ESWAR COLLEGE OF ENGINEERING: NARASARAOPET
Approved by AICTE, New Delhi., Affiliated to JNTUK, Kakinada
Kesanupalli Village, Narasaraopet – 522 601,
Palnadu Dist. A.P.

Department Of Computer Science and Engineering

Course Outcomes
Regulation R20

Year/Sem: II B.Tech I Sem

Course Name: Mathematics III	
Course Code: CSE2101	
CSE2101.1	State and prove vector Line , Surface and volume integral Theorems. State and prove Stokes and Green's theorems.
CSE2101.2	Derive Laplace transform standard functions. Deduce inverse Laplace transform functions.
CSE2101.3	Explain about Periodic functions , even and odd functions. Explain about Half range sine and cosine series. Explain Fourier transforms. State and prove Fourier integral theorem and problems.
CSE2101.4	Explain Fourier Transforms. State and prove Fourier integral theorem and problems.
CSE2101.5	Explain By eliminating Orbitary constants and Orbitary functions. Derive Legrangies equation and problems.
CSE2101.6	Derive solutions of linear P.D.E with constant coefficients and problems. Explain method of separation of variables and wave & heat equations.

Course Name: Object Oriented Programming through C++	
Course Code: CSE2102	
CSE2102.1	Classify object oriented programming and procedural programming
CSD2102.2	Apply C++ features such as composition of objects, operator overloads, dynamic memory allocation
CSD2102.3	Inheritance and Polymorphism
CSD2102.4	Build C++ classes using appropriate encapsulation and design principles
CSD2102.5	Apply object oriented or non-object oriented techniques to solve bigger computing
CSD2102.6	File I/O, exception handling

Course Name: Operating Systems	
Course Code: CSE2103	
CSE2103.1	Describe various generations of Operating System and functions of Operating System
CSE2103.2	Describe the concept of program, process and thread and analyze various CPU Scheduling algorithms
CSE2103.3	Solve Inter Process Communication problems using Mathematical Equations by various methods.
CSE2103.4	Compare various Memory Management Schemes
CSE2103.5	especially paging and Segmentation
CSE2103.6	Outline File Systems in Operating System like UNIX/Linux and Windows

Course Name: Software Engineering	
Course Code: CSE2104	
CSE2104.1	Ability to transform an Object-Oriented Design into high quality, executable code.
CSE2104.2	Skills to design, implement, and execute test cases at the Unit and Integration level.
CSE2104.3	Prepare SRS document, design document, test cases and software configuration management and risk management related document.
CSE2104.4	Develop function oriented and object oriented software design using tools like rational rose.
CSE2104.5	Use modern engineering tools necessary for software project management, estimations, time management and software reuse.
CSE2104.6	Generate test cases for software testing.

Course Name: Mathematical Foundations of Computer Science	
Course Code: CSE2105	
CSE2105.1	Demonstrate skills in solving mathematical problems
CSE2105.2	Comprehend mathematical principles and logic
CSE2105.3	Demonstrate knowledge of mathematical modelling
CSE2105.4	Proficiency in using mathematical software
CSE2105.5	Manipulate and analyze data numerically and/or graphically using appropriate Software
CSE2105.6	Communicate effectively mathematical ideas/results verbally or in writing

Course Name: Object Oriented Programming through C++ Lab	
Course Code: CSE2106	
CSE2106.1	Apply the various OOPs concepts with the help of programs
CSE2106.2	Write a program implementing Friend Function
CSE2106.3	Write a program to Overload Unary, and Binary Operators as Member Function, and Non Member Function
CSE2106.4	Write a C++ program Multiple level Inheritance
CSE2106.5	Write a C++ program Hierarchical Inheritance
CSE2106.6	Write a Program for Exception Handling Divide by zero

Course Name: Operating Systems Lab	
Course Code: CSE2107	
CSE2107.1	To use Unix utilities and perform basic shell control of the utilities
CSE2107.2	To use the Unix file system
CSE2107.3	To use the file access control
CSE2107.4	To use of an operating system to develop software
CSE2107.5	Students will be able to use Linux environment efficiently
CSE2107.6	Solve problems using bash for shell scripting

Course Name: Software Engineering Lab	
Course Code: CSE2108	
CSE2108.1	By the end of this lab the student is able to elicit, analyze and specify software requirements through a productive working relationship with various stakeholders of the project.
CSE2108.2	Prepare SRS document, design document, test cases and software configuration management and risk management related document.
CSE2108.3	Develop function oriented and object oriented software design using tools like rational rose.
CSE2108.4	Use modern engineering tools necessary for software project management, estimations, time management and software reuse.
CSE2108.5	Generate test cases for software testing
CSE2108.6	Will have experience and/or awareness of testing problems and will be able to develop a simple testing report.

