



# MALAVIYA MISSION TEACHER TRAINING CENTRE

**Indian Institute of Information Technology,  
Design and Manufacturing, Kancheepuram**



Chennai- 600127

## Refresher Course on Data Science (RCODS)



### About IIITDM Kancheepuram:

Indian Institute of Information Technology, Design and Manufacturing Kancheepuram (IIITDM) is an Institute of National Importance under the Ministry of Education setup in 2007 with a vision to promote creative and knowledge intensive products and processes in the manufacturing sector. The Institute is envisioned as an academic institution of excellence that would facilitate and promote the competitive advantage of Indian products in global markets. It is strategically located in the proximity of the industrial clusters in Chennai. The institute offers academic and research programs that integrate engineering design, manufacturing and management with information technology. The institute offers undergraduate and postgraduate programs which focus on IT, design and manufacturing in engineering sectors.

### About CSE Department:

The 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), M.Tech.(CSE with Specialization in Data Science and Artificial Intelligence) and Ph.D in various research areas in computer science. There are 21 faculty members who are actively involved in research in areas such as knowledge engineering, machine learning, wireless sensor networks, membrane computing, cyber-physical systems, Internet of Things (IoT), high performance computing, VLSI architectures, biometrics, machine learning, image processing, soft computing and theoretical computer science.

**Online**

**17<sup>th</sup> to 29<sup>th</sup> March 2025.**

**Registration Fees:**

**NIL**

### Objectives of the course:

This course will help you learn about the recent advancements in the field of data science for different domains such as text analysis, multimedia analysis and data analytics. It covers the basics of python along with different steps involved in data science such as data preprocessing, data visualization, statistical techniques(descriptive /inferential) , and machine learning models. The course gives you a complete overview of various data analytic tools followed by technocrats with an inclination towards bridging the research gaps.

## Course content:

- Introduction to Data Science - Python Basics: Primitive Data types - Python Scripts using Input/Output, Applications in various domains: A birds eye view.
- Data Engineering- Data Collection and preparation: Handling csv, Excel, text, pdf files for data preparation.
- Descriptive Statistics – Data Visualization & Interpretation- Measures of Central Tendency & Dispersion.
- Hands on Training in Pandas, Matplotlib, scikit-learn, Seaborn, NumPy.
- Inferential Statistics – Hypothesis Testing - Tests of Significance – Analysis of Variance
- Predictive Analytics – Supervised and Unsupervised – Association Rules, Classification, Clustering, Outlier Analysis, Time Series Modelling.
- Roadmap for Data Analytics– Linear, Non-Linear and Logistic Regression
- Sentiment Analysis- Natural Language Processing.
- OpenCV for Computer Vision, Machine Learning using scikit-learn, Case study.

## Registration:

1. Register at [mmc.ugc.ac.in](http://mmc.ugc.ac.in) and login using your credentials.
2. Complete your profile and upload your photo & Institute ID card.
3. In the dashboard click on “Apply for other programmes”
4. Select Apply for “Refresher Course” (Refresher Course on Data Science) from the dropdown select the Programme Name and Center Name as “Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram (19/03/2025 - 29/03/2025)”
5. Choose the title from the dropdown menu and enter the remaining personal information including year of joining, total years of experience etc.
6. Upload the NOC on Institute/College/University letterhead as per the format provided [here](#)
7. Click on Submit to complete the registration process.



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## Resource Persons:

The course content will be delivered from experts on the subject from leading academic institutions including IITs/NITs/IIITs/Industry.

## Eligibility:

Faculty members working in universities and colleges that are included under Section 2(f) of the UGC Act are eligible to attend RC.

This programme shall be taken into consideration for fulfillment of the requirements as laid down in Career Advancement Scheme as per UGC Regulations.

## Coordinators:

**Prof. Sivaselvan B** Professor (CSE)  
**Dr. Preeth R** Assistant Professor (CSE)  
**Dr. Raghavan S** Assistant Professor (CSE)  
**Dr. Vijayakumar S** Assistant Professor (Mathematics)  
IIITDM Kancheepuram

## Contact:

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