Shri Tuljabhavani College Of Engg. Tuljapur

Computer Science And Engineering Department

Course outcomes			
● **Second Year CSE**			
● **Course no.**		● **Course code**	● **Course name**
● C301		● BTBS301	● Engineering Mathematics – III
● **COs**	● After the successful completion of this course student will be able to:		
● **1**	● Find Laplace Transforms of elementary functions by applying suitable property and/or suitable method.		
● **2**	● Find Inverse Laplace Transforms of elementary functions by applying suitable property and/or suitable method.		
● **3**	● Write the Fourier Integral of elementary functions by applying suitable formula also problems related to Fourier transforms to domain specific problems.		
● **4**	● Formulate Partial Differential Equations by eliminating arbitrary constants and functions from system arises in respective domain, also solve them using appropriate technique.		
● **5**	● Check the Analyticity of given function and use its other properties as and when required, construct analytic function using suitable technique. Perform contour integration of complex functions by using suitable technique.		
● **Course no.**		● **Course code**	● **Course name**
● C302		● BTCOC302	● Discrete Mathematics
● **COs**	● After the successful completion of this course student will be able to:		
● **1**	● To develop understanding of Logic Sets and Functions.		
● **2**	To use mathematical reasoning techniques including induction and recursion		
● **3**	To understand and apply counting techniques to the representation and Characterization of relational concepts.		
● **4**	To develop an understanding of how graph and tree concepts are used to solve problems arising in the computer science		

• **5**	To communicate the solutions of technical problems to other professionals and to develop improved collaborative skills

• **Course no.**	• **Course code**	• **Course name**
• C303	• BTCOC303	• Data Structures

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• Students are able to understand the concept of Dynamic memory management, data types, algorithms, Big O notation.
• **2**	• Students are able to understand basic data structures such as arrays, linked lists, stacks and queues.
• **3**	• Students are able to describe the hash function and concepts of collision and its resolution methods
• **4**	• Students are able to solve problem involving graphs, trees and heaps
• **5**	• Students are able to apply Algorithm for solving problems like sorting, searching, insertion and deletion of data

• **Course no.**	• **Course code**	• **Course name**
• C304	• BTCOC304	• Computer Architecture & Organization
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• To learn how computer works	
• **2**	• To learn the basic instruction set	
• **3**	• Analyze the performance of Computer	
• **4**	• Understand the designing of computer	
• **5**	• Understand the design of control unit	

• **Course no.**	• **Course code**	• **Course name**
• C305	• BTCOC305	• Elective –I (b) Object Oriented Programming in Java
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• To Explain Features of object-oriented Programming	
• **2**	• To learn control flow statements in Java.	
• **3**	• To learn how to use array in Java. how to pass arrays to method in java	
• **4**	• To learn how to extend Java classes with inheritance and dynamic binding.	

• 5	• To learn how to use exception handling in Java applications, able to explain what is JavaScript and able to write client side scripting.

• Course no.	• Course code	• Course name
• C306	• BTCOL306	• Data Structures Lab & Object Oriented Programming Lab

• COs	• After the successful completion of this course student will be able to:
• 1	• To Explain Features of object-oriented Programming
• 2	• To learn control flow statements in Java.
• 3	• To learn how to use array in Java. how to pass arrays to method in java
• 4	• To learn how to extend Java classes with inheritance and dynamic binding.
• 5	• To learn how to use exception handling in Java applications, able to explain what is JavaScript and able to write client side scripting .

• Course no.	• Course code	• Course name
• C307	• BTCOS307	• Seminar – I

• COs	• After the successful completion of this course student will be able to:
• 1	• TO Demonstrate a sound technical knowledge of their selected seminar topic
• 2	• To Undertake problem identification,
• 3	• TO formulate and solution for a Problem
• 4	• To Design engineering solutions to complex problems utilizing a systems approach
.	• To Provide Effective presentation and improve soft skills

• Course no.	• Course code	• Course name
• C308	• BTES211P	• Field Training / Internship / Industrial Training Evaluation

• COs	• After the successful completion of this course student will be able to:
• 1	• Integrate theory and practice.
• 2	• Apply various soft skills such as time management, positive attitude and communication skills during performance of the tasks assigned in internship organization.

• **3**	• Determine the challenges and potential for his / her internship organization in particular and the sector in general.
• **4**	• Construct the company profile by compiling the brief history, management structure, products / services offered, key achievements and market performance for his / her organization of internship.

