



# DAYANANDA SAGAR UNIVERSITY



## REPORT ON AICTE - ATAL SIX DAYS - ONLINE FACULTY DEVELOPMENT PROGRAMME

### AI AND NEXT-GEN TECHNOLOGIES FOR A SUSTAINABLE WORLD: BREAKTHROUGHS IN HEALTH, AGRICULTURE, AND INTELLIGENT INFRASTRUCTURE



**ORGANISED BY  
SCHOOL OF COMPUTER APPLICATIONS  
IN COLLABORATION WITH  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING,  
SCHOOL OF ENGG.**



## Contents

<b>S.No</b>	<b>Topic</b>	<b>Page Number</b>
1	About the Faculty Development Program (FDP)	3
2	Resource Persons	4
3	Schedule of FDP	7
4	Summary of the sessions	8
5	List of Participants who successfully completed FDP	21
6	Feedback	24
7	Social Media Posts	26
8	Photos of the Sessions	27
9	Mandate Form	30
10	Utilization Certificate	31
11	Statement of Expenditure	32
12	Signatures of the Coordinator and Head of the Institute	33

## **ABOUT THE FACULTY DEVELOPMENT PROGRAM**

This program is a collaborative endeavor by the School of Computer Applications and the Department of Computer Science and Engineering, School of Engineering, and is generously supported by AICTE-ATAL. Over the next six days, we have delved into the exciting frontiers of Artificial Intelligence and cutting-edge technologies, exploring their transformative potential in creating a more sustainable and equitable future.

### **Focus Areas**

We specifically focused on groundbreaking applications within the critical domains of healthcare, agriculture, and intelligent infrastructure. This program aims to equip faculty members with the knowledge and insights necessary to integrate these advancements into their teaching and research, thereby fostering innovation and addressing global challenges. The FDP attracted more than 170 participants.

This comprehensive faculty development program unleashed the transformative power of artificial intelligence, machine learning, and advanced technologies to tackle pressing global challenges. Participants explored cutting-edge innovations in healthcare, agriculture, and infrastructure, discovering how AI is revolutionizing these fields.

### **Resource Persons & Flow of FDP**

The FDP boasts an impressive lineup of resource persons, comprising both renowned academics and industry experts. Our speakers are well-experienced in their respective domains, having made significant contributions to the fields of AI, machine learning, and next-gen technologies. Through their expertise, participants will gain valuable insights into the practical applications and future directions of these technologies.

**Day 1:** The FDP began with Dr. Madan Kumar Srinivasan's keynote address, followed by a discussion on the impact of futuristic technologies on global sustainable development.

**Day 2:** The focus shifted to smart and sustainable technologies, specifically exploring their applications in rural and tribal development, with an emphasis on IoT and cloud computing.

**Day 3:** The program delved into AI applications in agriculture, exploring research opportunities for sustainable development.

**Day 4:** Participants learned about robust decision-making agents in uncertain environments, drawing insights from both healthcare and cloud platforms.



**Day 5:** The program explored cybersecurity in the context of precision healthcare and discussed the latest advancements in deep learning for healthcare systems.

**Day 6:** The final day featured a discussion on leveraging generative AI to enhance crop management and precision farming, culminating in a valedictory session.

## **RESOURCE PERSONS**

	<b>Topic</b>	<b>Resource Person</b>
	Inaugural Session Keynote address	Dr. Madhan Kumar Srinivasan CEO & Co-founder, Wise Work President & Co-founder, Hue Learn Co-founder & CTO, DNAi World
	Influence of Futuristic Tech in Global Sustainable Development	Dr. Madhan Kumar Srinivasan CEO & Co-founder, Wise Work President & Co-founder, Hue Learn Co-founder & CTO, DNAi World
	Technology for Agriculture	Dr. R. Rajesh Professor and Head Department of Computer Science Central University of Kerala
	Reliable AI Algorithms for Predictive Healthcare Analytics	Dr. Nilanjan Dey Associate Professor Techno International New Town, Kolkata
	Smart and Sustainable Technologies for Rural and Tribal Development Using IoT and Cloud Computing	Dr. Srikanta Patnaik Director & Chairman, IIMT, Bhubaneswar
	Edge AI for Digitally Transformed Enterprises	Dr. Pethuru Raj Chief Architect and Vice President Edge AI Division, Reliance Jio Platforms Ltd.

	AI applications in agriculture for sustainable development - research opportunities	Dr. J. B. Simha Chief Technology Officer, Abiba Systems, Bengaluru
	Robust Decision Agents in Uncertain Environments: From Healthcare to Cloud Platforms	Dr. Mayukh Das Senior Research Scientist M365 Microsoft
	Assisting harvesting through AI-based ripeness recognition	Dr. Seyed M Buhari Associate Professor, School of Business, Universiti Teknologi Brunei (UTB)
	Cybersecurity in Precision healthcare	Mr. Kamal Sharma Co-Founder, AuthenticOne Cybersecurity Private Ltd, Bengaluru
	Exploring medical data inference through GenAI and beyond!	Mr. Sanil Kumar Founder CEO, Caze Labs, Co-chair TOC Open Source Eco - System & Technology Direction SODA Foundation
	Recent Developments in Deep Learning for Healthcare System	Dr. Shekar Professor, Department of Computer Science, Mangalore University, Mangalagangothri,

	<p>Leveraging Generative AI for Enhanced Crop Management and Precision Farming: Revolutionizing Agriculture through AI Innovation</p>	<p>Dr. Ambika Paranthaman Senior Data Scientist, Sparkbox.ai United Kingdom</p>
	<p>Transformative Role of AI Algorithms in Healthcare</p>	<p>Dr. Arun Kumar Thangavelu Senior Professor, School of Computer Science and Engineering, VIT University, Vellore</p>



