

Shree Santkrupa Institute of Engineering and Technology

Department of Computer Science and Engineering

Academic Year: 2022-23

Semester: III

Sr. No.	Course Code	Course Name	Lecture	Tutorial	Practical	Credit
1	BTBS301	Engineering Mathematics – III	3	1	-	4
2	BTCOC302	Discrete Mathematics	3	1	-	4
3	BTCOC303	Data Structures	3	1	-	4
4	BTCOC304	Computer Architecture & Organization	3	1	-	4
5	BTCOC305-B	Object Oriented Programming in JavaJava	3	1	-	4
6	BTCOL306	Data Structures Lab & Object Oriented Programming Lab	-	-	4	2
7	BTCOS307	Seminar – I	-	-	4	2
8	BTES211P	Internship	-	-	-	Audit

Semester: IV

Sr. No.	Course Code	Course Name	Lecture	Tutorial	Practical	Credit
1	BTCOC401	Design & Analysis of Algorithms	3	1	-	4
2	BTCOC402	Operating Systems	3	1	-	4
3	BTHM403	Basic Human Rights	3	-	-	3
4	BTBS404	Probability Theory and Random Processes	3	-	-	3
5	BTES405	Digital Logic Design& Microprocessors	3	1	-	4
6	BTCOL406	Operating Systems & Python Programming Lab	1	-	4	3
7	BTCOS407	Seminar – II	-	-	4	2
8	BTCOF408	Internship	-	-	-	Audit

Semester: V

Sr. No.	Course Code	Course Name	Lecture	Tutorial	Practical	Credit
1	BTCOC501	Database Systems	3	1	-	4
2	BTCOC502	Theory of Computations	3	1	-	4
3	BTCOC503	Software Engineering	3	1	-	4
4	BTCOE504-A	Human computer Interaction	3	-	-	3
5	BTHM505-B	Business Communication	3	-	-	3
6	BTCOL506	Database Systems & Software Engineering Lab	-	-	4	2
7	BTCOM507	Mini-project – I	-	-	4	2
8	BTCOF408	Internship	-	-	-	Audit

Semester: VI

Sr. No.	Course Code	Course Name	Lecture	Tutorial	Practical	Credit
1	BTCOC601	Compiler Design	3	1	-	4
2	BTCOC602	Computer Networks	3	1	-	4
3	BTCOC603	Machine Learning	3	1	-	4
4	BTCOE604 - B	Internet of Things	3	-	-	3
5	BTHM605-A	Development Engineering	3	-	-	3
6	BTCOL606	Competitive Programming & Machine Learning Lab	1	-	4	3
7	BTCOM607	Mini-project – II	-	-	4	2
8	BTCOF608	Internship	-	-	-	Audit

Semester: VII

Sr. No.	Course Code	Course Name	Lecture	Tutorial	Practical	Credit
1	BTCOC701	Software Engineering	3	-	-	3
2	BTCOE702 -B	Distributed System	3	-	-	3
3	BTCOE703 -A	Cloud Computing	3	-	-	3
4	BTCOE704 -C	Embedded Systems	3	-	-	3
5	BTCOL705	Full Stack Development (LAMP)	1	-	2	2

6	BTCOL706	System Administration	1	-	2	2
7	BTCOL707	Distributed System Lab	-	-	2	1
8	BTCOL708	Cloud Computing Lab	-	-	2	1
9	BTCOP709	Project phase - I	-	-	2	1
10	BTCOF609	Internship	-	-	-	1

Semester: VIII

Sr. No.	Course Code	Course Name	Lecture	Tutorial	Practical	Credit
1	BTCOE801-B	Social Networks	3	-	-	3
2	BTCOE802-A	Introduction to Industry 4.0 and Industrial Internet of Things	3	-	-	3
3	BTCOE803	Project phase - II	-	-	24	12