• **Second Year-II**		
• **Course no.**	• **Course code**	• **Course name**
• C401	• BTCOC401	• Design & Analysis of Algorithms
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Analyze the asymptotic performance of algorithms	
• **2**	• Familiar with major algorithms	
• **3**	• Apply important algorithmic design paradigms and methods of analysis	
• **4**	• Synthesize efficient algorithms in engineering design situations	
• **Course no.**	• **Course code**	• **Course name**
• C402	• BTCOC402	• Operating Systems
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Identify the role of the operating system as a high-level interface to the hardware	
• **2**	• Understand the Memory Management Strategies for Memory management	
• **3**	• Illustrate the low-level implementation of CPU dispatch and scheduling	
• **4**	• Apply appropriate knowledge for handling Deadlock, Process Synchronization	
• **5**	• Outline the need to handle I/O device with memory management strategies	
• **Course no.**	• **Course code**	• **Course name**
• C403	• BTHM403	• Basic Human Rights
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Understand the history of human rights.	
• **2**	• Learn to respect others caste, religion, region and culture and Be aware of their rights as Indian citizen	

• **3**	• Realize the philosophical and cultural basis and historical perspectives of human rights.
• **4**	• Make them aware of their responsibilities towards the nation.

• **Course no.**	• **Course code**	• **Course name**
• C404	• BTBS404	• Probability Theory and Random Processes

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• To understand the different approach of probability and apply the laws of addition and multiplication theorem with the help of properties of probability and will try to solve the examples based on Inverse probability.
• **2**	• To distinguish between discrete and continuous random variables. Be able to compute & interpret the expected value, variance & S.D. for discrete data.
• **3**	• To compute & interpret the Karl person correlation coefficient & test for significance. Compute & interpret the spearman's rank correlation coefficient.
• **4**	• To Solve examples on regression lines, angle between them & coefficient of regression with the help of theorems and examples.
• **5**	• To understand estimation and sample estimation. And try to learn Hypothesis's

• **Course no.**	• **Course code**	• **Course name**
• C405	• BTES405	• Digital Logic Design & Microprocessors

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• Use the basic logic gates and various reduction techniques of digital logic circuit in detail.
• **2**	• Design combinational circuits.
• **3**	• Design Sequential circuits.
• **4**	• Understand the architecture of 8086
• **5**	• Understand 8086 instruction set and programming's

• **Course no.**	• **Course code**	• **Course name**
• C406	• BTCOL406	• Operating Systems & Python Programming Lab

• **COs**	• After the successful completion of this course student will be able to:

• 1	• Identify the role of the operating system as a high-level interface to the hardware

• 2	• Understand the Memory Management Strategies for Memory management
• 3	• Illustrate the low-level implementation of CPU dispatch and scheduling
• 4	• Apply appropriate knowledge for handling Deadlock, Process Synchronization
• 5	• Outline the need to handle I/O device with memory management strategies
• 6	• PY: To learn installation, fundamentals, features and future of Python programming.
• 7	• To acquaint with data types, input output statements, decision making, looping and functions in Python.
• 8	• PY: To acquaint with the use and benefits of exception handling and file handling in Python.
• 9	• PY: To learn features of Object Oriented Programming using Python.
• 10	• PY: To learn Programming with database using Python.

• Course no.	• Course code	• Course name
• C407	• BTCOS407	• Seminar – II

• COs	• After the successful completion of this course student will be able to:
• 1	To Establish motivation for any topic of interest and develop a thought process for Technical presentation.
• 2	• To Organize a detailed literature survey and build a document with respect to technical publications.
• 3	• To perform Analysis and comprehension of available data
• 4	• TO Make use of new and recent technology (e.g. Latex) for creating technical reports
• 5	• Effective presentation and improve soft skill

• Course no.	• Course code	• Course name
• C408	• BTCOF408	• Field Training / Internship / Industrial Training Evaluation

• COs	• After the successful completion of this course student will be able to:
• 1	• Integrate theory and practice.
• 2	• Apply various soft skills such as time management, positive attitude

	and communication skills during performance of the

	tasks assigned in internship organization.
• **3**	• Determine the challenges and potential for his / her internship organization in particular and the sector in general.
• **4**	• Construct the company profile by compiling the brief history, management structure, products / services offered, key achievements and market performance for his / her organization of internship.
• **5**	.

