

Report on an  
**Expert Lecture**  
organized by  
Department of Mathematics  
School of Basic and Applied Sciences  
Harcourt Butler Technical University, Kanpur

**Date:** December 05, 2025

**Time:** 03:00 PM – 04:00 PM IST

**Mode:** Online (Google Meet) Meet Link: <https://meet.google.com/tfd-ytxh-skp>

**Convenor:** Dr. Shivam Shreevastava

**Title of the Talk:** *“Feature Selection for Imbalanced Datasets”*

**Objective of the Event:** The objective of the lecture was to provide students and research scholars with a comprehensive understanding of feature selection techniques in the context of imbalanced datasets. The session aimed to highlight the challenges associated with class imbalance in real-world data and to discuss effective strategies for improving model performance through appropriate feature selection methods. The lecture sought to bridge theoretical foundations with practical applications in machine learning and data science, thereby enhancing students’ analytical and research capabilities.

**Inaugural Remarks and Details of the Session**

The lecture commenced with a warm welcome address by Dr. Shivam Shreevastava, who introduced the speaker and emphasized the importance of feature selection in modern data-driven research. He highlighted the relevance of handling imbalanced datasets in fields such as healthcare, fraud detection, cybersecurity, and predictive analytics.

The expert lecture was delivered by **Dr. Anoop Kumar Tiwari, Assistant Professor, Department of CSIT, Central University of Haryana**. The session was conducted online via Google Meet and witnessed enthusiastic participation from undergraduate, postgraduate, and research scholars of the Department of Mathematics.

Dr. Tiwari provided an in-depth explanation of the challenges posed by imbalanced datasets, including biased model performance and misleading evaluation metrics. He discussed various feature selection approaches and their impact on classification performance in imbalanced scenarios. The lecture also covered practical insights

into improving predictive accuracy and model robustness. The session was interactive, allowing participants to engage in discussions and clarify their doubts.

### **Vote of Thanks**

At the conclusion of the session, Dr. Shivam Shreevastava extended a heartfelt vote of thanks to Dr. Anoop Kumar Tiwari for his insightful and enlightening lecture. He also expressed appreciation to the faculty members and students for their active participation and support in making the event successful.

### **Conclusion**

The expert lecture provided a valuable academic platform for students to gain deeper insights into feature selection techniques for imbalanced datasets. The session effectively combined theoretical concepts with practical relevance, motivating participants to explore advanced topics in machine learning and data analytics. The program concluded on a highly informative and inspiring note.