B.E. ELECTRONICS AND INSTRUMENTATION ENGINEERING
Minimum Credits to be Earned 170.0

First Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18EI101	ENGINEERING MATHEMATICS I	I,II	a,b,c	3	1	0	4
18EI102	ENGINEERING PHYSICS I	I,II,III	a,b,i	2	0	2	3
18EI103	ENGINEERING CHEMISTRY I	I,II	a,b	2	0	2	3
18EI104	COMPUTER PROGRAMMING I	I,II,III	a,b,e	2	0	2	3
18HS101	COMMUNICATIVE ENGLISH I	I,II,III	i,j,k	1	0	2	2
18EI106	ENGINEERING GRAPHICS	I,II,III	a,c,e,j	1	0	4	3
			Total	11	1	12	18.0

Second Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18EI201	ENGINEERING MATHEMATICS II	I,II	a,b	3	1	0	4
18EI202	ENGINEERING PHYSICS II	I,II,III	a,b,i	2	0	2	3
18EI203	ENGINEERING CHEMISTRY II	I,II	a,b	2	0	2	3
18EI204	ELECTRIC CIRCUIT ANALYSIS	I,II	a,b,c	3	1	0	4
	LANGUAGE ELECTIVE	-	-	-	-	-	2
18EI206	COMPUTER PROGRAMMING II	I,II	a	2	0	2	3
18EI207	ENGINEERING PRACTICES LABORATORY	I,II,III	a,b,c,e,k,m	0	0	4	2
			Total	12	2	10	21.0

Third Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18EI301	ENGINEERING MATHEMATICS III	I,II	a,b	3	1	0	4
18EI302	ELECTRICAL MACHINES AND DRIVES	I,II	a,b,d	2	0	2	3
18EI303	FLUID MECHANICS AND THERMO DYNAMICS	I,II,III	a,b,c,d,e	3	1	0	4
18EI304	ELECTRON DEVICES AND CIRCUITS	I,II,III	a,b,c,d,m	3	1	0	4
18EI305	DIGITAL LOGIC CIRCUITS	I,II,III	a,b,c,d,e,j,m	3	1	0	4
18EI306	COMPUTER PROGRAMMING III	I,II	a,b,d	2	0	2	3
18EI307	ELECTRON DEVICES AND CIRCUIT LABORATORY	I,II,III	a,b,c,d,m	0	0	2	1
18EI308	FLUID MECHANICS AND THERMO DYNAMICS LABORATORY	I,II,III	a,b,c,d,e	0	0	2	1
18GE301	SOFT SKILLS - VERBAL ABILITY	-	-	2	0	0	0
			Total	18	4	8	24.0

Fourth Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18EI401	ENGINEERING MATHEMATICS IV	I,II	a,b	3	1	0	4
18EI402	ELECTRICAL AND ELECTRONIC MEASUREMENTS	I,II,III	a,b,c,l,m	3	0	0	3
18EI403	CONTROL ENGINEERING	I,II	a,c,d	3	0	2	4
18EI404	TRANSDUCER ENGINEERING	I,II	a,b,c,d	3	0	0	3
18EI405	LINEAR INTEGRATED CIRCUITS	I,II,III	a,b,c,d,e,m	3	1	0	4
18EI406	COMMUNICATION ENGINEERING	I,II,III	a,b,c,m	3	0	2	4
18EI407	DIGITAL LOGIC CIRCUITS AND LINEAR INTEGRATED CIRCUITS LABORATORY	I,II,III	a,b,d,e,k,l,m	0	0	2	1
18EI408	SENSORS AND TRANSDUCER LABORATORY	I,II	a,b,c,d	0	0	2	1
18HS001	ENVIRONMENTAL SCIENCE	I,II	a,b	2	0	0	0
18GE401	SOFT SKILLS-REASONING	-	-	2	0	0	0
			Total	22	2	8	24.0