• **Third Year-CSE- I**		
• **Course no.**	• **Course code**	• **Course name**
• C501	• BTCOC501	• Database System

• **COs**	• After the successful completion of this course student will be able to:
• **1**	Analyze and design Database Management system using E-R diagram and convert entity relationship diagrams into RDBMS
• **2**	• Implement database queries using relational algebra and calculus
• **3**	• Implement database queries using structured query language
• **4**	• Normalize the database design using normalization process and its various forms
• **5**	Apply the transaction management and concurrency control concepts in real time examples

• **Course no.**	• **Course code**	• **Course name**
• C502	• BTCOC502	• Theory of Computations

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• Students will be able to build regular expressions for given regular language.
• **2**	• Students will be able to illustrate different types of automata
• **3**	• Students will be able to explain regular and non-regular languages.
• **4**	• Students will be able to solve context free grammar.
• **5**	• Students will be able to introduce different types of Pushdown automata and Turing machine's

• **Course no.**	• **Course code**	• **Course name**

• C503	• BTCOC503	• Machine Learning

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• Regular language.
• **2**	• Students will be able to Classify supervised, Unsupervised & reinforcement learning problem
• **3**	• Students will be able to Design solution to regression problems.
• **4**	• Students will be able to Solve clustering problems & evaluate the results.

• **Course no.**	• **Course code**	• **Course name**
• C504	• BTCOE504	• Elective –III (a) Introduction to research

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• Understand the different steps involved in Research Process
• **2**	• Conduct literature survey for specific domain in Research
• **3**	• Decide the appropriate Modeling Skills, Experiment Skills and Data Analysis methodology used for carrying out Research.
• **4**	• Conduct Technical writing, Report writing on specific domain in research

• **Course no.**	• **Course code**	• **Course name**
• C505	• BTHM505	• Elective-III (b)Business communication

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• Apply business communication strategies and principles to prepare effective communication for domestic and international business
• **2**	• Identify ethical, legal, cultural, and global issues affecting business communication.
• **3**	• Participate in team activities that lead to the development of collaborative work skills.
• **4**	• Select appropriate organizational formats and channels used in developing and presenting business messages.
• **5**	• Express an effective oral business presentation

• **Course no.**	• **Course code**	• **Course name**
• C506	• BTCOC506	• competitive

		programming -I
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Analyze (decode) the problem statement given	
• **2**	• Write an algorithm for given problem statement	
• **3**	• Explain the flowchart for algorithm written for problem statement	
• **4**	• List and explain the data structures required to solve the problem statement	
• **5**	• Implement program for algorithm for given problem statement	
• **6**	• Differentiate between the programming languages and select proper one for given problem statement	
• **7**	• Use functionalities to solve problem statement	
• **Course no.**	• **Course code**	• **Course name**
• C507	• BTCOL507	• Database System Laboratory
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	Analyze and design Database Management system using E-R diagram and convert entity relationship diagrams into RDBMS	
• **2**	• Implement database queries using relational algebra and calculus	
• **3**	• Implement database queries using structured query language	
• **4**	• Normalize the database design using normalization process and its various forms	
• **5**	• Apply the transaction management and concurrency control concepts in real time examples	
• **Course no.**	• **Course code**	• **Course name**
• C508	• BTCOL508	• Machine Learning Laboratory
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Students will be able to design solution to classification problems	
• **2**	• Students will be able to Classify supervised, Unsupervised & reinforcement learning problem	
• **3**	• Students will be able to Design solution to regression problems.	

• **4**	• Students will be able to Solve clustering problems & evaluate the results.	
• **Course no.**	• **Course code**	• **Course name**
• C509	• BTCOS509	• Seminar
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	To train the students in preparing and presenting technical topics	
• **2**	To clarify, deepen the understanding in the subject, and also increase Confidence and presentation skills.	
• **3**	• To identifying topics of interest related to the program of study and make presentation	
• **4**	• To Build Confidence while performing seminar work	
• **5**	• Effective presentation and improve soft skills	
• **Course no.**	• **Course code**	• **Course name**
• C510	• BTCOF411	• Field training internship industrial training evaluation
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Integrate theory and practice.	
• **2**	• Apply various soft skills such as time managem ent, positive attitude and communication skills during performance of the tasks assigned in internship organization.	
• **3**	• Determine the challenges and potential for his / her internship organization in particular and the sector in general.	
• **4**	• Construct the company profile by compiling the brief history, management structure, products / services offered, key achievements and market performance for his / her organization of internship.	
• **Third Year- CSE- II**		
• **Course no.**	• **Course code**	• **Course name**
• C601	• BTCOC601	• Compiler Design
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Acquire knowledge of different phases and passes of the compiler. . Students will also be able to design different types	