Course Outcomes

Semster : III		
Course Name		Engineering Mathematics – III
Course Code		BTBS301
Course Outcome No	Course Outcome Statement	
CO 1	Explain the application of the Laplace Transform to find solutions of system of linear equations arising in many engineering	
CO 2	Demonstrate and apply the concept Laplace Transform	
CO 3	Interpret Computation of Fourier Transform and their applications to engineering problems	
CO 4	Identify Partial Differential Equations and Their Applications.	
CO 5	Evaluate Functions of Complex Variables.	
Semster : III		
Course Name		Discrete Mathematics
Course Code		BTCOC302
Course Outcome No	Course Outcome Statement	
		By the end of the course, the student will be able to:

CO 1	Develop knowledge of Fundamental Structures and Basic Logic .	
CO 2	Classify basic concepts of Functions and Relations .	
CO 3	Apply and demonstrate knowledge of Graph in data structures.	
CO 4	Identify and explain knowledge of Trees in data structures.	
CO 5	Interpret basic concepts of Algebraic Structures and Morphism.	
Semster : III		
Course Name		Data Structures
Course Code		BTCOC303
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Explain the concepts of algorithm evaluation	
CO 2	Explain insertion, deletion and traversing operations on data structures.	
CO 3	Define data structures like array, stack, queues and linked list.	
CO 4	Apply searching and sorting techniques on data	
CO 5	Demonstrate the representation and traversal techniques of trees and graphs	
Semster : III		
Course Name		Computer Architecture & Organization
Course Code		BTCOC304
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Identify the basic organization of computer system, its function, interconnection and CPU structure.	
CO 2	Explain basic instruction set, operations, addressing modes and RISC and CISC architecture.	
CO 3	Perform Arithmetic operations, 2's complement representation and operations with this representation.	
CO 4	Identify a memory module and analyze its operation by interfacing with the CPU.	
CO 5	Create the organization for the Control unit, Arithmetic and Logical unit, Memory unit and the I/O unit and I/O interfaces.	
Semster : III		
Course Name		Object Oriented Programming in Java
Course Code		BTCOC305-B
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Explain the concept of Classes, Objects, Operators, JDE, JDK, and the structure of Java Programs.	
CO 2	Make use of Control Statements in java code.	

CO 3	Classify types of Array in java.	
CO 4	Apply the concept of Inheritance, Interfaces and Polymorphism in java	
CO 5	Make use of exception handling in Java and Javascript	
Semster : III		
Course Name		Object Oriented Programming Lab
Course Code		BTCOL306
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Build Java code using Classes, Objects, and Operators in Java.	
CO 2	Make use of Control Statements in java code.	
CO 3	Create Java code by using different types of Array.	
CO 4	Develop Java code by implementing Inheritance and Polymorphism	
CO 5	Make use of exception handling and Javascript	
Semster : III		
Course Name		Seminar
Course Code		BTCOS307
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Identify recent technical topics from interested domain.	
CO 2	Analyze the applicability of modern software tools and technology.	
CO 3	Create the detailed literature survey and built a document with respect to technical publications.	
CO 4	Develop presentation and communication skills.	
CO 5	Develop technical report preparationand professional skills.	
Semster : III		
Course Name		Data Structures Lab
Course Code		
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Differentiate static and dynamic memory allocation techniques	
CO 2	Implement various operations on linear and non-linear data structures	
CO 3	Identity the appropriate data structure to solve a given problem	
CO 4	Analyze and implement different searching and sorting techniques	

Semster : IV		
Course Name		Design and Analysis of Algorithm
Course Code		BTcoc401
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Define worst-case running times of algorithms using asymptotic analysis	
CO 2	Compare searching algorithms using divide-and-conquer paradigm.	
CO 3	Design algorithms using dynamic programming and back tracking methods.	
CO 4	Apply the greedy algorithms to solve real world problems such as knapsack and TSP.	
CO 5	Develop various types of programming paradigms in a high-level language.	
Semster : IV		
Course Name		Probability Theory and Random Processes
Course Code		BTBS404
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Apply knowledge of Bayes' theorem of inverse probability, Properties of probabilities.	
CO 2	Classify Relation between binomial and normal distributions.	
CO 3	Analyse Poisson and normal distributions, importance of normal distribution, Properties of Karl Pearson's correlation coefficient and	
CO 4	Demonstrate the linear and non-linear regression, Lines of regression, Derivation of regression lines of y on x and x on y, Angle between the regression lines, Coefficients of regression	
CO 5	Understand the principles of Estimation, Large Sample Estimation of a Population mean, Small Sample Estimation of a Population Mean, Large Sample Estimation of a Population Proportion	
Semster : IV		
Course Name		Operating Systems
Course Code		BTcoc402
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Illustrate the basic concepts of operating systems .	
CO 2	Differentiate between programs, processes and threads.	
CO 3	Describe the concepts of process and scheduling algorithms.	
CO 4	Identify deadlock and use various algorithms to handle deadlocks.	
CO 5	Describe various memory mgmt, file mgmt and disk storage management mechanisms.	
Semster : IV		
Course Name		Basic Human Rights

