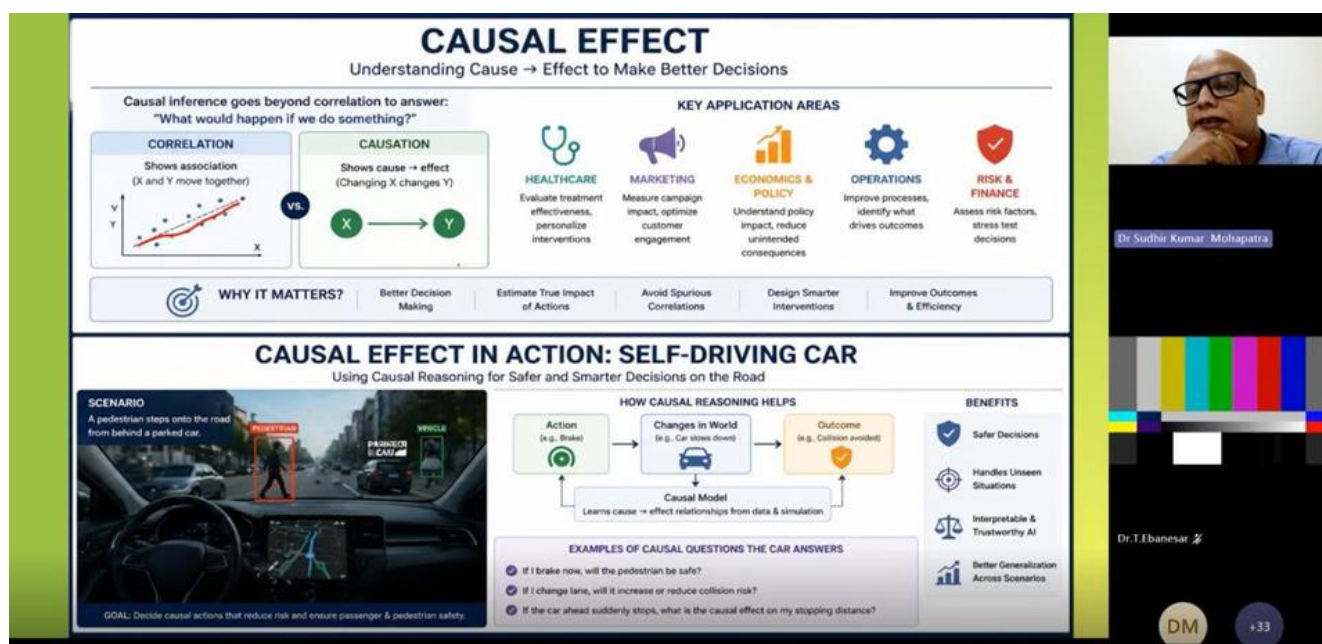


A Report on

“One Week Online Faculty Development Programme (FDP) Artificial Intelligence and Machine Learning for All: Foundations, Applications, and Future Trends” Organized by Department of Computer Science and Engineering (AI and ML) from 20 July 2026 to 25 July 2026



Report Submitted by: **Dr. Ramakanta Mohanty, Professor, Department of CSE (AI and ML)** **Mr. Udayakumar.P, Assistant Professor, Department of CSE (AI and ML)**

Mode of Delivery: Online (Microsoft Teams).

Participants: Total Registrations: 73

Report Received on 05.08.2026.

The Department of Computer Science and Engineering (Artificial Intelligence & Machine Learning), MITS Deemed to be University, organized a **One Week Online Faculty Development Programme (FDP)** on "Artificial Intelligence and Machine Learning for All: Foundations, Applications, and Future Trends" from 20th to 25th July 2026. The programme aimed to equip faculty members, researchers, and industry professionals with fundamental and advanced knowledge of AI, ML, Deep Learning, Generative AI, and their multidisciplinary applications. Eminent academicians and industry experts from **Sri Sri University, Anna University, MGIT Hyderabad, Samsung R&D, IIIT Nagpur, and MITS** delivered expert lectures, practical demonstrations, and interactive sessions, promoting innovation, interdisciplinary research, and AI-enabled teaching and learning.