	of compiler tools to meet the requirements of the realistic constraints of compilers
● **2**	● Understand the parser and its types i.e. Top-Down and Bottom-up parsers and construction of LL, SLR, CLR, and LALR parsing table**.**
● **3**	● Describe intermediate code representations using syntax trees and DAG has as well as use this knowledge to generate intermediate code in the form of three address code representations.
● **4**	● Understand the target machine's run time environment, its instruction set for code generation and techniques used for code optimization
● **5**	● Summarize various optimization techniques used for dataflow analysis.

● **Course no.**	● **Course code**	● **Course name**
● C602	● BTCOC602	● Computer Networks
● **COs**	● After the successful completion of this course student will be able to:	
● **1**	● Analyze the requirements for a given organizational structure to select the most appropriate networking architecture, topologies, transmission mediums, and technologies	
● **2**	● Demonstrate design issues, flow control and error control Illustrate Client-Server architectures and prototypes by the means of correct standards and technology. Local area networks and wide area networks.	
● **3**	● Analyze data flow between TCP/IP model using Application, Transport and Network Layer Protocols	
● **4**	● Demonstrate different routing and switching algorithms	
● **5**	● Illustrate applications of Computer Network capabilities, selection and usage for various sectors of user community.	

● **Course no.**	● **Course code**	● **Course name**
● C603	● BTCOE603	● Elective-V(b) Artificial Intelligence
● **COs**	● After the successful completion of this course student will be able to:	
● **1**	● To understand concepts of artificial intelligence	
● **2**	● To explain intelligent Agent and types of Environment?	
● **3**	● To elaborate what is constraint , types of constraints	
● **4**	● To explore Different types of algorithms like BFS, DFS, IDDFS, A*, RBFS etc.	

• **Course no.**		• **Course code**	• **Course name**
• C604		• BTCOE 604	• Internet of Things
• **COs**	• After the successful completion of this course student will be able to:		
• **1**	• Students can describe the IOT network Architecture		
• **2**	• Compare smart objects and associated technologies for deployment in the network		
• **3**	• Describe IP layer and application protocols used in IOT		
• **4**	• Elaborate Data and Analytics for IOT		
• **5**	• Build IOT application with Arduino & Raspberry pi		
• **Course no.**		• **Course code**	• **Course name**
• C605		• BTCOE605	• Elective-VII (c)Consumer Behavior
• **COs**	• After the successful completion of this course student will be able to:		
• **1**	• Apply business communication strategies and principles to prepare effective communication for domestic and international business		
• **2**	• Identify ethical, legal, cultural, and global issues affecting business communication.		
• **3**	• Participate in team activities that lead to the development of collaborative work skills		
• **4**	• Select appropriate organizational formats and channels used in developing and presenting business messages.		
• **5**	• Express an effective oral business presentation		
• **Course no.**		• **Course code**	• **Course name**
• C606		• BTCOC606	• Competitive Programming II
• **COs**	• After the successful completion of this course student will be able to:		
• **1**	• Analyze (decode) the problem statement given		
• **2**	• Write an algorithm for given problem statement		
• **3**	• Explain the flowchart for algorithm written for problem statement		
• **4**	• List and explain the data structures required to solve the problem statement		
• **5**	• Implement program for algorithm for given problem statement		

• **6**	• Differentiate between the programming languages and select proper one for given problem statement	
• **7**	• Use functionalities to solve problem statement	
• **Course no.**	• **Course code**	• **Course name**
• C607	• BTCOL607	• Internet of things Laboratory
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Build IOT application with Ardunio	
• **2**	• Build IOT application with Rasberrypi	
• **3**	• Implement the connectivity of Ardunio Kit	
• **4**	• Implement the connectivity of Rasberrypi Kit	
• **5**	• Build IOT application by using Ardunio & Rasberrypi with sensors	
• **Course no.**	• **Course code**	• **Course name**
• C608	• BTCOL608	• Computer Networks Laboratory
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Working knowledge of datagram and internet socket programming	
• **2**	• Design and test simple programs to implement networking concepts using Java.	
• **3**	• Design simple data transmission using networking concepts and implement.	
• **4**	• Demonstrate different routing and switching algorithms	
• **5**	• Compare and analyze different existing protocols.	
• **Course no.**	• **Course code**	• **Course name**
• C609	• BTCOF609	• Field Training / Internship/ Industrial Training
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Integrate theory and practice.	
• **2**	• Apply various soft skills such as time management, positive attitude and communication skills during performance of the tasks assigned in internship organization.	
• **3**	• Determine the challenges and potential for his / her internship organization in particular and the sector in general.	

