



Department of Electronics Engineering

Report on Expert Lecture

Organized by: Department of Electronics, MITS-DU, Gwalior

Date: 27th September 2025

Mode: Online (Google Meet)

Title of the Lecture

“Fundamentals of Machine Learning Algorithms and Applications”

Speaker

Dr. Ghanshyam Singh Thakur

Associate Professor, MANIT Bhopal

Objectives

- To introduce the fundamentals of **Machine Learning algorithms**.
 - To explore practical **applications of ML in real-world scenarios**.
 - To motivate students for research and advanced studies in the field of **Artificial Intelligence and Machine Learning**.
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Event Details

- **Time:** 12:00 PM
 - **Platform:** Google Meet
 - **Join Link:** <https://meet.google.com/rti-idsx-bpg>
 - **Registrations:** 72
 - **Attendees:** 44
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Lecture Highlights

- Dr. Thakur explained the **basic concepts and types of Machine Learning** (Supervised, Unsupervised, and Reinforcement Learning).
- He demonstrated real-world **applications of ML** in healthcare, robotics, finance, and communication systems.
- The session included **interactive Q&A**, where students clarified doubts regarding algorithm selection and practical implementation.
- Emphasis was given to **research opportunities** and the future scope of Machine Learning in Electronics and Computer Engineering.

Outcome

- Students gained **foundational knowledge of ML algorithms**.
- Enhanced awareness of **industry-driven applications** of Machine Learning.
- Encouragement for students to **explore projects and higher studies** in AI/ML domains.