Course Name: APPLICATIONS OF PYTHON-NUMPY LAB	
Course Code: CSE2109	
CSE2109.1	Explain how data is collected ,managed and stored for processing
CSE2109.2	Understand the working of various numerical techniques, different descriptive measures of Statistics to solve the engineering problems.
CSE2109.3	Understand how to apply some linear algebra operations to n-dimensional arrays
CSE2109.4	Use NumPy perform common data wrangling and computational tasks in Python
CSE2109.5	Understand the correlation and regression to solve the engineering problems
CSE2109.6	Utilise NumPy arrays to store and perform operations on data sets

Course Name: Constitution of India	
Course Code: CSE2110	
CSE2110.1	Understand historical background of Constitution making and its importance for building a democratic India.
CSE2110.2	Understand the functioning of three wings of Government i.e., executive, legislative and judiciary.
CSE2110.3	Understand the value of the fundamental rights and duties for becoming a good citizen of India.
CSE2110.4	Analyze the decentralization of power between central, state and local self-government.
CSE2110.5	Apply the knowledge in strengthening of the constitutional institutions like CAG, Election Commission and UPSC for sustaining democracy.

Year/Sem: II B.Tech II Sem

Course Name: Probability and Statistics	
Course Code: CSE2201	
CSE2201.1	Explain the concepts of data science and its importance
CSE2201.2	Learn characteristics and through Correlation and regression tools
CSE2201.3	Write the concepts of probability and their applications
CSE2201.4	Apply discrete and continuous probability distributions
CSE2201.5	Explain the components of classical hypothesis test
CSE2201.6	To learn statistical inferential methods based on small and large sampling test

Course Name: Database Management Systems	
Course Code: CSE2202	
CSE2202.1	Describe a relational database and object-oriented database
CSE2202.2	Create, maintain and manipulate a relational database using SQL
CSE2202.3	Describe ER model and normalization for database design
CSE2202.4	Examine issues in data storage and query processing and can formulate appropriate solutions
CSE2202.5	Outline the role and issues in management of data such as efficiency, privacy, security.
CSE2202.6	Outline the role and issues in management of data such as ethical responsibility, and strategic advantage.

Course Name: Formal Languages and Automata Theory	
Course Code: CSE2203	
CSE2203.1	Classify machines by their power to recognize languages.
CSE2203.2	Summarize language classes & grammars relationship among them with the help of Chomsky hierarchy
CSE2203.3	Employ finite state machines to solve problems in computing
CSE2203.4	Illustrate deterministic machines
CSE2203.5	Illustrate non-deterministic machines
CSE2203.6	Quote the hierarchy of problems arising in the computer science

Course Name: Java Programming	
Course Code: CSE2204	
CSE2204.1	Able to realize the concept of object oriented programming & java programming constructs.
CSE2204.2	Able to describe the basic concepts of java such as operators,classes,objects.
CSE2204.3	Able to described the basic concept of java such as

	inheritance,packages,enumeration and various keywords.
CSE2204.4	Apply the concept of exception handling and Input/Output operations.
CSE2204.5	Able to design the application of java & java applet.
CSE2204.6	Able to Analyze & Design the concept of Event Handling and Abstract Window ToolKit.

Course Name: Managerial Economics and Financial Accountancy	
Course Code: CSE2205	
CSE2205.1	The Student is enhanced with the knowledge of estimating the Supply Demand and demand elasticises for a product.
CSE 2205.2	The knowledge of understanding of the Input-Output-Cost relationships and estimation of the least cost combination of inputs
CSE 2205.3	The Students is also ready to understand the nature of different markets and Price Output determination under various market conditions and also to have the knowledge of different Business Units regarding Product & Services
CSE2205.4	They can understand the knowledge of formation of the company and company business cycle.
CSE2205.5	The Learner is able to prepare accounts, Ledger then Financial Statements and the usage of various Accounting tools for Analysis.
CSE2205.6	The Learner can able to evaluate various investment project proposals with the help of capital budgeting techniques for business decision making.