Fifth Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18EI501	PROCESS CONTROL	I,II,III	a,b,c,l,n	3	1	0	4
18EI502	INDUSTRIAL INSTRUMENTATION -I	I,II,III	a,b,c,f,g,h,l,m,n	3	0	0	3
18EI503	EMBEDDED SYSTEM	I,II,III	a,b,c,d,m	3	1	0	4
18EI504	DIGITAL SIGNAL PROCESSING	I,II,III	a,b,d,e,l,n	3	1	0	4
	PROFESSIONAL ELECTIVE I	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE II	-	-	-	-	-	3
18EI507	PROCESS CONTROL LABORATORY	I,II,III	a,b,c,d,e,l,m,n	0	0	2	1
18EI508	EMBEDDED SYSTEM LABORATORY	I,II,III	a,b,c,d,k,m,n	0	0	2	1
18GE501	SOFT SKILLS - APTITUDE I	I,II	a	0	0	2	0
			Total	12	3	6	23.0

Sixth Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18HS003	PRINCIPLES OF MANAGEMENT	-	-	2	0	0	2
18EI602	INDUSTRIAL INSTRUMENTATION-II	I,II,III	a,b,c,f,g,h,l,m,n	3	0	0	3
18EI603	INDUSTRIAL AUTOMATION	I,II,III	a,b,c,d,e,n	3	1	0	4
18EI604	COMPUTER CONTROL OF PROCESS	I,II,III	a,b,c,n	3	1	0	4
	PROFESSIONAL ELECTIVE III	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE IV	-	-	-	-	-	3
18EI607	INDUSTRIAL INSTRUMENTATION LABORATORY	I,II,III	a,b,c,d,i,m,n	0	0	2	1
18EI608	INDUSTRIAL AUTOMATION LABORATORY	I,II,III	a,b,c,e,i,n	0	0	2	1
18GE601	SOFT SKILLS-APTITUDE II	I,II	a	0	0	2	0
			Total	11	2	6	21.0

Seventh Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
18HS002	PROFESSIONAL ETHICS IN ENGINEERING	-	-	2	0	0	2
18EI702	ANALYTICAL INSTRUMENTS	I,II,III	a,b,c,d,e,f,g,m,n	3	0	0	3
18EI703	INDUSTRIAL DATA COMMUNICATION AND NETWORKS	I,II,III	a,b,c,d,n	3	0	0	3
18EI704	BIO MEDICAL INSTRUMENTATION	I,II,III	a,b,c,d,e,f,g,h,m,n	3	0	0	3
	PROFESSIONAL ELECTIVE V	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE VI	-	-	-	-	-	3
18EI707	PROCESS MODELING AND SIMULATION LABORATORY	I,II,III	a,b,c,d,e,n	0	0	2	1
18EI708	PROJECT WORK I	I,II,III	a,b,c,d,e,f,g,h,i,j,k,l,m,n	0	0	6	3
			Total	11	0	8	21.0

Eight Semester

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
	PROFESSIONAL ELECTIVE VII	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE VIII	-	-	-	-	-	3
	PROFESSIONAL ELECTIVE IX	-	-	-	-	-	3
18EI804	PROJECT WORK II	-	-	0	0	18	9
			Total	0	0	18	18.0

