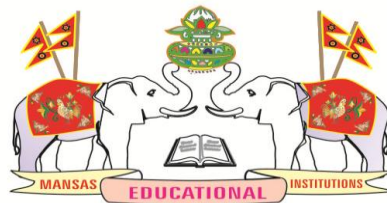


CURRICULAM

ELECTRICAL AND ELECTRONICS ENGINEERING (B.Tech. Programme)

Applicable to the students admitted from the
Academic year 2015-2016



MAHARAJ VIJAYARAM GAJAPATHI RAJ COLLEGE OF ENGINEERING (Autonomous)

(Approved by AICTE, New Delhi, and permanently affiliated to JNTUK, Kakinada)

Re-Accredited by NBA, Re-accredited by NAAC with 'A' Grade,

Listed u/s 2(f) & 12(B) of UGC Act 1956.

Vijayaram Nagar Campus, Chintalavalasa,
Vizianagaram-535005, Andhra Pradesh

The visionaries



Late Dr. P V G Raju
Raja Saheb of Vizianagaram
Founder Chairman-MANSAS
Ex-Minister for Education and Health, Govt. of AP
Ex Member of Parliament



Late Dr. P. AnandGajapathiRaju
Ex Chairman-MANSAS
Ex-Minister for Education and Health
Govt. of AP
Ex Member of Parliament



P. Ashok GajapathiRaju
Chairman-MANSAS
Union Minister for Civil Aviation,
Govt. of India
Ex-Minister for Finance, Govt. of AP

COURSE STRUCTURE
B.TECH (ELECTRICAL & ELECTRONICS ENGINEERING)

I Semester						
S.No	Subject Code	Subject	L	T	P	Credits
1	A1MAT001	Engineering Mathematics - 1	3	1	-	3
2	A1CYT001	Engineering Chemistry	3	-	-	3
3	A1CET001	Basics of Civil & Mechanical Engg	3	1	-	3
4	A1MED001	Engineering Drawing	1	-	3	3
5	A1CIT001	Computer Programming	3	-	-	3
6	A1EHL001	English Language Practice - I	1	-	2	2
7	A1CYL001	Engineering Chemistry Lab	-	-	3	2
8	A1CIL001	Computer Programming Lab	-	-	3	2
Total Number of credits						21

II Semester						
S.No	Subject Code	Subject	L	T	P	Credits
1	A1MAT002	Mathematical Methods	3	1	-	3
2	A1PYT002	Applied Physics	3	-	-	3
3	A1CHT001	Environmental Studies	3	-	-	3
4	A1EET002	Electrical Circuit Analysis - 1	3	1	-	3
5	A1XXT1XX	Foundation Elective - 1	3	1	-	3
6	A1MEW001	Basic Engineering Workshop	-	-	3	2
7	A1EHL002	English Language Practice - II	1	-	2	2
8	A1PYL002	Applied Physics Lab	-	-	3	2
Total Number of credits						21

III Semester						
S.No	Subject Code	Subject	L	T	P	Credits
1	A1EET201	Electronics Devices & Circuits -1	4	-	-	4
2	A1EET202	Electrical Circuit Analysis - 2	4	-	-	4
3	A1EET203	EMF Theory	4	-	-	4
4	A1EET204	Signals & Systems	4	-	-	4
5	A1EET205	Electrical Machines - 1	4	-	-	4
6	A1XXT1XX	Foundation Elective - 2	3	-	-	3
7	A1EEL201	Electrical Circuits Lab	-	-	3	2
8	A1EEL202	Electrical Machines Lab - 1	-	-	3	2
9	A1EHA5XX	Audit Course – 1	2	-	-	0
Total Number of credits						27

IV Semester						
S.No	Subject Code	Subject	L	T	P	Credits
1	A1EET206	Electronic Devices & Circuits – 2	4	-	-	4
2	A1EET207	Electrical Machines - 2	4	-	-	4
3	A1EET208	Power Generation & Control	4	-	-	4
4	A1EET209	Digital Electronics	4	-	-	4
5	A1EET210	Control Systems	4	-	-	4
6	A1EET3XX	Core Elective – 1	3	-	-	3
7	A1EEL203	Electronic Devices & Circuits Lab	-	-	3	2
8	A1EEL204	Electrical Machines Lab - 2	-	-	3	2
9	A1EHA5XX	Audit Course – 2	2	-	-	0
Total Number of credits						27

V Semester						
S.No	Subject Code	Subject	L	T	P	Credits
1	A1EET211	Linear & Digital IC Applications	4	-	-	4
2	A1EET212	Power Electronics	4	-	-	4
3	A1EET213	Power Transmission and Distribution	4	-	-	4
4	A1EET214	Electrical Measurements & Instrumentation	4	-	-	4
5	A1EET3XX	Core Elective – 2	3	-	-	3
6	A1EET3XX	Core Elective – 3	3	-	-	3
7	A1EEL205	Control Systems Lab	-	-	3	2
8	A1EEL206	IC&PDC Lab	-	-	3	2
	A1EHA5XX	Audit Course – 3	2	-	-	0
Total Number of credits						26