Course Name: Database Management Systems Lab	
Course Code: CSE2206	
CSE2206.1	Utilize SQL to execute queries for creating database and performing data manipulation operations
CSE2206.2	Examine integrity constraints to build efficient databases
CSE2206.3	Apply Queries using Advanced Concepts of SQL
CSE2206.4	Build PL/SQL programs including stored procedures, functions, cursors and triggers
CSE2206.5	Build PL/SQL programs including functions.
CSE2206.6	Build PL/SQL programs including cursors and triggers

Course Name: R Programming Lab	
Course Code: CSE2207	
CSE2207.1	Access online resources for R and import new function packages into the R workspace
CSE2207.2	Import, review, manipulate and summarize data-sets in R
CSE2207.3	Explore data-sets to create testable hypotheses
CSE2207.4	Identify appropriate statistical tests
CSE2207.5	Perform appropriate statistical tests using R
CSE2207.6	Create and edit visualizations with R

Course Name: Java Programming Lab	
Course Code: CSE2208	
CSE2208.1	Evaluate default value of all primitive data type, Operations, Expressions, Control-flow, Strings
CSE2208.2	Determine Class, Objects, Methods, Inheritance.
CSE2208.3	Exception, Runtime Polymorphism.
CSE2208.4	User defined Exception handling mechanism.
CSE2208.5	Illustrating simple inheritance, multi-level inheritance, Exception handling mechanism
CSE2208.6	Construct Threads, Event Handling, implement packages, developing applets

Course Name: APPLICATIONS OF PYTHON-PANDAS LAB	
Course Code: CSE2209	Use Pandas to create and manipulate data structures like Series and Data f rames
CSE2209.1	Work with arrays ,queries and data frames
CSE2209.2	Query Data Frame structures for cleaning and processing and manipulating files
CSE2209.3	Understand best practice for creating basic charts
CSE2209.4	Describe how to index and "type" Pandas Series and Dataframes.
CSE2209.5	Create histograms and scatter plots for basic exploratory data analysis
CSE2209.6	Use Pandas to create and manipulate data structures like Series and Data frames

Year/Sem: III B.Tech I Sem

Course Name: Computer Networks	
Course Code :CSE3101	
CSE3101.1	Demonstrate different network models for networking links OSI, TCP/IP, B-ISDN, N-BISDN and get knowledge about various communication techniques, methods and protocol standards.
CSE3101.2	Discuss different transmission media and different switching networks.
CSE3101.3	Analyze data link layer services
CSE3101.4	functions and protocols like HDLC and PPP.
CSE3101.5	Compare and Classify medium access control protocols like ALOHA, CSMA, CSMA/CD, CSMA/CA, Polling, Token passing, FDMA, TDMA, CDMA protocols
CSE3101.6	Determine application layer services and client server protocols working with the client server paradigms like WWW, HTTP, FTP, e-mail and SNMP etc.

Course Name: Design and Analysis of Algorithms	
Course Code: CSE3102	
CSE3102.1	Analyze the performance of a given algorithm, denote its time complexity using the asymptotic notation for recursive and non-recursive algorithms.

CSE3102.2	List and describe various algorithmic approaches and Solve problems using divide and conquer &greedy Method.
CSE3102.3	Synthesize efficient algorithms dynamic programming approaches to solve in common engineering design situations.
CSE3102.4	Organize important algorithmic design paradigms and methods of analysis: backtracking, branch and bound algorithmic approaches
CSE3102.5	Demonstrate NP- Completeness theory ,lower bound theory and String Matching.

Course Name: Data Warehousing and Data Mining	
Course Code: CSE3103	
CSE3103.1	Illustrate the importance of Data Warehousing, Data Mining and its functionalities and Design schema for real time data warehousing applications.
CSE3103.2	Demonstrate on various Data Preprocessing Techniques viz. data cleaning, data integration, data transformation and data reduction and Process raw data to make it suitable for various data mining algorithms.
CSE3103.3	Choose appropriate classification technique to perform classification.
CSE3103.4	Choose Model building and evaluation .
CSE3103.5	Make use of association rule mining techniques viz. Apriori and FP Growth algorithms and analyze on frequent itemsets generation.
CSE3103.6	Identify and apply various clustering algorithm (with open source tools), interpret, evaluate and report the result.