Objectives of the FDP:

The major objectives of the programme were:

- To provide participants with a strong foundation in Artificial Intelligence, Machine Learning, and Deep Learning.
- To introduce practical AI applications across engineering, healthcare, education, law, and administration.
- To familiarize faculty members with AI-assisted teaching, research, and industrial tools.
To explore Explainable AI, Ethical AI, and Responsible AI practices.
- To encourage interdisciplinary research collaborations using Artificial Intelligence.
To promote AI-enabled innovation and academic excellence.

Inaugural Session:

The Faculty Development Programme commenced on 20 July 2026 through Microsoft Teams. The inaugural session began with a warm welcome by the organizing committee. The dignitaries highlighted the growing importance of Artificial Intelligence in transforming higher education, research, industrial innovation, and national development.

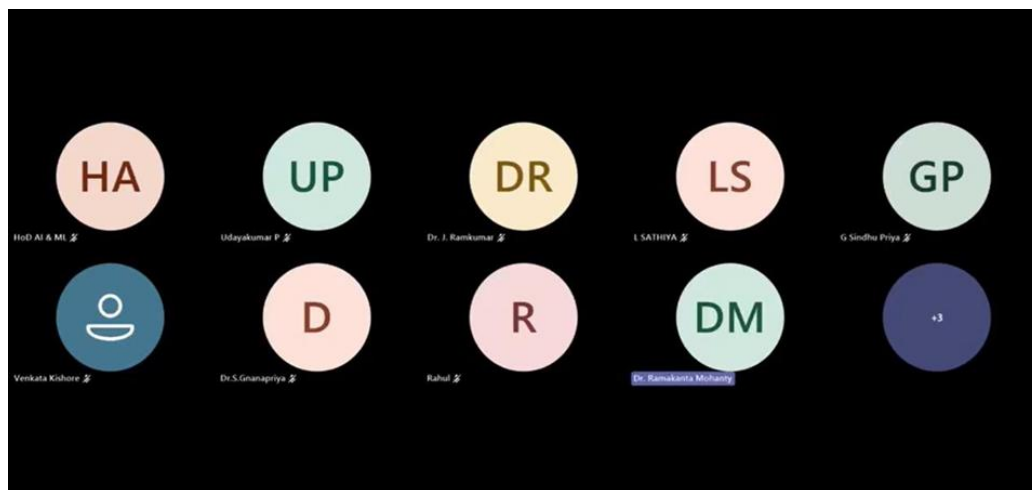
The inaugural session emphasized:

- AI as the driving force of Industry 5.0.
- Need for AI-enabled curriculum.
- Research opportunities in Generative AI.
- AI adoption in multidisciplinary domains.
- Importance of ethical AI and responsible innovation.

Participants from universities, engineering colleges, research institutions, and industries across India attended the inaugural session.

Welcome Address

Dr. Ramakanta Mohanty, Professor, Department of CSE (AI & ML), MITS, welcomed the dignitaries, resource persons, and participants at **6:00 PM**. He highlighted that the FDP aims to enhance participants' knowledge of **Artificial Intelligence, Machine Learning, Deep Learning, and their applications** in teaching, research, and industry.



Keynote Address

Dr. S. Padma, Associate Professor & HoD, Department of CSE (AI & ML), MITS, welcomed the resource persons and participants. She thanked the University Management and Principal for their continuous support and encouraged participants to strengthen their AI and ML skills for academic excellence, research, and innovation.

Presidential Address

Dr. P. Ramanathan, Principal, MITS Deemed to be University, emphasized the growing importance of **Artificial Intelligence and Machine Learning** in higher education and industry. He encouraged participants to utilize the FDP to enhance their teaching, research, and professional skills and appreciated the department for organizing the programme successfully.

Day wise Session Details:

Day 1: 20 July 2026 (Monday)

Time: 6:30 PM – 8:00 PM

Resource Person: Dr. Ramakanta Mohanty, M.Tech, Ph.D., Professor, MITS Deemed to be University

Topic: Artificial Intelligence, Machine Learning and Deep Learning: Concepts and Applications to Civil Engineering, Mechanical Engineering and Law

The inaugural technical session introduced participants to the evolution and architecture of Artificial Intelligence, Machine Learning, Neural Networks, and Deep Learning. The speaker explained supervised, unsupervised, reinforcement, and deep learning paradigms with practical examples.

The session concluded with discussions on AI-driven career opportunities and multidisciplinary research.

