Self-Sponsored Online
One Week

Hands-on Workshop on Machine Learning Techniques and Applications (MLTA-2024)

(01-05 March 2024)

Organized By

Department of Computer Engineering
National Institute of Technology
Kurukshetra-136119, Haryana, India

ABOUT NIT KURUKSHETRA

NIT Kurukshetra, formerly known as Regional Engineering College, Kurukshetra was founded in 1963. It was conferred upon the NIT status, with Deemed University on June 26, 2002. The Institute offers several courses, in various disciplines of B.Tech., M.Tech., MBA, MCA and Ph.D. with an annual intake of about 1500 students. Institute also provides excellent facilities for advanced research in the emerging areas of Engineering, Science, and Technology. The institute has well qualified and dedicated faculty along with supporting staff, laboratories and other infrastructure. The infrastructure is geared to enable the institute to produce technical personnel of high quality.

ABOUT THE DEPARTMENT

The department of Computer Engineering started in 1987 with the aim to equip students with the necessary skills to navigate the dynamic landscape of IT requirements preparing for the future. The department is well equipped with state-of-the-art laboratories of all major domains of Computer Engineering and Information Technology. The department is proud to have a record of almost 100% placement for last 10 years. The department is equally active in research with many quality publications each year in IEEE, ScienceDirect, ACM, Springer, Wiley etc. For the overall development, the department also covers the other aspects of life like Health management, moral and ethical development of the students.

OBJECTIVES OF THE COURSE

This workshop aims to introduce the participants with Machine Learning and its several applications. The training program will begin with an introduction to machine learning and Python programming. It focuses on data exploration, feature extraction, classification, and clustering techniques. In addition, some real-world ML applications will be covered through theoretical and algorithmic approaches. After completing the training program, the participant will be able to understand and implement the various machine learning models using Python with their pros and cons.

TENTATIVE COURSE CONTENTS

- **Module 1. Machine Learning Primer:** Introduction to Machine Learning, Basics of Machine Learning, Types of Machine Learning.
- **Module 2. Python Primer:** Introduction of Python syntax and programming logics.
- **Module 3. Descriptive Data Analysis using Python:** Understanding Data, its types, Data visualization and preparation.
- **Module 4. Supervised Learning:** Classification, Regression, Classification using Decision Tree, Linear Regression, Logistic Regression.
- **Module 5. Performance Metrics in ML**
- **Module 6. Unsupervised Learning:** Clustering, K-mean clustering

- **Module 7. Introduction in Ensembles:** Bagging, Boosting, Stacking etc.
- **Module 8.** Machine Learning Applications

IMPORTANT DATES

Last date for Registration: **25 February 2024**

Confirmation to the participants (by email): **28 February 2024**

E-Certificates will be provided to all the participants.

ABOUT KURUKSHETRA

Kurukshetra is popularly known for its historical and religious importance. Here, the battle of Mahabharata was fought, and Lord Shree Krishna delivered the divine. It is also known as DHARAMKSHETRA and it attracts devotees from all corners of world all round the year. Kurukshetra is very well connected by Rail, Delhi- Ambala section, by Road (NH1, connecting Delhi- Chandigarh Amritsar-Jammu) and by Air (Delhi 160 km and Chandigarh 80 km). The NIT Kurukshetra campus is situated about 10 km from Pipli, Bus stand located on NH1 and about 4 km from Kurukshetra railway station.

TARGET AUDIENCE

- This workshop is targeted to participants who are interested to have an early introduction of machine learning concepts and tools.
- Pre-requisites: Knowledge of computer with basic concepts of programming and algorithms.

Participant's Category	Registration Fee
Students/ Research Scholars	Rs. 250/-
Faculty	Rs. 500/-
Industry/ R&D / Govt. Organization	Rs. 1000/-

* Registration fee is non-refundable

MODE OF REGISTRATION

The Registration fee is to be paid through SBI Collect.

Step 1: Go to SBI Collect or click on: https://www.onlinesbi.sbi/sbicollect/icollecthome.htm

Step 2: Select Educational Institutions.

Step 3: Select State Haryana and search for DIRECTOR NIT KURUKSHETRA in search bar (in left side).

Then Select DIRECTOR NIT KURUKSHETRA option at the bottom

Step 4: Select Payment Category (MLTA-2024), Proceed (Fill the requested details & Submit) and collect the receipt.

Step 5: Registration with the following Link:

https://forms.gle/WNeK3gQ2W4nHLW6Q9

Alternatively, Scan here for Registration:

ORGANIZING COMMITTEE

Chief Patron

Prof. (Dr.) Prof. B.V. Ramana Reddy
Director, NIT Kurukshetra

Patron(s)

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