

UGC-Autonomous

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Date: 01-07-2018

BOARD OF STUDIES MEETING

Minutes of meeting of Board of studies for Electrical and Electronics Engineering department held on 01-07-2018 at 10:30 a.m.

Sl. No.	Name and Address	Designation	Signature
1	Dr. Y. Hareesh Kumar, Assistant Professor, Department of EEE, VCE, Warangal	Chairman	Horemy.
2	Dr.M.Sydulu, Professor EE Dept, NIT, Warangal	Member (Subject Expert)	Modelle
3	Dr.G.N.Srinivas, Vice Principal JNTUH, Hyderabad	Member (University Nominee)	TINA
4	Dr. K. Prakash, Professor, Department of EEE, VCE, Warangal	Member (Faculty)	Julians
5	Dr.E. Vidya Sagar, Associate Professor EE Dept. Osmania University, Hyderabad	Member (Subject Expert)	137/18·
6	Dr. B. Venugopal Reddy Associate Professor, EE, NIT Goa.	Member (Subject Expert)	
7	Sri.Venugopal Reddy, Senior Manager, Electrical Maintenance, NTPC Ramagundam.	Member (Representative from Industry)	
8	Sri.B.Sridhar Raju, A.D.E, TS TRANSCO, Warangal	Member (Representative from Alumni)	
9	Sri. P. Purna Chander Rao, Associate Professor, Department of EEE, VCE, Warangal	Member (Faculty)	PhD-
10	Dr. B. Durga Hari Kiran Assistant Professor, Department of EEE, VCE, Warangal	Member (Faculty)	Meyertanduan

The following decisions are taken:

1. Approved the course structure of B.Tech. (R18-Regulations) for I, II, III, & IV Year I and II

2. Approved the syllabi of B.Tech. (R18-Regulations) for I-Year I and II Semesters.

Approved the course structure and Syllabus of M.Tech. (PE and PSCA) of R18-Regulations for I & II Year I and II Semesters.

Dr. Y. Hareesh Kumar (BOS-Chairman)

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

R18 Regulations (w.e.f 2018-2019 A.Y)

IV - Year B.Tech Course Structure as per AICTE Model Curriculum

Semester-I (First Year) SI. Hours per week Code Course Title Credits No. P T B18MA01 1 Linear Algebra and Calculus 3 1 0 4 B18PH01 2 Applied Physics 4 0 0 4 B18EN01 3 English 2 0 0 2 B18CH01 4 Engineering Chemistry 3 1 0 4 B18EN02 English Language and 5 0 0 2 1 communication skills Lab B18PH02 6 Applied Physics Lab 0 0 3 1.5 B18ME02 Engineering Workshop and IT 7

Total Credits

Workshop

Induction Program

SI.	Code	Course Title	Ho	G 11.		
No.	Code		L	T	P	Credits
1	B18MA02	Differential Equations and Transforms & Vector Calculus	3	1	0	4
2	B18EE01	Electrical Circuits – I	3	1	0	4
3	B18EC01	Electronic Devices and Circuits	3	0	0	3
4	B18CS01	Programming for Problem Solving	4	0	0	4
5	B18EC02	Electronic Devices and Circuits Lab	0	0	2	1
6	B18CS02	Programming for Problem Solving Lab	0	0	2	1
7	B18ME01	Engineering Graphics	1	0	4	3
		Total Credits				20

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(Dr. G. N. Stinivas) (Dr. E. vidya) (Dr. M. Syduly) Chandu Rao) (Dr. Y. Mareent Corgan)

(Dr. B. Durga Harri) (Dr. K. Prakash)

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Semester-III (Second Vear)

SI.	Code	Course Title		urs per	week		
No.	(5)3)595)	Course Title	LT		P	Credits	
1	B18EE02	Electrical Circuits – II	3	0	0	3	
2	B18MA03	Complex Variables and Vector	3	1	0	4	
3	B18EE08	Power Systems – I	3	0	0	3	
4	B18EE03	Electrical Machines-I	3	0	0	3	
5	B18EE04	Electromagnetic Fields	3	0	0	3	
6	B18CS05	Data Structures Through C++	3	0	0	3	
7	B18EE05	Electrical Circuits Lab	0	0	3	1.5	
8	B18CS06	Data Structures Through C++ Lab	0	0	3	1.5	
9	B18MC03	Environmental Sciences	2	0	0	0	
	-	Total Credits				22	

