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 CSAM - ARTIFICIAL INTELLIGENCE & MACHINE LEARNING
Course Outcomes
Regulation R23

Year/Sem: II B.Tech I Sem

Course Name: DISCRETE MATHEMATICS AND GRAPH THEORY	
Course Code :CSAM2101	
CSAM2101.1	Build skills in solving mathematical problems (L3)
CSAM2101.2	Comprehend mathematical principles and logic (L4)
CSAM2101.3	Demonstrate knowledge of mathematical modeling and proficiency in using mathematical software (L6)
CSAM2101.4	Manipulate and analyze data numerically and/or graphicallysing appropriate Software (L3)
CSAM2101.5	How to communicate effectively mathematical ideas/results verbally or in writing (L1)

Course Name: Universal human values – understanding harmony and Ethical human conduct	
Course Code: CSAM2102	
CSAM2102.1	Define the terms like Natural Acceptance, Happiness and Prosperity (L1, L2)
CSAM2102.2	Identify one's self, and one's surroundings (family, society nature) (L1, L2)
CSAM2102.3	Apply what they have learnt to their own self in different day-to-day settings in real life (L3)
CSAM2102.4	Relate human values with human relationship and human society. (L4)
CSAM2102.5	Justify the need for universal human values and harmonious existence (L5)
CSAM2102.6	Develop as socially and ecologically responsible engineers (L3, L6)

Course Name: Artificial Intelligence	
Course Code: CSAM2103	
CSAM2103.1	The student should be made to study the concepts of Artificial Intelligence.
CSAM2103.2	The student should be made to learn the methods of solving problems using Artificial Intelligence.
CSAM2103.3	The student should be made to introduce the concepts of Expert Systems.
CSAM2103.4	To understand the applications of AI, namely game playing, theorem proving, and machine learning.
CSAM2103.5	To learn different knowledge representation techniques

Course Name: **Advanced Data Structures & Algorithm Analysis**	
Course Code: CSAM2104	
CSAM2104.1	provide knowledge on advance data structures frequently used in Computer Science domain
CSAM2104.2	provide knowledge on advance data structures like Min and Max Heaps
CSAM2104.3	Clique Decision Problem (CDP), Chromatic Number Decision Problem (CNDP), Traveling Salesperson Decision Problem (TSP)
CSAM2104.4	Develop skills in algorithm design techniques popularly used
CSAM2104.5	Understand the use of various data structures in the algorithm design

Course Name: **Object Oriented Programming Through Java**	
Course Code: CSAM2105	
CSAM2105.1	identify Java language components and how they work together in applications
CSAM2105.2	Learn the fundamentals of object-oriented programming in Java, including defining classes, invoking methods, using class libraries.
CSAM2105.3	learn how to extend Java classes with inheritance and dynamic binding and how to use exception handling in Java applications
CSAM2105.4	understand how to design applications with threads in Java
CSAM2105.5	understand how to use Java APIs for program development

Course Name: **Advanced Data Structures and Algorithm Analysis Lab**	
Course Code: CSAM2106	
CSAM2106.1	acquire practical skills in constructing and managing Data structures
CSAM2106.2	apply the popular algorithm design methods in problem-solving scenarios
CSAM2106.3	Operations on AVL trees, B-Trees, Heap Trees
CSAM2106.4	Graph Traversals, Sorting techniques
CSAM2106.5	Minimum cost spanning trees,Shortest path algorithms

Course Name: **Object Oriented Programming Through Java Lab**	
Course Code: CSAM2107	
CSAM2107.1	Practice object oriented programming in the Java programming language
CSAM2107.2	Implement Classes, Objects, Methods, Inheritance, Exception, Runtime Polymorphism, User defined Exception handling mechanism
CSAM2107.3	Illustrate inheritance, Exception handling mechanism, JDBC connectivity
CSAM2107.4	Construct Threads, Event Handling, implement packages, Java FX GUI
CSAM2107.5	JDBC connectivity

Course Name: **Python Programming**	
Course Code: CSAM2108	
CSAM2108.1	Introduce core programming concepts of Python programming language.
CSAM2108.2	Demonstrate about Python data structures like Lists, Tuples.
CSAM2108.3	Demonstrate about Python data structures like Sets and dictionaries,

CSAM2108.4	Implement Functions, and to create practical and contemporary applications using these.
CSAM2108.5	Modules and Regular Expressions in Python Programming

Course Name: **Environmental Science**	
Course Code: CSAM2109	
CSAM2109.1	Grasp multidisciplinary nature of environmental studies and various renewable and non-renewable resources.
CSAM2109.2	Understand flow and bio-geo-chemical cycles and ecological pyramids.
CSAM2109.3	Understand various causes of pollution and solid waste management and related preventive measures.
CSAM2109.4	About the rainwater harvesting, watershed management, ozone layer depletion and waste landreclamation.
CSAM2109.5	Casus of population explosion, value education and welfare programmes