● **4**	● Construct the company profile by compiling the brief history, management structure, products / services offered, key achievements and market performance for his / her organization of internship.

● **Final Year- CSE-I**		
● **Course no.**	● **Course code**	● **Course name**
● C701	● BTCOC701	● Software Engineering

● **COs**	● After the successful completion of this course student will be able to:
● **1**	● To understand and Know the Software Engineering Framework, Practice & Process Models.
● **2**	Knowing the key practices in extreme programming and how these relate to the general Principles of agile methods
● **3**	● Understand, analyze, and design using UML of real word problem Statement.
● **4**	● Apply and Implement real word problem Statement using UML design techniques.
● **5**	To understand Software testing, Development testing, Test- driven development, Release testing, User testing.
● **6**	● Understand and Analyze the Dependability properties, Availability and reliability, Safety Security

● **Course no.**	● **Course code**	● **Course name**
● C702	● BTCOE702	● Elective - VIII (B) Distributed System

● **COs**	● After the successful completion of this course student will be able to:
● **1**	● Identify the core concepts of distributed systems (level 1)
● **2**	● Distinguish distributed computing paradigm from other computing paradigms (level 2)
● **3**	● Illustrate the mechanisms of Inter process communication in distributed system (level 3)
● **4**	● Apply appropriate distributed system principles in ensuring transparency, consistency and fault-tolerance in distributed file system and avoid issues like, saturation, Deadlock (level 3)
● **5**	● Outline the need for mutual exclusion and election algorithms in distributed systems (level 4)

• Course no.	• Course code	• Course name
• C703	• BTCOE703	• Elective - IX (A) Cloud Computing

• COs	• After the successful completion of this course student will be able to:
• 1	"Understand Cloud Computing, reference models, Virtualization along with the licensing of software's "
• 2	• design Cloud Computing Architecture, Types of Clouds and Challenges
• 3	• know how to setup cloud enterprise with example of storage, database as a service
• 4	• Learn and Apply Aneka Cloud Platforms, SDK, Management Tools
• 5	"Implement and use the various services of cloud in different sectors like healthcare, finance, Business and consumer "
• 6	• Create cloud computing environment for sample organization using different tools
• 7	• Apply Microsoft Azure and Implement cloud based application

• Course no.	• Course code	• Course name
• C704	• BTCOE704	• Open Elective - X (A) Block chain Technology

• COs	• After the successful completion of this course student will be able to:
• 1	• Understand block chain technology.
• 2	• Describe the working of bit coin crypto currency.
• 3	• Build and deploy block chain application for on premise and cloud based architecture.
• 4	• Integrate ideas from various domains and implement them using block chain technology in different perspectives.
• 5	• Design smart contract using Ethereal.
• 6	• Design smart contract using Hyperactive ledger Fabric frameworks.
• 7	• Understand The life of a Bit coin Miner.

• Course no.	• Course code	• Course name

• C705	• BTCOL705	• Full Stack Development (LAMP / MEAN)

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• Develop skills necessary to design, develop and style a web based user interfaces
• **2**	• Develop skills required to create lightweight browser based web applications using client side scripting.
• **3**	• Develop skill to use different JavaScript frameworks for developing responsive websites
• **4**	• Develop skills necessary to develop efficient, scalable, web based applications
• **5**	• Develop ability to identify use cases for applying client and server side scripting web technologies

• **Course no.**	• **Course code**	• **Course name**
• C706	• BTCOL706	• System Administration

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• Implement the successful installation of different Linux platforms like Ubuntu, centos
• **2**	• Build the Ubuntu System with SSH Server installed to enable or disable root login
• **3**	• Implement the successful installation of Telnet Server on Cent OS
• **4**	• Implement the FTP Server installation on CentOS or Ubuntu
• **5**	• Complete the upload and download of files using FTP server
• **6**	• Complete the installation of SAMBA and HTTP Server on Ubuntu
• **7**	• Complete the installation of Proxy Server