## SCHEDULE OF THE FDP

Day 1 Monday 06-01-2025	Day 2 Tuesday 07-01-2025	Day 3 Wednesday 08-01-2025	Day 4 Thursday 09-01-2025	Day 5 Friday 10-01-2025	Day 6 Saturday 11-01-2025
6:00p.m. to 6:30p.m. <b>Inaugural Session</b> <b>Keynote address</b> <b>Dr. Madan Kumar Srinivasan</b>	6:00p.m. to 7:30p.m. <b>Session 3</b> <b>Topic:</b> Reliable AI Algorithms for Predictive Healthcare Analytics <b>Name of the Expert:</b> <b>Dr Nilanjan Dey</b>	6:00p.m. to 7:30p.m. <b>Session 5</b> <b>Topic:</b> Edge AI for Digitally Transformed Enterprises <b>Name of the Expert:</b> <b>Dr. Pethuru Raj</b>	6:00p.m. to 7:30p.m. <b>Session 7</b> <b>Topic:</b> Robust Decision Agents in Uncertain Environments: From Healthcare to Cloud Platforms <b>Name of the Expert:</b> <b>Dr. Mayukh Das</b>	6:00p.m. to 7:30p.m. <b>Session 9</b> <b>Topic:</b> Cybersecurity in Precision healthcare. <b>Name of the Expert:</b> <b>Mr. Kamal Sharma</b>	2:00p.m. to 3:30p.m. <b>Session 11</b> <b>Topic:</b> Recent Developments in Deep Learning for Healthcare System <b>Name of the Expert:</b> <b>Dr Sekhar</b>
6:30p.m. to 8:00p.m. <b>Session 1</b> <b>Topic:</b> Influence of Futuristic Tech in Global Sustainable Development <b>Name of the Expert:</b> <b>Dr. Madan Kumar Srinivasan</b>	7:30p.m. to 9:00p.m. <b>Session 4</b> <b>Topic:</b> Smart and Sustainable Technologies for Rural and Tribal Development Using IoT and Cloud Computing <b>Name of the Expert:</b> <b>Dr. Srikantha Patnaik</b>	7:30p.m. to 9:00p.m. <b>Session 6</b> <b>Topic:</b> AI applications in agriculture for sustainable development - research opportunities <b>Name of the Expert:</b> <b>Dr. J P Simha</b>	7:30p.m. to 9:00p.m. <b>Session 8</b> <b>Topic:</b> Assisting harvesting through AI-based ripeness recognition <b>Name of the Expert:</b> <b>Dr. Syed Buhari</b>	7:30p.m. to 9:00p.m. <b>Session 10</b> <b>Topic:</b> Exploring medical data inference through GenAI and beyond! <b>Name of the Expert:</b> <b>Mr. Sanil Kumar</b>	3:30 p.m. to 5:00 p.m. <b>Session 12</b> <b>Topic:</b> Leveraging Generative AI for Enhanced Crop Management and Precision Farming: Revolutionizing Agriculture through AI Innovation <b>Name of the Expert:</b> <b>Dr. Ambika Paranthaman</b>
8:00p.m. to 9:30p.m. <b>Session 2</b> Topic: Technology for Agriculture Name of the Expert: <b>Dr. R Rajesh</b>					5:00 p.m. to 6:30 p.m. <b>Session 13</b> <b>Topic:</b> Transformative Role of AI Algorithms in Healthcare <b>Name of the Expert:</b> <b>Dr. ArunKumar Thangavelu</b>
					6:30p.m. to 7:30p.m. <b>Online test &amp; feedback</b>
					7:30p.m. to 8:00p.m. <b>Valedictory Session</b>

## **SUMMARY OF THE SESSIONS**

### Day 1 - Session 1

**Resource Person: Dr. Madhan Kumar Srinivasan**, CEO & Co-founder, Wise Work President & Co-founder, Hue Learn Co-founder & CTO, DNAi World

**Topic:** Influence of Futuristic Tech in Global Sustainable Development

Dr. Madan Kumar Srinivasan delivered an insightful talk during the Faculty Development Program on the influence of futuristic technology in advancing global sustainable development. His address emphasized the critical role that cutting-edge innovations play in tackling contemporary challenges such as climate change, resource depletion, and social inequities.

Dr. Srinivasan began by highlighting the transformative potential of artificial intelligence (AI) in managing resources more efficiently. He explained how AI-powered systems are revolutionizing energy management, industrial optimization, and climate prediction models, thereby contributing to sustainable practices. He also discussed the advancements in renewable energy, such as solar, wind, and fusion technologies, which are driving global efforts toward achieving carbon neutrality.

He elaborated on the impact of biotechnology in agriculture, pointing out how innovations are improving crop yields, reducing environmental damage, and addressing food security concerns. Furthermore, he touched upon the role of blockchain in enhancing transparency and ethical practices in supply chains, fostering a more sustainable global economy.

Dr. Srinivasan also shed light on the significance of green transportation technologies, such as electric and hydrogen-powered vehicles, in promoting clean and sustainable mobility. Importantly, he emphasized that these technologies are not limited to developed nations but are also bridging gaps in underserved communities by providing access to clean water, affordable healthcare, and education.

However, he cautioned that with the adoption of futuristic technologies comes the responsibility of addressing challenges such as the digital divide, ethical implications, and the need for robust regulatory frameworks. Dr. Srinivasan underscored the importance of using these advancements to achieve the United Nations' Sustainable Development Goals (SDGs) and to build a more inclusive and resilient world.

In conclusion, his talk served as a call to action for educators, researchers, and policymakers to embrace these technologies responsibly and collaboratively, ensuring that their benefits are equitably distributed. His session left the audience with a deeper understanding of the pivotal role technology plays in shaping a sustainable future.



## Day 1 - Session 2

**Resource Person: Dr. R. Rajesh**, Professor and Head Department of Computer Science  
Central University of Kerala

### **Topic: Technology for Agriculture**

Dr. R. Rajesh delivered an enlightening talk on the topic "Technology for Agriculture" during the Faculty Development Program. His session focused on the transformative role of technology in addressing the challenges of modern agriculture and ensuring sustainable food production for a growing global population.

Dr. Rajesh began by discussing the pressing issues in agriculture, including climate change, water scarcity, soil degradation, and the increasing demand for food. He highlighted how technological advancements are providing innovative solutions to these challenges. Key areas of focus included precision agriculture, which uses technologies like GPS, drones, and sensors to optimize resource use, improve crop yields, and reduce environmental impact.

He emphasized the role of biotechnology in developing genetically modified crops that are resistant to pests, diseases, and climate extremes. Additionally, he shed light on vertical farming and hydroponics as revolutionary techniques for efficient, soil-less farming, particularly in urban and resource-constrained environments.

Dr. Rajesh also discussed the significance of data analytics and artificial intelligence in predicting weather patterns, managing crop diseases, and improving supply chain efficiency. He elaborated on the use of mobile applications and IoT devices to provide farmers with real-time information, enabling informed decision-making and better productivity.

Moreover, he highlighted the potential of renewable energy, such as solar-powered irrigation systems, in reducing the dependency on conventional energy sources. Dr. Rajesh stressed the importance of integrating traditional farming knowledge with modern technology to create region-specific, sustainable solutions.

In conclusion, he urged educators, researchers, and policymakers to work collectively in promoting the adoption of these technologies, ensuring affordability and accessibility for smallholder farmers. Dr. Rajesh's talk provided valuable insights into how technology can transform agriculture into a more sustainable and resilient sector, paving the way for food security and economic growth.

## Day 2 - Session 1

**Resource Person: Dr. Nilanjan Dey**, Associate Professor Techno International New Town, Kolkata

### **Topic: Reliable AI Algorithms for Predictive Healthcare Analytics**

Dr. Nilanjan Dey delivered an engaging and informative talk on the topic "Reliable AI Algorithms for Predictive Healthcare Analytics" during the Faculty Development Program. His session explored the potential of artificial intelligence (AI) in revolutionizing healthcare through predictive analytics, while emphasizing the importance of reliability, accuracy, and ethical considerations.

Dr. Dey began by highlighting the growing role of AI in healthcare, particularly in predictive analytics, which leverages vast amounts of data to forecast patient outcomes, detect diseases at early stages, and optimize treatment plans. He discussed various AI algorithms, such as machine learning models and deep learning techniques, which are being employed to analyze complex medical data, including electronic health records, imaging results, and genomic information.

He emphasized the importance of reliability in healthcare AI systems, explaining that inaccuracies in predictions could have serious implications. Dr. Dey stressed the need for rigorous testing, validation, and regulatory oversight to ensure that AI models deliver consistent and trustworthy results. He also highlighted how explainable AI (XAI) is addressing the issue of transparency, allowing healthcare professionals to understand and trust AI-driven recommendations.

Furthermore, he discussed real-world applications of predictive analytics, such as identifying high-risk patients, predicting disease outbreaks, and improving operational efficiency in hospitals. Dr. Dey pointed out how AI is aiding in precision medicine by tailoring treatments to individual patients based on their genetic makeup and medical history.