SI.	Code	Course Title	Ho	urs per	week	G 111	
No.	Code	Course Title	L	T P		Credits	
1	B18EC46	Pulse Digital and Linear Integrated Circuits	3	0	0	3	
2	B18EE06	Electrical Machines-II	3	1	0	4	
3	B18EE07	Electrical Measurements and Instrumentation	3	0	0	3	
4	B18EE11	Power Systems - II	3	0	0	3	
5	B18EC08	Switching Theory and Logic Design	3	0	0	3	
6	B18EC47	Pulse Digital and Linear Integrated Circuits Lab	0	0	3	1.5	
7	B18EE09	Electrical Machines Laboratory -I	0	0	3	1.5	
8	B18EE10	Basic Electric Simulation Lab	0	0	2	1	
9	B18MC04	NSS	2	0	0	0	
		Total Credits				20	

(Dr. B. Durga Hair)

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(D1. M. Sydule) (Mr. P. Parner law) (DV. y. Halsesh

(D7. K. Praklash)

(D8. K. Praklash)

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Semester-V (Third Voor)

Sl.	Code	Course Title	Но	urs per	week	
No.		Course Title	L	Т	P	Credits
1	B18EE50	Electrical Machines – III	3	0	0	3
2	B18EE12	Control Systems	3	0	0	3
3	B18EE13	Power Electronics	3	1	0	4
4		Professional Elective – I	3	0	0	3
5		Professional Elective – II	3	0	0	3
6	B18EE14	Electrical Machines Laboratory -II	0	0	2	1.50
7	B18EE15	Electrical Measurements and Instrumentation Laboratory	0	0	2	1.5 0
8	B18EE21	Control Systems Lab	0	0	2	1
9	B18MC05	Indian Constitution	2	0	0	0
		Total Credits				-20 10

Semester-VI (Third Year)

Sl.	Code	Course Title	Ho	urs per	week	6 "
No.	Code	Course Title	L	Ť	P	Credit
1	B18EE17	Power Systems Operation and Control	3	0	0	3
2	B18EE18	Power System Protection	3	0	0	3
3	B18EE19	Power Semiconductor Drives	3	0	0	3
4	B18MB01	Managerial Economics and Financial Analysis	3	0	0	3
5		Professional Elective – III	3	0	0	3
6		Open Elective – I	3	0	0	3
7	B18EE20	Power Electronics Lab	0	0	2	1
8	B18EE16	Power Systems Laboratory	0	0	2	1
9	B18EC48	Electronics Design and Laboratory	1	0	2	2
	B18MC06	Logical Reasoning and Quantitative Analysis	2	0	0	0
		Total Credits				22

after vi sem. Internship is done during summer break and evaluation is done in 7th semester.

(Dr. G. M. Sri niva) (Dr. E. vidya)

(Dr. G. M. Sydulu) (Mr. P. Purnon chandre Rao)

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Semester-VII (Fourth Voor)

Sl.	Code	Course Title	Ho	urs per	week	C. III
No.			LTI		P	Credits
1	B18EE22	Computer Methods in Power Systems	3	0	0	3
2	B18EC21	Microprocessors and Microcontrollers	3	0	0	3
3		Professional Elective – IV	3	0	0	3
4		Professional Elective – V	3	0	0	3
5		Open Elective – II	3	0	0	3
6	B18EC28	Microprocessors and Microcontrollers Lab	0	0	2	1
7	B18EE23	Electrical Simulation Lab	0	0	2	1
8	B18EN03	Advanced English Communication Skills Lab	0	0	2	1
9	B18EE25	Mini Project and Summer Internship		-	-	2
10	B18EE26	Project Stage - I	0	0	8	4
		Total Credits				24

Samestar VIII (Fourth Veer)

