

DEPARTMENT OF ELECTRONIC AND COMPUTER ENGINEERING

Semester	code of subject	Name of subject	CO NO.	CO
III	BTES301	Engineering Mathematics – III	1	Students Able To Apply The Concepts And Properties Of Laplace Transformation
			2	Students Able To Apply The Concepts Of Inverse Laplace Transform With Its Property To Solve Lineae Differential Equation With Given Initial Conditions.
			3	Students Able To Find Fourier Transform Of Given Function By Using Properties And Identites
			4	Students Able To Solve Various Partial Differential Equations Such As One And Two Dimensional Heat Flow Equations With Appropriate Way.
			5	Students Able To Construct Required Analytic Function And Evaluate Contour Integral Using Residue And Cauchy's Integral Theorem
	BTECPC302	Electronics Devices and Circuits	1	Discuss Operation, Biasing And Applications Of Jfet & Mosfet.
			2	Comply And Verify Parameters After Exciting Devices By Any Stated Method.
			3	To Use Transistor As An Oscillator And Negative Feedback Amplifier
			4	Design Regulated Power Supply
			5	Select Appropriate Transducer For The Developing Electronic Circuit.
	BTECPC303	Programming Data Structures & Algorithm Using C	1	Implement Linked List & Perform Various Operations On Linked List
			2	Implement Stack & Perform Operations On Stack.
			3	Implement Various Types Of Queues & Perform Operations On Stack.
			4	Implement Trees & Graph And Traverse To Solve A Problem.
			5	Implement An Algorithm & Apply Different Searching And Sorting Techniques.
	BTESC304	Computer Architecture & Operating Systems	1	Get Acquaint With Computer Architecture And Cpu Building Blocks
			2	Understand Classify And Draw Schematic Diagrams Of Various Computer Memories
			3	Explain Operations Of Control Unit And Input Output Of A Typical Computer
			4	Define Operating System, Thread, Process, Inter-Process Communication And Solve Numerical Related To Various Cpu Scheduling Algorithm
			5	Understand Concepts Of Process Synchronization And Deadlocks And Solve Associated Numerical
	BTESC305	Digital Electronics and Microprocessor	1	Became Familiar With The Digital Signal, Positive And Negative Logic, Boolean Algebra, Logic Gates, Logical Variables, The Truth Table, Number Systems, Codes, And Their Conversion From Others
			2	Learn The Working Mechanism And Design Guidelines Of Different Combinational Circuits And Their Role In Digital System Design.
			3	Understand The Working Mechanism And Design Guidelines Of Different Sequential Circuits And Their Role In The Digital System Design
			4	Assess And Solve Basic Binary Math Operations Using The Microprocessor And Explain The Microprocessor's Internal Architecture And Its Operation Within The Area Of Manufacturing And Performance
			5	Describe, List And Use Different Types Of Instruction And Interrupts And Develop Assembly Language Programs Using Various Programming Tools
IV	BTECPC401	Python Programming	1	Display Message On Screen Using Python Script On Ide.
			2	Write Python Program To Demonstrate Use Of Operators
			3	Perform Operations On Data Structures In Python
			4	Develop Functions ,Modules, Packages For Given Problem.
			5	Design Classes For Given Problem,Handle Exceptions.
	BTECPC402	Database Management System	1	Use The Basic Concepts Of Database Systems In Database Systems.
			2	Apply Sql Queries To Interact With Database.
			3	Apply Normalization On Database Design To Eliminate Anomalies
			4	Analyse Database Transactions And Control Them By Applying Acid Properties.
			5	Study Of Nosql Database And Orientation Using Mongodb
	BTHM403	Basic Human Rights	1	To Train The Young Minds Facing The Challenges Of The Pluralistic Society And The Rising Conflicts And Tensions In The Name Of Particularistic Loyalties To Caste, Religion, Region And Culture
			2	To Give Knowledge Of The Major "Signposts" In The Historical Development Of Human Rights, The Range Of Contemporary Declarations, Conventions, And Covenants.
			3	To Enable Them To Understand The Basic Concepts Of Human Rights (Including Also Discrimination, Equality, Etc.), The Relationship Between Individual, Group, And National Rights.