He also addressed the challenges in implementing AI in healthcare, including data privacy concerns, biases in training datasets, and the digital divide that limits access to these technologies in certain regions. Dr. Dey emphasized the need for interdisciplinary collaboration among AI researchers, healthcare professionals, and policymakers to overcome these barriers.

In conclusion, Dr. Dey underscored the transformative potential of reliable AI algorithms in predictive healthcare analytics, urging the academic and research community to prioritize innovation while maintaining ethical and equitable practices. His talk provided valuable insights into how AI can enhance healthcare delivery, improve patient outcomes, and contribute to a healthier society.

## Day 2 - Session 2

**Resource Person: Dr. Srikantha Patnaik**, Director & Chairman, IIMT, Bhubaneswar

### **Topic: Smart and Sustainable Technologies for Rural and Tribal Development Using IoT and Cloud Computing**

Dr. Srikantha Patnaik delivered an insightful talk on the topic "Smart and Sustainable Technologies for Rural and Tribal Development Using IoT and Cloud Computing" during the Faculty Development Program. His session highlighted the transformative potential of technology in addressing the unique challenges faced by rural and tribal communities, with a focus on sustainability and inclusivity.

Dr. Patnaik began by outlining the significant socio-economic disparities in rural and tribal regions, such as limited access to healthcare, education, clean water, and energy. He emphasized how emerging technologies, particularly the Internet of Things (IoT) and cloud computing, can act as catalysts for bridging these gaps.

He explained the application of IoT in creating smart solutions for agriculture, water management, and energy efficiency. Examples included the use of IoT-enabled sensors for precision farming, monitoring soil health, and optimizing irrigation systems to conserve water. In the healthcare domain, he discussed how IoT devices can facilitate remote health monitoring and early diagnosis, providing timely care in areas lacking medical infrastructure.

Dr. Patnaik elaborated on the role of cloud computing in ensuring scalability and accessibility of these solutions. He explained how cloud-based platforms can store and process vast amounts of data generated by IoT devices, enabling real-time decision-making and predictive analytics. For instance, cloud-powered e-governance systems can streamline the delivery of welfare schemes and services to tribal communities.

The talk also emphasized the importance of integrating traditional knowledge systems with modern technology to develop culturally sensitive and region-specific solutions. Dr. Patnaik stressed the need for collaboration among technologists, local governments, NGOs, and community leaders to ensure that these technologies are adopted effectively and equitably.

He concluded by discussing the challenges of deploying IoT and cloud technologies in rural areas, such as inadequate digital infrastructure, lack of technical literacy, and affordability issues. However, he expressed optimism that with the right policies, investments, and capacity-building initiatives, these hurdles can be overcome.

Dr. Patnaik's session was a call to action for researchers and policymakers to leverage smart and sustainable technologies to empower rural and tribal communities, fostering inclusive development and improving quality of life.

### Day 3 - Session 1

**Resource Person: Dr. Pethuru Raj**, Chief Architect and Vice President Edge AI Division, Reliance Jio Platforms Ltd.

#### **Topic: Edge AI for Digitally Transformed Enterprises**

Dr. Pethuru Raj delivered an engaging and forward-thinking talk on the topic "Edge AI for Digitally Transformed Enterprises" during the Faculty Development Program. His session explored the revolutionary impact of edge AI in driving digital transformation across enterprises, emphasizing its role in enhancing efficiency, scalability, and real-time decision-making.

Dr. Raj began by explaining the concept of edge AI, where artificial intelligence processes are performed locally on devices or edge servers, rather than relying solely on centralized cloud systems. He highlighted the key benefits of edge AI, such as reduced latency, improved data security, and minimized bandwidth consumption, making it an ideal solution for enterprises operating in dynamic and data-intensive environments.

He discussed how edge AI is transforming industries by enabling real-time analytics and decision-making at the source of data generation. Applications in manufacturing, retail, healthcare, and smart cities were cited as prime examples, including predictive maintenance in industrial settings, personalized customer experiences in retail, and remote patient monitoring in healthcare.

Dr. Raj emphasized the integration of edge AI with IoT devices, creating a powerful ecosystem for smart and connected enterprises. He elaborated on how edge AI is crucial for enabling autonomous systems, such as drones, self-driving vehicles, and robotics, by processing data locally for faster and more reliable responses.

He also addressed the challenges of adopting edge AI, including the need for advanced hardware, robust algorithms, and seamless integration with existing enterprise systems. Dr. Raj stressed the importance of developing edge AI solutions that are energy-efficient, cost-effective, and scalable to meet the demands of diverse industries.

Moreover, he discussed the role of 5G networks in accelerating the adoption of edge AI, providing the high-speed connectivity needed to support data-intensive edge applications. He encouraged enterprises to invest in edge AI as part of their digital transformation strategies to gain a competitive advantage and drive innovation.

In conclusion, Dr. Raj underscored the transformative potential of edge AI in reshaping the future of enterprises. He urged academic and industrial stakeholders to collaborate in developing edge AI solutions that are not only technologically advanced but also ethical and inclusive. His talk offered valuable insights into the strategic importance of edge AI in building digitally transformed, resilient, and intelligent enterprises.

### Day 3 - Session 2

**Resource Person: Dr. J. P. Simha**, Chief Technology Officer, Abiba Systems, Bengaluru

#### **Topic: AI Applications in Agriculture for Sustainable Development – Research Opportunities**

Dr. J. P. Simha delivered an insightful and inspiring talk on "AI Applications in Agriculture for Sustainable Development – Research Opportunities" during the Faculty Development Program. His session focused on the growing role of artificial intelligence (AI) in transforming agricultural practices to ensure sustainability and highlighted key research opportunities in this domain.

Dr. Simha began by addressing the challenges facing modern agriculture, such as climate change, dwindling resources, soil degradation, and the increasing demand for food due to a growing population. He emphasized that AI has the potential to revolutionize agriculture by enabling efficient and sustainable practices that mitigate these challenges.

He discussed various AI applications, such as precision farming, where AI-powered systems analyze data from drones, sensors, and satellite imagery to monitor crop health, optimize irrigation, and reduce pesticide usage. He also highlighted the use of AI in weather prediction models, which helps farmers plan better and reduce the risks associated with unpredictable climatic conditions.

Dr. Simha elaborated on the role of AI in automating labor-intensive tasks, such as planting, weeding, and harvesting, using robotics and computer vision technologies. He stressed that AI is also pivotal in supply chain optimization, helping farmers reduce post-harvest losses and connect directly with markets through predictive analytics and demand forecasting.

In terms of research opportunities, Dr. Simha identified several areas, including the development of AI algorithms for analyzing complex agricultural datasets, the integration of AI with IoT devices for real-time monitoring, and advancements in machine learning models to improve yield prediction and pest management. He encouraged interdisciplinary collaborations between AI researchers, agronomists, and environmental scientists to address the unique challenges faced in diverse agricultural ecosystems.

Dr. Simha also underscored the importance of creating affordable and accessible AI solutions for smallholder farmers, particularly in developing regions. He advocated for the inclusion of local knowledge and traditional farming practices in AI models to develop region-specific, sustainable solutions.

In conclusion, Dr. Simha emphasized that AI's potential to drive sustainable agricultural development is immense, but its success relies on continued research, innovation, and collaboration. His talk was a call to action for researchers, educators, and policymakers to explore the transformative possibilities of AI in agriculture, paving the way for a more sustainable and resilient future.