Course Name: RES	
Course Code: CSE3104	
CSE3104.1	Analyze solar radiation data, extra-terrestrial radiation, radiation on earth's surface and solar Energy Storage.
CSE3104.2	Illustrate the components of wind energy systems.
CSE3104.3	Illustrate the working of biomass plants.
CSE3104.4	Illustrate the working of Geothermal plants.
CSE3104.5	Demonstrate the principle of Energy production from OTEC, Tidal and Waves.
CSE3104.6	Evaluate the concept and working of Fuel cells & MHD power generation.

Course Name: Artificial Intelligence	
Course Code: CSE3105	
CSE3105.1	Understand the fundamental concepts in Artificial Intelligence
CSE3105.2	Analyze the applications of search strategies and problem reductions
CSE3105.3	Apply the mathematical logic concepts
CSE3105.4	Solve basic AI based problems.
CSE3105.5	Develop the Knowledge representations in Artificial Intelligence.
CSE3105.6	Explain the Fuzzy logic systems.

Course Name: Data Warehousing and Data Mining Lab
Course Code: CSE3106

CSE3106.1	Design a data mart or data warehouse for any organization
CSE3106.2	Extract knowledge using data mining techniques
CSE3106.3	Extract enlist various algorithms used in information analysis of Data Mining Techniques
CSE3106.4	Demonstrate the working of algorithms for data mining tasks such as association rule mining, classification for realistic data
CSE3106.5	Implement and Analyze on knowledge flow application on data sets
CSE3106.6	Apply the suitable visualization techniques to output analytical results

Course Name: Computer Networks Lab	
Course Code: CSE3107	
CSE3107.1	Know how reliable data communication is achieved through data link layer.
CSE3107.2	Suggest appropriate routing algorithm for the network
CSE3107.3	Provide internet connection to the system
CSE3107.4	its installation.
CSE3107.5	Work on various network management tools
CSE3107.6	understand the layered architecture

Course Name: SOC	
Course Code: CSE3108	
CSE3108.1	learn various tools of digital 2-D animation
CSE3108.2	Understand production pipeline to create 2-D animation.
CSE3108.3	apply the tools to create 2D animation for films and videos
CSE3108.4	apply the tools to create videos
CSE3108.5	understand different styles and treatment of content in 3D model creation
CSE3108.6	apply tools to create effective 3D modelling texturing and lighting

Course Name: Employability Skills-I	
Course Code: CSE3109	
CSAM3109.1	Be composed with positive attitude,, develop verbal and non verbal communication.
CSAM3109.2	Understand the corporate etiquette. Lean to manage anger, stress and time.
CSAM3109.3	Make presentation effectively with appropriate body language.
CSAM3109.4	To develop good documentation and correspondence, Verbal ability
CSAM3109.5	Understand the core competencies to succeed in professional and personal life through group discussions.
CSAM3109.6	Understand the core competencies to succeed in professional and personal life , resume preparation, mock interviews

Year/Sem: III B.Tech II Sem

Course Name: Machine Learning	
Course Code: CSE3201	
CSE3201.1	Explain the fundamental usage of the concept Machine Learning system
CSE3201.2	Demonstrate on various regression Technique
CSE3201.3	Analyze the Ensemble Learning Methods
CSE3201.4	Illustrate the Clustering Techniques and Dimensionality Reduction Models in

	Machine Learning
CSE3201.5	Clustering, K-Means, Limits of K-Means, Using Clustering for Image Segmentation
CSE3201.6	Discuss the Neural Network Models and Fundamentals concepts of Deep Learning

Course Name: Compiler Design	
Course Code: CSE3202	
SE3202.1	Demonstrate phases in the design of compiler
CSE3202.2	Organize Syntax Analysis, Top Down and LL(1) grammars
CSE3202.3	Design Bottom Up Parsing
CSE3202.4	Construction of LR parsers
CSE3202.5	Analyze synthesized, inherited attributes and syntax directed translation schemes
CSE3202.6	Determine algorithms to generate code for a target machine

Course Name: Cryptography and Network Security	
Course Code: CSE3203	
CSE3203.1	Explain different security threats and countermeasures and foundation course of cryptography mathematics.
CSE3203.2	Classify the basic principles of symmetric key algorithms and operations of some symmetric key algorithms and asymmetric key cryptography.
CSE3203.3	Revise the basic principles of Public key algorithms and Working operations of some Asymmetric key algorithms such as RSA, ECC and some more.
CSE3203.4	Apply methods for authentication, access control, intrusion detection and prevention.
CSE3203.5	Design applications of hash algorithms, digital signatures and key management techniques.
CSE3203.6	Determine the knowledge of Application layer, Transport layer and Network layer security Protocols such as PGP, S/MIME, SSL,TSL, and IPsec .

