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Content Focusing

B.E - Electrical and Electronic Engineering

S.N O	Name of the course	Course Code	Activities/ Content with direct bearing on employability/ Entrepreneurship/ skill development	Year of Introduction (During the last five years)
1.	Engineering Mathematics-I	1701MA101	SKILL DEVELOPMENT :EIGENVALUES AND EIGENVECTORS OF A REAL MATRIX,CIRCLE OF CURVATURE IN CARTESIAN AND PARAMETRIC FORM,MAXIMA AND MINIMA , AREA AS A DOUBLE INTEGRAL AND VOLUME AS TRIPLE INTEGRAL	2017-2018
2,	Applied Physics for Engineers	1701PH101	SKILL DEVELOPMENT : PROPERTIES OF MATTER, APPLIED OPTICS, ULTRASONICS, SOLID STATE PHYSICS, QUANTUM MECHANICS	2017-2018
3.	Technical English	1701EN101	SKILL DEVELOPMENT : LISTENING COMPREHENSION, SPEAKING, AND WRITING.	2017-2018
4.	Applied Chemistry	1701CH104	SKILL DEVELOPMENT: ELECTRO CHEMISTRY, CORROSION AND ITS CONTROL, NON CONVENTIONAL ENERGY RESOURCES AND STORAGE DEVICES, POLYMER AND ITS APPLICATION, INSTRUMENTAL TECHNIQUES OF CHEMICAL ANALYSIS	2017-2018
5.	Basic Civil Engineering	1701GE102	EMPLOYABILITY:GENERAL & BASICS OF SURVEYING, BUILDING MATERIALS, FOUNDATIONS & SUPERSTRUCTURE, BASICS OF SOLID MECHANICS, FLUID PROPERTIES	2017-2018
6.	Basic Mechanical Engineering	1701GE103	EMPLOYABILITY:POWER PLANT ENGINEERING, IC ENGINES, REFRIGERATION AND AIR CONDITIONING SYSTEM, BASIC CONCEPTS AND FORCE SYSTEM, MANUFACTURING PROCESSES	2017-2018
7.	Physics and Chemistry Laboratory –I	1701HS151	EMPLOYABILITY: PROPERTIES OF MATTER,APPLIED OPTICS,ULTRASONICS,SOLID STATE PHYSICS,QUANTUM MECHANICS, ELECTRO CHEMISTRY , CORROSION AND ITS CONTROL,NON CONVENTIONAL ENERGY RESOURCES AND STORAGE DEVICES,POLYMER	2017-2018

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			AND ITS APPLICATION, INSTRUMENTAL	
8.			TECHNIQUES OF CHEMICAL ANALYSIS SKILL DEVELOPMENT: BUILDING VOCABULARY,	
	Communication Skills Laboratory	1701GEX52	READING COMPREHENSION, WRITING SKILLS, PRESENTATION SKILLS, GROUP DISCUSSION AND INTERVIEW SKILL	2017-2018
9.	Workshop Practice	1701GEX53	SKILL DEVELOPMENT :CARPENTERY , LATH, WELDING , PLUMBING, WIRING	2017-2018
10.	Engineering Mathematics-II	1701MA201	SKILL DEVELOPMENT :ANALYTIC FUNCTIONS,COMPLEX INTEGRATION,MULTIPLE INTEGRAL,VECTOR CALCULUS,LAPLACE TRANSFORM	2017-2018
11.	Semiconductor Physics and Devices	1701PH202	EMPLOYABILITY: QUANTUM THEORY OF SOLIDS, SEMICONDUCTOR PHYSICS, JUNCTION DIODE CHARACTERISTICS, DIELECTRICS, MAGNETIC MATERIALS	2017-2018
12.	Environmental Studies	1701CH201	EMPLOYABILITY: ECOSYSTEMS AND BIODIVERSITY, NATURAL RESOURCES, ENVIRONMENTAL POLLUTION, SOCIAL ISSUES AND THE ENVIRONMENT, HUMAN POPULATION AND THE ENVIRONMENT	2017-2018
13.	Engineering Graphics	1701GEX02	SKILL DEVELOPMENT: PLANE CURVES AND FREEHAND SKETCHING, PROJECTION OF POINTS, LINES AND PLANE SURFACES, PROJECTION OF SOLIDS, PROJECTION OF SECTIONED SOLIDS AND DEVELOPMENT OF SURFACES, ISOMETRIC AND PERSPECTIVE PROJECTIONS	2017-2018
14.	Programming in C	1701GEX03	EMPLOYABILITY: DC CIRCUITS, AC CIRCUITS, THREE PHASE CIRCUITS AND NETWORK TOPOLOGY, TRANSIENT ANALYSIS AND TWO PORT NETWORKS, RESONANCE AND COUPLED CIRCUITS	2017-2018
15.	Electric Circuit Analysis	1702EE201	EMPLOYABILITY: BASIC CONCEPTS, INTRODUCTION TO C LANGUAGE, ARRAYS AND STRINGS, FUNCTIONS & STRUCTURES, POINTERS & FILES	2017-2018
16.	Language Elective	1701LE201	SKILL DEVELOPMENT : LISTENING COMPREHENSION, SPEAKING, AND WRITING.	2017-2018
17.	Programming in C Laboratory	1701GEX51	EMPLOYABILITY: ARRAYS AND STRINGS, FUNCTIONS & STRUCTURES, POINTERS &	2017-2018



