

SREE NARAYANA GURU COLLEGE OF COMMERCE

(LINGUISTIC MINORITY INSTITUTION)

RE-ACCREDITED BY NAAC (GRADE-'B'-CGPA 2.45) [2019-2024]

AFFILIATED TO UNIVERSITY OF MUMBAI & RECOGNISED BY UGC-u/s 2(f)&12B MANAGED BY SREE NARAYANA MANDIRA SAMITI (REGD.)

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PROGRAMME OUTCOMES

Programme Code:	Name of the Programme:
	Master of Science (Information Technology)

Programme Outcomes:

After successful completion of the programme, graduates will be able to;

- PO1: Apply the knowledge of mathematics, science and computing in the core information technologies.
- PO2: Identify, design, and analyze complex computer systems and implement and interpret the results from those systems.
- PO3: Design, implement and evaluate a computer-based system, or process component, to meet the desired needs within the realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- PO4: Review literature and indulge in research using research-based knowledge and methods to design new experiments and analyze and interpret data to draw valid conclusions.
- PO5: Select and apply current techniques, skills, and tools necessary for computing practice and integrate IT-based solutions into the user environment effectively.
- PO6: Apply contextual knowledge to assess professional, legal, health, social and cultural issues during professional practice.
- PO7:Analyze the local and global impact of computing on individuals, organizations, and society.
- PO8: Apply ethical principles and responsibilities during professional practice.
- PO9: Function effectively as a team member or a leader to accomplish a common goal in a multidisciplinary team.
- PO10:Engage in independent and life-long learning for continued professional development.



M.SC. IT PART II

COURSE OUTCOME

SEMESTER III

COURSE CODE: 601 COURSE TITLE:

Advanced Artificial Intelligence

Course Outcomes: After successful completion of the course, students will be able to;

CO1: Understand the fundamental principles and concepts of Artificial Intelligence.(2)*

CO2: Demonstrate proficiency in deep learning and neural networks (3)*

CO3: Understand the concepts and applications of generative AI (2)*

CO4: Implement generative adversarial networks and variational autoencoders (3)*

CO5:Develop skills in using neural networks for image recognition and text generation (3)*

SEMESTER III

COURSE CODE: 604 COURSE TITLE:

Advanced Artificial Intelligence (Practical)

After completion of course the learner will:

CO1: be able to understand the fundamentals concepts of expert system and its applications. (2)*

CO2: be able to use probability and concept of fuzzy sets for solving AI based problems. (4)*

CO3: be able to understand the applications of Machine Learning. The learner can also apply fuzzy system for solving problems. (2)*

CO4: learner will be able to apply to understand the applications of genetic algorithms in different problems related to artificial intelligence. (3)*

CO5: A learner can use knowledge representation techniques in natural language (3)*

SEMESTER III

COURSE CODE: 603 COURSE TITLE: Machine Learning

After completion of course the learner will:

CO1 To define and categorize machine learning problems. (2)*

CO2 To understand the principles of machine learning and the core algorithms used in machine learning. (2)*

CO3 To analyze and implement machine learning models for real-time applications. (4)*

CO4 To evaluate and improve the performance of machine learning models. (5)*

SEMESTER III

COURSE CODE: 604 COURSE TITLE: Machine Learning

Practical

After completion of course the learner will:

CO1 To demonstrate proficiency in using Python libraries like Sci-kit-learn, NumPy, Pandas, PyTorch, Keras and Matplotlib for machine learning tasks. (3)*

CO2 To apply techniques to clean and handle missing data, outliers, and different data types (numerical, categorical) (3)*

CO3 To Select, scale, and normalize features to enhance model performance. (5)*



CO4 To evaluate and assess the performance of machine learning models like classification and regression. (5)*

CO5 To translate problem statements into machine learning solutions (6)*

SEMESTER III

COURSE CODE: 605

COURSE TITLE: Storage as a Service

After completion of course the learner will:

