

## **Bhoj Reddy Engineering College for Women**

### **Department of Computer Science and Engineering**

**Two-day workshop on "Machine Learning using Python" for III BTech CSE A and B students during 23-24 November 2021 — Reg.**

CSE Department has organized a two-day workshop on "Machine Learning using Python" for

III BTech CSE A and B students on 23-24 November 2021. Total 128 students got registered. The workshop was scheduled from 09:30 to 16:30 Hrs. The workshop was conducted by Pantech e Learning, Hyderabad.

The first day (23 November 2021) started with an inaugural function attended by the Principal, CSE-HOD, Workshop in-charge, resource persons from Pantech e Learning, CSE faculty and III CSE A and B students. The venue was SB-113 (classroom) and SB-111 (CSE Lab-I). The first day forenoon session of the workshop was dealt with the basics of the Artificial Intelligence and Machine Learning, File handling, Strings, Lists, Python Regular Expression and Data types. The afternoon session was on Software installation, NumPy, Pandas, Matplotlib, Structured arrays, Exploring Data with Pandas, NLP.

In the second day (24 November 2021) of the workshop, Forenoon session started with Machine Learning Algorithms, Support Vector Machine with its application. The afternoon session was on medical cost regression using Machine Learning approaches, Resume categorization using NLP, Hands on face recognition.

All the participants were given the participation certificates in the valedictory function at the end of second day. The Feedback from the students was collected. Overall feedback of the workshop is good.

## **Workshop on Machine Learning**

A Hands-on Experience on most of machine learning solution with Anaconda-Python on a real-world dataset. This Course is designed to demonstrate how all the steps of a machine learning pipeline come together to solve a problem. This training familiarizes the delegates with current technologies and the recent algorithms. Python programming, a powerful programming for the image processing and the Machine Learning Algorithms.

### **Importance of the Course**

- Covers essential aspects of Machine Learning and the recent algorithms.
- Hands on session help lot to get insight into the programming on Python and algorithm integration.
- It provides platform to bring experts from Industry and academic institutions.

### **Technologies and Topics being covered**

1. Python for ML 2. NurnPy, Pandas in for Data analysis, and Machine learning 3. Machine Learning Theory followed by hands on Programming • SciKit Learn Package Exploring • Linear models for Regression/Classification 4. Machine Learning Algorithms 5. Machine Learning Project walkthrough

**DAY 1 : - PYTHON FOR ML & NUMPY, PANDAS IN FOR DATA ANALYSIS, AND MACHINE LEARNING**

SESSION	TIME	CLASS TOPICS
1	9:00 to 11:00	<b>Introduction</b> to artificial intelligence and machine learning and the language introduction
	11.00 to 11.15	****TEA BREAK****
2	11:15 to 12:30	<b>Python programming:</b> File handling, Exception handling, Command line arguments, modules and packages, Functions, Strings, Lists, Python Regular Expressions. Data types: Array creation
	12:30 to 1:30	****LUNCH BREAK****
3	1:30 to 2:00	<b>Installation of software</b> and hands on session on library files.
4	2:00 to 3:30	<b>Introduction:</b> I/O with NumPy, pandas ,Matplotlib examples , Indexing, Byte-swapping, Structured arrays, ****TEA BREAK****
5	3:45 to 4:30	Accessing CSV, Pickle, files and Logging in python <b>Data Visualization</b> 2D plotting with Matplotlib Advanced data visualization with Seaborn,  <b>Exploring Data with Pandas</b> 1) Data manipulation with Pandas 2) 2) Statistical analysis with Pandas 3) 3) NLP

**DAY 2: : MACHINE LEARNING ALGORITHM WITH HANDS ON PROGRAMMING**

SESSION	TIME	CLASS TOPICS
1	9:00 to 11:00	<b>Introduction to ML</b> Design a Learning System Issues with algorithms in Machine Learning
	11.00 to 11.15	****TEA BREAK****
2	11:15 to 12:30	Support Vector Machine with its application.
	12:30 to 1:30	****LUNCH BREAK****
3	1:00 to 2:00	An application on Medical cost regression using machine learning approaches.
4	2:00 to 3:30	Resume categorization using NLP ****TEA BREAK****
5	3:45 to 4:15	Neural Networks intro with its application
6	4:15 to 4:30	Queries and career guidance.

## Pictures related to Workshop





























