

GITAM UNIVERSITY

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



**Scheme of Instruction
of
B.Tech. (Electrical & Electronics Engineering)**
(w.e.f 2008 -09 admitted batch)

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

B.Tech. (EEE)
Programme Code: EPREE 200800
First Semester

Sl. No.	Course Code	Name of the Course	Category	Scheme of Instruction		Scheme of Examination			Credits to be awarded
				Hours per week		Duration in Hrs.	Maximum Marks		
				L/T	D/P		Sem. End Exam	Con. Eval.	
1	EUREG 101	English Language skills	HS	3	---	3	60	40	3
2	EURMT 102	Engg. Mathematics - I	MT	4	---	3	60	40	4
3	EURPH 103	Engg. Physics - I	BS	4	---	3	60	40	4
4	EURCH 104	Engg. Chemistry – I	BS	4	---	3	60	40	4
5	EURCS 105	Programming with C	BE	3	---	3	60	40	3
DRAWING / PRACTICALS									
6	EURPH 112/212	Engg. Physics Lab	BS	---	3	3	--	100	2
7	EURCS 113	Programming with C Lab	BE	---	3	3	--	100	2
8	EURME 115/215	Engineering Graphics Lab	BE	---	4	3	--	100	2
		Total :		18	10	---	420	380	24

Second Semester

Sl. No.	Course Code	Name of the Course	Category	Scheme of Instruction		Scheme of Examination			Credits to be awarded
				Hours per week		Duration in Hrs.	Maximum Marks		
				L/T	D/P		Sem. End Exam	Con. Eval.	
1	EUREG 201	English writing skills	HS	3	---	3	60	40	3
2	EURMT 202	Engg. Mathematics - II	MT	3	---	3	60	40	3
3	EURMT 203	Engg. Mathematics - III	MT	3	---	3	60	40	3
4	EURPH 204	Engg. Physics - II	BS	3	---	3	60	40	3
5	EURCH 205	Engg. Chemistry – II	BS	3	---	3	60	40	3
6	EURCS 206	Object Oriented programming with C+ +	BE	3	---	3	60	40	3
DRAWING / PRACTICALS :									
7	EURCS 213	Objected oriented programming with C++ Lab	BE	---	3	3	--	100	2
8	EURCH 214/114	Engg. Chemistry Lab	BS	---	3	3	--	100	2
9	EUREE 217/117	Electrical & Electronic Workshop Lab	BE	---	3	3	--	100	2
		Total:		22	09	---	480	420	24

B.Tech. (EEE)
Third Semester

Course Code	Name of the Course	Category	L	T	P	Total hours	Marks			Credits
							Con. Eval.	End exam	Total	
EUREE 301	Engineering Mathematics – IV	MT	4	0	-	4	40	60	100	4
EUREE 302	EMF Theory	CE	3	0	-	3	40	60	100	3
EUREE 303	Electric Circuit Theory-I	CE	3	0	-	3	40	60	100	3
*EUREE 304	Electronic Devices & Circuits	CE	4	0	-	4	40	60	100	4
EUREE 305	Electrical Machines – I	CE	3	1	-	4	40	60	100	4
EUREE 306	Electrical Measurements	CE	3	0	-	3	40	60	100	3
EUREE 311	Networks Lab.	CE	-	-	3	3	100	--	100	2
EUREE 312	Electronic Devices & Circuits Lab.	CE	-	-	3	3	100	--	100	2
EUREE 313	English Communication Skills Lab	HS	-	-	3	3	100	--	100	2
EUREE 314	Industrial tour	IT	←Non-Credit Audit Course→							
	Total Credits									27

MT = Mathematics; CE = Core Engineering; HS = Humanities & Sciences.

* Common with **ECE** and **EIE**

B.Tech. (EEE)
Fourth Semester

Course Code	Name of the Course	Category	L	T	P	Total hours	Marks			Credits
							Con. Eval.	End exam	Total	
EUREE 401	Electrical Machines – II	CE	3	1	-	4	40	60	100	4
EUREE 402	Control Systems Engineering	CE	3	0	-	3	40	60	100	3
EUREE 403	Analog Electronic Circuits	CE	3	0	-	3	40	60	100	3
*EUREE 404	Signals & Systems	CE	3	0	-	3	40	60	100	3
EUREE 405	Electric Circuit Theory – II	CE	3	0	-	3	40	60	100	3
EUREE 406	Environmental Studies	HS	4	0	-	4	40	60	100	4
EUREE 411	Electrical Measurements Lab.	CE	-	-	3	3	100	--	100	2
EUREE 412	Analog Electronic Circuits Lab.	CE	-	-	3	3	100	--	100	2
	Total Credits									24

BE = Basic Engineering; CE = Core Engineering; IT = Industrial Tour.

* Common with **ECE** and **EIE**

Fifth Semester

Course Code	Name of the Course	Category	L	T	P	Total hours	Marks			Credits
							Con. Eval.	End exam	Total	
EUREE 501	Electrical Power-I	CE	3	0	-	3	40	60	100	3
*EUREE 502	Linear Integrated Circuits and Applications	CE	3	0	-	3	40	60	100	3
EUREE 503	Power Electronics	CE	3	1	-	4	40	60	100	4
EUREE 504	Digital Circuits Design & Microprocessors	CE	3	0	-	3	40	60	100	3
EUREE 505	Thermal Engineering	BE	4	0	-	4	40	60	100	4
EUREE 506	Fluid mechanics & Hydraulic machines	BE	4	0	-	4	40	60	100	4
EUREE 511	DC Machines & Transformers Lab.	CE	-	-	3	3	100	--	100	2
EUREE 512	Thermal Engineering Lab.	BE	-	-	3	3	100	--	100	2
EUREE 513	Hydraulic Machines Lab.	BE	-	-	3	3	100	--	100	2
	Total Credits									27

CE = Core Engineering; BE = Basic Engineering.

