

### **Report on the Value Added Course**

The department has conducted a value added course on “**MACHINE LEARNING FOR ENGINEERS USING PYTHON**” in association with **Green Corner Tech**, Ramamurthy Nagar, Nellore for interested EEE students from **01.02.2021 to 05.02.2021** in Edison Auditorium, Faraday’s Block.

**The following are the topics covered by resource person in this course:**

#### **1. Introduction:**

Machine Learning and Artificial Intelligence is a booming field. Machine learning gives the ability to machine to learn and behave in a particular manner without being explicitly programmed and learn from their experience with the help of data. You will see the application of machine learning and Artificial intelligence everywhere whether you talk about product recommendation by Amazon, Flipkart, etc. or movie recommendation by Youtube, Netflix, etc. You can also see the applications of Machine Learning and Artificial Intelligence in customer segmentation, fraud detection, google map, Facebook auto-tagging, spam email detection, etc. This is all done by data engineers and data scientists sitting at the workplace.

#### **2. Why study Python machine learning?**

There are many wonderful online resources to get you started on machine learning. However, we’ve curated this learning path with the following aims in mind:

1. Python-based: Python is one of the most commonly used languages to build machine learning systems. Most of the resources in this learning path are drawn from top-notch Python conferences such as PyData and PyCon, and created by highly regarded data scientists.
2. Hands-on material: Many of the materials we have included are hands-on tutorials that come with code and real-world data sets that’ll help you get a practical understanding of the techniques we’ll cover.
3. Concise and fast: For someone with a strong technical background, this path should take 20-25 hours to complete. Depending on the amount of time you dedicate, you should be able to complete this in 2-4 weeks, rather than the several months it takes to finish most online machine learning courses.

At the end of this learning path, you'll have a clear idea of what machine learning is, what the most common techniques in the field are, and through hands-on tutorials, you'll learn how to implement actual machine learning systems in Python.

### 3. What will you learn?

- i. The most common supervised learning and unsupervised learning algorithms, from linear regression to logistic regression to k-means clustering to random forest and other decision tree techniques.
  - ii. How to use Pandas and NumPy to accomplish various data mining and data wrangling tasks to turn your data into useable training data.
  - iii. How to use scikit-learn, a powerful tool, to comb over your available data and implement practical machine learning techniques.
  - iv. How to use computer science techniques to build the foundation of artificial intelligence, big data, and predictive models.
  - v. How to build basic deep neural networks that represent the cutting-edge when it comes to reinforcement learning and deep learning in machines.
- The course was completed with good feedback from the students in the valedictory function.

**No. of students participated: 79**



## Inaugural session of value added course



## Resource person's introduction

HOD