OBJECTIVE
In this course, you will learn about the nuances of supervised and unsupervised machine learning on real-life datasets. You will develop a clear understanding of machine learning algorithms and the context in which to apply them to solve problems in the field of business.

WHY SHOULD YOU ATTEND?
If you want to equip yourself with data analytic skills and tweak your research to be invaluable for business, this programme will assist you to develop a fine understanding of basic statistics, analytic tools, and apt applications.

WHO SHOULD ATTEND?
Faculty members (UG & PG)
Research Scholars
Academic Associates (M.Tech/M.Sc/MBA)
Govt. & Pvt. Professional Training Institutes Working Professionals

KEY TOPICS
Given the vast amount of data, the preprocessing and analysis of data become important for decision-making.
This programme will provide a holistic understanding of statistical & machine learning and its application using R/Python/Octave software. The descriptions provide only a broad idea of the topics. Individual faculty members or speakers may make alterations to the content, as appropriate for their session.

The topics covered in the programme:

- SUPERVISED LEARNING ALGORITHMS WITH APPLICATIONS
  Simple Linear Regression, Multiple Linear Regression

- SUPERVISED LEARNING ALGORITHMS WITH APPLICATIONS IN CLASSIFICATION PROBLEMS
  Logistic and multinomial regression, Ensemble Methods: Random Forest and Boosting, Prescriptive Analytics: forecasting and optimisation, Application of supervised learning algorithms in various domains.

- UNSUPERVISED LEARNING ALGORITHMS
  Clustering: K-Means Clustering and Hierarchical Clustering, Autonomous Learning, Unstructured Data: Text mining
**Pre-Requisite and Content Deliverable**

It is **not mandatory** to have basic programming skills, however, participants are expected to spend time with the code set as a home assignment to completely leverage the classroom training hours.

**Deliverable:** The datasets and the soft copy of the content will be uploaded in the shared repository (preferably Google Drive).

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**Programme Delivery Mode and Software Requirements**

**Online meeting:** Google meet will be used for the meeting. The participants are required to log in for attending the sessions from their computers. A stable **internet connection** will be required. Login details will be sent to the registered participants before each session via email.

Participants need to **download software** that assists them to write code and perform statistical operations. They can download R, Octave or Python from these links:

- **R**: https://www.r-project.org
- **Python**: https://docs.anaconda.com/anaconda/install/
- **Octave**: https://www.gnu.org/software/octave/download.html

For valid reasons, as an alternative to above software participants will be provided with trial versions of statistical software packages.

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**Registration**

**STEP 1: Payment of fees**

Registration fee: Rs. 500 (for faculty, research scholars and industry participants)

The fee must be paid online to:

- **Account name:** Center for Continuing Education NITW
- **Account number:** 62403680215
- **Bank:** State Bank of India Branch: Code - 20149; REC Warangal, NIT Campus
- **IFSC code:** SBIN0020149

Demand-draft - Demand draft is not encouraged. In case participants have a strong reason, request to reach out to the coordinators.

**STEP 2: Online registration**

Fill online registration form:

https://docs.google.com/forms/d/1Eq1fKRJWg5MhbT3sEUdBaj8CSZsy122S2UzHKUC1rE/edit

While filing the online registration form, it is mandatory to upload the scanned copies of NEFT receipt.

*Last date for submission of registration form & payment: 23 Aug
*Intimation of participation: 19 Aug

*Registrations will follow first-come-first serve basis until 14th or maximum intake.

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**Selection Criteria**

Selection will be done based on the first-come-first serve basis until the last date or until the maximum intake (as determined by NITW) is met, whichever happens earlier. The selected list of participants will be intimated individually through e-mail. In case the candidate is not selected, the amount will be returned. Only on successful completion of the course, the candidates will receive their certificate.

**Address for correspondence:**

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ABOUT NIT WARANGAL

National Institute of Technology Warangal was formerly known as Regional Engineering College was established in 1959. Pandit Jawaharlal Nehru laid the foundation stone for this institute on October 10, 1959, the first in the chain of 30 NITs in the country. The Institute is well known for its dedicated faculty, staff, and state-of-the-art infrastructure conducive to a healthy academic environment. The Institute currently has 13 academic departments and a few advanced research centers in various disciplines of engineering, pure sciences, and management. The Institute offers eight undergraduate programs (B.Tech.) in engineering, 29 postgraduate programs (MBA, M.Tech., M.Sc., and MCA) in management, engineering, sciences, and research programs in management, engineering, sciences, humanities, and physical education. The institute is well-known for its Research and Development, Industrial consultancy, Continuing education, and training programs for teachers and industrial personnel.

ABOUT THE SCHOOL OF MANAGEMENT

In the contemporary world of rapidly changing global business, which is technology-intensive and consumer-oriented, the acumen needed for managers is being revolutionized. Recognizing this, the institute has designed a comprehensive MBA program exclusively for engineering graduates. Thus, came to light the “School of Management (SOM)” at NIT Warangal. The MBA program offered by the School of Management is a two-year course that runs into eight quarters. The program has extensive electives in the specialized areas of Marketing Management, Human Resource Management, Financial Management, Operations Management, Information Technology, and allied areas of management. The School of Management provides a well-balanced combination of academic and practical business-oriented content.

ABOUT THE CENTRE FOR CONTINUING EDUCATION

This Centre of NIT Warangal organizes Continuing Education Programs and Workshops in the frontier areas of Science, Engineering, Technology, Management, Humanities, Social Science and Socially relevant themes on self-financing basis in three different modes: (i) At NIT Warangal by NIT Warangal (ii) At NIT Warangal in collaboration with other organizations (iii) By NIT Warangal Faculty at the Host Organization/Institute.

NIT Warangal campus