Course Code		BTHM403
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Expain the history of human rights.	
CO 2	Recall responsibilities of others caste, religion, region and culture.	
CO 3	Remember the importance of groups and communities in the society.	
CO 4	Analyse the philosophical and cultural basis and historical perspectives of human	
CO 5	Aware of their responsibilities towards the nation.	
Semster : IV		
Course Name		Digital Logic Design & Microprocessor
Course Code		BTES405
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Examine the structure of number system and performs the conversion among different number systems.	
CO 2	Create combinational circuits for given application.	
CO 3	Design and analysis of synchronous and asynchronous sequential circuits using flip-flops.	
CO 4	Explain the architecture of 8086 microprocesor.	
CO 5	Write the program using 8086 microprocessor.	
Semster : IV		
Course Name		Python Programming Lab
Course Code		BTCOL406
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Explain programming, algorithms, data structure concepts and a simple Python program.	
CO 2	Make use of variables, operators and control-flow statements and Functions in Python program.	
CO 3	Illustrate Python Exception handling, String processing, basic input/output and file-handling methods	
CO 4	Analyze classes, Objects and data structures	
CO 5	Develop Python code with SQLite database	
Semster : IV		
Course Name		Operating Systems Lab
Course Code		BTCOL406

Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Identify Unix environment and execute basic Unix Commands.	
CO 2	Execute Bash Shell commands.	
CO 3	Describe the CPU scheduling algorithms and page replacement algorithms.	
CO 4	Illustrate different memory management algorithms.	
CO 5	Identify different system calls.	
Semster : IV		
Course Name		Seminar II
Course Code		BTCOS407
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Define the basic tags and properties in HTML.	
CO 2	Demonstrate the easily maintained CSS code to represent HTML pages.	
CO 3	Make Use of JavaScript to add dynamic content to pages.	
CO 4	Analyze server side scripting and make use of PHP	
CO 5	Develop web based application using HTML, CSS, Java Script, AJAX, PHP or any other front-end tool	
Semster : V		
Course Name		Database Systems
Course Code		BTCOC501
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Illustrate the database design for applications and make use of ER diagram.	
CO 2	Use and apply relational algebra concepts.	
CO 3	Apply the various concepts in query processing using SQL.	
CO 4	Apply normalization techniques in database application.	
CO 5	Summarize with basic database storage structures and access techniques using file organizations, indexing and Transaction Processing.	
Semster : V		
Course Name		Theory of Computation
Course Code		BTCOC502
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:

CO 1	Define Finite Automata machines for given problems and conversion of various Machine.
CO 2	Illustrate given Finite Automata machine and find out its Language
CO 3	Apply Pushdown Automata machine for given CF language(s)
CO 4	Discover the strings/sentences of a given context-free languages using its grammar
CO 5	Design Turing machines for given any computational problem.
Semster : V	
Course Name	Software Engineering
Course Code	BTCOC503
Course Outcome No	Course Outcome Statement
	By the end of the course, the student will be able to:
CO 1	Define software lifecycle development models.
CO 2	Compare requirements engineering including functional & non-functional requirements.
CO 3	Apply specification into an architectural design and system models.
CO 4	Analyze Object-oriented design using UML & an implementation issues.
CO 5	Elaborate fundamental concepts in software testing & designing test cases and test data.
Semster : V	
Course Name	Business Communication
Course Code	BTCOE505 - B
Course Outcome No	Course Outcome Statement
	By the end of the course, the student will be able to:
CO 1	Demonstrate verbal and non-verbal communication ability
CO 2	communicate effectively in various situations.
CO 3	Develop interpersonal communications skills that are required for social and business interaction.
CO 4	Employ proper public speaking techniques.
CO 5	Demonstrate the use of basic and advanced business communication skills.
Semster : V	
Course Name	Human Computer Interaction
Course Code	BTCOE504 - A
Course Outcome No	Course Outcome Statement
	By the end of the course, the student will be able to:
CO 1	Identify interaction design and the concept of The Human, The Computer, The Interaction.
CO 2	Explain the lifecycle model of interaction design and concept of usability