Electives

Code No.	Course	Objectives &Outcomes		L	T	P	C
		PEOs	POs				
DISCIPLINE ELECTIVES							
18EI026	INSTRUMENTATION AND CONTROL FOR PROCESS INDUSTRIES(STEEL, IRON,PAPER, SUGAR, CEMENT)	-	-	3	0	0	3
ONE CREDIT COURSES							
18EI0XD	INDUSTRIAL SAFETY STANDARDS FOR INSTRUMENTATION PRODUCTS	-	-	1	0	0	1
18EI0XG	VFD BASED INDUSTRIAL APPLICATIONS	-	-	1	0	0	1
18EI0XH	SAFETY INSTRUMENT SYSTEM DESIGN	-	-	1	0	0	1
18EI0XE	PIPING AND INSTRUMENTATION	-	-	1	0	0	1
OPEN ELECTIVES							
18EI0YD	OPTOELECTRONICS AND LASER INSTRUMENTATION	-	-	3	0	0	3
LANGUAGE ELECTIVES							
18HS201	COMMUNICATIVE ENGLISH II	I,II,III	i,j	1	0	2	2
18HSC01	CHINESE	-	-	1	0	2	2
18HSF01	FRENCH	I,II,III	j	1	0	2	2
18HSG01	GERMAN	-	-	1	0	2	2
18HSH01	HINDI	-	-	1	0	2	2
18HSJ01	JAPANESE	-	-	1	0	2	2
OPEN ELECTIVES							
18GE0P1	NANOMATERIALS SCIENCE	-	-	3	0	0	3
18GE0P2	SEMICONDUCTOR PHYSICS AND DEVICES	-	-	3	0	0	3
18GE0P3	APPLIED LASER SCIENCE	-	-	3	0	0	3
18GE0P4	BIO-PHOTONICS	-	-	3	0	0	3
18GE0P5	PHYSICS OF SOFT MATTER	-	-	3	0	0	3
18GE0C1	CORROSION SCIENCE AND ENGINEERING	I,II,III	a,b,g	3	0	0	3
18GE0C2	ENERGY STORING DEVICES	I,II	a,b	3	0	0	3
18GE0C3	POLYMER SCIENCE	I,II	a,b,c	3	0	0	3