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DEPARTMENT OF CSE - ARTIFICIAL INTELLIGENCE & MACHINE LEARNING

Course Outcomes

Regulation R20

Year/Sem: III B.Tech I Sem

Course Name: COMPILER DESIGN	
Course Code: CSAM3101	
CSAM3101.1	Demonstrate phases in the design of compiler □ □ □ □
CSAM3101.2	Organize Syntax Analysis, Top Down and LL(1) grammars
CSAM3101.3	Design Bottom Up Parsing and Construction of LR parsers
CSAM3101.4	Analyze synthesized, inherited attributes.
CSAM3101.5	Analyze syntax directed translation schemes
CSAM3101.6	Determine algorithms to generate code for a target machine

Course Name: OPERATING SYSTEMS	
Course Code: CSAM3102	
CSAM3102.1	Describe various generations of Operating System and functions of Operating System □ □ □
CSAM3102.2	Describe the concept of program, process and thread and analyze various CPU Scheduling Algorithms and compare their performance
CSAM3102.3	Solve Inter Process Communication problems using Mathematical Equations by various methods
CSAM3102.4	Compare various Memory Management Schemes especially paging.
CSAM3102.5	Segmentation in Operating System and apply various Page Replacement Techniques □
CSAM3102.6	Outline File Systems in Operating System like UNIX/Linux and Windows

Course Name: Machine Learning	
Course Code: CSAM3103	
CSAM3103.1	Explain the fundamental usage of the concept machine learning system
CSAM3103.2	Demonstrate on various regression techniques
CSAM3103.3	Analysis the ensemble learning methods
CSAM3103.4	Illustrate the clustering techniques
CSAM3103.5	Dimensionality reduction model in machine learning
CSAM3103.6	Discuss the neural network model and fundamental concept of deep learning

Course Name: RENEWABLE ENERGY SOURCES	
Course Code: CSAM3104	
CSAM3104.1	Analyze solar radiation data, extra-terrestrial radiation, radiation on earth's surface and solar Energy Storage.

CSAM3104.2	Illustrate the components of wind energy systems.
CSAM3104.3	Illustrate the working of biomass plants.
CSAM3104.4	Illustrate the working of Geothermal plants.
CSAM3104.5	Demonstrate the principle of Energy production from OTEC, Tidal and Waves.
CSAM3104.6	Evaluate the concept and working of Fuel cells & MHD power generation.

Course Name: **DevOps**	
Course Code: CSAM2105	
CSAM3105.1	Enumerate the principles of continuous development and deployment, automation of configuration management, inter-team collaboration, and IT service agility.
CSAM3105.2	Describe DevOps & DevSecOps methodologies and their key concepts
CSAM3105.3	Illustrate the types of version control systems, continuous integration tools.
CSAM3105.4	Illustrate the types of continuous monitoring tools, and cloud models
CSAM3105.5	Set up complete private infrastructure using version control systems and CI/CD tools
CSAM3105.6	Acquire the knowledge of maturity model, Maturity Assessment

Course Name:OPERATING SYSTEMS & COMPILER DESIGN LAB	
Course Code: CSAM3106	
CSAM3106.1	Implement various scheduling, page replacement algorithms and algorithms related to deadlocks
CSAM3106.2	Design programs for shared memory management and semaphores
CSAM3106.3	Determine predictive parsing table for a CFG
CSAM3106.4	Apply Lex and Yacc tools
CSAM3106.5	Examine LR parser.
CSAM3106.6	Generating SLR Parsing table

Course Name: MACHINE LEARNING LAB	
Course Code: CSAM3107	
CSAM3107.1	Implement procedures for the machine learning algorithms
CSAM3107.2	Design Python programs for various Learning algorithms
CSAM3107.3	Develop Python programs for various Learning algorithms
CSAM3107.4	Apply appropriate data sets to the Machine Learning algorithms

CSAM3107.5	Develop Machine Learning algorithms.
CSAM3107.6	To solve real world problems.

Course Name: CONTINUOUS INTEGRATION AND CONTINUOUS DELIVERY USING DevOps	
Course Code: CSAM3108	
CSAM3108.1	Understand the why, what and how of DevOps adoption
CSAM3108.2	Attain literacy on DevopS
CSAM3108.3	Align capabilities required in the team
CSAM3108.4	Illustrate the types of version control systems, continuous integration tools.
CSAM3108.5	Illustrate the types of continuous monitoring tools, and cloud models
CSAM3108.6	Create an automated CICD pipeline using a stack of tools

Course Name: Employability Skills-I	
Course Code: CSAM3109	
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