CO 3	Analyse different type of Implementation and Evaluation methods for design interactive system
CO 4	Illustrate different types of models and theories used to develop effective interactive system.
CO 5	Analyse various Modern Systems used in human computer interaction.
Semster : V	
Course Name	Software Engineering Lab
Course Code	BTCOL506
Course Outcome No	Course Outcome Statement
	By the end of the course, the student will be able to:
CO 1	Find software requirements specifications for given problem.
CO 2	Explain the basic concept of UML design, implementation of test cases.
CO 3	Build Data flow diagram models.
CO 4	Develop various structure and behavior UML diagrams.
CO 5	Plan various testing using testing tools.
Semster : V	
Course Name	Database Systems Lab
Course Code	BTCOL506
Course Outcome No	Course Outcome Statement
	By the end of the course, the student will be able to:
CO 1	Explain the basics of SQL commands and construct queries using SQL.
CO 2	Identify the sound design principles for logical design of databases, including the E-R method and normalization approach.
CO 3	Implement Basic DDL, DML, DCL commands, Understand Data selection and operators used in queries and restrict data retrieval and control the display order.
CO 4	Apply functions to summarize data, join multiple tables using different types of joins.
Semster : V	
Course Name	Mini Project -I
Course Code	BTCOM507
Course Outcome No	Course Outcome Statement
	By the end of the course, the student will be able to:
CO 1	Identify the local Problem in our University/college/near by vicinity and solve problem using latest technology.
CO 2	Identify a variety of strategies and tools to create Mini Project.
CO 3	Explain language of the web: HTML and CSS,PHP,Python,Java etc Latest language.
CO 4	Apply effective web design &App design principles.
CO 5	Demonstrate ethical and professional sustainability while working in a team and communicate effectively for the benefit of the society.

Semster : VI		
Course Name		Compiler Design
Course Code		(BTCOC601)
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Define the various phases and architecture of a compiler and how these phases interact with each other.	
CO 2	Illustrate designing and implementing lexical analyzers and parsers,regular expressions, finite automata,context-free grammars	
CO 3	Apply semantic analysis , manage symbol tables by using variable scopes, data types, and other semantic aspects.	
CO 4	Apply various compiler optimization techniques for improving the efficiency of generated code.	
CO 5	Create efficient and optimized machine code or intermediate code from the input source code.	
Semster : VI		
Course Name		Computer Network
Course Code		BTCOC602
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Recall the basic concept of Network, Transport and Application Layer.	
CO 2	Classify different terminologies of client server programming.	
CO 3	Apply various error detection and correction techniques at data link layer.	
CO 4	Analyze different network layer protocol like IPv4/IPv6,TCP,UDP and congestion control.	
CO 5	Elaborate different application layer protocol like DHCP, DNS, FTP, HTTP and SMTP.	
Semster : VI		
Course Name		Machine Learning
Course Code		BTCOC603
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Explain types of Machine learning, hypothesis space, bias, cross-validation, Linear regression, Decision trees and overfitting concepts	
CO 2	Illustrate Instance-based learning, Feature reduction, Collaborative filtering-based recommendation, Probability, and Bayes learning	
CO 3	Classify Logistic Regression and Support Vector Machine	
CO 4	Explian Neural network and deep learning concepts	
CO 5	Apply computational learning theory, PAC learning model, Sample complexity, VC Dimension, Ensemble learning.	
CO 6	Analyze Clustering k-means, adaptive hierarchical clustering, Gaussian mixture model	
Semster : VI		