Course Name: Object Oriented Analysis and Design	
Course Code: CSE3204	
CSE3204.1	Analyze the nature of complex system and its solutions.
CSE3204.2	Illustrate & relate the conceptual model of the UML, identify & design the classes and relationships.
CSE3204.3	Analyze&Design Class and Object Diagrams that represent Static Aspects of a Software System.
CSE3204.4	Apply basic and Advanced Structural Modeling Concepts for designing real time applications.
CSE3204.5	Analyze& Design behavioral aspects of a Software System using Use Case, Interaction and Activity Diagrams.
CSE3204.6	Analyze& Apply techniques of State Chart Diagrams and Implementation Diagrams to model behavioral aspects and Runtime environment of Software Systems.

Course Name: EME- **Open Elective-II**
Course Code: CSE3205

CSE3205.1	Discuss the concepts about stresses and strains.
CSE3205.2	Justify about the components of transmission systems.
CSE3205.3	Analyze Problems related to project management techniques.
CSE3205.4	Utilize knowledge about manufacturing processes and materials.
CSE3205.5	Utilize knowledge about materials.
CSE3205.6	Learn the concepts of boilers, steam power plant, petrol and diesel engines.

Course Name: Machine Learning using Python Lab	
Course Code: CSE3206	
CSE3206.1	Implement procedures for the machine learning algorithms
CSE3206.2	Design and Develop Python programs for various Learning algorithms
CSE3206.3	Apply appropriate data sets to the Machine Learning algorithms
CSE3206.4	Develop Machine Learning algorithms to solve real world problems
CSE3206.5	Develop a program for Bias, Variance, Remove duplicates , Cross Validation
CSE3206.6	Build an Artificial Neural Network by implementing the Back propagation algorithm and test the same using appropriate data sets.

Course Name: Compiler Design Lab	
Course Code: CSE3207	
CSE3207.1	Design simple lexical analyzers
CSE3207.2	Determine predictive parsing table for a CFG
CSE3207.3	Apply Lex
CSE3207.4	Apply Yacc tools
CSE3207.5	Examine LR parser and generating SLR Parsing table
CSE3207.6	Relate Intermediate code generation for subset C language

Course Name: Cryptography and Network Security Lab	
Course Code: CSE3208	
CSE3208.1	Apply the knowledge of symmetric cryptography to implement encryption and decryption using Ceaser Cipher, Substitution Cipher, Hill Cipher .
CSE3208.2	Demonstrate the different algorithms like DES, BlowFish, and Rijndael, encrypt the text “Hello world” using Blowfish Algorithm.
CSE3208.3	Analyze and implement public key algorithms like RSA, Diffie-Hellman Key Exchange mechanism, the message digest of a text using the SHA-1 algorithm.
CSE3208.4	Identify basic security attacks and services.
CSE3208.5	Use symmetric and asymmetric key algorithms for cryptography.
CSE3208.6	Demonstrate the network security system using open source tools.

Course Name: MEAN STACK TECHNOLOGIES MODULE-1	
Course Code: CSE3209	
CSE3209.1	Develop professional web pages of an application using HTML elements like lists, navigation, tables, various form elements, embedded media.
CSE3209.2	Develop professional web pages of an application using images, audio, video and CSS Styles.
CSE3209.3	Utilize JavaScript for developing interactive HTML web pages and validate form data
CSE3209.4	Build a basic web server using Node.js and also working with Node Package

	Manager.
CSE3209.5	Build a web server using Express.js
CSE3209.6	Make use of Typescript to optimize JavaScript code by using the concept of strict type checking.