## Day 4 - Session 1

**Resource Person: Dr. Mayukh Das**, Senior researcher, Microsoft, Bangalore

### **Topic: Robust Decision Agents in Uncertain Environments – From Healthcare to Cloud Platforms**

Dr. Mayukh Das delivered a thought-provoking talk on the topic "Robust Decision Agents in Uncertain Environments: From Healthcare to Cloud Platforms" during the Faculty Development Program. His session explored the development and application of decision agents capable of operating effectively in dynamic and uncertain environments, with a focus on healthcare and cloud computing platforms.

Dr. Das began by defining robust decision agents as systems powered by artificial intelligence (AI) and machine learning (ML) that can analyze incomplete, noisy, or ambiguous data to make accurate and adaptive decisions. He highlighted the growing need for such agents in industries where uncertainty is inherent, such as healthcare, where patient conditions can change rapidly, and cloud platforms, where dynamic workloads demand real-time optimization.

In healthcare, Dr. Das explained how robust decision agents are being used to improve diagnostics, treatment recommendations, and patient monitoring. He cited examples of AI systems that predict patient outcomes using incomplete medical records and wearable device data, enabling timely interventions. He also discussed the role of decision agents in managing public health challenges, such as predicting disease outbreaks and optimizing resource allocation during emergencies.

In the domain of cloud computing, Dr. Das focused on how decision agents optimize resource management in distributed systems. He explained how these agents allocate computing resources dynamically, minimize energy consumption, and handle network failures to ensure seamless performance. He emphasized the importance of designing agents that are resilient to unpredictable workloads and system failures, especially in mission-critical applications.

Dr. Das highlighted key research opportunities, including the development of algorithms that combine reinforcement learning with probabilistic modeling to handle uncertainty. He also discussed the importance of creating explainable AI systems to ensure transparency and trust in decision-making, particularly in sensitive domains like healthcare.

He addressed challenges such as computational complexity, ethical considerations, and ensuring equitable access to these technologies. Dr. Das emphasized the need for collaboration among researchers, engineers, and domain experts to design decision agents that are not only robust but also ethical and inclusive.

In conclusion, Dr. Das underscored the transformative potential of robust decision agents in uncertain environments, urging researchers to explore innovative solutions to address complex, real-world problems.

## Day 4 - Session 2

**Resource Person: Dr. Syed Buhari**, Associate Professor, School of Business, Universiti Teknologi Brunei (UTB)

### **Topic: Assisting Harvesting through AI-Based Ripeness Recognition**

In Session 8 of the Faculty Development Program, Dr. Syed Buhari delivered an engaging talk on "Assisting Harvesting through AI-Based Ripeness Recognition." His session shed light on how artificial intelligence (AI) is revolutionizing agricultural practices, particularly in improving the harvesting process by identifying optimal crop ripeness.

Dr. Buhari began by discussing the challenges farmers face in determining the right time for harvesting, a crucial factor for maximizing yield quality and market value. He emphasized that traditional methods of ripeness assessment are often subjective, time-consuming, and prone to errors. AI-based ripeness recognition, he explained, offers a solution by providing consistent, accurate, and scalable assessments.

He elaborated on how computer vision and machine learning algorithms are being deployed to analyze visual data, such as images and videos of fruits and crops, to identify ripeness levels. Dr. Buhari highlighted the use of features like color, texture, shape, and size in AI models to make precise ripeness predictions. For example, he demonstrated how AI systems can distinguish between under-ripe, ripe, and overripe fruits in real-time.

Dr. Buhari also discussed the integration of AI with robotics for automated harvesting, where robotic arms equipped with cameras and sensors can identify and pick ripe crops without human intervention. This technology, he explained, not only reduces labor dependency but also ensures faster and more efficient harvesting processes.

He further identified research opportunities in this field, such as improving AI models for multi-crop ripeness recognition, developing lightweight algorithms for mobile devices, and integrating hyperspectral imaging for enhanced accuracy. Dr. Buhari stressed the importance of making these technologies affordable and accessible for smallholder farmers to ensure widespread adoption.

In conclusion, Dr. Buhari highlighted the transformative potential of AI-based ripeness recognition in achieving sustainable agricultural practices, reducing food waste, and enhancing productivity. His talk encouraged researchers and practitioners to explore innovative AI-driven solutions to modernize harvesting processes, ultimately contributing to global food security and sustainability.



## Day 5 - Session 1

**Resource Person: Mr. Kamal Sharma**, Co-Founder, AuthenticOne Cybersecurity Private Ltd, Bengaluru

### **Topic: Cybersecurity in Precision Healthcare**

In Session 9 of the Faculty Development Program, Mr. Kamal Sharma delivered an insightful talk on the topic "Cybersecurity in Precision Healthcare." His session addressed the critical role of cybersecurity in safeguarding sensitive data and systems in the rapidly evolving field of precision healthcare.

Mr. Sharma began by emphasizing the significance of precision healthcare, which leverages advanced technologies such as genomics, AI, and IoT to provide personalized medical care. While these innovations improve patient outcomes and enable early diagnosis, they also introduce significant cybersecurity challenges, given the reliance on interconnected systems and large-scale data sharing.

He highlighted the types of cybersecurity threats that precision healthcare systems face, including data breaches, ransomware attacks, and unauthorized access to medical devices. Mr. Sharma underscored the vulnerability of electronic health records (EHRs) and genomic databases, which, if compromised, could lead to severe consequences for both patients and healthcare providers.

To address these challenges, Mr. Sharma discussed the need for robust security frameworks that integrate encryption, multi-factor authentication, and secure data storage. He also stressed the importance of implementing AI-driven threat detection systems capable of identifying and mitigating cyberattacks in real-time.

Additionally, Mr. Sharma spoke about securing medical IoT devices, which play a pivotal role in precision healthcare. He explained how vulnerabilities in these devices could be exploited to manipulate treatment plans or compromise patient safety. He suggested strategies like regular software updates, device-level security protocols, and network segmentation to minimize risks.

He identified research opportunities in developing cybersecurity solutions tailored to healthcare environments, such as secure data-sharing protocols for collaborative research, blockchain-based systems for data integrity, and privacy-preserving AI models. Mr. Sharma also stressed the importance of educating healthcare professionals about cybersecurity best practices to create a culture of vigilance.

In conclusion, Mr. Sharma highlighted that as precision healthcare continues to evolve, ensuring cybersecurity is not just a technical challenge but an ethical imperative. His talk encouraged researchers and practitioners to prioritize security innovations that safeguard patient data and build trust in the digital healthcare ecosystem.

## Day 5 - Session 2

**Resource Person: Mr. Sanil Kumar**, Founder CEO, Caze Labs, Co-chair TOC Open Source Eco - System & Technology Direction SODA Foundation

### **Topic: Exploring Medical Data Inference Through GenAI and Beyond**

This session of the Faculty Development Program featured an engaging talk by Mr. Sanil Kumar on the topic "Exploring Medical Data Inference Through GenAI and Beyond!" His session delved into the transformative potential of Generative AI (GenAI) and other advanced technologies in extracting meaningful insights from complex medical data, paving the way for groundbreaking developments in healthcare.

Mr. Kumar began by introducing GenAI as a cutting-edge AI approach capable of generating new and realistic data based on patterns and features in existing datasets. He emphasized how this technology has revolutionized medical data inference by enabling more accurate diagnoses, personalized treatment plans, and drug discovery processes.

He discussed the application of GenAI models, such as large language models and generative adversarial networks (GANs), in healthcare. These models are being used to analyze patient records, medical imaging, and genomic data to detect patterns, predict outcomes, and recommend treatments. Mr. Kumar showcased examples, including AI-generated synthetic medical data that preserves privacy while enabling advanced research and training of AI systems.

