**Department of Computer Science & IT**

# Master of Computer Application

## Program Outcomes

### POs:

**PO1. Computational Knowledge:** Understand and apply mathematical foundation, computing and domain knowledge for the conceptualization of computing models from defined problems.

**PO2. Problem Analysis**: Ability to identify, critically analyse and formulate complex computing problems using fundamentals of computer science and application domains.

**PO3. Design / Development of Solutions**: Ability to transform complex business scenarios and contemporary issues into problems, investigate, understand and propose integrated solutions using emerging technologies

**PO4. Solving Complex Computing Problems**: Identify and analyse software application problems in multiple aspects including coding, testing and implementation in industrial applications.

**PO5. Modern Tool Usage:** Ability to select modern computing tools, skills and techniques necessary for innovative software solutions

**PO6. Professional Ethics**: Ability to apply and commit professional ethics and cyber regulations in a global economic environment.

**PO7**. **Life-long Learning**: Recognize the need for and develop the ability to engage in continuous learning as a Computing professional.

**PO8. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**PO10**. **Societal & Environmental Concern:** Ability to recognize economic, environmental, social, health, legal, ethical issues involved in the use of computer technology and other consequential responsibilities relevant to professional practice.

**PO11. Individual & Team Work:** Ability to work as a member or leader in diverse teams in multidisciplinary environment.

**PO12. Innovation and Entrepreneurship:** Identify opportunities, entrepreneurship vision and use of innovative ideas to create value and wealth for the betterment of the individual and society.

**Department of Computer Science & IT**

# Program Specific Outcomes

## PSOs:

**PSO 1:** Understand and apply the computing techniques with mathematics and industrial concepts for solving the real time industrial problems.

**PSO 2:** Analyze, design, develop, test and maintain the software applications with latest computing tools and technologies.

# Semester I

## Department of Computer Science & IT

**Subject: Basics of Programming Languages**
Code: CSC31166
Credit - 4 | Semester I

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Identify special features introduced in C++ when compared to C and illustrate the difference between structure and class using C++ program
**[CO.2].** Apply the Concepts of inheritance, polymorphism for the given problem and develop C++ program.
**[CO.3].** Implement the concept of overloading, default parameters, Constructors and destructors in a C++ program.
**[CO.4].** Analyze the working of I/O operations with C++ files.
**[CO.5].** Demonstrate the Exception handling and template for a given problem.
**[CO.6].** Demonstrate the concepts of data abstraction, information hiding and encapsulation by writing C++ program

**Subject: Discrete Mathematics**
Code: CSC31167
Credit - 4 | Semester I

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Apply the operations of sets and use Venn diagrams to solve applied problems; solve problems using the principle of inclusion-exclusion
**[CO.2].** Apply rules of inference, proof by contradiction, proof by cases, and write proofs using symbolic logic and Boolean algebra
**[CO.3].** Solve counting problems by applying elementary counting techniques using the product and sum rules, permutations, combinations, Course the pigeon-hole principle
**[CO.4]** Determine if a given graph is simple or a multigraph, directed or undirected, cyclic or acyclic, and determine the connectivity of a graph.
**[CO.5].** Understand the basic principles of sets and operations in sets.
**[CO.6].** Demonstrate an understanding of relations and functions and be able to determine their properties.

## Department of Computer Science & IT

**Subject: Operating System with Linux**

Code: CSC31168

Credit - 4 | Semester I

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Apply the fundamental concepts of the operating systems (OS) for a given problem and discuss its performance issues.
**[CO.2].** Apply graph theory concepts to model OS problem and give valid conclusions.
**[CO.3].** Analyze the given problem and solve using OS management techniques.
**[CO.4].** Design algorithms for the given problem & compare its performance with existing ones.
**[CO.5].** Demonstrate the working of basic commands of Unix environment including file processing.
**[CO.6].** Demonstrate the usage of different shell commands, variable and AWK filtering to the given Problem