*Common with **ECE** and **EIE**

B.Tech. (EEE)
Sixth Semester

Course Code	Name of the Course	Category	L	T	P	Total hours	Marks			Credits
							Con. Eval.	End exam	Total	
EUREE 601	Electrical Power – II	CE	3	0	-	3	40	60	100	3
EUREE 602	Data Structures	BE	3	0	-	3	40	60	100	3
EUREE 603	Switchgear & Protection	CE	3	0	-	3	40	60	100	3
EUREE 604	Advanced Control Systems	CE	3	0	-	3	40	60	100	3
EUREE 605	Electrical Drives & Control	CE	3	0	-	3	40	60	100	3
EUREE 606	Utilization of Electrical Energy	CE	3	0	-	3	40	60	100	3
EUREE 611	AC Rotating Machines Lab.	CE	-	-	3	3	100	--	100	2
EUREE 612	Personality Development	HS	← Non-Credit Audit Course →							
Total Credits										20

CE = Core Engineering; BE = Basic Engineering.
DE = Departmental Elective; HS = Humanities & Sciences.

Seventh Semester

Course Code	Name of the Course	Category	L	T	P	Total hours	Marks			Credits
							Con. Eval.	End exam	Total	
EUREE 701	Digital Signal Processing & Applications	CE	3	1	-	4	40	60	100	4
EUREE 702	Digital Control Systems	CE	3	0	--	3	40	60	100	3
EUREE 703	Power System Operation & Control	CE	3	0	-	3	40	60	100	3
EUREE 721 to 723	Departmental Elective – I (DE- I)	DE	3	1	-	4	40	60	100	4
EUREE 731 to 733	Departmental Elective – II (DE – II)	DE	3	1	-	4	40	60	100	4
EUREE 711	Digital Electronics . & Microprocessor Lab.	CE	-	-	3	3	100	--	100	2
EUREE 712	Power Electronics Lab.	CE	-	-	3	3	100	--	100	2
EUREE 713	Project - I	PW	-	-	5	5	50	50	100	3
EUREE 714	Industrial Training	IT	-	-	3	3	100	--	100	2
Total Credits										27

CE = Core Engineering; DE = Departmental Elective;
PW = Project Work; IT = Industrial Training.

B.Tech. (EEE)

Departmental Elective - I: (DE- I)

Course Code	Name of the Course
EUREE 721	Operation Research
EUREE 722	Electrical Machine Design
EUREE 723	Non-Conventional Energy Sources

Departmental Elective – II : (DE – II)

Course Code	Name of the Course
EUREE 731	Artificial Intelligence and Expert Systems
EUREE 732	VLSI
EUREE 733	High – Voltage Engineering

Eighth Semester

Course Code	Name of the Course	Category	L	T	P	Total hours	Marks			Credits
							Con. Eval.	End exam	Total	
EUREE 801	Industrial Economics & Management	HS	3	0	-	3	40	60	100	3
EUREE 841 to EUREE 843	Departmental Elective – III (DE – III)	DE	3	1	-	4	40	60	100	4
EUREE 8501 to EUREE 8513	Interdepartmental Elective I (IE – I)	IE	4	0	-	4	40	60	100	4
EUREE 8601 to EUREE 8610	Interdepartmental Elective II (IE – II)	IE	4	0	-	4	40	60	100	4
EUREE 811	Project – II	PW	-	-	9	9	50	50	100	6
EUREE 812	Simulation & Interfacing Lab.	CE	-	-	3	3	100	--	100	2
EUREE 813	Control Systems Lab	CE	-	-	3	3	100	--	100	2
EUREE 814	Comprehensive Viva-Voce	CE	-	-	--	--	--	100	100	2
Total Credits										27

HS = Humanities & Sciences; IE = Inter Departmental Elective;
PW = Project Work; CE = Core Engineering;

Departmental Elective – III : (DE – III)

Course Code	Name of the Course
EUREE 841	HVDC Transmission
EUREE 842	Material Science
EUREE 843	Data Communications

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List of Inter Departmental Electives (IE – I & II)

Inter Departmental Elective – I : (IE – I); one of the following:

Course Code	Name of the Course
EUREE 8501	Remote Sensing & GIS
EUREE 8502	Database Management Systems
EUREE 8503	Software Engineering
EUREE 8504	Systems Modeling & Simulation
EUREE 8505	Software Project Management
EUREE 8506	Artificial Intelligence
EUREE 8507	Transducers & Signal Conditioning
EUREE 8508	Biomedical Instrumentation
EUREE 8510	Project Planning and Management
EUREE 8511	Neural Networks
EUREE 8512	Introduction to Micro Electro Mechanical Systems (MEMS)
EUREE 8513	Entrepreneurship

Inter Departmental Elective – II : (IE – II); one of the following:

Course Code	Name of the Course
EUREE 8601	Environmental Impact Assessment
EUREE 8602	Operating Systems
EUREE 8603	Web Technologies
EUREE 8604	Industrial Electronics
EUREE 8605	Computer Aided Design
EUREE 8606	Robotics and Automation
EUREE 8607	Mechatronics
EUREE 8608	Education Research & Methodologies
EUREE 8609	Professional Ethics
EUREE 8610	Nanotechnology