The talk also explored the integration of GenAI with other technologies, such as natural language processing (NLP) and deep learning, to interpret unstructured medical data, including doctors' notes, lab reports, and clinical trial results. He highlighted the role of AI in bridging the gap between vast amounts of medical data and actionable insights.

Mr. Kumar addressed the challenges and ethical considerations of using GenAI in healthcare, including data bias, model explainability, and the need for regulatory compliance. He stressed the importance of creating transparent and accountable AI systems to ensure trust and reliability in medical decision-making.

He also outlined research opportunities in areas such as improving GenAI models for multilingual medical data, integrating AI with wearable devices for real-time health monitoring, and leveraging AI for predictive analytics in preventive care.

In conclusion, Mr. Kumar emphasized that while GenAI and related technologies hold immense promise, their true impact lies in ethical and equitable deployment. His talk inspired researchers and practitioners to explore innovative applications of AI in medical data inference, ultimately contributing to more efficient, accurate, and personalized healthcare solutions.

## Day 6 - Session 1

**Resource Person: Dr. Shekar, Professor,** Department of Computer Science, Mangalore University, Mangalagangothri

### **Topic: Recent Developments in Deep Learning for Healthcare Systems**

Session 11 of the Faculty Development Program featured a captivating talk by Dr. Shekar on the topic "Recent Developments in Deep Learning for Healthcare Systems." His session provided a comprehensive overview of the latest advancements in deep learning and their transformative impact on the healthcare sector.

Dr. Shekar began by highlighting the importance of deep learning, a subset of artificial intelligence, in addressing some of the most pressing challenges in healthcare. He emphasized that deep learning algorithms, particularly neural networks, have demonstrated exceptional accuracy in analyzing complex medical data, making them a cornerstone of modern healthcare innovations.

He explored various applications of deep learning in healthcare, such as medical imaging analysis, where convolutional neural networks (CNNs) are used for detecting diseases like cancer, pneumonia, and retinal disorders with precision. He also discussed how deep learning is being applied in genomics for identifying genetic markers associated with diseases, aiding in the development of personalized treatments.

Dr. Shekar elaborated on the integration of deep learning with natural language processing (NLP) to analyze unstructured medical data, including clinical notes and patient histories, enabling better diagnostic and predictive capabilities. He presented case studies showcasing the use of recurrent neural networks (RNNs) and transformers for real-time patient monitoring and health risk prediction. The session also touched on the use of generative models, such as variational autoencoders (VAEs) and generative adversarial networks (GANs), for creating synthetic medical data, enhancing data availability for research and model training while preserving patient privacy. Dr. Shekar addressed key challenges in deploying deep learning in healthcare, such as the need for large, high-quality datasets, the risk of model overfitting, and concerns about explainability and bias. He emphasized the importance of interdisciplinary collaboration between computer scientists, healthcare professionals, and policymakers to overcome these barriers and ensure ethical implementation.

In conclusion, Dr. Shekar underscored that recent advancements in deep learning have the potential to revolutionize healthcare by enabling earlier diagnoses, more accurate predictions, and personalized treatment plans. He encouraged researchers to explore innovative applications of deep learning while adhering to ethical principles to build a healthcare system that is both efficient and equitable. His talk provided valuable insights into the future of AI-driven healthcare solutions.

## Day 6 - Session 2

**Resource Person:** Dr. Ambika Paranthaman, Senior Data Scientist, Sparkbox.ai, United Kingdom

### **Topic: Leveraging Generative AI for Enhanced Crop Management and Precision Farming**

In Session 12 of the Faculty Development Program, Dr. Ambika Paranthaman delivered an enlightening talk on the topic "Leveraging Generative AI for Enhanced Crop Management and Precision Farming: Revolutionizing Agriculture through AI Innovation." Her session explored the transformative potential of generative AI in addressing the challenges of modern agriculture and advancing precision farming practices.

Dr. Paranthaman began by discussing the pressing need for innovative agricultural technologies to tackle challenges such as climate change, resource scarcity, and the rising demand for food. She emphasized that generative AI, with its ability to analyze complex data and simulate realistic outcomes, is poised to revolutionize agriculture by enabling smarter, more efficient crop management systems.

She explained how generative AI models, such as generative adversarial networks (GANs) and large language models, can enhance precision farming by generating insights from diverse agricultural datasets. These insights include soil health analysis, pest and disease predictions, and optimal planting and harvesting schedules. She highlighted the use of generative AI in simulating crop growth under different environmental conditions, allowing farmers to make data-driven decisions to maximize yield and minimize resource use.

Dr. Paranthaman showcased real-world applications, such as AI-generated weather predictions for precision irrigation, synthetic data for training agricultural models, and digital twin technology for monitoring crop health. She also elaborated on how generative AI is helping in the creation of personalized advisory systems for farmers, delivering tailored recommendations for specific crops and regions.

The session also addressed challenges such as the need for high-quality training data, computational costs, and ensuring the accessibility of AI technologies for small and medium-scale farmers. Dr. Paranthaman stressed the importance of building collaborative ecosystems involving researchers, agronomists, and policymakers to ensure the equitable adoption of AI in agriculture.

In conclusion, Dr. Paranthaman highlighted the immense potential of generative AI to enhance sustainability, efficiency, and productivity in agriculture. She encouraged researchers to focus on creating region-specific, cost-effective AI solutions that empower farmers and contribute to global food security. Her talk provided valuable insights into how generative AI can drive the future of agriculture, making it more adaptive, resilient, and innovative.

## Day 6 - Session 3

**Resource Person: Dr. Arun Kumar Thangavelu**, Senior Professor, School of Computer Science and Engineering, VIT University, Vellore

### **Topic: Transformative Role of AI Algorithms in Healthcare**

In Session 13 of the Faculty Development Program, Dr. Arun Kumar Thangavelu delivered a compelling talk on the topic "Transformative Role of AI Algorithms in Healthcare." His session explored how artificial intelligence (AI) algorithms are reshaping the healthcare landscape, improving patient outcomes, and enabling more efficient healthcare systems.

Dr. Thangavelu began by emphasizing the growing adoption of AI in healthcare, driven by advancements in machine learning, deep learning, and data analytics. He highlighted how AI algorithms are becoming integral to various healthcare applications, from diagnostics to personalized medicine, transforming traditional approaches to care delivery.

He elaborated on the role of AI in medical imaging, where convolutional neural networks (CNNs) are being used to detect diseases such as cancer, cardiovascular conditions, and neurological disorders with high precision. He also discussed the use of natural language processing (NLP) in analyzing unstructured clinical data, enabling efficient extraction of patient insights from electronic health records (EHRs).

Dr. Thangavelu showcased examples of AI-powered predictive analytics tools that help healthcare providers anticipate patient risks, optimize treatment plans, and reduce hospital readmissions. He also discussed the emerging role of reinforcement learning in drug discovery, where AI models are accelerating the identification of promising compounds for therapeutic development.

The talk addressed the integration of AI with wearable and IoT devices for real-time health monitoring, enabling early detection of anomalies and chronic condition management. Dr. Thangavelu highlighted the importance of AI algorithms in telemedicine platforms, where they assist in triaging patients and providing decision support for remote consultations. He acknowledged challenges such as data privacy, algorithm bias, and the need for explainability in AI models to ensure trust and transparency. He emphasized the importance of collaboration between computer scientists, healthcare professionals, and policymakers to develop ethical and regulatory frameworks for AI deployment in healthcare.