Day 2: 21 July 2026 (Tuesday)

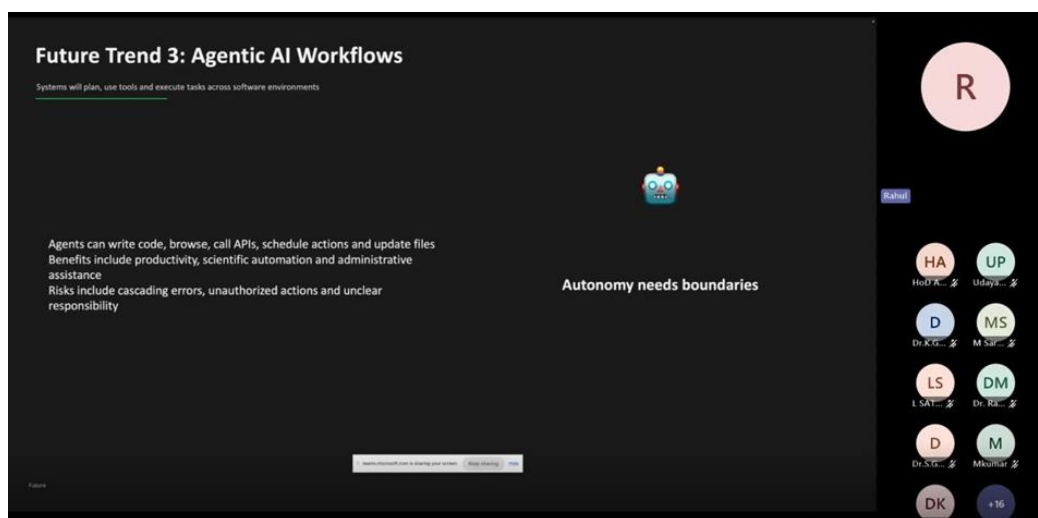
Time: 6:00 PM – 7:30 PM

Resource Person: Dr. Sudhir Kumar Mohapatra, M.Tech., Ph.D., Post Doctoral Fellow, Professor, Sri Sri University, Odisha

Topic: *Anomaly Detection and Causal Effect Analysis in Modern AI Systems for Intelligent Decision Making*

Dr. Sudhir Kumar Mohapatra delivered an insightful session on intelligent decision-making using anomaly detection and causal effect analysis in Artificial Intelligence systems. The session began with an introduction to anomaly detection and its significance in identifying unusual patterns and abnormal behaviours in large-scale datasets. The speaker explained various statistical, machine learning, and deep learning approaches used for anomaly detection, emphasizing their applications in cybersecurity, healthcare, finance, industrial monitoring, and fraud detection.

A major highlight of the session was the concept of **causal effect analysis**, which enables AI systems to distinguish correlation from causation. Through practical examples and real-world case studies, Dr. Mohapatra demonstrated how causal inference techniques improve the reliability, transparency, and trustworthiness of AI-based decision-making systems. He also discussed the importance of Explainable Artificial Intelligence (XAI) in developing responsible AI solutions capable of providing interpretable predictions. The session concluded with an interactive discussion encouraging participants to adopt explainable and responsible AI methodologies in their future teaching and research activities.



Day 3: 22 July 2026 (Wednesday)

Time: 6:00 PM – 7:30 PM

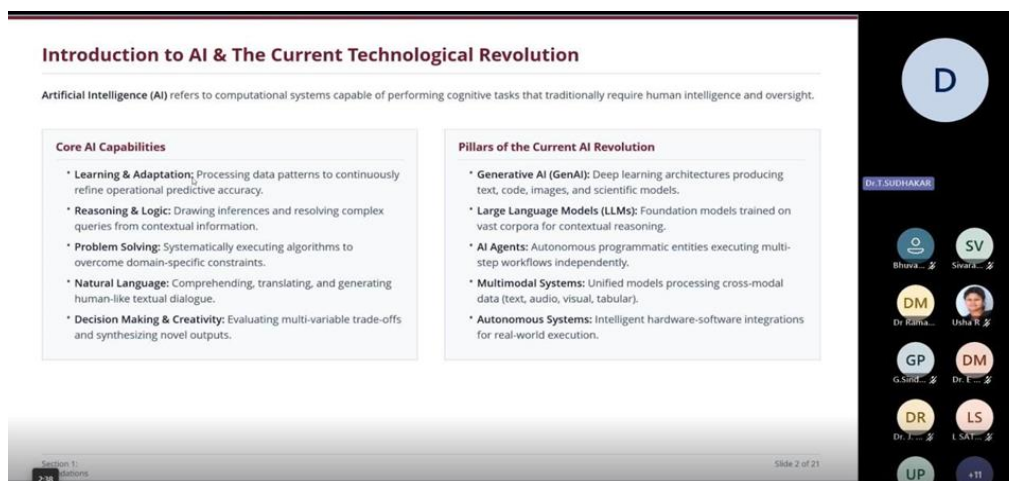
Resource Person: Dr. T. Sudhakar, M.Tech., Ph.D., Assistant Professor, Department of Computer Technology, MIT Campus, Anna University, Chennai

