



www.vikatworld.com Info@vikatworld.com Contact us: +91 909 5050 353

DATA SCIENCE & MACHINE LEARNING TRAINING

Course Overview

What is Data Science & Machine Learning?

Data Science and Machine Learning involve collecting, processing, and analyzing data to build intelligent systems and predictions. This course is designed to make learners **industry-ready** with strong fundamentals and real-world project exposure.

FULL COURSE CURRICULUM

1. Foundations: Mathematics & Programming

- Introduction to Data Science
- Python Programming (Beginner to Advanced)
- Python Libraries: NumPy, Pandas, Matplotlib, Seaborn
- Data Structures & Algorithms (Basic)

2. Data Handling & Processing

- Data Cleaning Techniques
- Handling Missing Data
- Exploratory Data Analysis (EDA)
- Feature Engineering
- Working with Real-World Datasets

"Discipline Gives Everything"

Head Office



#131-5J, 1st Floor, Bharath Building, Swamy
Nellaiappar High Road, SriPuram, Tirunelveli,
TamilNadu, India – 627 001.

Corporate Office

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3. Statistics & Probability

- Descriptive & Inferential Statistics
- Hypothesis Testing
- Probability Distribution
- Correlation, Regression
- Statistical Modeling

4. Machine Learning (Core Module)

- Supervised Learning
 - Linear Regression
 - Logistic Regression
 - Decision Trees
 - Random Forest
 - Support Vector Machines
 - Naive Bayes
- Unsupervised Learning
 - K-Means Clustering
 - Hierarchical Clustering
 - PCA

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- Model Evaluation & Optimization
 - Cross-validation
 - Hyperparameter Tuning

5. Deep Learning

- Neural Networks
- TensorFlow / Keras Basics
- ANN Model Building
- Image Classification Basics

6. GEN AI & LLM MODULE (2025 SPECIAL)

- Introduction to Generative AI
- Using AI Tools for Data Science
- Prompt Engineering for Analytics
- Build ML Models using AI Assistants
- AutoML Concepts

7. Data Visualization Tools

- Power BI

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- Tableau
- Matplotlib & Seaborn
- Dashboard Creation

8. Databases & Big Data Basics

- SQL for Data Analysis
- MySQL / PostgreSQL
- Introduction to Hadoop & Spark (Optional)

9. Cloud Deployment

- Deploy Models on AWS / Azure
- Using Cloud ML Tools (Sagemaker / Azure ML)

10. Capstone Projects

(Real Projects for Portfolio & Resume)

- 1. Loan Default Prediction**
- 2. Customer Churn Prediction**
- 3. Sales Forecasting**
- 4. Image Classification Model (DL)**

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5. HR Employee Attrition Analytics Dashboard

WHO CAN JOIN?

- Students / Graduates
- Working Professionals
- IT & Non-IT Background
- Career Switchers
- Entrepreneurs / Freelancers



Certification

All learners receive an **Industry Recognized Certification** upon course completion.

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