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A Workshop on
"Machine Learning: From Fundamentals to Future Frontiers"
Organised by Department of Computer Applications
in association with ISTE, MITS
on 22.12.2025

Report Submitted by Dr. R. Maruthamuthu, Assistant Professor, Department of Computer Applications & Mrs. Suganya S, Assistant Professor, Department of Computer Applications.

Participants: I Year MCA

Mode of Conduct: Offline

Venue: Seminar Hall B, MITS Deemed to be University

Report Received on 01.01.2025.

The Department of Computer Applications in association with ISTE successfully organized a one- day workshop titled "Machine Learning Paradigms: From Fundamentals to Future Frontiers" on 22 December 2025 at the KKB Seminar Hall. The programme was conducted for the benefit of students and faculty members with the objective of enhancing knowledge and providing practical exposure in emerging technologies.

Objectives:

- To provide a strong foundation in Machine Learning concepts and paradigms.

- To introduce emerging technologies such as IoT and Blockchain and their applications.

- To bridge the gap between theoretical knowledge and real-world technological practices.

- To enhance analytical and problem-solving skills among students and faculty.

- To expose participants to current industry trends and future research directions.

- To encourage interdisciplinary learning and innovation in advanced computing domains.

Program Details:

The workshop was inaugurated in the presence of Dr. Naveen Kumar, Head, Department of Computer Applications, Dr. K. Sree Divya, Assistant Professor, ISTE Institution level Coordinator and the programme coordinators Dr. R. Maruthamuthu & Mrs. S. Suganya, Assistant Professor, Department of Computer Applications.

The programme commenced with a formal welcome and chief guest introduction by Dr. R. Maruthamuthu, Assistant Professor, Department of Computer Applications, followed by felicitation addresses by the dignitaries present in the dias.

The technical sessions were handled by Dr. S. Balamurugan, Assistant Professor, School of Applied Computing, Jain (Deemed to be University), Bangalore. The resource person delivered insightful sessions covering key emerging domains such as Machine Learning, Internet of Things (IoT), and Blockchain technologies. The sessions provided a strong foundation on core concepts, real-time applications, and future trends in these areas.

Participants actively engaged in the sessions and gained valuable insights into the practical relevance of these technologies in industry and research. The workshop proved to be highly informative and beneficial, helping students and faculty bridge the gap between theoretical knowledge and real-world applications.

Key points covered in workshop:

- o Fundamentals and paradigms of Machine Learning
- o Supervised, unsupervised, and reinforcement learning techniques
- o Real-world applications of Machine Learning in various domains
- o Overview of Internet of Things (IoT) architecture and use cases
- o Integration of Machine Learning with IoT systems
- o Basics of Blockchain technology and distributed ledgers
- o Security, transparency, and trust in Blockchain applications
- o Emerging trends and future research directions in intelligent systems

Workshop Outcomes:

- Participants gained a strong understanding of core Machine Learning concepts and paradigms.
- Students were able to relate Machine Learning theories to real-world applications.
- Participants acquired basic knowledge of IoT architecture and smart system design.
- Awareness was created on Blockchain fundamentals, security, and decentralized systems.
- Faculty and students were exposed to emerging trends and future research opportunities.
- The workshop enhanced technical skills, critical thinking, and interest in advanced computing technologies.

Conclusion:

The one-day workshop on "Machine Learning: From Fundamentals to Future Frontiers" was successfully concluded with active participation from students and faculty members. The sessions provided valuable insights into emerging technologies such as Machine Learning, IoT, and Blockchain, enriching the participants' technical knowledge and practical understanding. The workshop effectively met its objectives by fostering learning, innovation, and awareness of future technological trends.

The programme concluded with a vote of thanks delivered by Mrs. S. Suganya, Assistant Professor, Department of Computer Applications, who expressed sincere gratitude to the resource person, dignitaries, organizers, faculty members, students, and media representatives for their cooperation and support in making the workshop a grand success.