**Subject: Object Oriented Programming with Java**

Code: CSC31169

Credit - 4 | Semester I

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Demonstrate the basic programming constructs of Java and OOP concepts to develop Java programs for a given scenario.
**[CO.2].** Illustrate the concepts of generalization and run time polymorphism applications to develop reusable components.
**[CO.3].** Exemplify the usage of Packages, Interfaces, Exceptions and Multithreading in building efficient applications.
**[CO.4].** Apply Enumerations, Wrappers, Auto boxing, Collection framework and I/O operations for effective coding.
**[CO.5].** Implement the concepts of Applets, and networking using Java network classes for distributed applications

**Subject: Research Methodology and IPR**

## Department of Computer Science & IT

Code: CSC31170
Credit - 4 | Semester I

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Identify the suitable research methods and articulate the research steps in a proper sequence for the given problem.
**[CO.2].** Carry out literature survey, define the problem statement and suggest suitable solution for the given problem.
**[CO.3].** Analyse the problem and conduct experimental design with the samplings.

**[CO.4].** Perform the data collection from various sources, segregate the primary and secondary data
**[CO.5].** Apply some concepts/section of Copy Right Act /Patent Act /Cyber Law/ Trademark to the given case and develop conclusions

### Professional Communication

Code: CSC31171
Credit - 4 | Semester 1

Course Outcomes: At the end of the course, students will be able to:

**[CO.1].** The objective of the course is to help the students become the independent users of English language.
**[CO.2].** Students will acquire basic proficiency in reading & listening, comprehension, writing and speaking skills.
**[CO.3].** Students will be able to understand spoken and written English language, particularly the language of their chosen technical field.
**[CO.4].** They will be able to converse fluently.
**[CO.5].** They will be able to write clear and coherent sentences and paragraphs

### Subject: Programming Language Lab

Code: CSC31172

Credit - 2 | Semester I

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Identify special features introduced in C++ when compared to C and illustrate the difference between structure and class using C++ program
**[CO.2].** Apply the Concepts of inheritance, polymorphism for the given problem and develop C++ program.
**[CO.3].** Implement the concept of overloading, default parameters, Constructors and destructors in a C++ program.
**[CO.4].** Analyze the working of I/O operations with C++ files.
**[CO.5].** Demonstrate the Exception handling and template for a given problem.
**[CO.6].** Demonstrate the concepts of data abstraction, information hiding and encapsulation by writing C++ program

**Subject: Linux Lab**
Code: CSC31173
Credit - 2 | Semester I

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Demonstrate the working of basic commands of Linux environment including file processing
**[CO.2]**. Apply Regular expression to perform pattern matching using utilities like grep,sed and awk.
**[CO.3].** Implement Linux commands/ system calls to demonstrate process management
**[CO.4].** Demonstrate the usage of different shell commands, variable and AWK filtering to the given problem.
**[CO.5].** Develop shell scripts for developing the simple applications to the given problem

**Subject: JAVA Lab**
Code: CSC31174
Credit - 2 | Semester I

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Demonstrate the fundamental data types and constructs of Java Programming by writing executable/interpretable programs

**[CO.2**]. Illustrate the object oriented principles with the help of java programs.

**[CO.3].** Develop reusable and efficient applications using inheritance and multi-threading
concepts of java

**[CO.4].** Apply client-side programming and networking concepts to develop distributed applications.

**[CO.5].** Write java programs to demonstrate the concepts of interfaces, inner classes and I/O streams.

# Semester II

**Subject: Data Structures**
Code: CSC32175
Credit - 4 | Semester II

Course Outcomes: At the end of the course, students will be able to:

**[CO.1].** Comprehend different data structures, their operations using C programming.
**[CO.2].** Analyze the performance of Stack, Queue, Lists, Trees, Hashing, Searching and Sorting techniques.
**[CO.3].** Implement some applications of data structures in a high-level language such as C/C++
**[CO.4].** Design and apply appropriate data structures for solving computing problems.
**[CO.5].** Compute the efficiency of algorithms in terms of asymptotic notations for the given problem.