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18.	Physics and Chemistry Laboratory -II	1701HS251	EMPLOYABILITY: QUANTUM THEORY OF SOLIDS, SEMICONDUCTOR PHYSICS, JUNCTION DIODE CHARACTERISTICS, DIELECTRICS, MAGNETIC MATERIALS, ECOSYSTEMS AND BIODIVERSITY, NATURAL RESOURCES, ENVIRONMENTAL POLLUTION, SOCIAL ISSUES AND THE ENVIRONMENT, HUMAN POPULATION AND THE ENVIRONMENT	2017-2018
19.	Transforms and Partial Differential Equations	MA6351	EMPLOYABILITY:PARTIAL EQUATIONS, FOURIER SERIES, APPLICATIONS OF PARTIAL DIFFERENTIAL EQUATIONS, FOURIER TRANSFORMS, Z - TRANSFORMS AND DIFFERENCE EQUATIONS	2017-2018
20.	Digital Logic Circuits	EE6301	EMPLOYABILITY: NUMBER SYSTEMS AND DIGITAL LOGIC FAMILIES, COMBINATIONAL CIRCUITS, SYNCHRONOUS SEQUENTIAL CIRCUITS AND PROGRAMMABLE, LOGIC DEVICES, VHDL	2017-2018
21.	Electromagnetic Theory	EE6302	EMPLOYABILITY: ELECTROSTATICS — I, ELECTROSTATICS — II, MAGNETOSTATICS, ELECTRODYNAMIC FIELDS, ELECTROMAGNETIC WAVES	2017-2018
22.	Environmental Science and Engineering	GE6351	EMPLOYABILITY: ENVIRONMENT, ECOSYSTEMS AND BIODIVERSITY, ENVIRONMENTAL POLLUTION, NATURAL RESOURCES, SOCIAL ISSUES AND THE ENVIRONMENT, HUMAN POPULATION AND THE ENVIRONMENT	2017-2018
23.	Electronic Devices and Circuits	EC6202	EMPLOYABILITY: PN JUNCTION DEVICES, TRANSISTORS, AMPLIFIERS, MULTISTAGE AMPLIFIERS AND DIFFERENTIAL AMPLIFIER, FEEDBACK AMPLIFIERS AND OSCILLATORS	2017-2018
24.	Linear Integrated Circuits and Applications	EE6303	EMPLOYABILITY: C FABRICATION, CHARACTERISTICS OF OPAMP, APPLICATIONS OF OPAMP, SPECIAL ICS, APPLICATION Ics	2017-2018
25.	Electronics Laboratory	EC6361	EMPLOYABILITY: PN JUNCTION DEVICES, TRANSISTORS, AMPLIFIERS, MULTISTAGE AMPLIFIERS AND DIFFERENTIAL AMPLIFIER, FEEDBACK AMPLIFIERS AND OSCILLATORS	2017-2018
26.	Linear and Digital Integrated Circuits	EE6311	EMPLOYABILITY: C FABRICATION, CHARACTERISTICS OF OPAMP, APPLICATIONS OF	2017-2018