• **Course no.**	• **Course code**	• **Course name**
• C707	• BTCOL707	• Elective – VIII Lab

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• Identify the core concepts of distributed systems (level 1)
• **2**	• Distinguish distributed computing paradigm from other computing paradigms (level 2)
• **3**	• Illustrate the mechanisms of Inter process communication in distributed system (level 3)

• **4**	• Apply appropriate distributed system principles in ensuring transparency, consistency and fault-tolerance in distributed file system and avoid issues like, saturation, Deadlock (level 3)
• **5**	• Outline the need for mutual exclusion and election algorithms in distributed systems (level 4)

• **Course no.**	• **Course code**	• **Course name**
• C708	• BTCOL708	• Elective – IX Lab

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• Understand Cloud Computing, reference models, Virtualization along with the licensing of software's
• **2**	• design Cloud Computing Architecture, Types of Clouds and Challenges
• **3**	• design Cloud Computing Architecture, Types of Clouds and Challenges
• **4**	• design Cloud Computing Architecture, Types of Clouds and Challenges
• **5**	• Implement and use the various services of cloud in different sectors like healthcare, finance, Business and consumer
• **6**	• Create cloud computing environment for sample organization using different tools
• **7**	• Apply Microsoft Azure and Implement cloud based application

• **Course no.**	• **Course code**	• **Course name**
• C709	• BTCOP709	• Project phase - I

• **COs**	• After the successful completion of this course student will be able to:
• **1**	• Identify and formulate Engineering problem addressing needs of Industry & Society.
• **2**	Conduct investigations of the Engineering problem formulated by using Engineering Sciences.
• **3**	Design and develop solution(s) for Engineering problem with due consideration to public health, safety, culture, society, environment and sustainability.
• **4**	Create, select and apply modern tools for investigating, designing and developing

	Solution (s) to engineering problem.
● **5**	● Work as individual and in team for communicating and
	managing the project work ● And its fiancés.
● **6**	Apply professional ethics while identifying the problem, investigating the problem, designing a solution to the problem, working as an individual or team for communicating and managing the project work and its finances.
● **7**	● Develop ability for independent & lifelong learning.

● **Course no.**	● **Course code**	● **Course name**
● C710	● BTCOF609	● Field Training / Internship / Industrial Training

● **COs**	● After the successful completion of this course student will be able to:
● **1**	● Integrate theory and practice.
● **2**	● Apply various soft skills such as time management, positive attitude and communication skills during performance of the tasks assigned in internship organization.
● **3**	● Determine the challenges and future potential for his / her internship organization in particular and the sector in general.
● **4**	● Construct the company profile by compiling the brief history, management structure, products / services offered, key achievements and market performance for his / her organization of internship.

● **Final Year-CSE- II**

● **Course no.**	● **Course code**	● **Course name**
● C801	● **BTCOE801**	● **Elective - XI # (A) Deep Learning**

● **COs**	● After the successful completion of this course student will be able to:
● **1**	● compare modeling aspects of various neural network architectures
● **2**	● implement simple neural network algorithms
● **3**	● apply and evaluate deep learning on real data sets
● **4**	● Impalement Linear regression, linear classifiers
● **5**	● compare modeling aspects of various neural network architectures

● **Course no.**	● **Course code**	● **Course name**

• C802	• BTCOE802	• Open Elective – XII
		(A) Introduction to Industry 4.0 and Industrial • Internet of Things
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Understand Industry 4.0.	
• **2**	• Describe the working of Cyber security in Industry 4.0.	
• **3**	• Describe the Industrial Processes.	
• **4**	• Understand Industrial IOT- Layers.	
• **5**	• Describe the Security and Fog Computing in Industrial IOT.	
• **6**	• Design Industrial IOT- Application Domains: Healthcare.	
• **7**	• Design Industrial IOT- Application Domains: pharmaceutical industry.	
• **Course no.**	• **Course code**	• **Course name**
• C803	• BTCOE803	Project phase - II (In-house) $ / Internship and project in the Industry
• **COs**	• After the successful completion of this course student will be able to:	
• **1**	• Apply concepts of project management.	
• **2**	• Develop a project model.	
• **3**	• Understand project modeling andworking.	
• **4**	• Analyze post project operating stages.	