**Subject: Computer Networks**
Code: CSC32176
Credit - 4 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Apply the basic concepts of networking and analyze different parameters such as bandwidth, delay, throughput of the networks for the given problem.
**[CO.2].** Apply different techniques to ensure the reliable and secured communication in wired and wireless communication.
**[CO.3].** Analyze the networking concepts of TCP/IP for wired and wireless components.
**[CO.4].** Identify the issues of Transport layer to analyze the congestion control mechanism.
**[CO.5].** Design network topology with different protocols and analyze the performance using NS2.

**Subject: Web Technologies**
Code: CSC32177
Credit - 4 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Apply the concept and usages of web-based programming techniques.
**[CO.2].** Demonstrate the development of XHTML documents using JavaScript and CSS.
**[CO.3].** Design and implement user interactive dynamic web-based applications.

**[CO.4].** Demonstrate applications of Angular JS and jQuery for the given problem
**[CO.5].** Create modern web applications using MEAN & FULL stack.

**Subject: Database Management System**
Code: CSC32178
Credit - 4 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Apply the basic concepts of database management in designing the database for the given problem.
**[CO.2].** Design entity-relationship diagrams for the given problem to develop database application with appropriate fields and validations.
**[CO.3].** Implement a database schema for a given problem domain.
**[CO.4].** Formulate SQL queries in Oracle to the given problem.
**[CO.5].** Apply normalization techniques to improve the database design to the given problem.

## Department of Computer Science & IT

**Subject: Software Engineering**
Code: CSC32179
Credit - 4 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Identify and define different requirements for the given problem and present in the IEEE format.
**[CO.2].** Use modern tools to create UML diagrams to create the design for the given problem.
**[CO.3].** Draw class diagram, analyze the different types of associations that exist as per the given problem and represent them using UML notations.

**[CO.4].** Analyze the given system to identify actors, use cases to design use case diagrams for the given problem using RSA/open source tool.
**[CO.5].** Design the static/dynamic models to meet application requirements of the given system.

**Elective-I**

**Subject: CYBER SECURITY**
Code: CSC32180
Credit - 4 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1]** Apply IT Act (Cyber law) to the given case/problem and infer from the given case and analyze the gap, if it exists**.**
**[CO.2].** Analyze the working of cyber security principles in designing the system.
**[CO.3].** Analyze the given problem (cybercrime, vulnerability, threat), develop a strategy (physical, logical or administrative controls) to mitigate the problem and articulate consequences on Society and National Economy.
**[CO.4].** Examine relevant network defense / web application tool to solve given cyber security problem thereby evaluating its suitability.
**[CO.5].** Investigate the influence of Block chain technology in the context of cyber security problem and evaluate its role.
**[CO.6].** Evaluate provisions available in Indian cyber law to handle infringement of intellectual property rights that happens on the cyber platform.

## Department of Computer Science & IT

**Subject: Data Mining with Business Intelligence**

Code: CSC32181

Credit - 4 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Analyze the concept of data warehouse, Business Intelligence and OLAP**.**
**[CO.2].** Demonstrate data pre-processing techniques and application of association rule mining algorithms.
**[CO.3].** Apply various classification algorithms and evaluation of classifiers for the given problem.
**[CO.4].** Analyze data mining for various business intelligence applications for the given problem.
**[CO.5].** Apply classification and regression techniques for the given problem.

**Subject: Enterprise Resource Planning**

Code: CSC32182

Credit - 4 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Analyze the important concept of Enterprise Resource Planning and its functionality**.**
**[CO.2].** Demonstrate the basic structure and lifecycle of ERP.
**[CO.3].** Apply various ERP Technologies to understand the concept of ERP system.
**[CO.4].** Analyze the ERP Manufacturing Perspective for planning and management of different processes.
**[CO.5].** Analyze the benefits of ERP by using some kind of ERP Tools.