MATHEMATICS ELECTIVES							
18GE0M1	GRAPH THEORY AND COMBINATORICS	-	-	3	0	0	3
18GE0M2	ALGEBRA AND NUMBER THEORY	-	-	3	0	0	3
18GE0M3	MATHEMATICAL FINANCE AND QUEUEING THEORY	-	-	3	0	0	3
ENTREPRENEURSHIP ELECTIVES							
18GE0E1	ENTREPRENEURSHIP DEVELOPMENT I	-	-	3	0	0	3
18GE0E2	ENTREPRENEURSHIP DEVELOPMENT II	-	-	3	0	0	3
DISCIPLINE ELECTIVES							
18EI001	AIRCRAFT INSTRUMENTATION	I,II,III	a,b,c,d,e	3	0	0	3
18EI002	FIBER OPTICS AND LASER BASED INSTRUMENTATION	I,II	a,b,c,d	3	0	0	3
18EI003	INSTRUMENTATION SYSTEM DESIGN	I,II,III	a,b,c,k,m,n	3	0	0	3
18EI004	STANDARDS AND CALIBRATION	I,II,III	b,c,d,i,j,k	3	0	0	3
18EI005	DATA COMMUNICATION AND NETWORKS	I,II,III	a,b,c,d,n	3	0	0	3
18EI006	POWER ELECTRONICS AND DRIVES	I,II	a,b,c,d	3	0	0	3
18EI007	HYDRAULICS AND PNEUMATICS	I,II,III	a,b,c,d,n	3	0	0	3
18EI008	MICRO ELECTRO MECHANICAL SYSTEM	I,II,III	a,b,c,d,e,m	3	0	0	3
18EI009	DIGITAL CONTROL SYSTEM	I,II,III	a,b,c,n	3	0	0	3
18EI010	ADVANCED PROCESS CONTROL	I,II,III	a,b,c,m,n	3	0	0	3
18EI011	CHEMICAL PROCESS SYSTEMS	I,II,III	a,b,c,d,k,l,m,n	3	0	0	3
18EI012	NEURAL NETWORKS AND FUZZY LOGIC	I,II	a,b,c	3	0	0	3
18EI013	REAL TIME EMBEDDED SYSTEM	I,II,III	a,b,c,j,m,n	3	0	0	3
18EI014	INDUSTRIAL ROBOTICS	I,II,III	a,c,d,n	3	0	0	3
18EI015	BUILDING AUTOMATION	I,II,III	a,c,m	3	0	0	3
18EI016	INSTRUMENTATION IN PETROCHEMICAL INDUSTRIES	I,II,III	a,b,c,d,e,m	3	0	0	3
18EI017	POWER PLANT INSTRUMENTATION	I,II,III	a,b,c,d,m,n	3	0	0	3
18EI018	INSTRUMENTATION IN AGRICULTURE AND FOOD PROCESSING INDUSTRIES	I,II,III	a,b,c,d,e,g,l,m	3	0	0	3
18EI019	INSTRUMENTATION AND CONTROL FOR PROCESS INDUSTRIES	I,II	a,b,c,d	3	0	0	3
18EI020	SMART AND WIRELESS INSTRUMENTATION	I,II,III	a,b,c,h,i,m	3	0	0	3
18EI021	VIRTUAL INSTRUMENTATION	-	-	3	0	0	3
OPEN ELECTIVES							
18EI0YA	PROGRAMMABLE LOGIC CONTROLLERS	I,II,III	a,b,d,e,g,m,n	3	0	0	3
18EI0YB	SENSOR TECHNOLOGY	I,II,III	a,b,c,d,e,m,n	3	0	0	3
18EI0YC	FUNDAMENTALS OF VIRTUAL INSTRUMENTATION	I,II,III	a,b,c,d,e,i,j,k,l,m,n	3	0	0	3
ONE CREDIT COURSES							
18EI0XB	CALIBRATION TECHNIQUES	I,II,III	a,b,c,g,n	1	0	0	1
18EI0XC	FACTORY AUTOMATION	I,II,III	a,b,c,e,g,n	1	0	0	1
ADDITIONAL ONE CREDIT COURSE							
18GE0XA	ETYMOLOGY	-	-	1	0	0	1
18GE0XB	GENERAL PSYCHOLOGY	-	-	1	0	0	1
18GE0XC	NEURO BEHAVIORAL SCIENCE	III	i	1	0	0	1
18GE0XD	VISUAL MEDIA AND FILM MAKING	I,II,III	b,f	1	0	0	1
18GE0XE	YOGA FOR HUMAN EXCELLENCE	-	-	1	0	0	1
18GE0XF	VEDIC MATHEMATICS	-	-	1	0	0	1
18GE0XG	HEALTH AND FITNESS	-	-	1	0	0	1
18GE0XH	CONCEPT, METHODOLOGY AND APPLICATIONS OF VERMICOMPOSTING	III	f	1	0	0	1
18GE0XI	BLOG WRITING	I,II,III	f,g,j	1	0	0	1
18GE0XJ	INTERPERSONAL SKILLS	-	-	1	0	0	1
18GE0XK	NEW AGE INNOVATION AND ENTREPRENEURSHIP	II,III	g,i	1	0	0	1
18GE0XL	NATIONAL CADET CORPS	II,III	g,i	1	0	0	1
18GE0XM	COMMUNITY SERVICE AND LEADERSHIP DEVELOPMENT	-	-	1	0	0	1
18GE0XN	DISRUPTIVE INNOVATION BASED STARTUP ACTIVITIES	-	-	1	0	0	1
18GE0XO	SOCIAL PSYCHOLOGY	III	i	1	0	0	1
18GE0XP	FM RADIO BROADCASTING TECHNOLOGY	-	-	1	0	0	1
ONE CREDIT COURSES							
18EI0XA	VIRTUAL INSTRUMENTATION IN INDUSTRIAL AUTOMATION	I,II,III	a,b,e,n	1	0	0	1
OPEN ELECTIVES							
18AE0YA	NON-DESTRUCTIVE TESTING	-	-	3	0	0	3
18AE0YB	SMART MATERIALS	-	-	3	0	0	3
18AE0YC	FUNDAMENTALS OF AIRCRAFT ENGINEERING	-	-	3	0	0	3
18AG0YA	ENTREPRENEURSHIP DEVELOPMENT AND FOOD QUALITY MANAGEMENT FOOD INDUSTRY	-	-	3	0	0	3
18AG0YB	HUMAN ENGINEERING AND SAFETY IN AGRICULTURE	-	-	3	0	0	3
18AG0YC	ENERGY MANGEMENT IN AGRICULTURE	-	-	3	0	0	3
18AG0YD	FARM MECHANISATION	-	-	3	0	0	3
18AU0YA	AUTOMOTIVE ENGINEERING	-	-	3	0	0	3
18AU0YB	VEHICLE CONTROL SYSTEMS	-	-	3	0	0	3

