GITAM UNIVERSITY

(Declared as Deemed to be University U/S 3 of UGC Act, 1956)

*** Visakhapatnam * Hyderabad**

Scheme of Instruction
OF

B.Tech. (Electronics & Communication Engineering)

(w.e.f 2008 -09 admitted batch)

Gandhi Nagar Campus, Rushikonda
VISAKHAPATNAM – 530 045
Website: www.gitam.edu

B.Tech. (ECE)
Programme Course Code: EUREC200701
I Semester

Course Code	Name of the Course	Category	*Credits*	Marks			Hours per week			
				Semester End Exam	Con. Eval.	Total	L	T	P	Total
EUREG101	English Language Skills	Humanities	3	60	40	100	3	0	-	3
EURMT102	Engg. Mathematics I	Maths	4	60	40	100	4	0	-	4
EURPH103	Engg. Physics I	Basic Sc	4	60	40	100	4	0	-	4
EURCH104	Engg. Chemistry I	Basic Sc	4	60	40	100	4	0	-	4
EURCS105	Programming with C	Basic Engg	3	60	40	100	3	0	-	3
EURME115/ 215	Engineering Graphics	Basic Engg	2	-	100	100	-	-	4	4
EURPH112/ 212	Engg. Physics Lab	Basic Sc	2	-	100	100	-	-	4	4
EURCS113	Programming with C	Basic Engg	2	-	100	100	-	-	3	3
Total			**24**	**300**	**500**	**800**	**18**	**0**	**11**	**29**

II Semester

Course Code	Name of the Course	Category	*Credits*	Marks			Hours per week			
				Semester End Exam	Con. Eval.	Total	L	T	P	Total
EUREG201	English Writing Skills	Humanities	3	60	40	100	3	0	-	3
EURMT202	Engg. Mathematics II	Maths	3	60	40	100	3	0	-	3
EURMT203	Engg. Mathematics III	Maths	3	60	40	100	3	0	-	3
EURPH204	Engg. Physics II	Basic Sc	3	60	40	100	3	0	-	3
EURCH205	Engg. Chemistry II	Basic Sc	3	60	40	100	3	0	-	3
EURCS206	Object Oriented Programming with C++	Basic Engg	3	60	40	100	3	0	-	3
EURPH214/ 114	Engg. Chemistry Lab	Basic Sc	2	-	100	100	-	-	4	4
EUREE218/ 118	Electrical & Electronic Work Shop	Basic Engg	2	-	100	100	-	-	3	3
EURCS213	Object Oriented Programming with C++	Basic Engg	2	-	100	100	-	-	3	3
Total			**24**	**360**	**540**	**900**	**22**	**0**	**10**	**32**

B.Tech. (ECE) III Semester

Course Code	Name of the Course	Category	*Credits*	Marks			Hours per week			
				Semester End Exam	Con. Eval.	Total	L	T	P	Total
EUREC301	Advanced Engg Mathematics	MT	3	60	40	100	3	-	-	3
EUREC302	Probability theory and Random Processes	CE	3	60	40	100	3	-	-	3
EUREC303	Basic Circuit theory	BE	4	60	40	100	3	1	-	4
EUREC304	Electronic Devices & Circuits	BE	4	60	40	100	3	1	-	4
EUREC305	Electrical Machines	BE	3	60	40	100	3	-	-	3
EUREC306	Electromagnetic Waves & Transmission Lines	CE	3	60	40	100	3	-	-	3
EUREC311	Networks & Electrical Machines Lab	BE	2	-	100	100	-	-	3	3
EUREC312	Electronic Devices & Circuits lab	BE	2	-	100	100	-	-	3	3
Total			**24**	**360**	**440**	**800**	**18**	**2**	**6**	**26**

