

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA


Kakinada-533003, Andhra Pradesh (India)

Comparison of Program Structure R16 with R19

Program Code	Program Name	Total No. of Courses			No of Subjects			Total Courses	Percentage %
		R16	R19	Added in (R19)	Deleted (R16)	Content revised more than 20%			
ID34	M.Tech – (Advanced Electrical Power System)	19	20	09	03	02	14	70	

Coordinator 

HOD 

  
REGISTRAR  
J.N.T. University Kakinada  
Kakinada-533003

Professor & Head  
Dept. of Elec. & Electronics Engg.  
University College of Engg.  
J.N.T. University Kakinada  
KAKINADA-533 003.



## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

Kakinada-533003, Andhra Pradesh (India)

### Comparison of Course Structure R16 with R19

Program Code: 1D34

Program Name: M.Tech - AEPS

Year : 1

Semester: 1

R16					R19					Remarks				
Course code	Course name	L	T	P	C	Course code	Course name	L	T	P	C	New Course? (R19)	Deleted Course? (R16)	Content Revision %
1	Microprocessors & Microcontrollers	4			3	1	Power System Operation & Control	3	0	0	3		yes	
2	HVDC Transmission	4			3	2	Renewable Energy Technologies	3	0	0	3			10
3	Power System Operation and Control	4			3	3	Program Elective – I i. Electrical Distribution Automation ii. Analysis of Power Electronic Converters iii. Artificial Intelligent Techniques iv. Power Quality and Custom Power Devices	3	0	0	3			25
4	Reactive Power Compensation & Management	4			3	4	Program Elective – II i. HVDC Transmission ii. Generation & Measurement of High Voltages iii. Advanced Power Systems Protection iv. Power System Reliability	3	0	0	3			
5	Elective – I i. Electrical Distribution Systems ii. EHVAC Transmission iii. Analysis of Power Electronics Converters	4			3	5	Research Methodology and IPR	2	0	0	2	Yes		

	iv. Renewable Energy Systems v. Artificial Intelligence Techniques													
6	Elective – II i. Power System Security ii. Advanced Digital Signal Processing iii. Generation & Measurement of High Voltages iv. Programmable Logic Controllers & Applications v. Modern Control Theory	4		3	6	Power System Simulation Laboratory–I	0	0	4	2				20
7	Simulation Laboratory		4	2	Lab	Power Systems Laboratory	0	0	4	2				5
						<b>Audit Course – I</b>	2	0	0	0	yes			
	<b>TOTAL</b>			20		<b>TOTAL</b>	16	0	8	18	2		1	1

Program Code: ID34

Program Name: M.Tech - AEPS

Year : 1

Semester: 2

R16					R19					Remarks				
Course code	Course name	L	T	P	C	Course code	Course name	L	T	P	C	New Course? (R19)	Deleted Course? (R16)	Content Revision %
1	Power System Dynamics and Stability	4			3	1	Power System Dynamics and Stability				3			10
2	Flexible AC Transmission Systems	4			3	2	Real Time Control of Power Systems	3			3			20
3	Real Time Control of Power Systems	4			3	3	Program Elective – III i. Smart Grid Technologies ii. EHVAC Transmission iii. Flexible AC Transmission Systems iv. Hybrid Electric Vehicles	3			3	yes		25
4	Advanced Power System Protection	4			3	4	Program Elective – IV  i.Power System Deregulation ii.High Voltage Testing Techniques iii.Evolutionary AlgorithmsandApplications iv.Programmable Logic Controllers & Applications	3			3	yes		25
5	Elective – III i. Smart Grid Technologies ii. Power Quality iii. Power System Reliability iv. Voltage Stability	4			3	5	Power System Simulation Laboratory–II	2			2	yes		
6	Elective – IV i. Power System Deregulation ii.High Voltage Testing Techniques	4			3	6	Renewable Energy Systems Laboratory			4	2	Yes		

	iii.Power System Transients iv.Demand Side Energy Management													
7	Power Systems Laboratory			4	2	Lab	Mini Project with Seminar			4	2	Yes		
							Audit Course – II	2	0	0	0			
<b>TOTAL</b>						20	<b>TOTAL</b>	14	0	12	18	5	0	2

Program Code: 1D34

Program Name: M.Tech - AEPS

Year : 2

Semester: 3

R16						R19						Remarks		
Course code	Course name	L	T	P	C	Course code	Course name	L	T	P	C	New Course? (R19)	Deleted Course? (R16)	Content Revision %
1	Comprehensive Viva-Voce				2	1	Program Elective –V	3	0	0	3	Yes	yes	10
2	Seminar – I				2	2	Open Elective	3	0	0	3	Yes	yes	
3	Project Work - I				16	Dissertation	Dissertation Phase - I (to be continued and evaluated next semester)	0	0	20	10			
<b>TOTAL</b>							<b>TOTAL</b>	6	0	20	16	2	2	0

Program Code: 1D34

Program Name: M.Tech - AEPS

Year : 2

Semester: 4

R16					R19					Remarks				
Course code	Course name	L	T	P	C	Course code	Course name	L	T	P	C	New Course? (R19)	Deleted Course? (R16)	Content Revision %
1	Seminar – II				2		Dissertation Phase-II (continued from III semester)	0	0	32	16	yes		
2	Project Work - II				18			0	0	32	16			
<b>TOTAL</b>											16	1	0	0