In conclusion, Dr. Thangavelu underscored that AI algorithms hold immense promise in addressing global healthcare challenges, particularly in improving accessibility, affordability, and accuracy. He encouraged researchers to explore innovative applications of AI to bridge gaps in healthcare delivery, fostering a future where technology and medicine work hand in hand to improve quality of life. His talk provided a visionary perspective on the transformative potential of AI in healthcare.

## **LIST OF PARTICIPANTS WHO COMPLETED FDP**

<b>Name</b>	<b>EMAIL</b>	<b>Marks (30)</b>
Arun Priya K	arunpriya@scadengineering.ac.in	26
V V P Kumar Tatavarathi	pavankumart99@gmail.com	28
Mohamed Abdul Kader Jailani N	jailani.msa@gmail.com	26
Sheela D V	sheela.sims.cs@gmail.com	22
Sukanya C K	sukanyack95@gmail.com	29
Sukumar P	sugumarskp@gmail.com	27
R. Dharani	dharani.rit@gmail.com	28
Uthiramoorthy Arumugam	hod.ca@rathinam.in	28
K.S.Deveswari	kartheke devi@gmail.com	26
Thontadari C	thontadari@gmail.com	23
Pitchi Rani A	jayarani.gan@gmail.com	27
S.Manju Priya	smanjupr@gmail.com	25
Prajna M K	prajnaaanchal@gmail.com	26
S Thejaswini	sthejaswini14@gmail.com	28
Irala Suneetha	iralasuneetha.aits@gmail.com	28
A.S.Lavanya	lavanyaachary04@gmail.com	29
Kavitha	kavitha.rajamanii@gmail.com	24
Navya Francis	deepunavya13@gmail.com	28
Ms.M.Geethanjali	geethanjali.cs@rathinam.in	29
Sheela S Maharajpet	sheelamaharajpet4@gmail.com	29
Saleema J S	saleema.js@christuniversity.in	28
Svidyarani	vidyasvr494@gmail.com	26
Priyanka Aluru	priyanka123aluru@gmail.com	26
Yashoda M B	yashkrishmb@gmail.com	28
K Manisha	manishakasiralla.12@gmail.com	22

Mary Sanjana Joseph	mary.sj@kristujayanti.com	25
Mohana Priya S	mohana.ps@kristujayanti.com	26
N.Pushpalatha	pushpalatha825@gmail.com	28
K Balaji Nanda Kumar Reddy	balajinkr@gmail.com	28
S. Uma Mageswari	umasatheesh25@gmail.com	24
Tara VK	taravk@cityengineeringcollege.ac.in	28
Velmurugan R	velmurugan@kristujayanti.com	29
Muruganantham Alagiah	murushr@kristujayanti.com	28
Kumar R	rkumarh2008@gmail.com	28
Ayshwarya	ayshwarya.b@kristujayanti.com	27
Dhanamalar M	dhanamalar@kristujayanti.com	28
Deepa B G	deepa.bg@christuniversity.in	23
Indushree M	indushree.june1@gmail.com	29
Diana Earshia V	dianaeearshia@veltech.edu.in	24
Vanarasi Vijayalakshmi	vijji.siri1992@gmail.com	26
Mandyam Hema	hema.mandyam64@gmail.com	25
Yeshodha S	yeshodha.s@kristujayanti.com	29
Simmi S	simmi.s@kristujayanti.com	28
Sreejith R	sreejithr@rajagiri.edu	28
Sinimole K R	skp_radhas@yahoo.com	29
Ramanathan	ramanathan@kristujayanti.com	27
Deepika	deepikacse@anurag.edu.in	26
Divya M O	divyammo@gmail.com	30
Jibin Jacob Mani	jibin.jm@kristujayanti.com	25
Mythili M	mythili.m@vemanait.edu.in	26
A Stella	stellagnan19@gmail.com	23
Mansi Sharma	mansisharma1245@gmail.com	28
Prabu G	praburgcet@gmail.com	29
Manimegalai R	mmegalai217@gmail.com	25



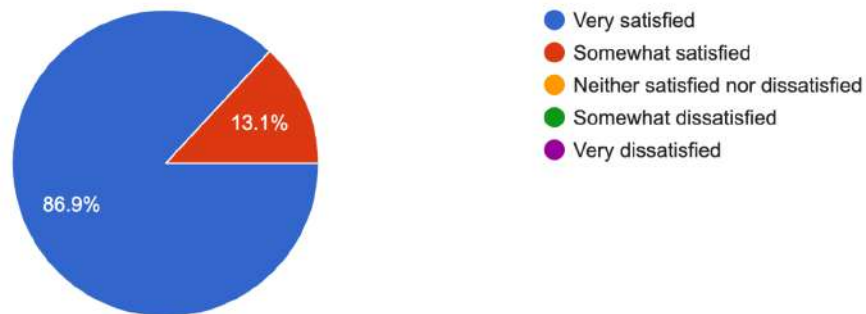
E Satheesh Kumar	satymar@gmail.com	25
Anjali Prasad	anjaliprasad691@gmail.com	29
Divyashree D	divyashree.d@presidencyuniversity.in	26
Kathires M	kathirescs83@gmail.com	29
Hina Nazneen	hina@cityengineeringcollege.ac.in	28
Rajalakshmi K	rajalakshmi.k@cmrit.ac.in	29
Sukanya N	sukanyaneelakandan@gmail.com	28
Ranjan Kumar Behera	ranjan.beherafme@kiit.ac.in	27
Suhaas K P	suhaaskp@nie.ac.in	27
Priyanka S	priyankashivram10@gmail.com	29
K Deepa Shree	deepashree-cse@dsatm.edu.in	28
Vijayalakshmi	viji3004.j@gmail.com	30
Bhagyashree Ravindra Alhat	bralhat@mitaoe.ac.in	27
Sajja Suneel	sajja.suneel@gmail.com	29
Lakshmi Priya.V	lakshmipriya.v@velhightech.com	26
Aparna T	aparnat2012@gmail.com	29
Satheesh Kumar R	skkumar114@gmail.com	29
Ramya	ramyatpl@gmail.com	22

## **FEEDBACK SNAPSHOTS**

The programme received a positive response from all the participants. As per the feedback submitted by the participants, they have appreciated the resource persons and flow of the contents of the programme. Each participant expressed their satisfaction, in the discussions with the rich experienced, resource persons brought to the FDP. During the feedback session on the last day, many participants appreciated the organizers and the support provided by them.

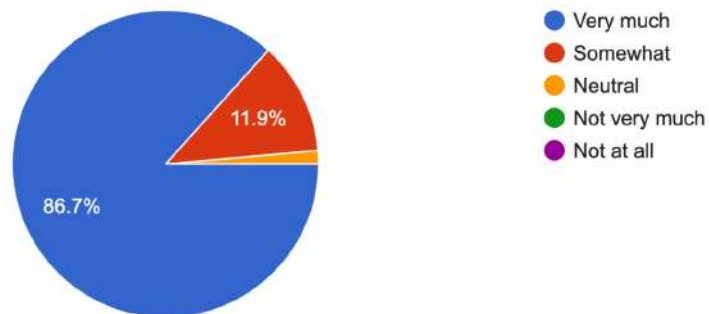
How satisfied were you with the session?