IV Semester

Course Code	Name of the Course	Category	*Credits*	Marks			Hours per week			
				Semester End Exam	Con. Eval.	Total	L	T	P	Total
EUREC401	Digital Electronics	CE	3	60	40	100	3	-	-	3
EUREC402	Analog Electronic Circuits	CE	3	60	40	100	3	-	-	3
EUREC403	Pulse & Wave Shaping Circuits	CE	3	60	40	100	3	-	-	3
EUREC404	Signals & Systems	CE	3	60	40	100	3	-	-	3
EUREC405	Environmental Studies	HS	4	60	40	100	3	1	-	4
EUREC406	Control Systems	CE	3	60	40	100	3	-	-	3
EUREC411	Digital Electronics lab	CE	2	-	100	100	-	-	3	3
EUREC412	Analog Electronics & Pulse Circuits lab	CE	2	-	100	100	-	-	3	3
EUREC413	English Communication lab	HS	2	-	100	100	-	-	3	3
EUREC414	Industrial Tour	IT	Non Credit Audit Course							
Total			**25**	**360**	**540**	**900**	**18**	**1**	**9**	**28**

B.Tech. (ECE) V Semester

Course Code	Name of the Course	Category	*Credits*	Marks			Hours per week			
				Semester End Exam	Con. Eval.	Total	L	T	P	Total
EUREC501	Microprocessors & Interfacing	CE	3	60	40	100	3	-	-	3
EUREC502	Linear IC's & Applications	CE	3	60	40	100	3	-	-	3
EUREC503	Analog Communications	CE	3	60	40	100	3	-	-	3
EUREC504	Data Structures using C	CE	3	60	40	100	3	--	-	3
EUREC505	Antennas & Wave Propagation	CE	3	60	40	100	3	-	-	3
EUREC506	Computer Architecture & Organization	CE	3	60	40	100	3	-	-	3
EUREC511	Linear ICs lab	CE	2	-	100	100	-	-	3	3
EUREC512	Microprocessor Lab	CE	2	-	100	100	-	-	3	3
EUREC513	Electronic Circuit Simulation Lab	CE	2	-	100	100	-	-	3	3
Total			**24**	**360**	**540**	**900**	**18**	**0**	**9**	**27**

VI Semester

Course Code	Name of the Course	Category	*Credits*	Marks			Hours per week			
				Semester End Exam	Con. Eval.	Total	L	T	P	Total
EUREC601	VLSI System Design	CE	3	60	40	100	3	-	-	3
EUREC602	Digital Signal processing	CE	3	60	40	100	3	-	-	3
EUREC603	Operating Systems	CE	3	60	40	100	3	-	-	3
EUREC604	Microwave Engineering	CE	3	60	40	100	3	-	-	3
EUREC605	Engg Economics & Management	HS	3	60	40	100	3	-	-	3
EUREC606	Electronic Measurements & Instrumentation	CE	3	60	40	100	3	-	-	3
EUREC611	Digital Signal Processing lab	CE	2	-	100	100	-	-	3	3
EUREC612	Communication Systems lab	CE	2	-	100	100	-	-	3	3
EUREC613	Personality Development	HS	Non Credit Audit Course							
Total			**22**	**360**	**440**	**800**	**18**	**0**	**6**	**24**

B.Tech. (ECE) VII Semester

Course Code	Name of the Course	Category	*Credits*	Marks			Hours per week			
				Semester End Exam	Con. Eval.	Total	L	T	P	Total
EUREC701	Radar Engineering.	CE	3	60	40	100	3		-	3
EUREC702	Digital Communications	CE	3	60	40	100	3		-	3
EUREC703	Telecommunication Switching Systems and Networks	CE	3	60	40	100	3		-	3
EUREC721-725	Departmental Elective I	DE	4	60	40	100	3	1	-	4
EUREC731 - 734	Departmental Elective II	DE	4	60	40	100	3	1	-	4
EUREC711	VHDL / Verilog Simulation Laboratory	CE	2	-	100	100	-	-	3	3
EUREC712	Microwave Engineering lab	CE	2	-	100	100	-	-	3	3
EUREC713	Project	PW	3	-	100	100	-	-	6	6
EUREC714	Industrial Training	IT	2	-	100	100	-	-	-	-
Total			26	**300**	**600**	**900**	**15**	**2**	**12**	**29**

