



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

COURSE STRUCTURE & SYLLABUS for
M.Tech EEE for

- I. POWER SYSTEMS (PS)**
- II. POWER SYSTEM CONTROL AND AUTOMATION (PSC&A)
- III. POWER SYSTEM ENGINEERING (PSE)
- IV. POWER SYSTEM CONTROL (PSC)
- V. ADVANCED POWER SYSTEMS (APS)
- VI. ELECTRICAL POWER ENGINEERING (EPE)
- VII. POWER ENGINEERING & ENERGY SYSTEMS (PE&ES)

Programme

(Applicable for batches admitted from 2019-2020)



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COURSE STRUCTURE

I Semester

S.No	Course No	Category	Course Name	P.Os	L	T	P	C	Marks
1		PC	Power System Operation & Control		3	0	0	3	100
2		PC	Analysis of Power Electronic Converters		3	0	0	3	100
3		PE	Program Elective – I i. Electrical Distribution Automation ii. Renewable Energy Technologies iii. Power System Deregulation		3	0	0	3	100
4		PE	Program Elective – II i. HVDC Transmission ii. Advanced Power Systems Protection iii. Power System Reliability		3	0	0	3	100
5			Research Methodology and IPR		2	0	0	2	100
6			Power System Simulation Laboratory – I		0	0	4	2	100
7			Power Systems Laboratory		0	0	4	2	100
8			Audit Course – I		2	0	0	0	100
					16	0	8	18	800

II Semester

S.No	Course No	Category	Course Name	P.Os	L	T	P	C	Marks
1		PC	Power System Dynamics and Stability		3	0	0	3	100
2		PC	Real Time Control of Power Systems		3	0	0	3	100
3		PE	Program Elective – III i. EHVAC Transmission ii. Flexible AC Transmission Systems iii. Hybrid Electric Vehicles		3	0	0	3	100
4		PE	Program Elective – IV i. Generation & Measurement of High Voltages ii. Evolutionary Algorithms and Applications iii. Programmable Logic Controllers & Applications		3	0	0	3	100
5			Power System Simulation Laboratory – II		0	0	4	2	100
6			Power Converters Laboratory		0	0	4	2	100
7			Mini Project with Seminar		0	0	4	2	100
8			Audit Course – II		2	0	0	0	100
					14	0	12	18	800



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III Semester

S.No	Course No	Category	Course Name	P.Os	L	T	P	C	Marks
1		PE	Program Elective – V i. Energy Audit Conservation & Management ii. Smart Grid Technologies iii. Power Quality and Custom Power Devices		3	0	0	3	100
2		OE	Open Elective i. Industrial Safety ii. Artificial Intelligent Techniques iii. Operations Research		3	0	0	3	100
3			Dissertation Phase - I (to be continued and evaluated next semester)		0	0	20	10	---
					6	0	20	16	200

IV Semester

S.No	Course No	Category	Course Name	T	P	C	Marks
1			Dissertation Phase-II (continued from III semester)	0	32	16	100
				0	32	16	100

Audit course 1 & 2

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technical Knowledge
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by Yoga
8. Personality Development through Life Enlightenment Skills.