Topic: *AI Tools for Teaching, Research and Industry*

Dr. T. Sudhakar conducted a highly interactive session demonstrating the use of Artificial Intelligence tools that significantly enhance teaching, research, and industrial productivity. The session introduced participants to a wide range of AI-powered platforms capable of automating academic and research activities. The speaker explained how generative AI technologies are transforming higher education by improving content creation, coding, documentation, research writing, and classroom engagement.

Participants were provided with practical demonstrations of several AI-assisted applications used for academic writing, literature review, programming, presentation development, and data visualization. The speaker also emphasized the responsible and ethical use of Generative AI while maintaining originality, research integrity, and academic standards.

The session concluded with discussions on integrating AI into curriculum development, project supervision, research publications, consultancy activities, and industrial collaborations.



Day 4: 23 July 2026 (Thursday)

Time: 6:00 PM – 7:30 PM

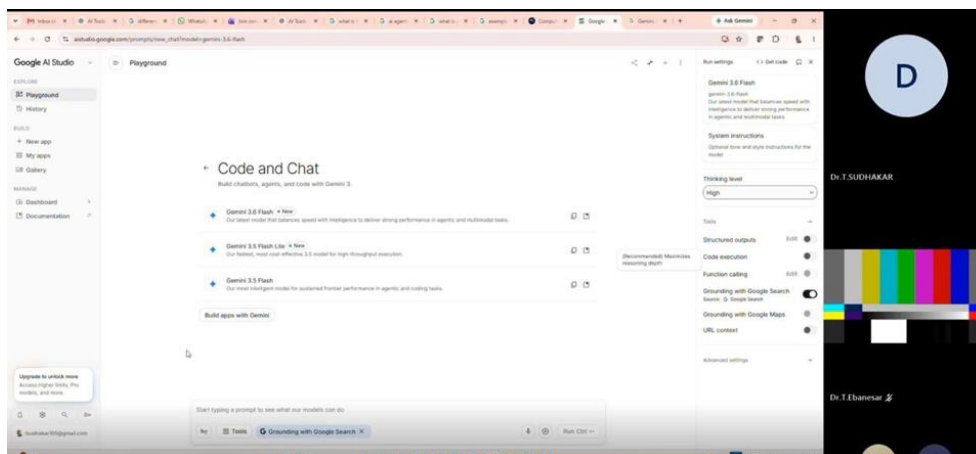
Resource Person: Dr. Ch. Ramesh Babu, M.Tech., Ph.D., Associate Professor, Mahatma Gandhi Institute of Technology (MGIT), Hyderabad

Topic: *Identify Opportunities for AI Adoption in Teaching, Research and Administration*

Dr. Ch. Ramesh Babu delivered an informative session focusing on the transformative role of Artificial Intelligence in higher education institutions. The speaker highlighted numerous opportunities for integrating AI technologies into teaching, research, and institutional administration to improve efficiency, productivity, and decision-making.

The session emphasized the growing role of AI in personalized education, learning analytics, academic planning, research innovation, and institutional governance. Practical examples demonstrated how AI can support faculty members in improving student engagement, research quality, curriculum design, and administrative decision-making.

The session concluded with an engaging discussion on how AI can contribute to digital transformation in educational institutions and encouraged participants to initiate interdisciplinary AI-based projects.



