



**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%		
1D08	M.Tech – High voltage engineering	19	20	8	1	3	12	60

Coordinator 

  
**REGISTRAR**  
**J.M.T. University Kakinada**  
**Kakinada-533003**

  
**HOD**  
**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:1D08

Program Name:M.Tech–High voltage engineering

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	Generation and Measurement of High Voltages	4	--		3	1	Generation and Measurement of High Voltages	3	0	0	3			10
2	Dielectric and Insulation Engineering	4	--		3	2	Dielectrics and Insulation Engineering	3	0	0	3			10
3	HVDC Transmission	4	--		3	3	Program Elective – I i. Artificial Intelligence Techniques ii. HVDC Transmission iii. Breakdown Phenomenon in Electrical Insulation	3	0	0	3			10
4	Power System Operation and Control	4	--		3	4	Program Elective – II i. High Voltage Power Apparatus and Diagnostics ii. Collision Phenomena in Plasma Science iii. Advanced Electro Magnetic Fields	3	0	0	3			20
5	Elective – I  i. Artificial Intelligence Techniques	4	--		3	5	Research Methodology and IPR	2	0	0	2	Yes		

	ii. Advanced Digital Signal Processing iii. Smart Grid Technologies iv. Breakdown Phenomenon in Electrical Insulation													
6	Elective – II  i. High Voltage Power Apparatus & Diagnostics ii. Collision Phenomena in Plasma Science iii. Advanced EM Fields	4	--		3	6	Simulation Laboratory – I	0	0	4	2			10
7	High Voltage Laboratory	--	4		2	7	High Voltage Laboratory	0	0	4	2			
							Audit Course – I	2	0	0	0	Yes		
<b>TOTAL</b>					20		<b>TOTAL</b>	16	0	8	18	2	0	0

Program Code: 1D08

Program Name: M.Tech -High voltage engineering

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	High Voltage Testing Techniques	4	-	-	3	1	High Voltage Testing Techniques	3	0	0	3			15
2	EHVAC Transmission	4	-	-	3	2	Surge Phenomenon & Insulation Coordination	3	0	0	3			20
3	Surge Phenomenon & Insulation Coordination	4	-	-	3	3	Program Elective – III i. Partial Discharge in HV Equipment ii. Gas Insulated Systems and Substations iii. Pulse Power Engineering	3	0	0	3			10
4	Advanced Power System Protection	4	-	-	3	4	Program Elective – IV i. Flexible AC Transmission Systems ii. EHVAC Transmission iii. Smart Grid Technologies	3	0	0	3			33
5	Elective – III i. Partial Discharge in HV Equipment ii. Gas Insulated Systems and Substations iii. Pulse Power Engineering	4	-	-	3	5	Simulation Laboratory – II	0	0	4	2	yes		25
6	Elective – IV i. Flexible AC Transmission Systems ii. Power System Deregulation iii. Reactive Power compensation & Management	4	-	-	3	6	Power Systems Laboratory	0	0	4	2	Yes		
7	Simulation Laboratory	--	-	4	2	7	Mini Project with Seminar	0	0	4	2	Yes		
						8	Audit Course – II	2	0	0	0	Yes		

<b>TOTAL</b>			<b>20</b>	<b>TOTAL</b>	14	0	12	18	4	0	2
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Program Code:1D08

Program Name: M.Tech --High voltage engineering

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					
2	Seminar – I	--	--	--	2	2	Open Elective	3	0	0	3	Yes					
3	Project Work - I	--	--	--	16	3	Dissertation Phase - I / Industrial Project <b>(to be continued and evaluated next semester)</b>	0	0	20	10						
<b>TOTAL</b>					20	<b>TOTAL</b>					6	0	20	16	2	0	0

Program Code: 1D08

Program Name: M.Tech High voltage engineering

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	Project/ Dissertation Phase-II (continued from III semester)	0	0	32	16		Yes				
2	Project Work - II	--	--	--	18												
<b>TOTAL</b>						<b>TOTAL</b>							32	16	0	1	0