			4	To Develop Sympathy In Their Minds For Those Who Are Denied Rights.
			5	To Make The Students Aware Of Their Rights As Well As Duties To The Nation
	BTBS404	Probability Theory and Random Processes	1	Understand The Fundamental Knowledge Of The Concepts Of Probability And Have Knowledge Of Standard Distributions Which Can Describe Real Life Phenomenon
			2	Understand The Basic Concepts Of One And Two Dimensional Random Variables And Apply In Engineering Applications
			3	Apply The Concept Random Processes In Engineering Disciplines
			4	Understand And Apply The Concept Of Correlation And Spectral Densities
			5	The Students Will Have An Exposure Of Various Distribution Functions And Help In Acquiring Skills In Handling Situations Involving More Than One Variable. Able To Analyze The Response Of Random Inputs To Linear Time Invariant Systems
	BTECPE405B	Data Analysis	1	Apply preprocessing techniques to convert raw data so as to enable further analysis
			2	Apply exploratory data analysis and create insightful visualizations to identify patterns
			3	Understand how to derive the probability density function of transformations of random variables and use these techniques to generate data from various distributions
			4	Understand the statistical foundations of data science and analyze the degree of certainty of predictions using statistical test and models
			5	Introduce machine learning algorithms for prediction and to derive insights
BTECPE405D	Linux Operating System	1	Ability to use various Linux commands that are used to manipulate system operations at admin level and a prerequisite to pursue job as a Network administrator.	
		2	Ability to write Shell Programming using Linux commands.	
		3	Ability to design and write application to manipulate internal kernel level Linux File System.	
		4	Ability to develop IPC-API's that can be used to control various processes for synchronization	
		5	Ability to develop Network Programming that allows applications to make efficient use	
			1	Analyze The Requirements For A Given Organizational Structure And Select The Most Appropriate Networking Architecture And Technologies

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V	BTEPC501	Computer Networks and Cloud Computing	2	Specify And Identify Deficiencies In Existing Protocols, And Then Go Onto Select New And Better Protocols.
			3	Have A Basic Knowledge Of Installing And Configuring Networking Applications
			4	Understand The Different Cloud Computing Environments
			5	Apply Concepts Of Virtualization And Various Cloud Services To Design, Develop And Deploying Cloud Applications.
			1	Understand Mathematical Description And Representation Of Various Signals And Systems.
	BTEPC502	Digital Signal & Image Processing	2	Understand Use Of Different Transforms And Analyze The Discrete Time Signals And Systems.
			3	To Implement Fundamental Image Processing Techniques Required For Computer Vision
			4	Understand Image Formation Process
			5	To Perform Morphological Operations On Image.
			1	Decompose The Given Project In Various Phases Of A Lifecycle.
	BTECPE503D	Software Engineering	2	Choose Appropriate Process Model Depending On The User Requirements.
			3	Perform Various Life Cycle Activities Like Analysis, Design, Implementation, Testing And Maintenance.
			4	Know Various Processes Used In All The Phases Of The Product.
			5	Apply The Knowledge, Techniques, And Skills In The Development Of A Software Product.
			1	Understand The Basic Principles Of Java Programming Language
	BTECOE504C	Programming in Java	2	Apply The Concepts Of Classes And Objects To Write Programs In Java
			3	Demonstrate The Concepts Of Interfaces & Inheritance
			4	Understand Multithreading And Exception Handling In Java To Develop Robust Programs
			5	Apply The Concepts Of Graphics And Jdbc For Project Development
			1	Study Of Market Equilibrium
BTECHM505A	Economics and Management	2	Understand Relevant Information And Decision Making	
		3	Aware Financial Statements	
		4	Study Of Depreciation Accounting	
		5	Understand Product Development	
		1	The use of concepts of IoT and its areas	
BTECPC601	Internet of Things	2	Understand the basics of C and NodeMCU	
		3	Understand the basics of Python & Raspberry Pi	
		4	Interacting with Web Services and IoT protocol	
		5	Apply the IoT in various applications	
		1	Discuss Meaning, Scope and Stages of Artificial Intelligence	
BTECPC602	Artificial Intelligence and Machine Learning	2	Develop a good understanding of fundamental principles of machine learning	