Day 5: 24 July 2026 (Friday)

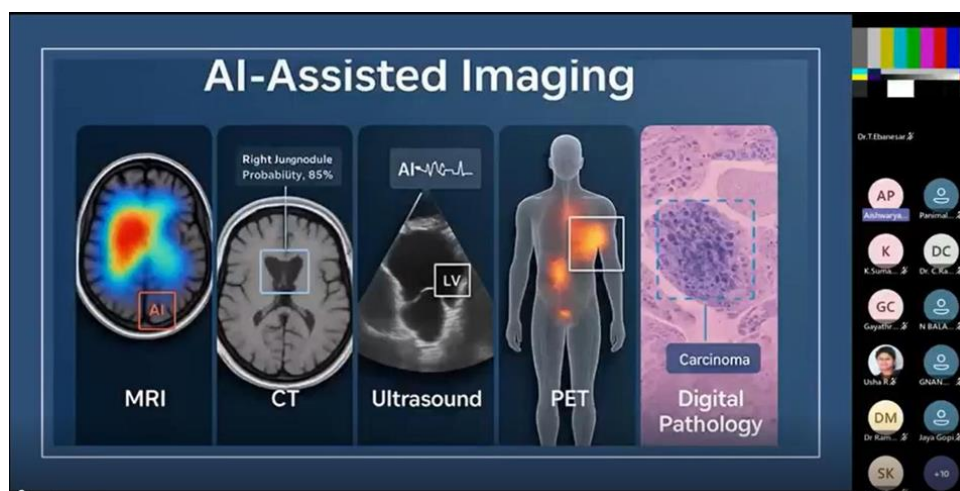
Time: 6:00 PM – 7:30 PM

Resource Person: Ms. Aishwarya Priyadarshini, B.Tech. (IIT Kanpur), M.Tech. (IIT Indore), Research Scientist, Samsung Research & Development, Delhi NCR **Topic:** *Artificial Intelligence, Machine Learning and Deep Learning in Medical Image Processing*

Ms. Aishwarya Priyadarshini delivered an excellent session on the application of Artificial Intelligence in medical image analysis and healthcare. The lecture covered the complete workflow of medical image processing, including image acquisition, preprocessing, segmentation, feature extraction, classification, and disease prediction using machine learning and deep learning techniques.

The speaker explained how Convolutional Neural Networks (CNNs) and other deep learning architectures have significantly improved the accuracy of disease diagnosis using medical imaging modalities such as X-ray, CT, MRI, Ultrasound, and Histopathological images. Several real-world healthcare applications and industrial case studies were demonstrated during the session.

The session highlighted the growing importance of AI in precision medicine and demonstrated how intelligent diagnostic systems assist healthcare professionals in improving diagnostic accuracy, reducing analysis time, and supporting evidence-based clinical decision-making.



Day 6: 25 July 2026 (Saturday)

Time: 6:00 PM – 7:30 PM

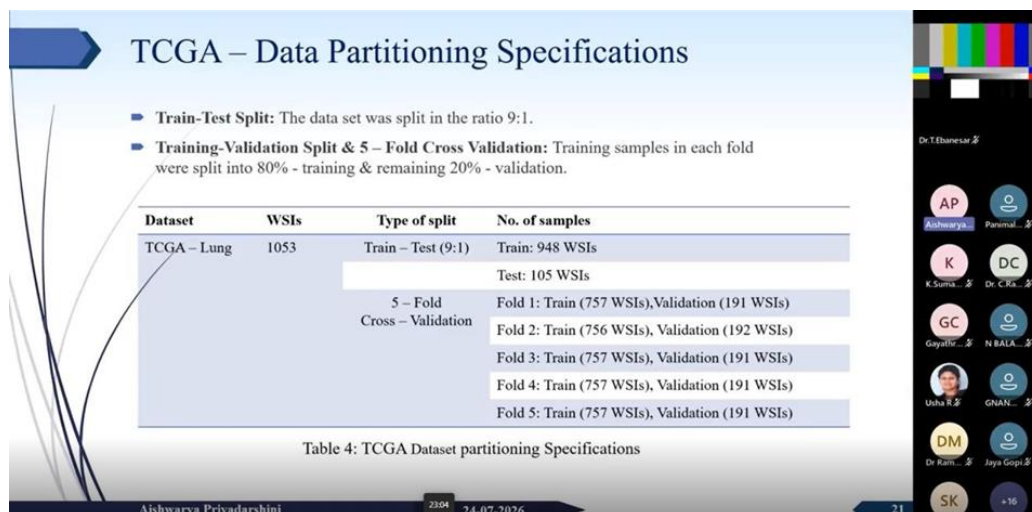
Resource Person: Dr. Rahul Semwal, Assistant Professor (Grade-II), Indian Institute of Information Technology (IIIT), Nagpur

Topic: *Understanding Ethical, Legal and Societal Implications of Artificial Intelligence*

Dr. Rahul Semwal delivered the concluding technical session on the ethical, legal, and societal dimensions of Artificial Intelligence. The session emphasized the importance of developing trustworthy, transparent, and responsible AI systems capable of addressing real-world challenges while protecting human rights and social values.

