BAPATLA ENGINEERING COLLEGE:: BAPATLA
(Autonomous)

SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
For
Electrical and Electronics Engineering
Effective From the Academic Year2018-2019 (R18 Regulations)
First Year B.Tech(SEMESTER – I)

Code No.	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
		L	T	P	Total	CIE	SEE	Total Marks	
18MA001	Mathematics – I (Linear algebra and differential equations)	3	1	0	4	50	50	100	3
18PH001	Physics – I Waves and Modern Physics	4	1	0	5	50	50	100	4
18CE001	Environmental Studies	3	0	0	3	50	50	100	2
18EL001	Communicative English	3	0	0	3	50	50	100	2
18MEL01	Engineering Graphics	1	0	4	5	50	50	100	3
18PH L01	Physics Lab	0	0	3	3	50	50	100	1
18ELL01	English Communication skills Lab	0	0	3	3	50	50	100	1
18MEL02	Workshop Practice Lab	0	0	3	3	50	50	100	1
	Induction program								
	TOTAL	14	2	13	32	400	400	800	17

CIE: Continuous Internal Evaluation   SEE: Semester End Examination
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First Year B.Tech(SEMESTER – II)

Code No.	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
		L	T	P	Total	CIE	SEE	Total Marks	
18MA002	Mathematics – II (Numerical Methods And Advanced Calculus)	3	1	0	4	50	50	100	3
18CY001	Chemistry	4	0	0	4	50	50	100	3
18PH003	Physics – II (Semiconductor Physics and Nano Materials)	4	0	0	4	50	50	100	3
18EE204	Circuit Theory	4	0	0	4	50	50	100	3
18CS001	Programming for Problem Solving	3	0	0	3	50	50	100	2
18CY L01	Chemistry Lab	0	0	3	3	50	50	100	1
18EE L22	Circuit Theory Lab	0	0	3	3	50	50	100	1
18CS L01	Programming for Problem Solving Lab	0	0	3	3	50	50	100	1
	NCC/NSS								
	TOTAL	18	1	9	28	400	400	800	17

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SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
For
Electrical and Electronics Engineering
Effective From the Academic Year2018-2019 (R18 Regulations)
Second Year B.Tech(SEMESTER – III)

Code No.	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
		L	T	P	Total	CIE	SEE	Total Marks	
18MA003	Mathematics – III (Probability and Statistics)	3	1	0	4	50	50	100	3
18EE302	Network Analysis	4	1	0	5	50	50	100	4
18EE303	Analog Electronics	4	0	0	4	50	50	100	3
18EE304	Electrical Machines-I (DC Machines and Transformers)	4	1	0	5	50	50	100	4
18CE003	Engineering Mechanics	4	1	0	5	50	50	100	4
18EL002	Technical English	3	0	0	3	50	50	100	2
18EE L31	Analog Electronics Lab	0	0	3	3	50	50	100	1
18EEL32	Measurement and Instrumentation Lab	2	0	3	5	50	50	100	2
	TOTAL	22	4	9	34	400	400	800	23

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SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
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Second Year B.Tech(SEMESTER – IV)

Code No.	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
		L	T	P	Total	CIE	SEE	Total Marks	
18EE401	Electro Magnetic Fields	4	0	0	4	50	50	100	3
18EE402	Digital Electronics	4	1	0	5	50	50	100	4
18EE403	Electrical Machines-II (Induction motors and Synchronous machines)	4	1	0	5	50	50	100	4
18EE404	Signals & Systems	4	0	0	4	50	50	100	3
18CE002	Biology for Engineers	3	0	0	3	50	50	100	2
18EE 406	Power Systems- I	4	0	0	4	50	50	100	3
18EE L41	Digital Electronics Lab	0	0	3	3	50	50	100	1
18EEL42	Electrical Machines Lab-I	0	0	3	3	50	50	100	1
18ITL01	Data Structures and Algorithms Lab	2	0	3	5	50	50	100	2
	TOTAL	23	2	12	36	450	450	900	23

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Third Year B.Tech(SEMESTER – V)

