



KONGUNADU ARTS AND SCIENCE COLLEGE
(AUTONOMOUS)
Re-accredited by NAAC with A+ grade (4th cycle)
College of Excellence (UGC)
52nd Rank Among Colleges in NIRF 2024
G.N. Mills (PO), Coimbatore - 641029.

DEPARTMENT OF COMPUTER SCIENCE (AIDED)

5 Days Virtual FDP “ Future Prospects of Innovations In Artificial Intelligence”

Supported by

DBT STAR COLLEGE SCHEME

REPORT

Name of The Event	5 Days Virtual Faculty Development Programme on “Future Prospects of Innovations in Artificial Intelligence”
Date	2.12.2024 to 6.12.2024
Time	5 pm to 8pm
Resource Person With Designation	• Mr. Ramesh Lekshmyanarayanan, Digital & Business Transformation. AI Innovation CIO/CTO/CDO. Green Catapult-Duke University, New York, US -. 2.12.24 • Mr. Bhairav Mehta Senior Manager, Data Science and Product Management Amazon Cornell University. San Jose, California, US.- 3.12.24 • Dr. Anand Nayyar, Proferssor, Scientist, Vice-Chairman (Research) and Director (IOT and intelligent Systems Lab), School of Computer Science Duy Tan University, Da Nang Viet Nam.- 4.12.2024 • Mrs. Rose Oviya Ramasamy, Senior Cloud Architecture & Condultant, Newyork SenOvi Software Consultants, New York, US - 5.12.2024 • Dr. Anand Ranganathan, Co-founder. Chief AI Officer(OneByZero, unscrambi - 6.12.2024
Venue of The Programme	Online Mode

Objectives of the Programme	• To acquire knowledge about Artificial Intelligence • To know the concept of Machine Learning and Data Science • To learn the working principles of Machine Learning • To get exposure to training algorithms and metrics • To create awareness about the applications of machine learning.
Outcome of the Programme	• The outcome of leveraging of AI Tools in fostering academic excellence in research and innovation is a paradigm shift towards streamlined processes, enhanced collaboration, and ground breaking discoveries. • By integrating AI – Driven solutions, researches can efficiently navigate novel insights and trends with ease. • Advanced data analysis and visualization techniques empower researches to derive meaningful conclusions from complex dataset, fueling innovation across disciplines. • Seamless collaboration facilitated by AI Platforms accelerates knowledge exchange and interdisciplinary cooperation, fostering a dynamic research eco system. • AI-Driven automation streamlines mundane tasks, enabling researches to focus on impactful work and drive transformative advancements in research and innovation.
Number of Beneficiaries with class	Total Number of participants : 83

Report in Detail:

The 5 Days Virtual faculty Development Programme (FDP) on “Future Prospects of Innovations in Artificial Intelligence” provided an in-depth exploration of key concepts in artificial Intelligence (AI) in computer science.

On 2.12.2024 Ramesh Lekshmyanarayanan started with an introduction to AI, tracking its historical development and evolution over time. Participants gained insights into the foundational principles of AI and its significance in modern technology. The focus then shifted to machine learning, where attendees delved into the process of ML, including data pre-processing, feature selection, model training, and evaluation metrics.

On 3.12.2024 Mr.Bhairav Mehta concentrated into the intersection of ML/AI , showcasing how these technologies are utilized in scientific research, data analysis and computational simulations within the field of Computer Science. Participants learned about the role of ML/AI in analysing experimental data, modelling physical phenomena, predicting outcomes, and generating insights that contribute to advancements in Computer Science research.

He clearly explained about , various machine learning models were discussed, ranging from supervised and unsupervised learning to reinforcement learning and deep learning.

Training algorithms and techniques for optimizing model performance were explored in detail, providing participants with practical knowledge and skills in implementing ML algorithms effectively. Additionally, the programme emphasized the importance of evaluation metrics in assessing model accuracy, precision, recall, and other performance indicators.

On 4.12.2024 Dr. Ananad Nayyar has explained about a) Large Language Model Agents b) Hands on AI Tools for Research and Productivity.

Large Language Models are used in Improved Language Understanding, Enhanced Text Generation, Better Sentiment Analysis, Increased Accuracy in Question Answering, New Applications in Healthcare, Education, and Customer Service. Large language models can be applied to various industries, improving outcomes and efficiency.

He also explained about Hands-on AI Tools for Research and Productivity, Google Colab is used for a free, cloud-based platform for AI research and development. TensorFlow is used for an open-source machine learning framework for building and training AI models. OpenCV is used for a computer vision library for image and video processing. Rasa is used for an open-source conversational AI framework. Spacy is used for a modern NLP library for text processing.

On 5.12.2024 Rose Oviya Ramasamy has Explained about Why we have to learn about python, Python Basics, Python standard Library, Python Libraries for Data science, Machine Learning with Python, Deep Learning with Python, GUI Development and Gaming with python, RAG vs Agent.

On 6.12.2024 Anand Ranganathan has explained about Orchestrating Complex AI Agent-based Workflows. He briefly explained about AI Agents, SAE Levels of Autonomous Driving, AI Agents in the Real World, AI agents in the wild, Multiple Agents with different roles performing different tasks, Salesforce, Simple Reflex Agent, Model-Based Reflex Agent, Goal-based Agent, Utility-based Agent, Learning Agent, Multi-Agent Systems, Agents in the Context of LLMs.

Participants gained insights into the interdisciplinary nature of ML/AI and its transformative impact on various fields, reinforcing the importance of integrating these concepts into academic curricula and research initiatives.



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