Attendance Summary

- **Total Registered:** 72
- **Total Attended:** 44

Faculty Coordinators



Dr. Shailendra Singh



Dr. Varun Mishra

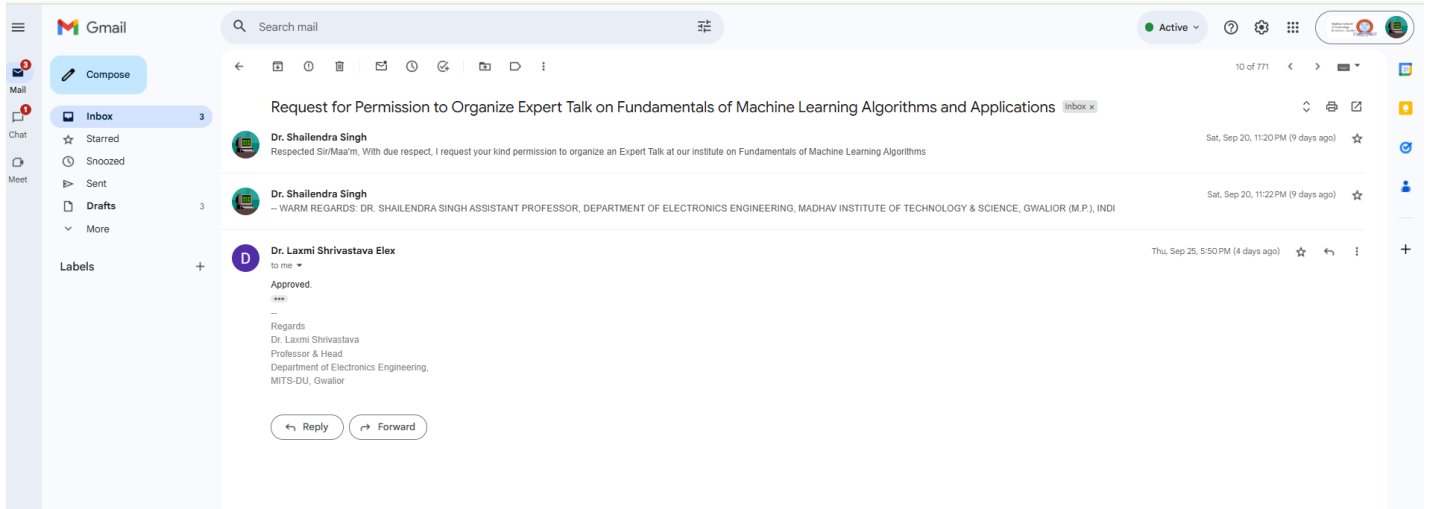


Dr. Laxmi Shrivastava

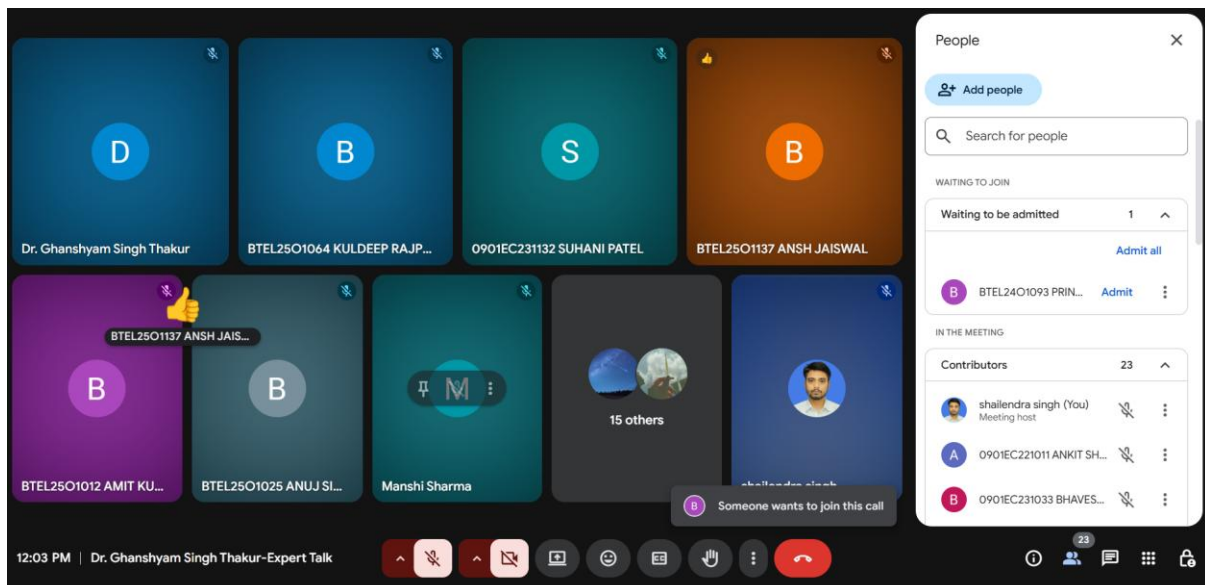
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Approval Images:



Some pics are attached:



Dr. Ghanshyam Singh Thakur (Presenting)

Telegram New message
Telegram New message

Training set: A set of examples used for learning, split in all the parameters (i.e., weights) of the classifier.
Validation set: A set of examples used to avoid overfitting or tune the hyperparameters (i.e., architecture, not weights) of a classifier, for example, to choose the number of hidden units in a neural network.
Test set: A set of examples used only to assess the performance (generalization) of a fully specified classifier.

34/91

Someone wants to join this call

12:51 PM | Dr. Ghanshyam Singh Thakur-Expert Talk

Dr. Ghanshyam Singh Thakur (Presenting)

7 Steps of Machine Learning

- 1 Gathering Data
- 2 Preparing Data
- 3 Choosing a Model
- 4 Training the Model
- 5 Model Evaluation
- 6 Hyperparameters Tuning
- 7 Prediction Step

Dr. Varun Mishra has left the meeting

12:51 PM | Dr. Ghanshyam Singh Thakur-Expert Talk

Dr. Ghanshyam Singh Thakur (Presenting)

5 Model Evaluation

Evaluating machine learning algorithm is an essential part of any project.
Different measures exist to evaluate trained models such as accuracy, TPR, FPR, F-Measure, precision, recall, ...

12:52 PM | Dr. Ghanshyam Singh Thakur-Expert Talk



माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA
Deemed University
(Declared under Distinct Category by Ministry of Education, Government of India)
NAAC ACCREDITED WITH A++ GRADE



EXPERT LECTURE ON FUNDAMENTALS OF MACHINE LEARNING ALGORITHMS AND APPLICATION

LEARNING FROM DATA, LIKE HUMANS



DATE
SEP 27, 2025



TIME
AT 12.00 PM

SPEAKER

Dr. Ghanshyam Singh Thakur

Designation: Associate Professor MANIT, Bhopal

Organized By: Electronics Department

MITS-DU, Gwalior



MEET LINK: <https://meet.google.com/rti-idx-bpg>