

Rationale

The Short Term Training Program (STTP) on "Mathematical Foundation in Machine Learning and Deep Learning" is a comprehensive one-week training program designed to empower educators and professionals with the knowledge and skills needed to excel in the field of Machine Learning and Deep Learning with mathematical foundations. Participants will gain practical and theoretical knowledge of mathematics in data analytics, machine learning, and data-driven decision-making.

Programme Outcomes

- Use the basic mathematical foundation of algorithms for Machine Learning.
- Use the basic mathematical foundation of algorithms for Deep Learning.
- Apply novel mathematical rules/algorithms for machine learning and deep learning to solve real-world problems.
- Apply the core concept of data, algorithms and mathematical correlations between problem and solutions.
- Incorporate mathematical concepts for data science, machine learning and deep learning into their teaching and research.

Programme Content

traditional machine learning and deep learning

linear hypothesis, linear regression, and gradient descent.

Logistic regression, hypothesis, and gradient descent in logistic regression

Artificial Neural Network with feed forward and back propagation.

PCA and dimensionality reduction for the featured data and marginally separable model SVM

Mathematical representations of unsupervised algorithms.

Target Group

Faculty of all disciplines

Coordinator & Co-Faculty

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Expert



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