



An Autonomous Institute
NEAR ITPB, CHANNASANDRA, BENGALURU – 560 067
Affiliated to VTU, Belagavi
Approved by AICTE, New Delhi
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WORKSHOP: Machine Learning through Data Science and Python,

Electronics and Communication Engineering

Report on Workshop titled 'Machine Learning through Data Science and Python, under IEEE, Bangalore Section'

Workshop organized by ECE Department

The Electronics and Communication Engineering Department organized a three-day Workshop on 'Machine Learning through Data Science and Python, under IEEE, Bangalore Section', from 4th November 2019 to 6th November 2019. 21 students from the ECE Department attended the Workshop, on all the three days.

DAY 1: INTRODUCTION TO MACHINE LEARNING (04.11.2019)

Students were introduced to the Basic terminologies and applications of Python. Environmental Setup and Libraries Installations was done, and an overview of Jupyter Notebook and Spider was given. A hands-on Python Crash Course was demonstrated which included topics such as, **Data Variables, Simple Data Types, Lists, if Statements, Dictionaries, User Input and while Loops and Functions**. All the codes were tested and analysed. Some activities were given to the students to help them understand the concepts better.

DAY 2: DATA ANALYSIS AND DATA VISUALIZATION (05.11.2019)

Students were introduced to the following concepts related to data analysis and data visualization:

Data Analysis using *numpy*

Data Analysis with *pandas*

Data visualization with *matplotlib*

Data visualization with *seaborn*

DAY 3: SUPERVISED MACHINE LEARNING (06.11.2019)

Students were introduced to the following concepts related to supervised Machine Learning:

Data Preprocessing

Linear Regression Problem and solution

Linear Regression

Classification Problem and solution



Event Coordinators:

1. Mr. Rajeev Kamal, Professor / ECE
2. Ms. Sheher Banu S, AP / ECE

Outcome:

The students had a hands-on experience on Machine Learning, through data sciences and Python. Activities based on all the concepts covered in the Workshop were given to the students, and these helped them to get a better understanding about the topic.