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	Laboratory		OPAMP, SPECIAL ICs, APPLICATION Ics	
27.	Numerical Methods	MA6459	EMPLOYABILITY: SOLUTION OF EQUATIONS AND EIGENVALUE PROBLEMS, INTERPOLATION AND APPROXIMATION, NUMERICAL DIFFERENTIATION AND INTEGRATION, INITIAL VALUE PROBLEMS FOR ORDINARY DIFFERENTIAL EQUATIONS, BOUNDARY VALUE PROBLEMS IN ORDINARY AND PARTIAL DIFFERENTIAL EQUATIONS	2017-2018
28.	Electrical Machines – I	EE6401	EMPLOYABILITY: MAGNETIC CIRCUITS AND MAGNETIC MATERIALS, TRANSFORMERS, ELECTROMECHANICAL ENERGY CONVERSION AND CONCEPTS IN ROTATING MACHINES, DC GENERATORS, DC MOTORS	2017-2018
29.	Object Oriented Programming	CS6456	EMPLOYABILITY: OVERVIEW, EXCEPTION HANDLING, ADVANCED PROGRAMMING, OVERVIEW OF JAVA, BASIC CHARACTERISTICS OF OOP	2017-2018
30.	Transmission and Distribution	EE6402	EMPLOYABILITY: STRUCTURE OF POWER SYSTEM, TRANSMISSION LINE PARAMETERS, MODELLING AND PERFORMANCE OF TRANSMISSION LINES, INSULATORS AND CABLES, MECHANICAL DESIGN OF LINES AND GROUNDING	2017-2018
31.	Discrete Time Systems and Signal Processing	EE6403	EMPLOYABILITY: INTRODUCTION, DISCRETE TIME SYSTEM ANALYSIS, DISCRETE FOURIER TRANSFORM & COMPUTATION, DESIGN OF DIGITAL FILTERS, DIGITAL SIGNAL PROCESSORS	2017-2018
32.	Measurements and Instrumentation	EE6404	EMPLOYABILITY: INTRODUCTION, ELECTRICAL AND ELECTRONICS INSTRUMENTS, COMPARISON METHODS OF MEASUREMENTS, STORAGE AND DISPLAY DEVICES, TRANSDUCERS AND DATA ACQUISITION SYSTEMS	2017-2018
33.	Object Oriented Programming Laboratory	CS6461	EMPLOYABILITY: OVERVIEW, EXCEPTION HANDLING, ADVANCED PROGRAMMING, OVERVIEW OF JAVA, BASIC CHARACTERISTICS OF OOP	2017-2018
34.	Electrical Machines Laboratory – I	EE6411	EMPLOYABILITY: MAGNETIC CIRCUITS AND MAGNETIC MATERIALS, TRANSFORMERS, ELECTROMECHANICAL ENERGY CONVERSION AND CONCEPTS IN ROTATING MACHINES, DC GENERATORS, DC MOTORS	2017-2018
35.	Power System Analysis	EE6501	EMPLOYABILITY: INTRODUCTION, POWER FLOW	2017-2018