SI.	Code	Course Title	Но	urs per	week	Credits
No.	Code	Course Title	L	T	P	Credits
1		Professional Elective – VI	3	0	0	3
2		Open Elective – III	3	0	0	3
3	B18EE24	Technical Seminar	·	-	-	1
4	B18EE27	Project Stage - II	0	0	14-16	7 8
		Total Credits				14 18

(pr. 6. N. shaira) (Dr. e. vidya sagar) (pr. 19. Sydulu) Mas. P. Puma chandred Race)

(pr. 6. N. shaira) (Dr. e. vidya sagar)

(pr. 6. N. shaira) (Dr. y. Marceth
Ruman)

(pr. 9. Durga Hail birar)

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Elective Courses

	Pı	ofessional Elective – I
1	B18EE28	Electric Machine Design
2	B18EC03	Signals and Systems
3	B18EE34	Electrical Distribution Systems
	Pr	ofessional Elective – II
1	B18EC23	Digital Signal Processing
2	B18EE30	Renewable Energy Systems
3	B18EE31	Electrical Engineering Materials
	Pro	ofessional Elective – III
1	B18EE32	Advanced Power Electronics
2	B18EE33	Advanced Control Systems
3	B18EE29	High Voltage Engineering
	Pro	ofessional Elective – IV
1	B18EE35	Soft Computing Techniques
2	B18EE36	Advanced Electrical Drives
3	B18EE37	HVDC and FACTS
	Pro	ofessional Elective – V
1	B18EE38	Electrical and Hybrid Vehicles
2	B18EE39	Power Quality
3	B18EE40	Digital Control Systems
	Pro	fessional Elective – VI
1	B18EE41	Neural Networks and Fuzzy Systems
2	B18EE42	Utilisation of Electrical Energy
3	B18EE43	Smart Grids

	0	pen Elective – I
1	B18CS08	Database Management Systems
2	B18EC18	Computer Organization
3	B18CS49	Internet of Things
	O	pen Elective – II
1	B18MB02	Management Science
2	B18CS09	OOPS Through Java
3	B18EC22	VLSI Design
4	B18CS44	Business Intelligence and Big Data
	Op	en Elective – III
1	B18MB03	Entrepreneurship Development
2	B18EC37	Embedded Systems
3	B18ME36	Power Plant Engineering
4	B18MB06	Intellectual Property Rights

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(Dv. B. Durger Hari bivan)

(Dv. K. Prakath)

UGC-Autonomous DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

R18 Regulations (w.e.f 2018-19 A.Y) Course Structure of M. Tech (Power Electronics)

(As per AICTE Model Curriculum)

S	ber	MICI	LI	ATOCI	CI C	milic	ulu
S	em	ester	r-I	(Fi	rst	Yea	ir)

Sl.		Semester-I (First Year	Ho	urs per v	veek	Credits
ONo.	Code	Course Title	L	T	P	Credits
1	M18PE01	Converters		0	0	3
2	M18PE02	Power Electronic Control of DC Drives	3	0	0	3
3	M18PE03 M18PE04 M18PE05 M18EC01	Program Elective – I Modeling and Analysis of Electrical Machines Renewable Energy Systems Modern Control Theory Programmable Logic Controllers and their Applications	3	0	0	3
4	M18PE06 M18PE07 M18EC02	Program Elective – II Modelling of Power Semiconductor Devices Digital Control of Power Electronics and Drive Systems Microcontrollers and Applications	3	0	0	3
5	M18PE08	Power Converters Simulation Lab	0	0	4	2
6	M18PE09	Power Converters Lab	0	0	4	2
7	M18MC01	Research Methodology	2	0	0	2
8		Audit Course-I Stress Management	2	0	0	0
		Total Credits				18

Semester-II (First Year)

