TECNIA INSTITUTE OF ADVANCED STUDIES
NAAC ACCREDITED GRADE "A" INSTITUTE
Approved by AICTE, Ministry of HRD, Govt. of India Affiliated To GGSIP University, Recognized under Sec 2(f) of UGC ACT 1956
INSTITUTIONAL AREA, MADHUBAN CHOWK, ROHINI, DELHI- 110085
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Event	:	One Day Workshop
Topic	:	Machine Learning
Resource Person	:	Mr. Avinash Mishra, CETPA INFOTECH Pvt.Ltd.Corporate Trainer, D-58, Red FM Road, Sector 2, D Block, Sector 2, Noida, Uttar Pradesh 201301.
Schedule	:	11:00 am onwards
Date	:	30th September 2019
Day	:	Monday
Venue	:	BCA Department PG Building 2nd FloorComputer Lab
Faculty In charge	:	Dr. Vishal Khatri (Professor), MCA Department
No of Students	:	79

Objectives:

1. To discover patterns in your data and then predictions based on complex pattern .
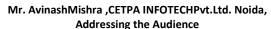2. To obtain complex patterns to answer business questions.
3. To analyze data and identify trends and help to solve problems.
4. To make use of the ever increasing amounts of data being collected and to manipulate and analyze it without heavy human input.
5. The primary aim is to allow the computers learn automatically without human intervention or assistance and adjust actions accordingly.

Mr. AvinashMishra ,CETPA INFOTECHPvt.Ltd. Noida, Addressing the Audience

Students attending the workshop

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Certificates Distribution By Director Sir

ReportOf Workshop On Machine Learning:

Tecnia Institute of Advanced Studies organized a workshop on 30[th]September 2019 at BCA Deptt (PG Block, 2[nd]FloorComputer Lab), by Corporate Trainer Mr. Avinash MishraCETPA INFOTECH Pvt.Ltd, Noida (U.P.) for BCA 1[st]and MCA 3rd&5[th]Sem. The workshop was divided into following modules:

1-DAY WORKSHOP CONTENT OF MACHINE LEARNING

➢ **What is ML? Why ML?**

- **Introduction to Supervised ML**
- **Introduction to Unsupervised ML**
- **Tools required for development - Anaconda, Jupyter NB**
- **ML libraries Explained:**
  - ○ **Scipy**

    SciPy is an Open Source Python-based library, which is used in mathematics, scientific computing, Engineering, and technical computing. SciPy also pronounced as "Sigh Pi."
  - ○ **Numpy**

    NumPy is a general-purpose array-processing package. It provides a high-performance multidimensional array object, and tools for working with thesearrays.It is the fundamental package for scientific computing with Python.

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- o **Matplotlib**

  Matplotlib is an amazing visualization library in Python for 2D plots of arrays. Matplotlib is a multi-platform data visualization library built on NumPy arrays and designed to work with the broader SciPy stack

- o **Seaborn**

  Seaborn is a Python data visualization library based on matplotlib. It provides a high-level interface for drawing attractive and informative statistical graphics.

- o **pandas profiling**

  It has a great set of features to perform various statistical operations on our data. One of these methods is the describe method, which gives us a compact summary of our data on the terminal or inside our Python notebook.

- ➢ **Data wrangling using Pandas**

- ➢ **Scikit-learn Library for ML**

Learning Outcomes of Machine Learning:

1. Students learnt Image recognitionthat is one of the most common machine learning applications. There are many situations where we can classify the object as a digital image.

2. Students learnt Speech Recognition (SR) that is the translation of spoken words into text. It is also known as "automatic speech recognition" (ASR), "computer speech recognition", or "speech to text" (STT).

3. Students learnt about methods, techniques, and tools that can help in solving diagnostic and prognostic problems in a variety of medical domains.

4. Students learnt about finance and statistical arbitrage which refers to automated trading strategies that are typical of a short-term and involve a large number of securities.

5. Students learnt Information Extraction (IE) that is another application of machine learning. It is the process of extracting structured information from unstructured data. For example web pages, articles, blogs, business reports, and e-mails. The relational database maintains the output produced by the information extraction.