VI Semester						
S.No	Subject Code	Subject	L	T	P	Credits
1	A1EET215	Power Semiconductor Drives	4	-	-	4
2	A1EET216	Computer methods in power systems and protection	4	-	-	4
3	A1EET217	Embedded Processors	4	-	-	4
4	A1EET3XX	Core Elective – 4	3	-	-	3
5	A1EET3XX	Core Elective – 5	3	-	-	3
6	A1XXT4XX	Open Elective – 1	3	-	-	3
7	A1EEL207	Electrical Measurements Lab	-	-	3	2
8	A1EEL208	Power Electronics Lab	-	-	3	2
	A1EHA5XX	Audit Course – 4	2	-	-	0
Total Number of credits						25

VII Semester						
S.No	Subject Code	Subject	L	T	P	Credits
1	A1EET218	Principles of Communication Systems	4	-	-	4
2	A1MST001	Managerial Economics & Financial Analysis	3	-	-	3
3	A1EET3XX	Core Elective – 6	3	-	-	3
4	A1EET3XX	Core Elective – 7	3	-	-	3
5	A1EET3XX	Core Elective – 8	3	-	-	3
6	A1XXT4XX	Open Elective – 2	3	-	-	3
7	A1EEL209	Power Systems Lab	-	-	3	2
8	A1EEL210	Embedded Processors Lab	-	-	3	2
9	A1EHA5XX	Audit Course – 5	2	-	-	0
10	A1EHA5XX	Audit Course – 6	2	-	-	0
Total Number of credits						23

VIII Semester						
S.No	Subject Code	Subject	L	T	P	Credits
1	A1EEP601	Directed Study	-	-	3	2
2	A1EEP602	Project	-	-	12	8
Total Number of credits						10

Foundation Elective – I & II						
S.No	Subject Code	Subject	L	T	P	C
1	A1EHT101	Professional Communication	3	0	0	3
2	A1EHT102	Business Communication	3	0	0	3
3	A1MET103	Material Science				
4	A1MAT104	Engineering Mathematics II	3	0	0	3
5	A1PYT105	Electro Magnetic Theory	3	0	0	3
6	A1CYT106	Instrumental methods of analysis				
7	A1MET107	Thermodynamics	3	0	0	3
8	A1CYT108	Analytical analysis	3	0	0	3
9	A1MAT109	Probability and Statistics	3	0	0	3
10	A1MAT110	Complex Variables & Statistical Methods	3	0	0	3

List of Core Electives		
Core Elective #	Course Code	Name of the course
Core Elective - 1	A1EET301	Data Structures
	A1EET302	Electrical Engineering Materials
	A1EET303	Electrical Safety
Core Elective - 2	A1EET304	Computer Architecture
	A1EET305	Special Electrical Machines
	A1EET306	Modern Control Systems
Core Elective - 3	A1EET307	Electrical Machine Design
	A1EET308	Digital Signal Processing
	A1EET309	Artificial Intelligence Techniques
Core Elective - 4	A1EET310	Digital Control Systems
	A1EET311	Distribution System Automation
	A1EET312	Power System Restructuring
Core Elective - 5	A1EET313	Java Through OOPs
	A1EET314	Utilization of Electrical Energy
	A1EET315	Condition Monitoring of Electrical Equipment
Core Elective - 6	A1EET316	Power System Operation & Control
	A1EET317	HVDC Transmission
	A1EET318	Advanced Power Electronic Controllers
Core Elective - 7	A1EET319	Renewable Energy Sources & Integration
	A1EET320	Switchgear & Protection
	A1EET321	Computer Networks
Core Elective - 8	A1EET322	Flexible AC Transmission Systems
	A1EET323	Industrial Automation
	A1EET324	Power Quality

Open Electives offered by Electrical and Electronics Engineering Department to other departments		
S.No	Course Code	Name of the Course
1	A1EET401	Basic Control Systems
2	A1EET402	Applied Electrical Engineering
3	A1EET403	MATLAB
4	A1EET404	Electrical Safety
5	A1EET405	Energy Audit
6	A1EET406	Basic Automation Course
7	A1EET407	Illumination Engineering
8	A1EET408	Electrical Wiring, Estimation & Costing

Audit Course Electives		
S. No	Subject Code	Subject Name
1	A1EHA501	NSS
2	A1EHA502	NCC
3	A1EHA503	Sports
4	A1EHA504	Cultural
5	A1EHA505	Yoga
6	A1EHT506	Health & Nutrition
7	A1EHT507	Entrepreneurship Development
8	A1EHT508	Foreign Language (Chinese/Japanese/Korean/German)
9	A1EHT509	Professional Ethics & IPR
10	A1EHT510	Soft Skills - I
11	A1EHT511	Soft Skills - II
12	A1EHT512	General Aptitude
13		MOOC