**Subject: ARTIFICIAL INTELLIGENCE**
Code: CSC32183
Credit - 4 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Analyze the foundation and basic concept of Artificial Intelligence.
**[CO.2].** Apply various problem solving methodology to develop AI enabled system.
**[CO.3].** Analyze the concept of representing the knowledge and the process of inference to derive new representations of the knowledge.
**[CO.4].** Apply the concept of soft computing notion for Planning, Game playing and NLP in AI and basic techniques in the classical systems.
**[CO.5].** Analyze the concept of Fuzzy Logic.

**Subject: Natural Language Processing**
Code: CSC32184
Credit - 4 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Understand approaches to syntax and semantics in NLP.
**[CO.2].** Understand approaches to discourse, generation, dialogue and summarization within NLP.
**[CO.3].** Understand current methods for statistical approaches to machine translation.
**[CO.4].** Understand machine learning techniques used in NLP, including hidden Markov models and probabilistic context-free grammars, clustering and unsupervised methods, log-linear and discriminative models, and the EM algorithm as applied within NLP.
**[CO.5].** Apply parsing technique to the given problem, verify the output, and give valid conclusions.

## Department of Computer Science & IT

**Subject: Data Structures Lab**
Code: CSC32185
Credit - 2 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Apply algorithmic techniques such as brute force, greedy, & divide & conquer.
**[CO.2].** Apply advanced abstract data type (ADT) & data structures in solving real world problems.

**[CO.3].** Effectively combine fundamental data structures and algorithmic techniques in building a complete algorithmic solution to a given problem

**[CO.4].** Describe stack, queue and linked list operation.

**Subject: Web Technologies Lab**
Code: CSC32186
Credit - 2 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Apply the concept and usages related to web-based programming techniques.

**[CO.2].** Demonstrate the development of XHTML documents using JavaScript and CSS.

**[CO.3].** Design and implement user interactive dynamic web-based applications.

**[CO.4].** Demonstrate applications of Angular JS and JQuery for the given problem

**[CO.5].** Create modern web applications using MEAN & FULL stack

**Subject: DBMS Lab with Mini Project**
Code: CSC32187
Credit - 2 | Semester II

**Course Outcomes: At the end of the course, students will be able to:**

[CO.1]. Design entity-relationship diagrams to solve simple database applications

[CO.2]. Implement a database schema for a given problemdomain.

[CO.3]. Formulate SQL queries in Oracle

[CO.4]. Apply normalization techniques to improve the database design

[CO.5]. Build database for any given problem

**Subject: Advanced Java**
Code: CSC33188
Credit - 4 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Apply the concept of Servlet and its life cycle to create web application.
**[CO.2].** Apply JSP tags and its services to web application.
**[CO.3].** Create packages and interfaces in the web application context.
**[CO.4].** Build Database connection for the web applications.
**[CO.5].** Develop enterprise applications using Java Beans concepts for the given problem.

# Semester III

**Subject: Data Analytics using Python**
Code: CSC33189

## Department of Computer Science & IT

Credit - 4 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Demonstrate basic data analytics principles and techniques
**[CO.2].** Apply control structures to the given problems
**[CO.3].** Apply the concepts of inheritance and overloading for a given problem.
**[CO.4].** Demonstrate the concepts of learning and decision trees for a given problem.
**[CO.5].** Demonstrate the concepts of neural networks and genetic algorithms for a given problem.

### Subject: Internet of Things

Code: CSC33190
Credit - 4 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Identify the use of IoT in the global perspective.
**[CO.2].** Design application using IoT.
**[CO.3].** Analyze IoT enabling Technologies.
**[CO.4].** Determine the real world problems and challenges in terms of application of IoT.