CO1: Covers the evolution of data access methods and introduces concepts like network storage architectures, storage networking functions, and storage I/O requirements. (2)*

CO2: Discusses different types of storage devices (disk drives, tape drives) and subsystem architectures, along with storage interconnect technologies like SCSI. (2)*

CO3: Explores the concept of storage virtualization, its technologies, and implications for performance and reliability, as well as the fundamentals of network backup. (3)*

CO4: Covers the relationship between file systems and operating systems, network file system basics, and protocols like NFS and CIFS. (4)*

CO5: Discusses clustered and distributed file systems, network storage for databases, and data management techniques including historical file versions and compliance storage. (2)*

SEMESTER III

COURSE CODE: 606a

COURSE TITLE:

Natural Language Processing

After completion of course the learner will:

CO1: The prime objective of this course is to introduce the students to the field of Language Computing and its applications ranging from classical era to modern context. (2)*

CO2: To provide understanding of various NLP tasks and NLP abstractions such as Morphological analysis, POS tagging, concept of syntactic parsing, semantic analysis etc. (2)*

CO3: To provide knowledge of different approaches/algorithms for carrying out NLP tasks. (3)*

CO4: To highlight the concepts of Language grammar and grammar representation in Computational Linguistics. (4)*

SEMESTER IV

COURSE CODE: 611

COURSE TITLE: Blockchain

After completion of course the learner will:

CO1: understand the structure of a Blockchain (2)*

CO2: learn the fundamentals of Ethereum and Bitcoin. (2)*

CO3: gain a comprehensive understanding of smart contract and Deep.(2)*

CO4: learn the concepts of permissioned and public blockchains and NFT. (2)*

SEMESTER IV

COURSE CODE: 612

COURSE TITLE: Blockchain Practical

After completion of course the learner will:

CO1:recognize the importance of blockchain in various industries and its potential to disrupt traditional systems. (4)*

CO2: analyze the structure and functionality of Bitcoin wallets for storing and managing cryptocurrency. (4)*



CO3: introduce the Ethereum Virtual Machine (EVM) as the backend for executing smart contracts. (3)*

CO4: explore the permissioned blockchain. (4)*

SEMESTER IV

COURSE CODE: 613

COURSE TITLE: Deep Learning

After completion of course the learner will:

CO1: To present the mathematical, statistical and computational challenges of building Neural networks (2)*

CO2: To study the concepts of deep learning (2)*

CO3: To enable the students to know deep learning techniques to support real-time Applications (3)*

SEMESTER IV

COURSE CODE: 614

COURSE TITLE: Deep Learning Practical

After completion of course the learner will:

CO1: To learn to use popular frameworks like TensorFlow or PyTorch to construct, train, and evaluate deep learning models for various tasks. (2)*

CO2:To apply various deep learning techniques to design efficient algorithms for real-world applications. (3)*

CO3: To optimize and deploy trained models into production environments. (4)*

CO4: To gain the ability to analyze problems, select appropriate deep learning approaches, evaluate model performance, and troubleshoot issues. (4)*

SEMESTER IV

COURSE CODE: 615a

COURSE TITLE:

Robotic Process Automation (PR)

After completion of course the learner will:

CO1: UiPath Fundamentals: Learn UiPath RPA basics, including Studio and Orchestrator. (2)*

CO2: Workflow Design: Develop automation workflows efficiently with UiPath Studio. (3)*

CO3: Data Manipulation: Extract, transform, and integrate data using UiPath. (4)*

CO4: Error Management: Handle exceptions and ensure reliable automation. (5)*

CO5: Orchestrator Management: Configure and monitor Orchestrator for robot management. (6)*

* Note: Numbers given in the brackets () refer to learning levels of the revised Blooms' Taxonomy (2001) as follows:

(1): Remember, (2): Understand, (3): Apply (4): Analyse (5): Evaluate (6): Create

IT Chief Coordinator

IQAC Coordinator

Mar Now 1/4/Principal