IIITDM Kancheepuram, Chennai

Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Kancheepuram is an Institute of National Importance established in 2007, by the Ministry of Human Resource Development, Government of India, to pursue design and manufacturing oriented engineering education and research and to promote the competitive advantages of Indian products in global markets. The institute offers academic and research programs that integrate engineering design, manufacturing and management with information technology. With mastery in domain specific design, engineering skills and required managerial expertise, the graduates can entrepreneur organisations involved in the design and manufacture of commercially successful electronic or mechanical products. The institute have three major engineering departments, Mechanical, Electronics and Communication and, Computer Science. For more details, visit `www.iiitdm.ac.in`

Department of Sciences and Humanities

The Department of Sciences and Humanities at IIITDM Kancheepuram brings together the disciplines of Mathematics, Physics, and English under one roof. At present, the Department has 12 faculty members offering mandatory undergraduate courses and interdisciplinary research oriented courses for postgraduate and doctoral students. The department offers a carefully designed platter of courses crafted based on the design centric curriculum of the Institute. Sciences and Humanities is an intensively research oriented department and it offers PhD programs in Mathematics, Physics, and English. The PhD programmes of the Department give an opportunity to meritorious candidates to pursue their research interests in core, cross disciplinary and interdisciplinary areas. The research team of faculty and scholars in Mathematics focus on areas like algorithms, graph theory, numerical linear algebra, differential equations, data sciences, number theory and mathematical cryptography. For more details, visit `https://www.iiitdm.ac.in/sh`

Department of CSE

Department of Computer Science and Engineering (CSE) offers design centric programmes such as B.Tech (CSE), B.Tech(CSE with Major in AI), Dual Degree (DD) programmes (B.Tech in CSE and M.Tech in CSE with specialization System Design), M.Tech.(CSE with Specialization in Data Science and Artificial Intelligence) and Ph.D in various research areas. The department has enthusiastic students numbering around 400 which includes B.Tech, DD students and Ph.D scholars. IIITDM Kancheepuram's Computer Science and Engineering curriculum is modelled on the ACM (Association for Computing Machinery) recommendations and is the first of its kind engineering program offered in India. The laboratories are equipped with powerful Deep Learning Engine, HP Workstations, FUJITSU Windows Server, IBM Debian Linux server and network infrastructure such as the ISDN equipment, network distribution switches, fire- wall and redundant wireless access controller to cater to the computing needs of the institute practice courses. The Institute is also equipped with a personal Super Computer employing 4 Tesla cards giving a peak performance of 4.12 Tflops to assist in the advanced courses. For more details, visit `www.cse.iiitdm.ac.in`

AICTE Training And Learning (ATAL)
Online Faculty Development Programme
(FDP)
on

Future Perspectives of AI and Data Sciences: Algorithms and Applications

2nd **to** 7th **December 2024**

Organized by

Jointly Organized by
Department of Sciences and Humanities
&
Department of Computer Science and Engg.
Indian Institute of Information Technology,
Design and Manufacturing, Kancheepuram
Chennai - 600127, India

in association with

Coordinator
Dr. Nachiketa Mishra

Co-Coordinator
Dr. Sanjeet Kumar Nayak

About the FDP

Artificial Intelligence (AI) and Data Science are transforming industries across the globe, powering innovations, enhancing decision-making, and driving business growth. As these technologies rapidly evolve, understanding future trends, innovative algorithms, and emerging applications is crucial for professionals, researchers, and academics alike. This FDP aims to provide a deep dive into the future landscape of AI and Data Science. It will explore the emerging algorithms, methodologies, and cutting-edge applications that are shaping the future of these fields. Participants will gain insights into the convergence of AI with other technologies, the ethical considerations, and the potential socio-economic impacts.

Topics to be Covered

● Next-Generation AI Algorithms ● Data Science Methodologies ● Large Language Models and Application ● Prompt Engineering ● Generative AI ● LLM for Information Retrieval ● AI and ML for Space Mission Management ● Cloud Computing and AI ● Interplay of Edge Computing and Machine Learning ● Big Data Platforms ● AI in Real-World Applications ● AI and Human Collaboration ● AI Ethics and Responsible AI ● AI for Social Good ● Uncertainty Quantification ● Scalable and Fast algorithms for Large Data Sets ● Artificial General Intelligence ● Sustainable AI & Energy Efficient Algorithms ● AI for Semiconductors Design and Manufacturing ● Optimization Techniques in Machine Learning ● Graph Neural Network ● Machine Learning in Transportation Problem ● Federated Learning ● Edge Computing ● Reinforcement Learning

● Mathematics and Statistics for Machine Learning
● Data Generation

Targeted Participants

The programme is open to the faculty members, research scholars and industry professionals. PG scholars of only AICTE approved institutions can also apply.

Fees and Timings

There is "**No Charge for Registration, Course and Certification**". The FDP timing is from **06:00 PM to 09:00 PM** on all days. On 7th December (Saturday) timing is from 02:00 PM to 08:00 PM.

Selection

Only 200 seats are available for the FDP.

Certification

A test shall be conducted by coordinator(s) at the end of the program. The certificate shall be issued to those participants who have attended the program with 80% attendance and scored minimum 70% marks in the test.

How to Apply

Interested participants are required to register at AICTE ATAL web portal by providing required details (`https://atalacademy.aicte-india.org/`) at the earliest. After registering,

1. Click menu item "FDPs" in the left column.

2. Select Month as "December", Thrust Area as "Thrust Areas", Select Mode as "Online Mode".

3. Search for Application Number as "1730633983" or Institute as "Indian Institute of Information Technology Design and Manufacturing Kancheepuram", or Title as "Future Perspectives of AI and Data Sciences: Algorithms and Applications". Click on Apply for Workshop "+" button corresponding to that.

Applicants who are selected for the FDP will be intimated via ATAL portal.

Important Deadlines

To Apply   November 30, 2024
Confirmation of Participation   December 01, 2024

Organizers and Contact

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