### Subject: Design & Analysis of Algorithms

Code: CSC33191
Credit - 4 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Categorize problems based on their characteristics and practical importance.
**[CO.2].** Develop Algorithms using iterative/recursive approach.
**[CO.3].** Design algorithm using an appropriate design paradigm for solving a given problem.
**[CO.4].** Classify problems as P, NP or NP Complete.

**Elective-II**
**Subject: Block Chain Technology**
Code: CSC33192
Credit - 4 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO1]:** Demonstrate the basics of Block chain concepts using modern tools/ technologies.
**[CO2]:** Analyze the role of block chain applications in different domains including cyber security.
**[CO3]:** Evaluate the usage of Block chain implementation/features for the given problem.
**[CO4]:** Exemplify the usage of bitcoins and its impact on the economy.
**[CO5]:** Analyze the application of specific block chain architecture for a given problem

**Subject: CLOUD COMPUTING**
Code: CSC33193
Credit - 4 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO1]:** Understand the common terms and definitions of virtualization and cloud computing and be able to give examples.
**[CO2]:** Comprehend the technical capabilities and business benefits of virtualization and cloud computing.
**[CO3]:** Describe the landscape of different types of virtualization and understand the different types of clouds.
**[CO4]:** Illustrate how key application features can be delivered more easily on virtual infrastructures.

**Subject: DIGITAL MARKETING**
Code: CSC33194
Credit - 4 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO1]:** Demonstrate the key concepts related to e-marketing for the given case.
**[CO2]:** Demonstrate the use of different electronic media for designing marketing activities.
**[CO3]:** Analyze the role of search engine in improving digital marketing.
**[CO4]:** Analyze role of social media marketing for the given problem
**[CO5]:** Analyze technical solutions to overcome social media threats

**Subject: SOFTWARE TESTING**
Code: CSC33195
Credit - 4 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO1]:** Acquire knowledge of basic principles and knowledge of software testing and debugging and test cases.
**[CO2]:** Understand the perceptions on testing like levels of testing, generalized pseudo code and with related examples.
**[CO3]:** Study the various types of testing.
**[CO4]:** Differentiate between functional testing and structural testing.
**[CO5]:** Analyze the performance of fault based testing, planning and monitoring the process and documentation of testing.

**Subject: NOSQL**
Code: CSC33196
Credit - 4 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO1]:** Comprehend the concept of unstructured data.
**[CO2]:** Analyse and Manage the Data using CRUD operations
**[CO3]:** Develop the applications using NoSQL.
**[CO4]:** Understand the concept of Map Reduce, its applicability in the real world application development**.**
**[CO5]:** Analyze the framework of NOSQL.

**Subject: Advanced Java Lab**
Code: CSC33197
Credit - 4 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Apply the concept of Servlet and its life cycle to create web application.
**[CO.2].** Apply JSP tags and its services to web application.
**[CO.3].** Create packages and interfaces in the context of web application.
**[CO.4].** Build Database connection for web applications.
**[CO.5].** Design and develop an application for the given problem
**[CO.6].** Develop application programs using beans concept.

**Subject: Data Analytics Lab**
Code: CSC33198
Credit - 4 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Develop python program to perform search/sort on a given data set
**[CO.2].** Demonstrate object-oriented principles
**[CO.3].** Demonstrate data visualization using NumPy for a given problem
**[CO.4].** Demonstrate regression model for a given problem
**[CO.5].** Design and develop an application for the given problem
**[CO.6].** Control a light source using web page.

**Subject: IoT Lab with Mini Project**
Code: CSC33199
Credit - 2 | Semester III

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Demonstrate IoT architecture and design for a given problem
**[CO.2].** Apply IoT architecture for a given problem
**[CO.3].** Analyze the application protocol, transport layer methods for a given business case.
**[CO.4].** Design and develop an application for the given problem
**[CO.5].** Develop python program for a given problem and verify the output
**[CO.6].** Control a light source using web page.