The speaker discussed emerging issues related to algorithmic bias, fairness, transparency, privacy, accountability, governance, misinformation, autonomous systems, and Generative AI. Various international AI regulations, ethical frameworks, and responsible AI principles were introduced, enabling participants to understand the need for ethical AI deployment across different domains.

The session concluded with an engaging discussion on balancing technological innovation with ethical responsibility, societal welfare, and regulatory compliance. Participants appreciated the relevance of the session in preparing educators and researchers to develop responsible AI solutions that are fair, transparent, inclusive, and beneficial to society.



FDP Outcomes:

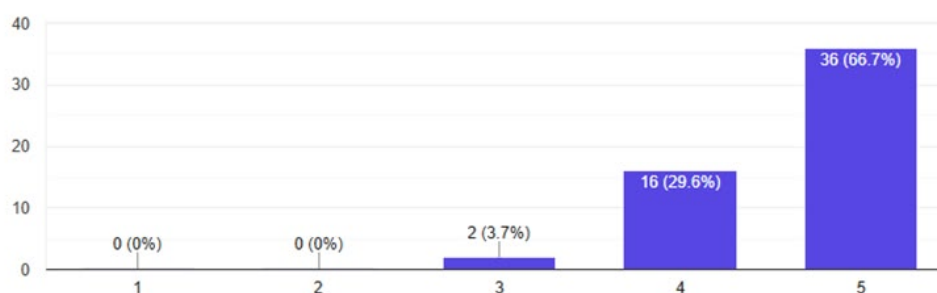
At the end of the FDP, participants were able to:

- Understand AI, ML, and DL concepts and algorithms.
- Apply AI techniques in engineering, healthcare, law, and administration.
- Use AI-assisted tools for teaching, research, and academic writing.
- Analyze intelligent systems using anomaly detection and causal inference.
- Explore AI-based interdisciplinary research opportunities.
- Understand ethical and legal considerations in AI deployment.
- Develop strategies for integrating AI into curriculum design and institutional practices.

How would you rate the resource person's delivery?

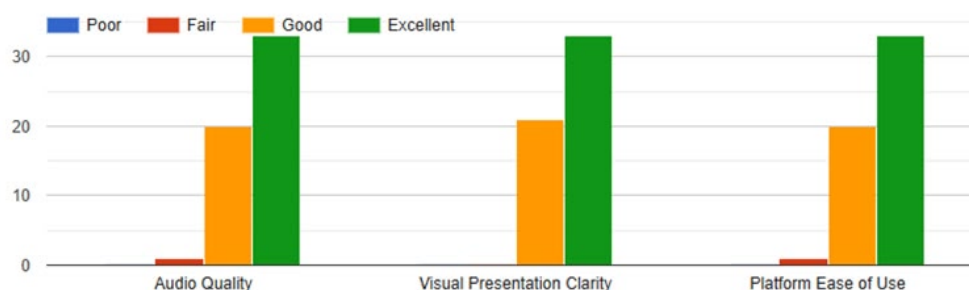
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54 responses



Technical Experience Feedback

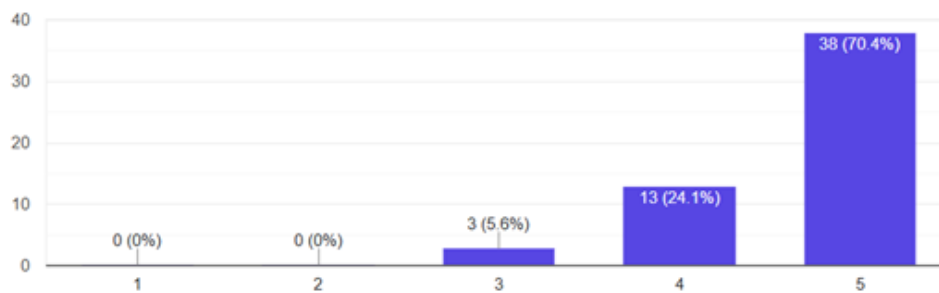
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How would you rate the relevance of the topics covered today?

