



EASA COLLEGE OF ENGINEERING & TECHNOLOGY (ECET)

— ULTIMATE DESTINATION FOR TECHNICAL EXCELLENCE —

APPROVED BY AICTE, NEW DELHI | AFFILIATED TO ANNA UNIVERSITY, CHENNAI

NH - 47, PALAKKAD MAIN ROAD, NAVAKKARAI (P.O), COIMBATORE, TAMIL NADU - 641105

REGULATIONS 2021

CHOICE BASED CREDIT SYSTEM

PROGRAM: B.E. Computer Science and Engineering (Artificial Intelligence and Machine

Learning)

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO1	To Equip students with a strong foundation in AI and ML concepts, algorithms, and tools, enabling them to develop intelligent systems and solutions.
PEO2	To Enhance students' ability to analyze complex problems, apply AI and ML techniques to generate insights, and devise innovative solutions in diverse domains.
PEO3	To Foster ethical and responsible AI practices, emphasizing transparency, fairness, privacy protection, and adherence to legal and ethical standards.
PEO4	To Cultivate teamwork, communication, and collaboration skills to effectively work in multidisciplinary teams and communicate technical concepts to diverse audiences.
PEO5	To Instil a mindset of lifelong learning, encouraging students to stay updated with emerging technologies, research trends, and industry best practices in AI and ML

PROGRAM OUTCOMES (POs)

PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Problem analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.



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PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	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.
PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs)

Graduates should be able to:	
PSO1	Acquire a comprehensive understanding of fundamental and advanced concepts, algorithms, and techniques in AI and ML.
PSO2	Apply AI & ML methodologies to analyze, model, and solve complex problems in various domains such as healthcare, finance, and robotics
PSO3	Develop and implement AI & ML models using supervised and unsupervised learning, deep learning, natural language processing (NLP), and reinforcement learning techniques
PSO4	Evaluate the performance of AI & ML models using appropriate metrics, and optimize models for accuracy, efficiency, and scalability
PSO5	Design, develop, and deploy AI & ML applications and systems, integrating them with software engineering principles and best practices