ELYSIUM ACADEMY ®
Milestone of Cognizance

TRAINING COMPLETION REPORT

Submitted By Elysium Academy,
CIT Nagar, Chennai

We are pleased to submit the training report for the

"INTRODUCTION TO MACHINE LEARNING & PREDICTIVE

ANALYSIS" certification program which was successfully completed at

MAHALAKSHMI TECH CAMPUS conducted from 2nd January

2026 to 9th January 2026.

Program Details:
- Program Name:
  INTRODUCTION TO MACHINE LEARNING & PREDICTIVE ANALYSIS

-Duration: 50 hours

- Number of Students: 09

- Training Mode: College Laboratory

- Attendees: IV semester students

Training Outcome

• Students gained **in-depth theoretical and practical knowledge** in Machine Learning and Predictive Analytics.

• Developed hands-on experience using **Python, ML libraries, and real-world datasets**.

  • Successfully implemented **regression, classification, clustering, and introductory reinforcement learning models**.

• Completed **hands-on exercises, case studies, and a final project**.

• Enhanced analytical thinking, data interpretation, and problem-solving skills.

• **Student feedback was highly positive**, with active classroom participation.

Trainer Details

- Trainer Name: Mr.Manoj.D
- Qualifications: B.Tech- AI/ML

ELYSIUM ACADEMY, CIT Nagar, Chennai
Trainer- March 2021 – Present

Teaching programming languages such as C, Java, and Python with a focus on hands-on learning.

Actively involved in real-time Machine Learning and Web Development projects.

EDUCATION
B.TECH ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING 2022
St. Joseph's College of Engineering
Cumulative GPA: 9.2 / 10.0

SKILLS
Programming C, C++, Python
Web HTML, CSS
Frameworks Pandas, NumPy, Django
Tools Power BI, Tableau, SQL
ML Tools Streamlit, TensorFlow

CERTIFICATIONS
Winner – AI VERNUS Event for developing images using AI tools

Topics Covered:

Module 1: Introduction to Machine Learning *(2 Hours)*
• What is Machine Learning (ML)?
• ML vs Traditional Programming
• Types of ML: Supervised, Unsupervised, Reinforcement Learning
• ML Project Lifecycle
• Applications of ML & Predictive Analytics

Module 2: Python for Machine Learning *(5 Hours)*
• Python ML Libraries: NumPy, Pandas, Matplotlib, Scikit-learn
• Data Loading & Preprocessing Basics
• Handling Datasets
• **Practical:** Pandas & NumPy Operations

Module 3: Exploratory Data Analysis (EDA) *(5 Hours)*
• Importance of EDA
• Summary Statistics
• Handling Missing Values & Outliers
• Data Visualizations: Histogram, Boxplot, Heatmap, Scatter Plots
• Correlation Analysis
• **Hands-on:** EDA on Sample Dataset**Module 4: Supervised Learning – Regression** *(8 Hours)*
• Linear vs Non-Linear Regression
• Simple & Multiple Linear Regression
• Evaluation Metrics: MSE, RMSE, MAE, R^2
• Train–Test Split
• **Hands-on:** Regression Model

Module 5: Supervised Learning – Classification *(8 Hours)*
• Binary & Multiclass Classification Problems
• Logistic Regression
• KNN
• Decision Tree
• Random Forest
• Evaluation Metrics: Accuracy, Precision, Recall, F1-score, Confusion Matrix
• **Hands-on:** Classification Model

Module 6: Unsupervised Learning *(8 Hours)*
• Clustering Basics
• K-Means
• Hierarchical Clustering
• PCA (Concept Only)
• **Hands-on:** Clustering Model

Module 7: Reinforcement Learning *(5 Hours)*
• RL Concepts: Agent, Environment, State, Action, Reward
• RL vs Supervised & Unsupervised Learning
• Markov Decision Process (MDP)
• Exploration vs Exploitation
• Q-Learning Basics• Real-World Examples

Module 8: Predictive Analytics *(2 Hours)*
• Predictive Analytics Overview
• Predictive Model Building Steps
• Feature Selection & Importance
• Model Performance Interpretation
• Case Studies: Sales Forecasting, Churn Prediction, Risk Scoring

Module 9: Final Project *(2 Hours)*
• End-to-End Machine Learning Project
• Model Building, Evaluation & Interpretation

	ATTENDANCE SHEET-INTRODUCTION to ML & PA							
S.no	Student name	2.1.26	3.1.26	5.1.26	6.1.26	7.1.26	8.01.26	9.1.26
1	MAHASRI.P	P	P	P	P	P	P	P
2	KEERTHIKA.M	P	P	P	P	P	P	P
3	KOWSIKA.R	P	P	P	P	P	P	P
4	MANISHA.C	P	P	P	P	P	P	P
5	JAISHREE.M	P	P	P	P	P	P	P
6	ANANDHA KIRUTHIKA.J	P	P	P	P	P	P	P
7	DEEP SREE PRATIBHA.P	P	P	P	P	P	P	P
8	NIRMALA.K	P	P	P	P	P	P	P
9	SRIRAMKUMAR	P	P	P	P	P	P	P

The students worked on the below given projects which were evaluated and the total marks are provided below.

1. SIMPLE LINEAR REGRESSION
2. KNN
3. LOGISTIC REGRESSION
4. NAIVE BAYES
5. DECISION TREE

Student name	EVALUATION(100)
MAHASRI.P	100
KEERTHIKA.M	100
KOWSIKA.R	100
JAISHREE	100
ANANDHA KIRUTHIKA.J	100
DEEP SREE PRATIBHA.P	100
NIRMALA.K	100
MANISHA.C	100
SRIRAM KUMAR	90

SUPPORTING DOCUMENTS OF THE SESSION

We sincerely thank the College, Principal and the Heads of the Department for giving us this opportunity in guiding their students to increase their coding proficiency, stay updated with the latest technologies and enhance team-work and collaboration in the present emerging Information Technology industry.

Kanagalakshmy.K   **Manoj.D**

Academy Coordinator   **Technical trainer & Resource person**
Elysium Academy   **Elysium Academy**
Chennai   **Chennai**