# Semester IV

**Subject: MOBILE APPLICATION PROGRAMMING**
Code: CSC34200
Credit - 4 | Semester IV

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Create mobile applications using Google & Android open-source platform

**[CO.2].** Apply advanced android development techniques

**[CO.3].** Can work with GPS, Wi-Fi.

**[CO.4].** Create animations with android's graphics API

**[CO.5].** Can understand Android database connectivity using SQLite

**[CO.6].** Can understand SQLite Programming

**Subject: DEEP LEARNING**
Code: CSC34201
Credit - 4 | Semester IV

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].**Demonstrate the basics of deep learning for a given context.

**[CO.2].**Implement various deep learning models for the given problem

**[CO.3].**Realign high dimensional data using reduction techniques for the given problem

**[CO.4].**Analyze optimization and generalization techniques of deep learning for the given problem.

**[CO.5].**Evaluate the given deep learning application and enhance by applying latest techniques.

**Subject: BIG DATA ANALYTICS**
Code: CSC34202
Credit - 4 | Semester IV

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].**Identify the business problem for a given context and frame the objectives to

solve it through data analytics tools.

**[CO.2].**Apply various algorithms for handling large volumes of data.

**[CO.3].**Illustrate the architecture of HDFS and explain functioning of HDFS clusters.

**[CO.4].**Analyses the usage of Map-Reduce techniques for solving big data problems.

**[CO.5].**Experiment with various datasets for analysis and visualization.

**Subject: PROGRAMMING USING C#**
Code: CSC34203
Credit - 4 | Semester IV

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Analyse C# and client-server concepts using .Net Frame Work Components.

**[CO.2].**Apply delegates, event and exception handling to incorporate with ASP, Win Form, ADO.NET.

**[CO.3].**Analyze the use of .Net Components depending on the problem statement.

**[CO.4].** Implement & develop a web based and Console based application with Database connectivity

**[CO.5].** Implement & develop a web-based application with Database connectivity

**Subject: SOFTWARE PROJECT MANAGEMENT**
Code: CSC34204
Credit - 4 | Semester IV

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Apply the practices and methods for successful software project management

**[CO.2].** Identify techniques for requirements, policies and decision making for effective resource management
**[CO.3].**Illustrate the evaluation techniques for estimating cost, benefits, schedule and risk
**[CO.4].** Devise a framework for software project management plan for activities, risk, monitoring and control
**[CO.5].** Design a framework to manage people

**Subject: SOFTWARE DEFINED NETWORKS**
Code: CSC34205
Credit - 4 | Semester IV

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].** Recognize the fundamentals and characteristics of Software Defined Networks
**[CO.2].** Understand the basics of Software Defined Networks Operations and Data flow
**[CO.3].** Discriminate different Software Defined Network Operations and Data Flow
**[CO.4].**Analyze alternative definitions of Software Defined Networks
**[CO.5].** Apply different Software Defined Network Operations in real world problem

**Subject: MOBILE APPLICATION PROGRAMMING LAB**
Code: CSC34206
Credit - 4 | Semester IV

**Course Outcomes: At the end of the course, students will be able to:**

**[CO.1].**Create mobile applications using Google & Android open-source platform
**[CO.2].**Apply advanced android development techniques
**[CO.3]. C**an work with GPS, wi-fi.
**[CO.4].**Create animations with android's graphics API
**[CO.5].**Can understand Android database connectivity using SQLite
**[CO.6].**Can understand SQLite Programming

**Subject: Project**
Code: CSC36099
16 Credits | Semester IV

**Course Outcomes:** At the end of the course, students will be able to:
**[CO.1].** Apply Software Development Cycle to develop a software module.
**[CO.2].** Use the techniques, skills and modern engineering tools necessary for software development.
**[CO.3].** Develop a software product along with its complete documentation.
**[CO.4].** Apply their theoretical knowledge into a working model