



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA


Kakinada-533003, Andhra Pradesh (India)

Comparison of Program Structure R18 with R19

Program Code	Program Name	Total No. of Courses			No of Subjects			Total Courses	Percentage %
		R18	R19	Added in (R19)	Deleted (R18)	Content revised more than 20%			
1D52	M. Tech – Power electronics & drives	19	20	8	1	3	12	60	

Coordinator 


REGISTRAR
J.N.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



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Kakinada-533003, Andhra Pradesh (India)

Comparison of Course Structure R18 with R19

Program Code: 1D52

Program Name: M.Tech -Power electronics & drives

Year : 1

Semester: 1

R18					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	Electrical Machine Modeling and Analysis	4	--		3	1	Electrical Machine Modeling and Analysis	3	0	0	3			10
2	Analysis of Power Electronic Converters	4	--		3	2	Analysis of Power Electronic Converters	3	0	0	3			10
3	Power Electronic Control of Electrical Drives-I	4	--		3	3	Elective – I i. Modern Control Theory ii. Power Quality and Custom iii. Power Devices Programmable Logic Controllers & Applications	3	0	0	3			33
4	Power Quality	4	--		3	4	Elective – II i. Artificial Intelligence Techniques ii. Renewable Energy Technologies iii. HVDC Transmission and Flexible AC Transmission Systems	3	0	0	3			20
5	Elective – I i. Modern Control Theory	4	--		3	5	Research Methodology and IPR	2	0	0	2	Yes		

	ii. Custom Power Devices iii. Optimization Techniques													
6	Elective – II i. Energy Auditing, Conservation and Management ii. Artificial Intelligence Techniques iii. HVDC Transmission	4	--		3	6	Power Electronics Simulation Laboratory	0	0	4	2			10
7	Simulation Laboratory	--	- -	4	2	7	Power Converters Laboratory	0	0	4	2	Yes		
						Audit –1	Audit Course – 1	2	0	0	0	Yes		
TOTAL					20		TOTAL				18	3	0	1

Program Code: 1D52

Program Name: M.Tech :Power electronics &drives

Year : 1

Semester: 2

R18					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	Switched Mode Power Conversion	4	--		3	1	Switched Mode Power Conversion	3	0	0	3			15
2	Power Electronic Control of Electrical Drives-II	4	--		3	2	Power Electronic Control of Electrical Drives	3	0	0	3			20
3	Microcontrollers and its Applications to Power Electronic Systems	4	--		3	3	Elective – III i. Energy Auditing, Conservation and Management ii.Hybrid Electric Vehicles Advanced Digital Control Systems	3	0	0	3			33
4	Flexible AC Transmission Systems	4	--		3	4	Elective – IV i.Advanced Digital Signal Processing ii.Evolutionary Algorithms and Applications Microcontrollers	3	0	0	3			33
5	Elective – III i. Renewable Energy Systems ii. Hybrid and Electric Vehicles iii. Industrial applications of Power Electronic Systems	4	--		3	5	Electric Drives Simulation Laboratory	0		4	2			10
6	Elective – IV i. Smart Grid Technologies ii. Advanced Digital Signal Processing iii. Programmable Logic Controllers & Applications	4	--		3	6	Electric Drives Laboratory	0	0	4	2	Yes		
7	Power Converters & Drives Laboratory	--	--	4	2	7	Mini Project with Seminar	0	0	4	2	Yes		

					Audit Course – 2	2	0	0	0	Yes		
	TOTAL			20	TOTAL			18	3	0	2	

Program Code: 1D52

Program Name: M.Tech -Power electronics &drives

Year : 2

Semester: 3

R18					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 - 5	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 (to be continued and evaluated next semester)	0	0	20	10			
TOTAL											16	2	0	0

Program Code: 1D52

Program Name: M.Tech -Power electronics &drives

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	1	Dissertation Phase - II (continued from III semester				16		Yes	
2	Project Work - II				18									
TOTAL											16	0	1	0