		3	Formulation of a Machine Learning problem	
		4	Develop a model using supervised/unsupervised machine learning algorithms for classification/prediction/clustering	
		5	Evaluate performance of various machine learning algorithms on various data sets of a domain.	
		1	To apply software testing knowledge and its processes to software applications.	
BTECPE603D	Software Testing	2	To identify various software testing problems	
		3	To solve software testing problems by designing and selecting software test models, criteria, strategies and methods	
		4	To apply the techniques learned to improve the quality of software development	
		5	To prepare a software quality plan for a software project.	
		1	Acquire qualitative knowledge about the fabrication process of integrated circuits using MOS transistors.	
BTECOE604A	VLSI Design	2	Draw the layout of any logic circuit which helps to understand and estimate parasitic effect of any logic circuit	
		3	Design building blocks of data path systems, memories and simple logic circuits using PLA, PAL, FPGA and CPLD.	
		4	Implement and design of building blocks of data path and array sub systems	
		5	Understand different types of faults that can occur in a system and learn the concept of testing and adding extra hardware to improve testability of system.	
		1	Understand Android architecture, activities and their life cycle	
BTECOE604C	Andriod Programming	2	Apply the knowledge to design user interface using Android UI and Component	
		3	Describe Memory and File operations in Android	
		4	Manage system database, remote database operations using web services and Firebase	
		5	Apply knowledge of map, location services, Graphics, android system and background services	
		1	Improve the skills of development engineering	
BTECHM605A	Development Engineering	2	Get the knowledge of world poverty and development	
		3	Aware about social justice	
		4	Apply development strategies	
		5	Understand engineering for sustainable community development	
		1	Formulate The Wave Equation In Wave Guide For Analysis.	
BTETC701	Microwave Engineering	2	Identify The Use Of Microwave Components And Devices In Microwave Applications	
		3	Understand The Working Principles Of All The Microwave Tubes.	
		4	Understand The Working Principles Of All The Solid-State Devices.	
		5	Carry Out The Microwave Network Analysis.	
		1	To Learn The Basic Elements Of Optical Fiber Transmission Link, Fiber Modes Configurations And Structures.	

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VII	BTETPE702D	Fibre Optic Communication	2	To Understand The Different Kind Of Losses, Signal Distortion In Optical Wave Guides And Other Signal Degradation Factors.
			3	To Learn The Various Optical Source Materials, Led Structures, Quantum Efficiency, Laser Diodes
			4	Understand The Functionality Of Each Of The Components That Comprise A Fiber-Optic Communication System: Transmitter, Fiber, Amplifier, And Receiver.
			5	Understand The Properties Of Optical Fiber That Affect The Performance Of A Communication Link.
			6	Understand Basic Optical Amplifier Operation And Its Effect On Signal Power And Noise In The System.
			7	Apply Concepts Listed Above To The Design Of A Basic Communication Link.
			BTETOE703D	Mobile Computing
	2	Choose Mac Protocol Depending On Scheme Required		
	3	Differentiate Mobile Ip & Computer Network Ip		
	4	Elaborate Various Ad-Hoc Networks And Their Use Cases		
	5	Compare Various Operating Systems Used In Mobile Devices		
	BTETOE704F	E Waste Management	1	Know About The Environmental Impacts Of E-Waste.
			2	Apply Various Concept Learned Under E-Waste Management Hierarchy
			3	Distinguished The Role Of Various National And Internal Act And Laws Applicable For E-Waste Management And Handling
			4	Analyze The E – Waste Management Measures Proposed Under National And Global Legislations.
	BTTHM705	Engineering Economics and Financial Mathematics	1	Evaluate & Acquire The Knowledge Of Economic Theories, Cost Concepts, Pricing Policies & Decision Aspects.
2			Apply The Concepts Of Financial Management For Project Appraisal	
3			Understand Accounting Systems And Analyze Financial Statements.	
4			Understand The Knowledge Of Basic Financial Mathematics	