



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
(Established by Govt. of A.P., Act. No. 30 of 2008)
ANANTHAPURAMU – 515 002 (A.P) INDIA

Course Structure & Syllabi for B.Tech. (Regular)
R13 Regulations

ELECTRONICS AND COMMUNICATION ENGINEERING

B.Tech. I Year

S.No	Course code	Subject	Theory	Tu/	Lab.	Credits
1.	13A52101	Communicative English	2	-	-	3
2.	13A56101	Engineering Physics	2	-	-	3
3.	13A51101	Engineering Chemistry	2	-	-	3
4.	13A54101	Mathematics - I	3	1	-	5
5.	13A12101	Programming in C & Data Structures	3	1	-	5
6.	13A54102	Mathematics - II	3	1	-	5
7.	13A04101	Network Analysis	3	1	-	5
8.	13A12102	Programming in C & Data Structures Lab	-	-	3	4
9.	13A99102	Engineering Physics & Engineering Chemistry Lab *	-	-	3	4
10.	13A99103	Engineering & IT Workshop #	-	-	3	4
11.	13A52102	English Language Comm. Skills Lab	-	-	3	4
Total Credits						45

Th = Theory; Tu = Tutorial & Lab = Laboratory:

* The students shall attend the Physics lab and Chemistry lab in alternate weeks. The end exam shall be conducted separately and average of the two exams shall be recorded by the University exam section.

The students shall attend Engineering and IT work shop as a single lab every week and the end exam is conducted as a single lab. Sharing the Maximum marks and time for one task each from Engineering workshop and IT workshop. The sum of the marks awarded shall be recorded.

B.Tech. II - I Semester

S.No	Course code	Subject	Theory	Tu / Lab	Credits
1.	13A54302	Mathematics - III	3	1 -	3
2.	13A04301	Electronic Devices & Circuits	3	1 -	3
3.	13A04302	Signals & Systems	3	1 -	3
4.	13A04303	Switching Theory & Logic Design	3	1 -	3
5.	13A04304	Probability Theory & Stochastic Processes	3	1 -	3
6.	13A02303	Electrical Technology	3	1 -	3
7.	13A02304	Electrical Engineering Lab	-	- 3	2
8.	13A04305	Electronic Devices & Circuits Lab	-	- 3	2
9.	13A52301	Human Values and Professional Ethics(Audit Course)	2	- -	-
Total Credits					22

B.Tech. II - II Semester

S.No	Course code	Subject	Theory	Tu / Drg / Lab	Credits
1.	13A01403	Environmental Science	3	1 - -	3
2.	13A04401	Pulse & Digital Circuits	3	1 - -	3
3.	13A04402	Electronic Circuits Analysis & Design	3	1 - -	3
4.	13A04403	Electromagnetic Theory & Transmission Lines	3	1 - -	3
5.	13A03304	Engineering Graphics	1	- 3 -	3
6.	13A04404	Analog Communication Systems	3	1 - -	3
7.	13A04405	Electronic Circuits Analysis & Design Lab	-	- - 3	2
8.	13A04406	Pulse & Digital Circuits Lab	-	- - 3	2
Total Credits					22

B.Tech. III - I Semester

S.No	Course code	Subject	Theory	Tu / Lab	Credits
1.	13A02402	Control Systems Engineering	3	1 -	3
2.	13A05401	Computer Organization & Architecture	3	1 -	3
3.	13A04501	Antennas & Wave Propagation	3	1 -	3
4.	13A04502	Digital Communication Systems	3	1 -	3
5.	13A04503	Linear IC Applications	3	1 -	3
6.	13A04504	Digital IC Applications	3	1 -	3
7.	13A04505	IC Applications Lab	-	- 3	2
8.	13A04506	Analog Communication Systems Lab	-	- 3	2
Total Credits					22



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Revised Course Structure for B.Tech.- R13 Regulations

ELECTRONICS & COMMUNICATION ENGINEERING

B.Tech III - II Semester

S.No	Course code	Subject	Theory	Tu	Lab	Credits
1.	13A52501	Managerial Economics & Financial Analysis	3	1		3
2.	13A04601	Microprocessors & Microcontrollers	3	1		3
3.	13A04602	Digital Signal Processing	3	1	-	3
4.	13A04603	Microwave Engineering	3	1	-	3
5.	13A04604	Electronic Measurements & Instrumentation	3	1	-	3
		Choice Based Credit Courses				
6.	13A04605	1. Telecommunication Switching Networks	3	1		3
	13A04606	2. Television and Video Engineering				
	13A04607	3. Artificial Neural Networks and Fuzzy Systems				
7.	13A04608	Digital Signal Processing Lab	-		3	2
8.	13A04609	Microprocessors & Microcontrollers Lab	-		3	2
9.	13A52502	Advanced Communication skills Lab (Audit course)			3	
10	13A04610	Comprehensive Online Examination	-	-	-	1
		Total	18	6	9	23


DIRECTOR
Academic & Planning
JNT University Anantapur,
Ananthapuramu-515 002.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure Electronics and Communication Engineering

B. Tech Course (2013-14)

IV B. Tech – I Sem

S.No.	Course Code	Subject	Theory	Tu	Lab	Credits
1	13A52702	Management Science	3	1	-	3
2	13A04701	VLSI Design	3	1	-	3
3	13A04702	Optical Fiber Communication	3	1	-	3
4	13A04703	Embedded Systems	3	1	-	3
5	13A04704 13A02605 13A04705	Theory-V (CBCC) -2 a. Digital Image Processing b. Neural Networks & Fuzzy Logic c. Spread Spectrum Techniques	3	1	-	3
6	13A04706 13A04707 13A04708	Theory-VI (CBCC) - 3 a. Wireless Communication b. Operating Systems c. Satellite communication	3	1	-	3
7	13A04709	VLSI & Embedded Systems Laboratory	-	-	4	2
8	13A04710	Microwave & Optical Communications Laboratory	-	-	4	2
		Total	18	06	08	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure Electronics and Communication Engineering

**B. Tech Course
(2013-14)**

IV B. Tech – II Sem

S.No.	Course Code	Subject	Theory	Tu	Lab	Credits
1	13A04801 13A04802	MOOC-I* a. Adaptive Signal Processing b. Advanced 3G & 4G wireless Communications	3	1	-	3
2	13A04803 13A04804	MOOC-II* a. Advanced Digital Signal Processing- Multirate & Wavelet b. RF integrated Circuits	3	1	-	3
3	13A04805 13A04806	MOOC-III* a. Pattern Recognition & Application b. Linux Programming & Scripting	3	1	-	3
4	13A04807	Technical Seminar	-	-	4	2
5	13A04808	Project Work	-	-	24	12
		Total	09	03	28	23

3 Theory + 1 Technical Seminar + 1 Project work

***Either by MOOCS manner or Self study or Conventional manner**