



RV Educational Institutions

RV Institute of Technology and Management®
Bangalore– 560076

Event Name	A Hands-on Workshop on Python & Machine Learning
Date	27 th -29 th Oct 2025
Venue	L4 12, RVITM
Audience	V Semester students of ECE, RVITM
Resource person	Mr. Mahadeva Prasad L, Mevi Technologies, Bangalore
Faculty Coordinator	Dr. Divyashree M

Department of Electronics and Communication Engineering

Objective of the Program:

The primary objective of the workshop was to provide students with hands-on exposure to Python programming and Machine Learning applications in the field of Electronics and Communication Engineering (ECE).

The program aimed to:

- Strengthen students' programming fundamentals in Python.
- Familiarize them with data handling, preprocessing, and visualization techniques for engineering datasets.
- Introduce supervised and unsupervised machine learning algorithms relevant to ECE applications such as signal processing, IoT, and networks.
- Enable students to implement real-world regression and classification models and understand evaluation metrics.
- Encourage project-based learning through a mini capstone project integrating the full ML pipeline.

Topics Covered:

The three-day hands-on workshop covered the following topics:

Day 1: Python Foundations & Data Analytics for ECE

- Python basics, data types, loops, and functions

- Data structures and file handling with engineering examples
- Introduction to NumPy and Pandas
- Exploratory Data Analysis (EDA) and data visualization using Matplotlib

Day 2: Supervised Learning – Regression, Classification & Trees

- Linear and Logistic Regression
- K-Nearest Neighbors (KNN), Decision Trees, and Random Forest algorithms
- Model evaluation using accuracy, precision, recall, and F1-score
- Hands-on exercises on ECE-relevant datasets

Day 3: Unsupervised Learning & Capstone Project

- K-Means clustering and PCA
- Application of unsupervised learning to IoT and signal data
- Building a complete ML pipeline from preprocessing to model evaluation
- Project presentation and discussion

Brief Report:

The **Department of Electronics and Communication Engineering**, in association with **Mevi Technologies LLP** and **IETE Student Forum (ISF)**, organized a **three-day hands-on workshop on “Python and Machine Learning”** for 5th semester ECE students from **27th to 29th October 2025** at L4 12, **RV Institute of Technology and Management (RVITM)**.

The sessions were conducted by **Mr. Mahadeva Prasad L**, Senior Software Engineer, Mevi Technologies LLP, who provided practical insights into applying Python and ML concepts to engineering data. Students actively participated in the daily coding exercises as well. The workshop emphasized practical implementation of algorithms and data-driven approaches relevant to ECE domains.

Certificates were awarded to all participants, and **Best Performer Certificates** were presented to the top three students **Shreya Nagendra, Varun Jain and Rajesh G D** based on their coding performance and participation.

The workshop received excellent feedback from the students for its hands-on approach, structured learning modules, and relevance to emerging technologies in the ECE field.



R V INSTITUTE OF TECHNOLOGY AND MANAGEMENT ®
 Department of Electronics and Communication Engineering



A HANDS-ON WORKSHOP ON
PYTHON & MACHINE LEARNING
FOR 5TH SEM - ECE



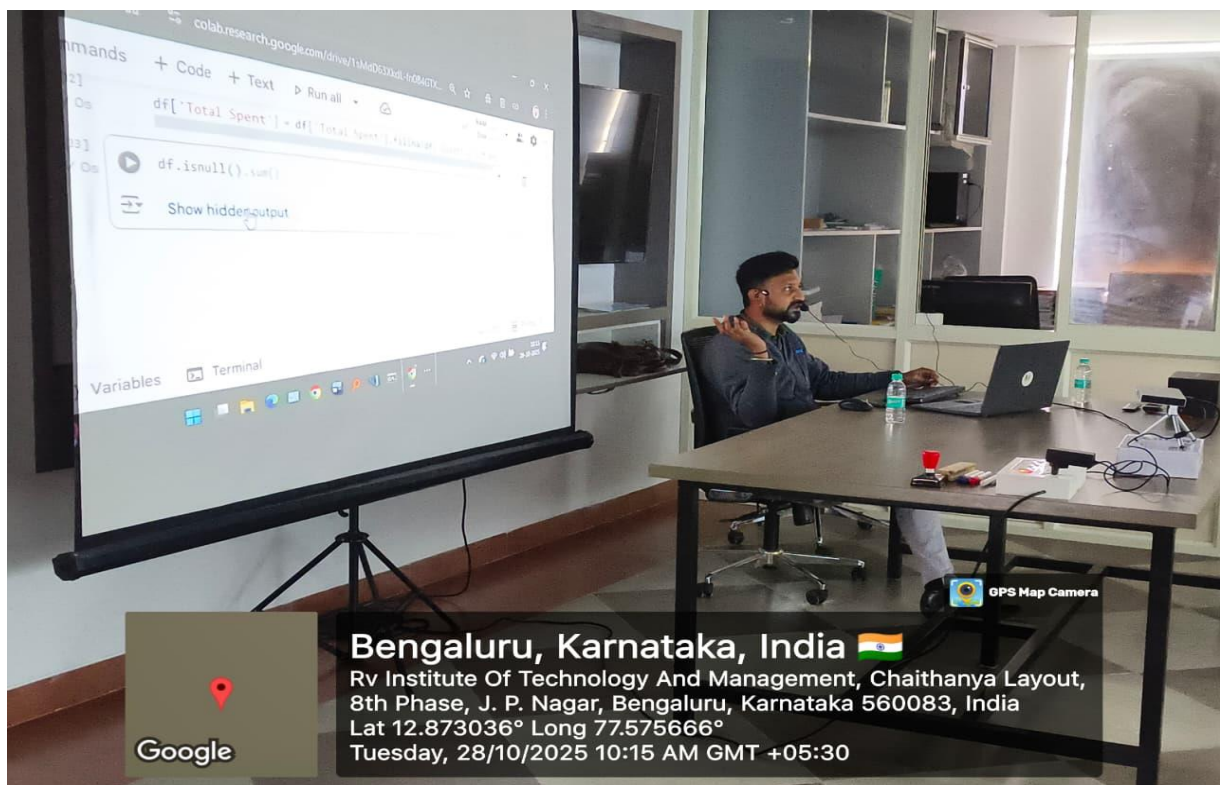

IN ASSOCIATION WITH
MEVI TECHNOLOGIES LLP.
&
IETE - STUDENT FORUM (ISF)

Resource person
MAHADEVA PRASAD L
SENIOR SOFTWARE ENGINEER, MEVI TECHNOLOGIES LLP

DATE - 27,28,29th OCT 2025
 **RVITM (L4-12)**

FACULTY COORDINATOR
Dr. Divyashree M,
Assistant Professor , ECE

<u>CHIEF-PATRON</u>	<u>PATRON</u>
DR. NAGASHETTAPPA BIRADAR Principal	Dr. MANJUNATHA PRASAD R Vice-Principal & HOD of ECE



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The Workshop was organized under the guidance of:

- Dr. Nagashettappa Biradar, Principal
- Dr. Manjunatha Prasad R, Vice Principal and Head of the Department, ECE
- Dr. Divyashree M, Faculty Co-ordinator, Assistant Professor, Department of ECE