Malnad College of Engineering

(An autonomous institute under VTU)

Report on technical talk on Big Data Analysis

Title: Big Data Analytics in Computer Vision

Date: 09/09/2025

Time: 11 am

Speaker: Dr. Suresha D

About the speaker

Dr. Suresha D, Professor and Head of the Department of Computer Science and Engineering at Srinivas Institute of Technology, Mangalore, delivered the guest lecture. With over 25 years of academic experience and a Ph.D. in Computer Science and Engineering, he has made significant contributions to research in areas such as Computer Vision, Artificial Intelligence, and Big Data Analytics. His expertise and insights provided valuable knowledge connecting theoretical concepts with practical applications in modern computer science.

Introduction: Scope & Motivation

This report explores how computer vision integrates with big data analytics. It focuses on practical applications including image processing, model training, and real-world deployment. Key areas covered include visual perception in artificial agents, imaging physics, preprocessing, and scalable data pipelines for intelligent systems.

Objectives

- To understand the connection between computer vision and big data analytics.
- To explore key concepts like imaging models, preprocessing, and visual pipelines.
- To study end-to-end computer vision model development and training.
- To examine applications such as object detection, biometrics, and image-to-image tasks.
- To highlight challenges in robustness, generalization, and adversarial defense.
- To recognize the role of datasets and scalability in vision-based analytics systems.

Audience Interaction:

The students from the AIML department responded with great enthusiasm to the guest lecture delivered by Dr. Suresha D. The session sparked keen interest as it connected the principles of computer vision with big data analytics, highlighting how large-scale visual data can be processed, analyzed, and applied in real-world systems. Students were particularly engaged when learning about image preprocessing, object detection, and the integration of visual models with big data tools like Hadoop and Spark. The audience appreciated Dr. Suresha's clear explanations and practical insights, which deepened their understanding of how artificial intelligence and data-driven technologies work together to solve complex problems in the field of computer science.

Conclusion

The technical session by Dr. Suresha D provided AIML students with valuable insights into the practical aspects of computer vision and big data analytics. It effectively bridged theoretical concepts with real-world applications, inspiring students to explore areas like image processing, object recognition, and large-scale data handling. The session encouraged participants to engage in hands-on learning through small experiments, dataset creation, and interdisciplinary projects, fostering a deeper understanding of how AI-driven visual systems operate in the era of big data.

Gallery