18AU0YC	PUBLIC TRANSPORT MANAGEMENT	-	-	3	0	0	3
18AU0YD	TECHNOLOGIES FOR GREEN MOBILITY	-	-	3	0	0	3
18AU0YE	TROUBLE SHOOTING AND MAINTENANCE OF AUTOMOBILES	-	-	3	0	0	3
18BT0YA	BIOFUELS	-	-	3	0	0	3
18BT0YB	MUSHROOM CULTIVATION AND VERMICOMPOSTING	-	-	3	0	0	3
18BT0YC	FORENSIC TECHNOLOGY	-	-	3	0	0	3
18CE0YA	GREEN BUILDINGS	-	-	3	0	0	3
18CE0YB	DISASTER PREPAREDNESS AND PLANNING	-	-	3	0	0	3
18CE0YC	ENVIRONMENTAL IMPACT ASSESSMENT	-	-	3	0	0	3
18CE0YD	BUILDING SERVICES	-	-	3	0	0	3
18CE0YE	INDUSTRIAL WASTE MANAGEMENT	-	-	3	0	0	3
18CE0YF	WEALTH FROM WASTE	-	-	3	0	0	3
18CE0YG	RISK AND SAFETY MANAGEMENT	-	-	3	0	0	3
18CE0YH	ENERGY SCIENCE AND ENGINEERING	-	-	3	0	0	3
18CE0YI	CONCEPTS OF REMOTE SENSING	-	-	3	0	0	3
18CS0YA	E-LEARNING TECHNIQUES	-	-	3	0	0	3
18CS0YB	SOFTWARE TESTING AND QUALITY ASSURANCE	-	-	3	0	0	3
18CS0YC	JAVA FUNDAMENTALS	-	-	3	0	0	3
18CS0YD	NETWORK ENGINEERING AND MANAGEMENT	-	-	3	0	0	3
18CS0YE	AGENT BASED INTELLIGENT SYSTEMS	-	-	3	0	0	3
18CS0YF	E-BUSINESS	-	-	3	0	0	3
18CS0YG	KNOWLEDGE DISCOVERY IN DATABASES	-	-	3	0	0	3
18CS0YH	SOCIAL NETWORK ANALYSIS CONCEPTS	-	-	3	0	0	3
18CS0YI	OPERATING SYSTEM CONCEPTS	-	-	3	0	0	3
18CS0YJ	OBJECT ORIENTED PROGRAMMING	-	-	3	0	0	3
18EC0YA	BASICS OF ANALOG AND DIGITAL ELECTRONICS	-	-	3	0	0	3
18EC0YB	AUTOMOTIVE ELECTRONICS	-	-	3	0	0	3
18EC0YC	PCB DESIGN AND PROTOTYPING	-	-	3	0	0	3
18EC0YD	MICROCONTROLLER PROGRAMMING	-	-	3	0	0	3
18EC0YE	ENGINEERING COMPUTATION WITH MATLAB	-	-	3	0	0	3
18EC0YF	BASICS OF HARDWARE DESCRIPTION LANGUAGES	-	-	3	0	0	3
18EC0YG	FUNDAMENTALS OF EMBEDDED SYSTEMS	-	-	3	0	0	3
18EC0YH	PRINCIPLES OF COMMUNICATION SYSTEMS	-	-	3	0	0	3
18EC0YI	ELECTRONIC PRODUCT DESIGN AND PACKAGING	-	-	3	0	0	3
18EC0YJ	PRINCIPLES OF COMPUTER COMMUNICATION AND NETWORKS	-	-	3	0	0	3
18EE0YA	ENERGY CONSERVATION AND MANAGEMENT	-	-	3	0	0	3
18EE0YB	ELECTRICAL SAFETY	-	-	3	0	0	3
18EE0YC	INDUSTRIAL DRIVES AND CONTROL	-	-	3	0	0	3