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	= 5		ANALYSIS, FAULT ANALYSIS — BALANCED FAULTS, FAULT ANALYSIS — UNBALANCED FAULTS, STABILITY ANALYSIS	
36.	Microprocessors and Microcontrollers	EE6502	EMPLOYABILITY: 8085 PROCESSOR, PROGRAMMING OF 8085 PROCESSOR, 8051 MICRO CONTROLLER, PERIPHERAL INTERFACING, MICRO CONTROLLER PROGRAMMING & APPLICATIONS	2017-2018
37.	Power Plant Engineering	ME6701	EMPLOYABILITY: COAL BASED THERMAL POWER PLANTS, DIESEL, GAS TURBINE AND COMBINED CYCLE POWER PLANTS, NUCLEAR POWER PLANTS, POWER FROM RENEWABLE ENERGY, ENERGY, ECONOMIC AND ENVIRONMENTAL ISSUES OF POWER PLANTS	2017-2018
38.	Power Electronics	EE6503	EMPLOYABILITY: POWER SEMI-CONDUCTOR DEVICES, PHASE-CONTROLLED CONVERTERS, DC TO DC CONVERTER, INVERTERS, AC TO AC CONVERTERS	2017-2018
39.	Electrical Machines - II	EE6504	EMPLOYABILITY: SYNCHRONOUS GENERATOR, SYNCHRONOUS MOTOR, THREE PHASE INDUCTION MOTOR, STARTING AND SPEED CONTROL OF THREE PHASE INDUCTION MOTOR, SINGLE PHASE INDUCTION MOTORS AND SPECIAL MACHINES	2017-2018
40.	Control Systems	IC6501	EMPLOYABILITY: SYSTEMS AND THEIR REPRESENTATION, TIME RESPONSE, FREQUENCY RESPONSE, STABILITY AND COMPENSATOR DESIGN, STATE VARIABLE ANALYSIS	2017-2018
41.	Communication and Soft Skills- Laboratory Based	GE6674	EMPLOYABILITY: LISTENING AND SPEAKING SKILLS, READING AND WRITING SKILLS, ENGLISH FOR NATIONAL AND INTERNATIONAL EXAMINATIONS AND PLACEMENTS, INTERVIEW SKILLS, SOFT SKILLS	2017-2018
42.	Control and Instrumentation Laboratory	EE6511	EMPLOYABILITY: SYSTEMS AND THEIR REPRESENTATION, TIME RESPONSE, FREQUENCY RESPONSE, STABILITY AND COMPENSATOR DESIGN, STATE VARIABLE ANALYSIS	2017-2018
43.	Electrical Machines Laboratory - II	EE6512	EMPLOYABILITY: SYNCHRONOUS GENERATOR, SYNCHRONOUS MOTOR, THREE PHASE INDUCTION MOTOR, STARTING AND SPEED CONTROL OF THREE PHASE INDUCTION MOTOR, SINGLE PHASE INDUCTION MOTORS AND	2017-2018

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			SPECIAL MACHINES	
44.	Communication Engineering	EC6651	EMPLOYABILITY: ANALOG COMMUNICATION, DIGITAL COMMUNICATION, SOURCE CODES, LINE CODES & ERROR CONTROL, MULTIPLE ACCESS TECHNIQUES, SATELLITE, OPTICAL FIBER — POWERLINE, SCADA	2017-2018
45.	Solid State Drives	EE6601	EMPLOYABILITY: DRIVE CHARACTERISTICS, CONVERTER / CHOPPER FED DC MOTOR DRIVE, INDUCTION MOTOR DRIVES, SYNCHRONOUS MOTOR DRIVES, DESIGN OF CONTROLLERS FOR DRIVES	2017-2018
46.	Embedded Systems	EE6602	EMPLOYABILITY: INTRODUCTION TO EMBEDDED SYSTEMS, EMBEDDED NETWORKING, EMBEDDED FIRMWARE DEVELOPMENT ENVIRONMENT, RTOS BASED EMBEDDED SYSTEM DESIGN, EMBEDDED SYSTEM APPLICATION DEVELOPMENT	2017-2018
47.	Power System Operation and Control	EE6603	EMPLOYABILITY: INTRODUCTION, REAL POWER - FREQUENCY CONTROL, REACTIVE POWER-VOLTAGE CONTROL, UNIT COMMITMENT AND ECONOMIC DISPATCH, COMPUTER CONTROL OF POWER SYSTEMS	2017-2018
48.	Design of Electrical Machines	EE6604	EMPLOYABILITY: INTRODUCTION, DC MACHINES, TRANSFORMERS, INDUCTION MOTORS, SYNCHRONOUS MACHINES	2017-2018
49.	Power System Transients	EE6002	EMPLOYABILITY: INTRODUCTION AND SURVEY, SWITCHING TRANSIENTS, LIGHTNING TRANSIENTS, TRAVELING WAVES ON TRANSMISSION LINE COMPUTATION OF TRANSIENTS, TRANSIENTS IN INTEGRATED POWER SYSTEM	2017-2018
50.	Power Electronics and Drives Laboratory	EE6611	EMPLOYABILITY: POWER SEMI-CONDUCTOR DEVICES, PHASE-CONTROLLED CONVERTERS, DC TO DC CONVERTER, INVERTERS, AC TO AC CONVERTERS	2017-2018
51.	Microprocessors and Microcontrollers Laboratory	EE6612	EMPLOYABILITY: 8085 PROCESSOR, PROGRAMMING OF 8085 PROCESSOR, 8051 MICRO CONTROLLER, PERIPHERAL INTERFACING, MICRO CONTROLLER PROGRAMMING & APPLICATIONS	2017-2018
52.	Presentation Skills and Technical Seminar	EE6613	SKILL DEVELOPMENT :PRESENTATION SKILLS AND TECHNICAL SEMINAR	2017-2018

