✓	-	-	3	2	50	50	100
Total			20	5	9	21	390	510	800

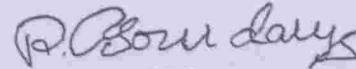
L-LECTURE T-TUTORIAL P-PRACTICAL C-CREDITS Int. - INTERNAL Ext. - EXTERNAL


  
Dr. M. Sailaja  
(University Nominee)

  
Dr. K.V.Sreedhar (Subject Expert)

  
Dr. K. Murali Krishna  
(Industry Expert)

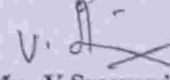
  
Dr. S. V. R. K. Rao  
(Chairman, BOS)

  
Ms. P. Soundarya Mala  
(BOS Member)

  
Mr. G. V. Vinod  
(BOS Member)

  
Mr. Biswaranjan Barik  
(BOS Member)

  
Mr. S. Vamsi Krishna  
(BOS Member)


  
Mr. V. Sreevani  
(BOS Member)

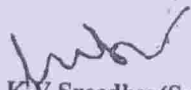
## COURSE STRUCTURE

### B. Tech. Electronics and Communication Engineering

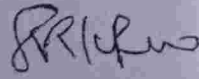
II Year						I Semester			
S. No.	Subject Code	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P		Int.	Ext.	Total
1.	17149301	Managerial Economics & Financial Analysis Control Systems ✓	4	1	-	3	40	60	100
2.	17142302	Network Analysis ✓	4	1	-	3	40	60	100
3.	17142303	Electrical Technology ✓	4	1	-	3	40	60	100
4.	17140304	Electronic Devices and Circuits ✓	4	1	-	3	40	60	100
5.	17140305	Switching Theory and Logic Design ✓	4	1	-	3	40	60	100
6.	17140306	Signals & Systems ✓	4	1	-	3	40	60	100
7.	17149397	Soft skills – I ✓	1	-	2	1	40	60	100
8.	17142311	Networks & Electrical Technology Lab ✓	-	-	3	2	50	50	100
9.	17140312	Electronic Devices and Circuits Lab ✓	-	-	3	2	50	50	100
Total			25	6	8	23	380	520	900

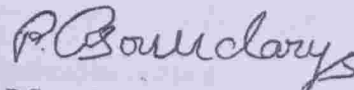
L-LECTURE T-TUTORIAL P-PRACTICAL C-CREDITS Int. - INTERNAL Ext. - EXTERNAL


  
Dr. M. Sailaja  
(University Nominee)

  
Dr. K.V. Sreedhar (Subject Expert)


  
Dr. K. Murali Krishna  
(Industry Expert)


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

  
Ms. P. Soundarya Mala  
(BOS Member)

  
Mr. G. V. Vinod  
(BOS Member)

  
Mr. Biswaranjan Barik (BOS Member)

  
Mr. S. Vamsi Krishna  
(BOS Member)

  
Mr. V. Sreevani  
(BOS Member)

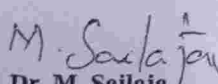



## COURSE STRUCTURE

### B. Tech. Electronics and Communication Engineering

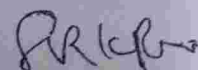
II Year				II Semester					
S. No.	Subject Code	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P		Int.	Ext.	Total
1.	17149401	Random Variable and Stochastic Process ✓	4	1	-	3	40	60	100
2.	17142402	Control Systems ✓	4	1	-	3	40	60	100
3.	17140403	Electronic Circuits Analysis ✓	4	1	-	3	40	60	100
4.	17140404	EM Waves and Transmission Lines ✓	4	1	-	3	40	60	100
5.	17140405	Pulse and Digital Circuits ✓	4	1	-	3	40	60	100
6.	17140406	Analog Communication ✓	4	1	-	3	40	60	100
7.	17140411	Electronic Circuits Analysis Lab ✓	-	-	3	2	50	50	100
8.	17140412	Pulse and Digital Circuits Lab ✓	-	-	3	2	50	50	100
9.	17140413	Analog Communication Lab ✓	-	-	3	2	50	50	100
Total			24	6	9	24	340	460	900

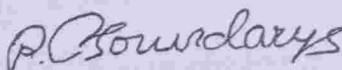
L-LECTURE T-TUTORIAL P-PRACTICAL C-CREDITS Int.-INTERNAL Ext.-EXTERNAL


  
Dr. M. Sailaja  
(University Nominee)

  
Dr. K.V.Sreedhar (Subject Expert)

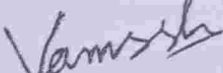
  
Dr. K. Murali Krishna  
(Industry Expert)

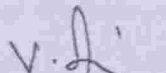
  
Dr. S. V. R. K. Rao  
(Chairman, BOS)

  
Ms. P. Soundarya Mala  
(BOS Member)

  
Mr. G. V. Vinod  
(BOS Member)

  
Mr. Biswaranjan Barik  
(BOS Member)

  
Mr. S. Vamsi Krishna  
(BOS Member)

  
Mr. V. Sreevani  
(BOS Member)