18FD0YA	TRADITIONAL FOODS	-	-	3	0	0	3
18FD0YB	FOOD LAWS AND REGULATIONS	-	-	3	0	0	3
18FD0YC	POST HARVEST TECHNOLOGY OF FRUITS AND VEGETABLES	-	-	3	0	0	3
18FT0YA	FASHION CRAFTS	-	-	3	0	0	3
18FT0YB	FASHION ACCESSORIES	-	-	3	0	0	3
18FT0YC	FASHION VISUAL MERCHANDISING	-	-	3	0	0	3
18FT0YD	INTERIOR DESIGN	-	-	3	0	0	3
18FT0YE	SURFACE EMBELLISHMENT	-	-	3	0	0	3
18GE01	BUSINESS ANALYTICS	-	-	3	0	0	3
18GE02	INDUSTRIAL SAFETY	-	-	3	0	0	3
18GE03	OPERATIONS RESEARCH	-	-	3	0	0	3
18GE04	COST MANAGEMENT OF ENGINEERING PROJECTS	-	-	3	0	0	3
18GE05	COMPOSITE MATERIALS	-	-	3	0	0	3
18GE06	WASTE TO ENERGY	-	-	3	0	0	3
18IT0YA	DATABASE MANAGEMENT SYSTEMS	-	-	3	0	0	3
18IT0YB	DATA STRUCTURES AND ALGORITHMS	-	-	3	0	0	3
18IT0YC	DATA SCIENCES AND ANALYTICS	-	-	3	0	0	3
18IT0YD	OBJECT ORIENTED PROGRAMMING	-	-	3	0	0	3
18IT0YE	ARTIFICIAL INTELLIGENCE	-	-	3	0	0	3
18ME0YA	INDUSTRIAL PROCESS ENGINEERING	-	-	3	0	0	3
18ME0YB	SAFETY ENGINEERING	-	-	3	0	0	3
18ME0YC	MAINTENANCE ENGINEERING	-	-	3	0	0	3
18ME0YD	BASICS OF NON-DESTRUCTIVE TESTING	-	-	3	0	0	3
18ME0YE	DIGITAL MANUFACTURING	-	-	3	0	0	3
18ME0YF	WORK STUDY AND ERGONOMICS	-	-	3	0	0	3
18ME0YG	METROLOGY IN INDUSTRY	-	-	3	0	0	3
18ME0YH	PLANT LAYOUT AND MATERIAL HANDLING	-	-	3	0	0	3
18ME0YI	CONCEPTS OF ENGINEERING DESIGN	-	-	3	0	0	3
18ME0YJ	OIL HYDRAULICS AND PNEUMATICS	-	-	3	0	0	3
18ME0YK	ENERGY AUDITING AND MANAGEMENT	-	-	3	0	0	3

18ME0YL	LEAN SIX SIGMA	-	-	3	0	0	3
18ME0YM	HEATING VENTILATION AND AIRCONDITIONING	-	-	3	0	0	3
18TT0YA	YARN AND FABRIC MANUFACTURE	-	-	3	0	0	3
18TT0YB	COLOURATION OF TEXTILES	-	-	3	0	0	3
18TT0YC	TEXTILES IN ENGINEERING APPLICATION	-	-	3	0	0	3
18TT0YD	GENERAL TEXTILE TECHNOLOGY	-	-	3	0	0	3
DISCIPLINE ELECTIVES							
18EI022	INTERNET OF THINGS	-	-	3	0	0	3
18EI023	SYSTEM IDENTIFICATION	-	-	3	0	0	3
18EI024	POWER PLANT INSTRUMENTATION	-	-	3	0	0	3
18EI025	INSTRUMENTATION IN AGRICULTURE FOOD PROCESSING INDUSTRIES	-	-	3	0	0	3