Code No.	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
		L	T	P	Total	CIE	SEE	Total Marks	
18EE501	Power System – II	4	1	0	5	50	50	100	4
18EE502	Control Systems	4	1	0	5	50	50	100	4
18EE503	Power Electronics	4	1	0	5	50	50	100	4
18EE504	Microprocessors & Microcontrollers	4	0	0	4	50	50	100	3
18EE505	Indian Traditional Knowledge	3	0	0	3	50	50	100	0
18EE506	Professional Ethics and Human values	4	0	0	4	50	50	100	3
18EEL51	Electrical Machines Lab-II	0	0	3	3	50	50	100	1
18EEL52	Microprocessors & Microcontrollers Lab	0	0	3	3	50	50	100	1
18ELL02	Soft Skills Lab	0	0	3	3	50	50	100	1
18EEMO	Slot for MOOC								2
	TOTAL	23	3	9	35	450	450	900	23

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SCHEME OF INSTRUCTION & EXAMINATION (Semester System)
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Third Year B.Tech(SEMESTER – VI)

Code No.	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
		L	T	P	Total	CIE	SEE	Total Marks	
18EE601	AI Techniques in Electrical Engineering	4	0	0	4	50	50	100	3
18EE602	Power System Protection	4	1	0	5	50	50	100	4
18EE603	Electrical Drives	4	0	0	4	50	50	100	3
18EE604	IOT's in Electrical Engineering	4	0	0	4	50	50	100	3
18EE605	Power System Operation Control	4	1	0	4	50	50	100	4
18EED1_	Department Elective -I	4	0	0	4	50	50	100	3
18EEL61	Control System Lab	0	0	3	3	50	50	100	1
18EEL62	Power Electronics lab	0	0	3	3	50	50	100	1
18EEL63	Simulation Lab	0	0	3	3	50	50	100	1
	Slot for Internship	4 Weeks during Summer Vacation							
	TOTAL	24	1	9	33	450	450	900	23

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Department Elective - I
18EED11: Optimization techniques
18EED12: Electrical Energy Conservation & Auditing
18EED13: Power Distribution System
18EED14: Digital Signal Processing

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Fourth Year B.Tech(SEMESTER – VII)

Code No.	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
		L	T	P	Total	CIE	SEE	Total Marks	
18EE701	High Voltage Engineering	4	0	0	4	50	50	100	3
18EED2_	Department Elective -II	4	0	0	4	50	50	100	3
18EED3_	Department Elective -III	4	0	0	4	50	50	100	3
18_ _I_ _	Institutional Elective-I	4	0	0	4	50	50	100	3
18ME002	Industrial Management and Entrepreneurship Development	4	0	0	4	50	50	100	3
18EE706	Constitution of India	3	0	0	3	50	50	100	0
18EEP01	Project Stage -I	0	0	6	6	50	50	100	2
18EEL72	Power Systems Lab -I	0	0	3	3	50	50	100	1
18EEL73	Electronics Design Lab	2	0	3	5	50	50	100	2
18EEL74	Internship					100		100	2
	TOTAL	23	0	15	37	500	400	900	22

CIE: Continuous Internal Evaluation   SEE: Semester End Examination
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Department Elective - II
18EED21: Electrical Machine Design
18EED22: Control Systems Design
18EED23: Switched mode power supply
18EED24: Digital Protection of Power System
Department Elective - III
18EED31: HVDC & FACTS Controllers
18EED32: Electrical and Hybrid Vehicles
18EED33: Line Commutated and Active Rectifiers
18EED34: Computer Aided Power System

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Fourth Year B.Tech(SEMESTER – VIII)

Code No.	Subject	Scheme of Instruction (Periods per week)				Scheme of Examination (Maximum marks)			No. of Credits
		L	T	P	Total	CIE	SEE	Total Marks	
18EED4_	Department Elective -IV	4	0	0	4	50	50	100	3
18_ _I_ _	Institutional Elective -II	4	0	0	4	50	50	100	3
18EED5_	Department Elective -V	4	0	0	4	50	50	100	3
18EEP02	Project Stage -II	0	0	20	20	75	75	150	10
18EEL81	Power Systems Lab -II	0	0	3	3	50	50	100	1
	TOTAL	12	0	23	35	275	275	550	20

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Department Elective -IV
18EED41: Power Quality
18EED42: Smart Grid Technology and Applications
18EED43: Machine Modeling and Analysis
18EED44: Advanced Electric Drives
Department Elective -V
18EED51: Energy Storage Systems
18EED52: Industrial Electrical Systems
18EED53: Digital Control Systems
18EED54: Wavelet Transforms