130 responses



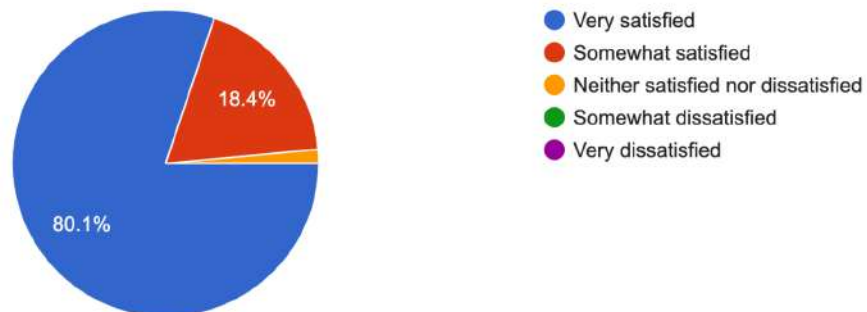
How relevant and helpful do you think the session was for your job?

143 responses



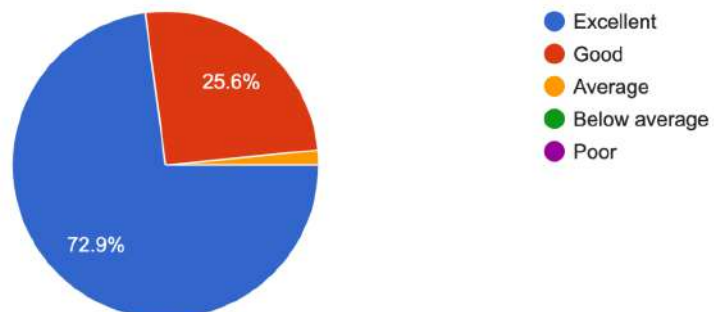
How satisfied were you with the interaction and engagement during the session?

136 responses



How would you rate the overall quality of the presentations?

129 responses



## SOCIAL MEDIA POSTS

Most relevant ▼



**Umesh Sahoo, CISSP®,CCSK** · 2nd

18h ...

I help organizations protect digital assets and business against the dan...

Incredible work by the AICTE-ATAL Faculty Development Program and Dayananda Sagar University in bringing together thought leaders to address such pressing challenges. **Kamal Sharma**'s session on cybersecurity in healthcare highlights a vital area that needs attention in today's digital age. Well done!

Like · ❤️ 1 | Reply · 1 Reply

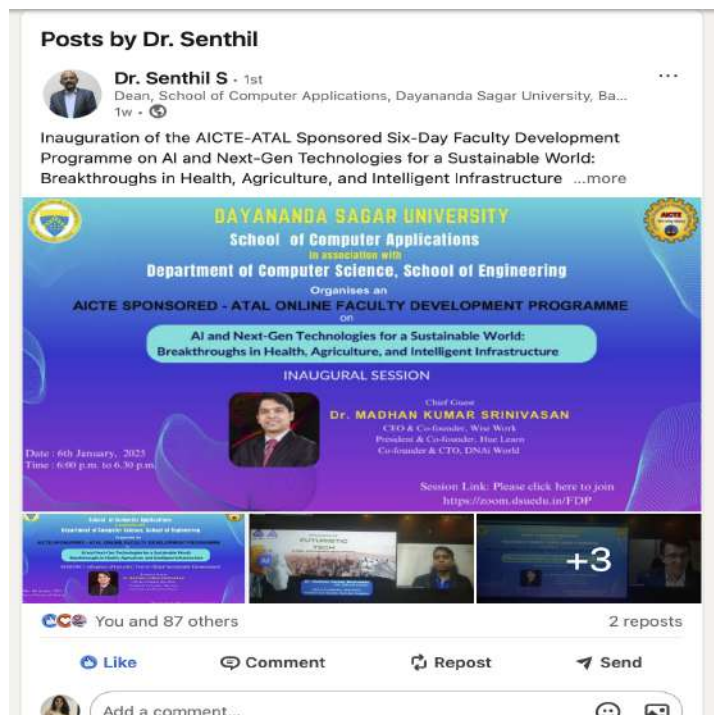


**Kamal Sharma** Author

12h ...

Co-Founder @ AuthenticOne | CISSP | CCSP | CRISC

Thank you **Umesh**!



YouTube link for participants feedback: [https://youtu.be/mB6Gd3k8d\\_0](https://youtu.be/mB6Gd3k8d_0)

## PHOTOS OF THE SESSIONS

**Smart and Sustainable Technologies for Rural and Tribal Development: Using AI, IoT and Cloud Computing**

**Prof. Srikanta Patnaik**  
Adjunct Professor, UNESCO CHAIR on "Economic Systems & Human Rights"  
at National University of La Plata, Argentina  
Editor-in-Chief of International Journal of Artificial Intelligence Governance and Human Rights  
Email: [srikantapatnaik@unlp.ac.in](mailto:srikantapatnaik@unlp.ac.in)

The slide features a grid of 17 icons representing various Sustainable Development Goals (SDGs) and a list of participants in the Zoom meeting on the right.

**Reliable AI Algorithms for Predictive Healthcare Analytics**

**Nilanjan Dey**  
Associate Professor, Techno International New Town, Kolkata, India  
Visiting Fellow, University of Reading, UK  
E-mail: [nilanjan.dey@int.edu.in](mailto:nilanjan.dey@int.edu.in)

The slide includes the Techno International logo and a list of participants in the Zoom meeting on the right.

**DAYANANDA SARABH UNIVERSITY**  
School of Computer Applications  
In association with  
Department of Computer Science, School of Engineering

Organises an  
**AICTE SPONSORED - ATAL ONLINE FACULTY DEVELOPMENT PROGRAM**

**AI and Next-Gen Technologies for a Sustainable World:  
Breakthroughs in Health, Agriculture, and Intelligent Infrastructure**

SESSION-5: Edge AI for Digitally Transformed Enterprises

**Resource Person**  
**Dr. PETHURU RAJ**  
Chief Architect and Vice President  
Edge AI Division, Reliance IoT Platform Ltd., Bangalore

Date: 8th January, 2025  
Time: 6:00 pm. to 7:30 pm.

Session Link: Please click here to join  
<https://zoom.dsaedu.in/FDP>

The slide features a blue background with a globe and a list of participants in the Zoom meeting on the right.

**Application of AI in Agriculture**  
Innovations Driving the Future of Farming

**Dr. Jay B. Simha, adoptAI**

The slide features a green background with a hand holding wheat and a list of participants in the Zoom meeting on the right.

**Decision-Making landscape**

The slide contains four diagrams illustrating different AI decision-making approaches:

- Planning:** A flowchart showing the process from a goal to a plan, then to an action, and finally to a result.
- Multi-Arm Bandits:** A diagram showing a system that learns from multiple actions to optimize its performance.
- Learning by Trial and Error:** A diagram showing a system that learns from its own actions and the resulting feedback.
- Learning from Demonstrations: Imitation / Offline RL:** A diagram showing a system that learns from a sequence of actions and states.

A list of participants in the Zoom meeting is visible on the right.

**Assisting harvesting through AI-based ripeness recognition**

**Seyed M Buhari**  
Universiti Teknologi Brunei, Brunei Darussalam  
[ismail.buhari@utb.edu.bn](mailto:ismail.buhari@utb.edu.bn), [mibuhari@gmail.com](mailto:mibuhari@gmail.com)

**Zero Hunger by 2030 – Objective of the United Nations sustainable development**

The slide features a white background with a list of participants in the Zoom meeting on the right.