Course Name		Internet of Things
Course Code		BTCOE604 - B
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Explain the impact and challenges caused by IoT networks leading to new architectural model.	
CO 2	Compare smart objects and its deployment model and the technologies to connect to network.	
CO 3	Assess the role of IoT protocol for sustainable network communication.	
CO 4	Explain the need of Data Analytics and Security in IoT.	
CO 5	Design different interdisciplinary IoT applications using Arduino and RaspberryPi	
Semster : VI		
Course Name		Employability & Soft Skills
Course Code		BTHM605B
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Adopt skills and preparedness for aptitude tests	
CO 2	Be equipped with essential communication skills (writing, verbal and non-verbal)	
CO 3	Master the presentation skill and be ready for facing interviews.	
CO 4	Develop thinking ability and polish his expression in group discussions.	
CO 5	Introspect & develop a planned approach towards his career & life in general	
Semster : VI		
Course Name		Machine Learning Lab
Course Code		BTCOL606
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Interpret Regression Models	
CO 2	Solve a given problem by using the Logistic Regression model	
CO 3	Make use of Random Forest and Parameter Tuning methodsRandom Forest and Parameter Tuning	
CO 4	Apply Clustering Algorithms and make its evaluation	
CO 5	Choose the appropriate research design and develop appropriate research hypothesis for a research project.	
CO 6	Develop Machine Learning Project in Python on House Prices Data.	
Semster : VI		
Course Name		Comepative Programming II

Course Code		BTCOL606
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Illustrate the concepts of online Judges, feedback and the standard input output to solve the programming challenges.	
CO 2	Implement the advanced programs of Arrays, Linked list, Strings, Dynamic Programming, Greedy method, Graph Algorithm etc.	
CO 3	Explain the guidelines for designing the test cases for the various programs.	
CO 4	Participate in the programming challenges in competitive platforms like codechef.com, www.onlinejudge.com.	
Semster : VI		
Course Name		Mini Project -II
Course Code		BTCOM607
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Analyze the problem, formulation and solution of the selected project	
CO 2	Develop solutions for contemporary problems using modern tools for sustainable development.	
CO 3	Demonstrate ethical and professional sustainability while working in a team and communicate effectively for the benefit of the society.	
CO 4	Understand the engineering, finance and management principles.	
CO 5	Elaborate technical information by means of written reports.	
Semster : VII		
Course Name		Software Engineering
Course Code		BTCOC701
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Define software lifecycle development models.	
CO 2	Compare requirements engineering including functional & non-functional requirements.	
CO 3	Apply specification into an architectural design and system models.	
CO 4	Analyze Object-oriented design using UML & an implementation issues.	
CO 5	Elaborate fundamental concepts in software testing & designing test cases and test data.	
Semster : VII		
Course Name		Distributed System
Course Code		BTCOE702B
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:

CO 1	Describe distributed operating system concepts, design issues.	
CO 2	Illustrate communication, synchronization and processes in distributed systems.	
CO 3	Illustrate distributed file systems, distributed shared memory concepts.	
CO 4	Describe distributed architecture, naming, synchronization, consistency and replication, fault tolerance, security, and distributed me systems.	
Semster : VII		
Course Name		Cloud Computing
Course Code		BTCOE703 -A
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Explain evolution, vision, benefits, challenges of cloud computing and the concept of Virtualization.	
CO 2	Explain Cloud Computing Architecture along with services and types of Clouds.	
CO 3	Explain other services available in Clouds for Enterprise and Disaster recovery management of cloud.	
CO 4	Identify Aneka: Cloud Application Platform and its Deployment Models.	
CO 5	Design different Applications in Cloud Application Platform	
Semster : VII		
Course Name		Blockchain Technology
Course Code		BTCOE704 -C
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Understand concept of blockchain using bitcoin and cryptography.	
CO 2	Analyze difference in bitcoin and blockchain.	
CO 3	Illustrate different prmissioned model using different algorithms.	
CO 4	Analyze different uses of blockchain such as cross border payment , trading, KYC.	
CO 5	Develop smart contracts in Ethereum framework.	
Semster : VII		
Course Name		Full Stack Development
Course Code		BTCOL705
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Explain the basic concepts of HTML and CSS to design and implement static web sites.	
CO 2	Design a responsive web site using HTML5 and CSS3 and JavaScripts.	
CO 3	Create PHP programs that uses various PHP library functions, and that manipulate files and directories.	