# COURSE STRUCTURE


## B. Tech. Electronics and Communication Engineering

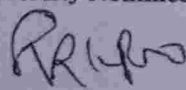
III Year

I Semester


S. No.	Subject Code	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P		Int	Ext.	Total
1.	17149501	Management Science	4	1	-	3	40	60	100
2.	17145502	Computer Architecture & Organization	4	1	-	3	40	60	100
3.	17140503	Linear IC Applications	4	1	-	3	40	60	100
4.	17140504	Digital System Design & Digital IC Applications	4	1	-	3	40	60	100
5.	17140505	Antennas and Wave Propagation	4	1	-	3	40	60	100
6.	17140505	Digital Communications	4	1	-	3	40	60	100
7.	17149596	Soft skills – II	1	-	2	1	40	60	100
8.	17140511	Digital System Design & DICA Lab	-	-	3	2	50	50	100
9.	17140512	Linear IC Applications Lab	-	-	3	2	50	50	100
10.	17140513	Digital Communications Lab	-	-	3	2	50	50	100
11.	17140544	Mini Project-I	-	3	-	2	10 0	-	100
Total			25	6	8	27	53 0	570	1100

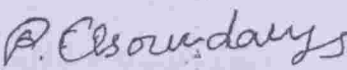
L- LECTURE T- TUTORIAL P- PRACTICAL C- CREDITS Int. - INTERNAL Ext. - EXTERNAL

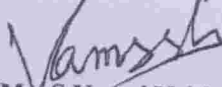
  
Dr. M. Sailaja  
(University Nominee)

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


  
Mr. Biswaranjan Barik  
(BOS Member)

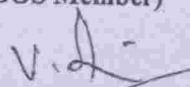
  
Dr. K.V. Sreedhar (Subject Expert)

  
Ms. P. Soundarya Mala  
(BOS Member)

  
Mr. S. Vamsi Krishna  
(BOS Member)

  
Dr. K. Murali Krishna  
(Industry Expert)

  
Mr. G. V. Vinod  
(BOS Member)

  
Mr. V. Sreevani  
(BOS Member)

# COURSE STRUCTURE

## B. Tech. Electronics and Communication Engineering

III Year

II Semester

S. No.	Subject Code	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P		Int.	Ext.	Total
1.	17140601	Computer Networks ✓	4	1	-	3	40	60	100
2.	17140602	Microprocessors and Microcontrollers ✓	4	1	-	3	40	60	100
3.	17140603	Digital Signal Processing ✓	4	1	-	3	40	60	100
4.	17140604	Electronic Measurements and Instrumentation ✓	4	1	-	3	40	60	100
5.	17140605	Microwave Engineering ✓	4	1	-	3	40	60	100
6.	17143665a 17145665b 17143665c 17142665d 17145665e 17145665f 17145665g	Open Elective Internet of Things ✓ Building Technology ✗ Renewable Energy Sources & Systems ✓ Hybrid Vehicles ✗ Robotics ✗ Principles of Management ✗ Social Networking ✓ Environmental Pollution ✗	4	1	-	3	40	60	100
7.	17140611	Micro Processor and Micro Controllers Lab ✓	-	-	3	2	50	50	100
8.	17140612	Digital Signal Processing Lab ✓	-	-	3	2	50	50	100
9.	17140653	Seminar	4	-	-	1	50	-	50
Total			28	6	9	23	390	460	850

L- LECTURE T- TUTORIAL P- PRACTICAL C- CREDITS Int. - INTERNAL Ext. - EXTERNAL

*M. Sailaja*  
Dr. M. Sailaja  
(University Nominee)

*K.V. Sreedhar*  
Dr. K.V. Sreedhar (Subject Expert)

*K. Murali Krishna*  
Dr. K. Murali Krishna  
(Industry Expert)

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

*P. Soundarya Mala*  
Ms. P. Soundarya Mala  
(BOS Member)

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

*Biswaranjan Barik*  
Mr. Biswaranjan Barik  
(BOS Member)

*S. Vamsi Krishna*  
Mr. S. Vamsi Krishna  
(BOS Member)

*V. Sreevani*  
Mr. V. Sreevani  
(BOS Member)

C - - - - - RE



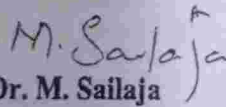
# B. Tech. Electronics and Communication Engineering


## IV Year

## I Semester

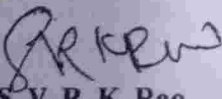
S. No.	Subject Code	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			L	T	P		Int.	Ext.	Total
1.	17140701	VLSI	4	1	-	3	40	60	100
2.	17140702	Radar Systems	4	1	-	3	40	60	100
3.	17140703	Optical Communication	4	1	-	3	40	60	100
4.	17140704	Digital Image processing	4	1	-	3	40	60	100
5.	17140765a 17145765b 17140765c 17140765d	<b>Elective- I</b> Telecommunication Switching Systems and Networks. DSP Processors and Architectures Network Security And Cryptography Analog IC Design	4	1	-	3	40	60	100
6.	17140766a 17140766b 17140766c 17140766d	<b>Elective- II</b> Speech Processing Embedded System Design Artificial Neural Network & Fuzzy Logic Digital IC Design	4	1	-	3	40	60	100
7.	17149707	Intellectual Property Rights and Patents	4	-	-	1	40	60	100
8.	17140711	VLSI Lab	-	-	3	2	50	50	100
9.	17140712	Microwave & Optical Communication Lab	-	-	3	2	50	50	100
9	17140749	Mini Project-II	-	-	-	2	100	-	100
<b>Total</b>			<b>28</b>	<b>6</b>		<b>25</b>	<b>480</b>	<b>520</b>	<b>1000</b>