Course Name: Employability skills-II	
Course Code: CSE3210	
CSE3210.1	Solve various Basic Mathematics problems by following different methods
CSE3210.2	Follow strategies in minimizing time consumption in problem solving
CSE3210.3	Apply shortcut methods to solve problems
CSE3210.4	Confidently solve any mathematical problems
CSE3210.5	utilize these mathematical skills both in their professional as well as personal life
CSE3210.6	Analyze, summarize and present information in quantitative forms including table, graphs and formulas

Year/Sem: IV B.Tech I Sem

Course Name: Cyber Security & Forensics	
Course Code**:CSE4101**	
CSE4101.1	Explain the Cybercrime Fundamentals
CSE4101.2	Describe the types of attacks on networks
CSE4101.3	Analyze various tools available for Cybercrime Investigation
CSE4101.4	Explain the Computer Forensics
CSE4101.5	Investigation Fundamentals and tools
CSE4101.6	Analyze the legal perspectives of Cybercrime

Course Name: Deep Learning Techniques	
Course Code: **CSE4102**	
CSE4102.1	Demonstrate the fundamental concepts learning techniques of Artificial Intelligence, Machine Learning and Deep Learning.
CSE4102.2	Discuss the Neural Network training, various random models**.**
CSE4102.3	Explain the Techniques of Keras, TensorFlow, Theano and CNTK
CSE4102.4	Explain different types of Classification,
CSE4102.5	Classify the Concepts of CNN and RNN
CSE4102.6	Implement Interactive Applications of Deep Learning

Course Name: Block-Chain Technologies
Course Code: **CSE4103**

CSE4103.1	Demonstrate the block chain basics, Crypto currency.
CSE4103.2	To compare and contrast the use of different private vs. public block chains and use cases.
CSE4103.3	Design an innovative bit coin block chain and scripts.
CSE4103.4	Block chain science on various coins.
CSE4103.5	Classify permission block chain and use cases – Hyper ledger, Corda
CSE4103.6	Make us of block chain in E-Governance, Land Registration, Medical Information Systems and others.
Course Name: **BASIC ELECTRONICS**	
Course Code: **CSE4104**	
CSE4104.1	Understand the formation of p-n junction and how it can be used as a p-n junction as diode in different modes of operation.
CSE4104.2	Know the construction, working principle of rectifiers with and without filters with relevant expressions and necessary comparison
CSE4104.3	Understand the construction, principle of operation of transistors,
CSE4104.4	To study different biasing techniques to operate transistor, FET , MOSFET and operational amplifier in different modes.
CSE4104.5	Analyze output in different operating modes of different semiconductor device
CSE4104.6	Know the construction, working principle of THYRISTORS,SCR,UJT ,characteristics

Course Name: EMI	
Course Code: **CSE4105**	
CSE4105.1	Select the instrument to be used based on the requirements.
CSE4105.2	Understand and analyze different signal generators and analyzers.
CSE4105.3	Understand the design of oscilloscopes for different applications
CSE4105.4	Understand the design of Digital oscilloscopes for different applications
CSE4105.5	Design and derive the different bridges
CSE4105.6	Design different transducers for measurement of different parameters

Course Name: **Universal Human Values 2: Understanding Harmony**	
Course Code: **CSE4106**	
CSE4106.1	By the end of the course, students are expected to become more aware of themselves, and their surroundings (family, society, nature)
CSE4106.2	They would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind.
CSE4106.3	They would have better critical ability. They would also become sensitive to their commitment towards
CSE4106.4	They have understood (human values, human relationship and human society).
CSE4106.5	It is hoped that they would be able to apply what they have learnt to their own self in different day-to-day settings in real life, at least a beginning would be made in this direction.
CSE4106.6	This is only an introductory foundational input. It would be desirable to follow it up by a) faculty-student or mentor-mentee programs throughout their time with the institution b) Higher level courses on human values in every aspect of living. E.g. as a professional

Course Name: **MEAN STACK TECHNOLOGIES-MODULE II- ANGULAR JS, MONGODB**	
Course Code: **CSE4107**	
CSE4107.1L	Build a component-based application using Angular components and enhance their functionality using directives.

CSE4107.2L	Utilize data binding for developing Angular forms and bind them with model data.
CSE4107.3L	Apply Angular built-in or custom pipes to format the rendered data.
CSE4107.4L	Develop a single page application by using synchronous or asynchronous Angular routing.
CSE4107.5L	Make use of MongoDB queries to perform CRUD operations on document database.

Year/Sem: IV B.Tech II Sem

Course Name: Project work	
Course Code: CS4201	
CS4201.1	Work on proposed engineering solution as per industry need
CS4201.2	Customize various tools and techniques needed for project development
CS4201.3	Understand significance of safe and ethical practices during project.
CS4201.4	Work in a team with healthy working environment
CS4201.5	Develop skill to present project related activities effectively to peers and mentors.
CS4201.6	Develop skill to innovate the developed project and convert it in form of product for industrial/societal need.