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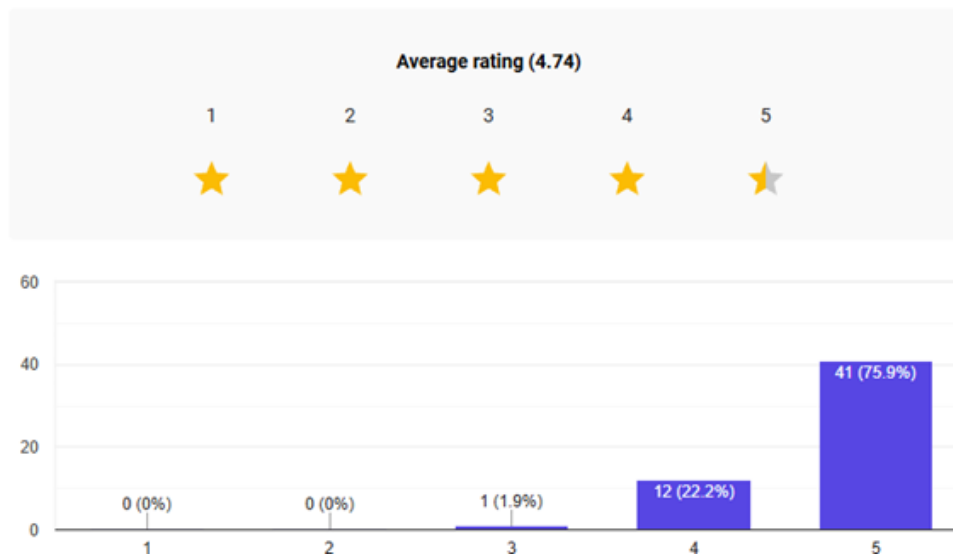
54 responses



Overall satisfaction with Day 1

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54 responses



Participant Feedback:

Participants expressed high levels of satisfaction regarding:

- Quality of expert lectures.
- Practical relevance of the sessions.
- Interactive discussions and demonstrations.
- Exposure to emerging AI technologies.
- Opportunities for interdisciplinary collaboration.

The participants appreciated the balanced coverage of theoretical concepts, practical applications, ethical considerations, and future research directions.

Valedictory Session:

The valedictory session summarized the key takeaways of the six-day program. Participants shared their learning experiences and expressed their appreciation for the resource persons and organizers.

Certificates of participation were distributed to all eligible participants. The organizers thanked the university administration, resource persons, organizing

committee members, technical support staff, and participants for contributing to the successful conduct of the Faculty Development Program.

Vote of thanks:

With a vote of gratitude, Mr. Udayakumar P, Assistant Professor, Department of CSE (AI and ML), formally ended the session with question hours. He sincerely thanked the MITS management, Principal, all the participants and Resource persons who have shared their knowledge and experience.

Participants Feedback Summary:

The Faculty Development Program (FDP) received feedback from the participants including faculty members, research scholars and students from various institutions. Feedback was collected through online google forms after the end of each session.

The outcome of the feedback is summarised in the charts as follows:

Conclusion:

The Faculty Development Program on "Artificial Intelligence and Machine Learning for All" successfully fulfilled its objective of equipping faculty members with contemporary knowledge of Artificial Intelligence and its multidisciplinary applications. The expert lectures, practical demonstrations, interactive discussions, and real-world case studies significantly enhanced participants' understanding of AI technologies and their potential to transform education, research, industry, healthcare, governance, and society.

The FDP strengthened the university's commitment to promoting innovation, interdisciplinary research, responsible AI adoption, and academic excellence. The knowledge gained during the program is expected to foster AI-enabled teaching practices, collaborative research initiatives, and institutional development, thereby preparing faculty members to meet the evolving demands of higher education in the era of intelligent technologies.

UN-SDG Mapping:

SDG 3 - Good Health and Well-being SDG 4 - Quality Education (Primary SDG)

SDG 8 - Decent Work and Economic Growth SDG 9 - Industry, Innovation and Infrastructure SDG 16 - Peace, Justice and Strong Institutions SDG 17 - Partnerships for the Goals