RV Educational Institutions

# RV Institute of Technology and Management ®

**Bangalore – 560076**

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| **Event Name** | **Workshop on "Machine Learning & Deep Learning using Python"** |
| **Theme** | Hands-on Skill on Machine Learning & Deep Learning |
| **Date** | 28th February 2024 and 2nd February 2024 (2 Days) |
| **Venue** | 6th Floor Seminar Hall, RVITM Campus |
| **Audience** | ISE Dept Faculties and 5th Semester ISE 'A Section Students |
| **Resource Person** | Mr. Akash C, Software Engineer, Infra.Market, Bengaluru |

## Department of Information Science Engineering

**Objective of the Program:**

The objective of the workshop was to provide hands-on skill expertise to the students on the fundamentals of Machine Learning & Deep Learning using Python in the context of business and industry.

**Topics Covered:**

- Getting started with Python Libraries
- Importing Python Libraries
- Creating a GIT Account
- Creating a GITHUB Repository
- Pulling the sample dataset from the GITHUB Repository
- Introduction to Decision Trees
- Constructing ID3, C4.5 and Regression Trees

**Day 1 28.02.2024 9.30 am to 10.00 am Inaugural Function**

The program was started with the Inauguration Function coordinated by Prof. Samatha R Swamy, Assistant Professors, Department of ISE. Dr. Latha C A, HoD, Department of ISE, welcomed the resource person Miss. Mohini for 2-Day Workshop. The session started with a welcome address by the student Miss. Mohini followed by an invocation song by Miss. Prarthana, both 5th Semester, ISE Students, RVITM. The resource person of the session Mr. Akash C, set the right tone for the program by delivering an Inaugural address to the

participants and outlining the importance of the Workshop on Machine Learning and Deep Learning. Prof. Samatha R Swamy, Assistant Professor, Dept of ISE gave the complete details about the objective of the session, session tasks planned, and the evaluations carried on for the 2-Day sessions as a substitute for CIE Assignment weighted 10 Marks. Finally, Miss. Mohini proposed a vote of thanks to the gathering and concluded the Inaugural function.

**Day 1: 28.02.2024** **Forenoon Session**

**Topic: <u>Project on Regression Tree Construction</u>**

The following titles are covered in the forenoon session

- Introduction on Regression Trees
- Linear and Non-linear Regression Trees


Welcoming resource person

**Topic: <u>Introduction to Neural Network</u>**

The following titles are covered in the Afternoon session

- Brief about Neural Networks
- Different types of Neural Networks
- Interactive project on ANN - Artificial Neural Network


**Day 2: 02.03.2024** **10.30 pm to 3.30 pm**

**Topic: <u>Project on Artificial Neural Network</u>**

The following titles are covered in the forenoon session

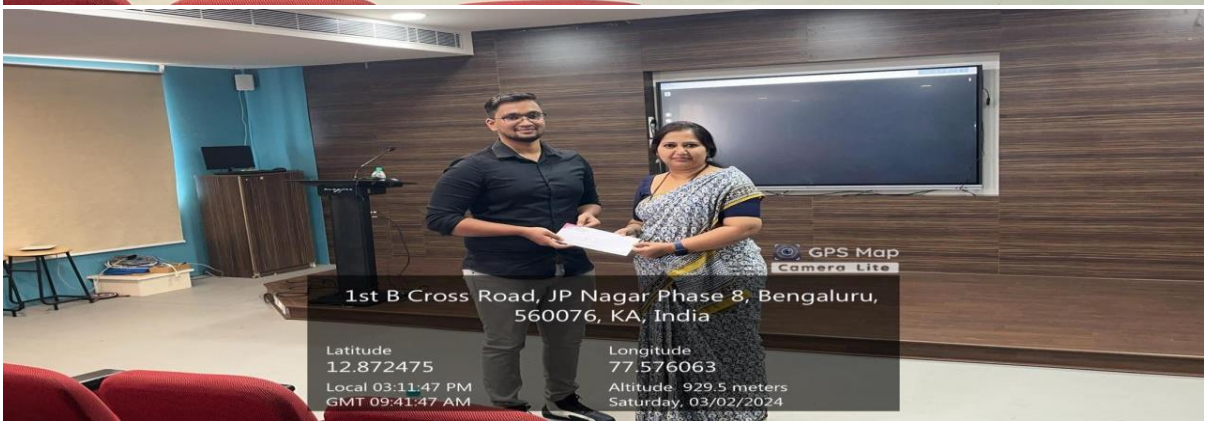
- ANN Hyper Parameters Tuning
- Accuracy of the ANN Model
- No of Epochs run for the ANN Model
- Learning Rate of the ANN Model
- No of Hidden Layers used in the ANN Model
- Back Propagation and Forward Propagation
- Assignment on ANN

**Topic:** Interactive project on Linear Regression and Logistic Regression

- Introduction to Linear Regression,
- Introduction to Logistic Regression,
- Auto regression basics and implementation,
- ARIMA implementation.
- SARIMAX implementation
- Assignment on Linear Regression

**Day 2: 02.03.2024 3.30 pm to 4.00 pm Valedictory function**

The Valedictory function of the workshop was organized on March 2nd, 2024 at 3.30 pm. The workshop coordinator, Prof. Samatha R Swamy addressed the vote of thanks and informed that 67 students attended the workshop. All the students gave good feedback about this workshop.


**Coordinator Signature** **HOD's Signature**