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	High Voltage Engineering	EE6701	EMPLOYABILITY:OVER VOLTAGES IN ELECTRICAL POWER SYSTEMS, DIELECTRIC BREAKDOWN, GENERATION OF HIGH VOLTAGES AND HIGH CURRENTS, MEASUREMENT OF HIGH VOLTAGES AND HIGH CURRENTS, HIGH VOLTAGE TESTING & INSULATION COORDINATION	2017-2018
54.	Protection and Switchgear	EE6702	EMPLOYABILITY:PROTECTION SCHEMES, ELECTROMAGNETIC RELAYS, APPARATUS PROTECTION, STATIC RELAYS AND NUMERICAL PROTECTION, CIRCUIT BREAKERS	2017-2018
55.	Special Electrical Machines	EE6703	EMPLOYABILITY: STEPPER MOTORS, SYNCHRONOUS RELUCTANCE MOTORS, SWITCHED RELUCTANCE MOTORS (SRM), PERMANENT MAGNET BRUSHLESS D.C. MOTORS, PERMANENT MAGNET SYNCHRONOUS MOTORS (PMSM)	2017-2018
56.	Principles of Management	MG6851	EMPLOYABILITY: INTRODUCTION TO MANAGEMENT AND ORGANIZATIONS, PLANNING, ORGANISING DIRECTING, CONTROLLING	2017-2018
57.	Flexible AC Transmission Systems	EE6004	EMPLOYABILITY: INTRODUCTION, STATIC VAR COMPENSATOR (SVC) AND APPLICATIONS, THYRISTOR CONTROLLED SERIES CAPACITOR (TCSC) AND, APPLICATIONS, VOLTAGE SOURCE CONVERTER BASED FACTS CONTROLLERS, COORDINATION OF FACTS CONTROLLERS	2017-2018
58.	Microcontroller Based System Design	EE6008	EMPLOYABILITY: INTRODUCTION TO PIC MICROCONTROLLER, INTERRUPTS AND TIMER, PERIPHERALS AND INTERFACING, INTRODUCTION TO ARM PROCESSOR, ARM ORGANIZATION	2017-2018
59.	Power System Simulation Laboratory	EE6711	EMPLOYABILITY: POWER FLOW ANALYSIS, FAULT ANALYSIS – BALANCED FAULTS, FAULT ANALYSIS – UNBALANCED FAULTS, STABILITY ANALYSIS	2017-2018
60.	Biomedical Instrumentation	EI6704	EMPLOYABILITY: FUNDAMENTALS OF BIOMEDICAL ENGINEERING, NON ELECTRICAL PARAMETERS MEASUREMENT AND DIAGNOSTIC PROCEDURES, ELECTRICAL PARAMETERS ACQUISITION AND ANALYSIS, IMAGING MODALITIES AND ANALYSIS, LIFE ASSISTING, THERAPEUTIC AND ROBOTIC DEVICES	2017-2018
61.	Electric Energy Generation, Utilization	EE6801	EMPLOYABILITY: ELECTRIC DRIVES AND TRACTION, ILLUMINATION, HEATING AND	2017-2018



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	and Conservation		WELDING, SOLAR RADIATION AND SOLAR ENERGY COLLECTORS, WIND ENERGY	
62.	Power Electronics for Renewable Energy Systems	EE6009	EMPLOYABILITY: INTRODUCTION, ELECTRICAL MACHINES FOR RENEWABLE ENERGY CONVERSION, POWER CONVERTERS, ANALYSIS OF WIND AND PV SYSTEMS, HYBRID RENEWABLE ENERGY SYSTEMS	2017-2018
63.	Professional Ethics in Engineering	GE6075	SKILL DEVELOPMENT : GLOBAL ISSUES, SAFETY, RESPONSIBILITIES AND RIGHTS, ENGINEERING AS SOCIAL EXPERIMENTATION, ENGINEERING ETHICS, HUMAN VALUES	2017-2018
64.	Project Work	EE6811	SKILL DEVELOPMENT : SOLVE A SPECIFIC PROBLEM RIGHT FROM ITS IDENTIFICATION AND LITERATURE REVIEW TILL THE SUCCESSFUL SOLUTION OF THE SAME.	2017-2018