CO 4	Create PHP Programs to connect, access, and update a MySQL database.	
CO 5	Design and develop the web-based applications using a combination of client-side (JavaScript, HTML) and server-side technologies (PHP).	
Semster : VII		
Course Name		System Administration
Course Code		BTCOL706
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Select the installation process of Linux operating system with LVM & without LVM.	
CO 2	Illustrate the role and responsibilities of a Linux System Administration.	
CO 3	Make a use of Linux utilities and commands.	
CO 4	Determine the problem and troubleshoot them.	
CO 5	Design network services on a Linux System	
Semster : VII		
Course Name		Distributed System Lab
Course Code		BTCOL 707
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Analyze distributed operating system concepts & design issues.	
CO 2	Illustrate communication, synchronization and processes in distributed systems.	
CO 3	Describe distributed file systems, distributed shared memory concepts.	
CO 4	Illustrate distributed architecture, naming, synchronization, consistency and replication, fault tolerance, security, and distributed file systems.	
Semster : VII		
Course Name		Cloud Computing Lab
Course Code		BTCOL708
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Explain evolution, vision, benefits, challenges of cloud computing and the concept of Virtualization.	
CO 2	Explain Cloud Computing Architecture along with services and types of Clouds.	
CO 3	Explain other services available in Clouds for Enterprise and Disaster recovery management of cloud.	
CO 4	Identify Aneka: Cloud Application Platform and its Deployment Models.	
CO 5	Design different Applications in Cloud Application Platform	
Semster : VII		

Course Name		Project phase - I
Course Code		BTCOP709
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Analyze the problem, formulation and solution of the selected project	
CO 2	Develop solutions for contemporary problems using modern tools for sustainable development.	
CO 3	Demonstrate ethical and professional sustainability while working in a team and communicate effectively for the benefit of the society.	
CO 4	Explain the engineering, finance and management principles.	
CO 5	Elaborate technical information by means of written reports.	
Semster : VIII		
Course Name		Social Networks
Course Code		BTCOE801-B
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Formalize different types of entities and relationships as nodes and edges and represent this information as relational data	
CO 2	Execute network analytical computations.	
CO 3	Use advanced network analysis software to generate visualizations and perform empirical investigations of network data.	
CO 4	Interpret the meaning of the results with respect to a question, goal, or task.	
CO 5	Collect network data in different ways and from different sources while adhering to legal standards and ethics standards.	
Semster : VIII		
Course Name		Introduction to Industry 4.0 and Industrial Internet of Things
Course Code		BTCOE802-A
Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1	Choose the topics from the recent various existing industrial systems.	
CO 2	Analyze different modern technologies and software tools that are applicable solve the complex problem.	
CO 3	Identify how cyber-physical systems integrate digital and physical components in an industrial context.	
CO 4	Discover knowledge of theory and practice related to industrial IOT systems.	
CO 5	Develop architectural design patterns,representation,Interaction skill related to Industrial IOT.	
Semster : VIII		
Course Name		Project phase - II
Course Code		BTCOE803

Course Outcome No	Course Outcome Statement	By the end of the course, the student will be able to:
CO 1		Apply the technical knowledge acquired in the program for solving real world problems.
CO 2		Apply new technologies & design techniques (platform, database, etc.) concerned for devising a solution for a given problem
CO 3		Apply project management skills (scheduling work, procuring parts and documenting Expenditures and working within the confines of a deadline)
CO 4		Work with team mates, sharing due and fair credits and collectively apply effort for making project successful.
CO 5		Elaborate technical information by means of written reports.