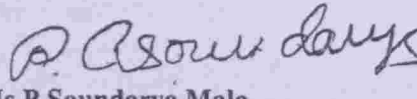
L- LECTURE    T- TUTORIAL    P- PRACTICAL    C- CREDITS    Int. - INTERNAL    Ext. - EXTERNAL


  
**Dr. M. Sailaja**  
(University Nominee)

  
**Dr. K.V. Sreedhar**(Subject  
Expert)

  
**Dr. K. Murali Krishna**  
(Industry Expert)


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

  
**Ms. P. Soundarya Mala**  
(BOS Member)

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

  
**Mr. Biswaranjan Barik**  
(BOS Member)

  
**Mr. S. Vamsi Krishna**  
(BOS Member)

  
**Mr. V. Sreevani**  
(BOS Member)



# COURSE STRUCTURE

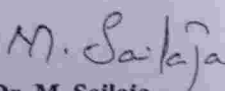
## B. Tech. Electronics and Communication Engineering


IV Year

II Semester

S. No.	Subject Code	Subject Title	Periods per week			C	Scheme of Examination Maximum Marks		
			T	P	D		Int.	Ext.	Total
1.	17140801	Cellular and Mobile Communications	4	-	-	3	40	60	100
2.	17140802a	<b>Elective- III</b> Wireless Sensors and Networks ✓	4	-	-	3	40	60	100
	17140802b	Mixed Signal Design ✓							
	17140802c	EMI/EMC ✓							
	17140802d	Real time Operating Systems							
3.	17140831	<b>Project &amp; Seminar</b>	-	-	-	9	60	140	200
Total			8			15	140	260	400

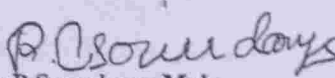
L- LECTURE    T- TUTORIAL    P- PRACTICAL    C- CREDITS    Int. - INTERNAL    Ext. - EXTERNAL


  
Dr. M. Sailaja  
(University Nominee)

  
Dr. K.V.Sreedhar (Subject Expert)

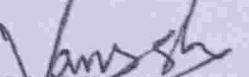
  
Dr. K. Murali Krishna  
(Industry Expert)


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

  
Ms. P. Soundarya Mala  
(BOS Member)

  
Mr. G. V. Vinod  
(BOS Member)

  
Mr. Biswaranjan Barik  
(BOS Member)

  
Mr. S. Vamsi Krishna  
(BOS Member)

  
Mr. V. Sreevani  
(BOS Member)

## LIST OF ELECTIVES

### Open Electives

Sl. No	Subject Code	Subject Name
1	17143665a	Micro Electronic Mechanical Systems
2	17145665b	OOPS through Java
3	17143665c	Mechatronics
4	17142665d	Power Electronics
5	17145665e	Oops through Python

### Department Elective I

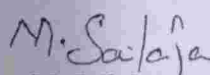
Sl. No	Subject Code	Subject Name
1	17140765a	Telecommunication Switching Systems and Networks
2	17145765b	DSP Processors and Architectures
3	17140765c	Network Security And Cryptography
4	17140765d	Analog IC Design

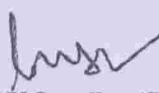
### Department Elective II


Sl. No	Subject Code	Subject Name
1	17140766a	Speech Processing
2	17140766b	Embedded System Design
3	17140766c	Artificial Neural Network & Fuzzy Logic
4	17145766d	Digital IC Design

### Department Elective III


Sl. No	Subject Code	Subject Name
1	17140863a	Wireless Sensors and Networks
2	17140863b	Mixed Signal Design
3	17140863c	EMI/EMC
4	17140863d	Real time Operating Systems


  
Dr. M. Sailaja  
(University Nominee)

  
Dr. K.V.Sreedhar (Subject  
Expert)

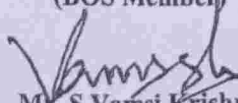
  
Dr. K. Murali Krishna  
(Industry Expert)

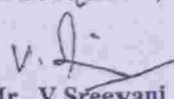
  
Dr. S. V. R. K. Rao  
(Chairman, BOS)

  
Ms. P. Soundarya Mala  
(BOS Member)

  
Mr. G.V. Vinod  
(BOS Member)

  
Mr. Biswaranjan Barik  
(BOS Member)

  
Mr. S. Vamsi Krishna  
(BOS Member)

  
Mr. V. Sreevani  
(BOS Member)