VIII Semester

Course Code	Name of the Course	Category	*Credits*	Marks			Hours per week			
				Semester End Exam	Con. Eval.	Total	L	T	P	Total
EUREC841 - 845	Departmental Elective III	DE	4	60	40	100	3	1	-	4
EURECE851 -8513	Inter-Departmental Elective-I	IE	4	60	40	100	3	1	-	4
EUREC861 - 8610	Inter-Departmental Elective II	IE	4	60	40	100	3	1	-	4
EUREC811	Advanced Communications Lab	CE	2	-	100	100	-	-	3	3
EUREC812	Project	PW	5	50	50	100	-	-	9	9
EUREC813	Comprehensive Viva	CE	2	100	-	100	-	-	-	-
Total			**21**	**330**	**270**	**600**	**12**	**-**	**12**	**24**

** Inter Departmental Elective will be from other departments. The list of courses that would be offered by the department in any semester will be notified from which the student may select a course.

L – Lectures T – Tutorials D – Drawing P – Practicals

B.Tech. (ECE)
ELECTIVES

DEPARTMENTAL ELECTIVE-I

Course Code	Name of the Course	Category	Credits
EUREC721	Television Engineering	DE	4
EUREC722	Microcontrollers & Applications	DE	4
EUREC723	Speech Processing	DE	4
EUREC724	Computer Networks	DE	4
EUREC725	Satellite Communications	DE	4

DEPARTMENTAL ELECTIVE-II

Course Code	Name of the Course	Category	Credits
EUREC731	Digital Design Through Verilog	DE	4
EUREC732	Digital Image Processing	DE	4
EUREC733	Fiber optic Communications	DE	4
EUREC734	Mobile Communications & Networks	DE	4

DEPARTMENTAL ELECTIVE-III

Course Code	Name of the Course	Category	Credits
EUREC841	Embedded Systems	DE	4
EUREC842	Advanced Computer Architecture	DE	4
EUREC843	DSP Processors & Architecture	DE	4
EUREC844	Wireless Communications and Networks	DE	4
EUREC845	Global Positioning Systems	DE	4

B.Tech. (ECE)

INTER-DEPARTMENTAL ELECTIVE-I

Course Code	Name of the Course Name
EUREC851	Remote Sensing & GIS
EUREC852	Database Management Systems
EUREC853	Software Engineering
EUREC854	Systems Modeling & Simulation
EUREC855	Software Project Management
EUREC856	Artificial Intelligence
EUREC857	Transducers & Signal Conditioning
EUREC858	Biomedical Instrumentation
EUREC859	Power Electronics
EUREC8510	Project Planning and Management
EUREC8511	Neural Networks
EUREC8512	Introduction to Micro Electro Mechanical Systems (MEMS)
EUREC8513	Entrepreneurship

INTER-DEPARTMENTAL ELECTIVE-II

Course Code	Name of the Course Name
EUREC861	Environmental Impact Assessment
EUREC863	Web Technologies
EUREC864	Industrial Electronics
EUREC865	Computer Aided Design
EUREC866	Robotics and Automation
EUREC867	Mechatronics
EUREC868	Education Research & Methodologies
EUREC869	Professional Ethics
EUREC8610	Nanotechnology

B.Tech (Electronics and Communication Engineering)

A Student can opt for this course because the aims and requirements of the next generation can be fulfilled by Communication with an Electronics back ground. The student can have a strong basic knowledge on Computers also. A student can have strong standard of semiconductor physics interrelated with communication, Computer Hardware and Software concepts to achieve global standards. Latest courses like Digital signal processing, Satellite and Optical Communication Radar and Hardware Description languages, Data Structures, Microprocessors, Microcontrollers and Computer Organization can be known in this branch, so a student who is interested in Communication side with back ground of Electronics will definitely opt for Electronics and Communication Engineering.

In the first year the student studies Basic Mathematics, Physics, Basic programming in C, C++, Electrical and Electronics work shop.

In the second year, the student studies about basic Electrical circuits, Electronics devices, Electromagnetic fields, Signals and Digital Electronics, Almost for every course there is a lab facility.

In the third year, the student studies about Microprocessors, Linear and Digital ICs, Analog Communications, VLSI and Digital Signal Processing.

In the fourth year, the student studies about Radar, TV and Satellite Communication and Hardware Description languages. In addition to these he/she has to carry out a year long project for the completion of the course.

The response from the students for this course is very good and encouraging. Number of students admitted during academic year 2008-09 and 2009-10 are 330.