		Code Course Title	Ho	veek	Credits	
SLNo.	Code		L	T	P	Credita
	M18PE10	Modern Power Electronic Converters	3	0	0	3
2	M18PE11	Power Electronic Control of AC Drives	3	0	0	3
3	M18PE13 M18PE14 M18PE15	Program Elective – III Electrical and Hybrid Vehicles Digital Control Systems Power Quality	3	0	0	3
4	M18EC03 M18PE16 M18PS11	Program Elective – IV Embedded Systems Dynamics of Electrical Machines Al Techniques in Electrical Engineering	3	0	0	3
5	M18PE17	Power Converters and Drives Simulation Lab	0	0	4	2
6	M18PE18	Power Converters and Drives Lab	0	0	4	2
7	M18MC02	Mini Project	0	0	4	2
8		Audit Course-II English for Research Paper Writing	2	0	0	0
		Total Credits				18

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Semester-III (Second Year)

Sl.No.	Code	ode Course Title	Но	0 111		
			L	T	P	Credits
1	M18PE12 M18PE19 M18PS16 M18EC04	Program Elective – V HVDC & FACTS Switched Mode Power Supplies Smart Grid Technologies Advanced Digital Signal Processing	3	0	0	3
2	M18PS18 M18PS19 M18ME01	Open Elective Energy Auditing, Conservation & Management Optimization Techniques Industrial Safety	3	0	0	3
3	M18PE20	Dissertation Phase- I	0	0	20	10
		Total Credits				16

Semester-IV (Second Year)

Sl.No.	Code	ode Course Title	Ho			
			L	T	P	Credits
1	M18PE21	Dissertation Phase- II	0	0	32	16
		Total Credits		S.Dismy	e, alk	16

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R18 Regulations(w.e.f 2018-19 A.Y)

Course Structure of M.Tech (Power System Control and Automation)

(As per AICTE Model Curriculum)

Semester-I (First Year)

S.No.	C.d.	Common Tital	Hou	6 11		
	Code	Course Title	L	T	P	Credits
-1	M18PS01	Advanced Power System Analysis	3	-	-	3
2	M18PS02	Advanced Power System Protection	3	-	-	3
3 ,(M18PS03 M18PS04 M18PE04 M18PE05	Program Elective—I Economic operation power systems Power System Reliability Renewable Energy Systems Modern Control Theory	3	-	-	3
	M18PE01 M18PS05 M18EC02	Program Elective—II Analysis of Power Electronics Converters Distribution System Planning Micro Controller and Applications	3	-		3
5	M18MC01	Research Methodology	2	-	-	2
6	M18PS06	Power Systems Simulation Lab - I	-	-	4	2
7	M18PS07	Power Systems Lab - I		-	4	2
8		Audit Course - I Stress Management	2		-	-
		Total Credits				18

Semester-II (First Year)

CV.	C-1-	Commo Tital	Hours per week			
S.No.	Code	Course Title	L	T	P	Credits
1	M18PS08	Power System Dynamics	3		-	3
2	M18PS09	Power System Automation	3	-	-	3
3	M18PS10 M18PE14 M18PE15	Program Elective—III Restructured Power Systems Digital Control Systems Power Quality	3	-	-	3
4	M18PS11 M18PS12 M18PS13	Program Elective- IV AI Techniques in Electrical Engineering EHV AC Transmission Reactive Power Compensation and Voltage Stability	3	-	• ,	3
5	M18PS14	Power Systems Simulation Lab - II	-	-	2	1
6	M18PS15	Power Systems Lab - II	-	- 1	2	1
7	M18MC02	Mini Project	•	-	4	2
8		Audit Course - II English for Research Paper Writing	2	-	-	-
		Total Credits				18

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Semester-III (Second Year)

	Code Course Title	Hours per week			Credits	
S.No.		Course Title	L	T	P	Credits
1	M18PE12 M18PS16 M18PS17 M18EC04	Program Elective – V HVDC & FACTS Smart Grid Technologies Distributed Generation Advanced Digital Signal Processing	3	-	-	3
2	M18PS18 M18ME01 M18PS19	Open Elective Energy Auditing, Conservation and Management Industrial Safety Optimization Techniques	3	-		3
3	M18PS20	Dissertation Phase- I	-	-	20	10
3	W1181 520	Total Credits				16

Semester-IV (Second Year)

S.No.	Code	Course Title	Hours per week			Credits
			L	T	P	Credits
-	1/10DC21	Dissertation Phase- II	-	-	32	16
1	M18PS21	Total Credits				16

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