### Healthcare is Evolving

**SERVICES PORTFOLIO**

- From treating patient illness to managing consumer health and wellbeing
- From accepting one-size-fit-all to precision health solutions
- From a reactive system to a holistic and predictive approach
- From extending life to improving quality of life over a lifetime

Ms. Alpa Patel  
Dr. S. Senthil  
Dr. S. Senthil  
Ms. Smita V K  
Ms. Smita V K  
Ms. Kavya Shree Pattan

### sustainability

Ability of human civilization to coexist with the biosphere in a steady state

Sustainability is a normative concept that stresses intergenerational equity and is commonly considered to have three dimensions (also called pillars): the environmental, economic and social dimension. The concept can be used to guide decisions at all scales: at the global, national and individual consumer level scale. A closely related and overlapping concept is that of sustainable development. B... Wikipedia

**sustainability**  
/səˈsteɪnəˌbɪləti/

- the ability to be maintained at a certain rate or level
- the sustainability of economic growth
- avoidance of the depletion of natural resources in order to maintain an ecological balance
- "the pursuit of global environmental sustainability"

Ms. Alpa Patel  
Dr. S. Senthil  
Mr. Sanil Kumar  
Dr. S. Senthil  
Ms. Smita V K  
Ms. Smita V K  
Ms. Kavya Shree Pattan

Ms. Alpa Patel

Ms. Smita V K

Ms. Kavya Shree Pattan

### DAYANANDA SAGAR UNIVERSITY

#### Transformative Role of AI algorithms in Healthcare

Dr. S. Senthil  
Mr. Sanil Kumar  
Dr. S. Senthil  
Ms. Smita V K  
Ms. Smita V K  
Ms. Kavya Shree Pattan

### DAYANANDA SAGAR UNIVERSITY

School of Computer Applications  
in association with  
Department of Computer Science, School of Engineering  
AICTE SPONSORED ATAL FACULTY DEVELOPMENT PROGRAMME

#### AI AND NEXT-GEN TECHNOLOGIES FOR A SUSTAINABLE WORLD: BREAKTHROUGHS IN HEALTH, AGRICULTURE, AND INTELLIGENT INFRASTRUCTURE

06-01-2025 to 11-01-2025  
FDP SCHEDULE

Date & Time	Topic	Resource Person
06-01-2025 (Monday) 8:00 pm to 9:00 pm	Inaugural Session	<b>Dr. Madhvan Kumar Srinivasan</b> CEO & Co-Founder, Blue Leaf Co-Founder & CEO, Data World
06-01-2025 (Monday) 9:30 pm to 10:30 pm	<b>Technical Session - 1</b> Influence of Futuristic Tech in Global Sustainable Development	<b>Dr. Madhvan Kumar Srinivasan</b> CEO & Co-Founder, Blue Leaf Co-Founder & CEO, Data World
06-01-2025 (Monday) 8:00 pm to 9:30 pm	<b>Technical Session - 2</b> Technology for Agriculture	<b>Dr. R. Rajesh</b> Professor and Head Department of Computer Science Central University of Kerala
07-01-2025 (Tuesday) 6:00 pm to 7:30 pm	<b>Technical Session - 3</b> Reliable AI Algorithms for Predictive Healthcare Analytics	<b>Dr. Niranjan Day</b> Associate Professor Techno International New Town, Kolkata
07-01-2025 (Tuesday) 7:30 pm to 9:00 pm	<b>Technical Session - 4</b> Smart and Sustainable Technologies for Rural and Tribal Development Using IoT & Cloud Computing	<b>Dr. Srikantha Patnala</b> Director & Chairman, IIT, Shubhashwar
08-01-2025 (Wednesday) 8:00 pm to 9:30 pm	<b>Technical Session - 5</b> Edge AI for Digitally Transformed Enterprises	<b>Dr. Pethuru Raj</b> Chief Architect and Vice President Edge AI Division, Reliance Jio Platforms Ltd.
08-01-2025 (Wednesday) 7:30 pm to 9:00 pm	<b>Technical Session - 6</b> AI applications in agriculture for sustainable development - research opportunities	<b>Dr. J. B. Simha</b> Chief Technology Officer, Aster Systems, Bengaluru
08-01-2025 (Wednesday) 8:00 pm to 9:30 pm	<b>Technical Session - 7</b> Robot Decision Agents in Intelligent Environments from Healthcare to Cloud Systems	<b>Dr. Mayank Datta</b> Senior Research Scientist, Aster Systems, Bengaluru
08-01-2025 (Thursday) 7:30 pm to 9:00 pm	<b>Technical Session - 8</b> Assisting harvesting through AI-based ripeness recognition	<b>Dr. Sayed M. Buhari</b> Associate Professor, School of Business, Universal Technology (UAT), Kuvempu, Varanasi
09-01-2025 (Friday) 6:00 pm to 7:30 pm	<b>Technical Session - 9</b> Cybersecurity in Precision Healthcare	<b>Mr. Kamal Sharma</b> Co-Founder, AuthenticCore Cybersecurity Pvt Ltd
10-01-2025 (Friday) 7:30 pm to 9:00 pm	<b>Technical Session - 10</b> Exploring medical data inference through GenAI and beyond	<b>Mr. Sanil Kumar</b> Founder, GEN AI, Co-Founder - IAC, Open Source Ecosystem & Technology Director, BCOA Foundation
10-01-2025 (Saturday) 2:00 pm to 3:30 pm	<b>Technical Session - 11</b> Recent Developments in Deep Learning for Healthcare System	<b>Dr. B. H. Shekar</b> Professor, Department of Computer Science, Mangalore University, Mangalagangothi
11-01-2025 (Saturday) 3:30 pm to 5:00 pm	<b>Technical Session - 12</b> Leveraging GenAI for Enhanced Crop Management & Precision Farming: Revolutionizing Agriculture through AI Innovation	<b>Dr. Ambika Paranthaman</b> Senior Data Scientist, Agrihub AI, United Kingdom
11-01-2025 (Saturday) 5:00 pm to 6:30 pm	<b>Technical Session - 13</b> Transformative Role of AI Algorithms in Healthcare	<b>Dr. Arun Kumar Thangavelu</b> Senior Professor, School of Computer Science & Engineering, VIT University, Vellore
11-01-2025 (Saturday) 9:30 pm to 10:00 pm	Online test, Feedback & Valedictory session	

For any details Contact:  
Chief Coordinator  
Dr. S. Senthil  
Professor & Dean, SCA, DSU  
Ph: +91 98457 70100  
Email: s.senthil@dsu.ac.in

Co Coordinator  
Dr. S. Senthil  
Asst Professor, SCA, DSU  
Ph: +91 98457 70100  
Email: s.senthil@dsu.ac.in

### DAYANANDA SAGAR UNIVERSITY

School of Computer Applications  
in association with  
Department of Computer Science, School of Engineering

Organises an  
AICTE SPONSORED - ATAL ONLINE FACULTY DEVELOPMENT PROGRAMME  
on  
AI and Next-Gen Technologies for a Sustainable World:  
Breakthroughs in Health, Agriculture, and Intelligent Infrastructure

SESSION-12: Leveraging Generative AI for Enhanced Crop Management and Precision Farming: Revolutionizing Agriculture through AI Innovation

Date: 11th January, 2025  
Time: 1:30 pm to 5:00 pm

Resource Person  
**Dr. AMBIKA PARANTHAMAN**  
Senior Data Scientist  
Agrihub AI  
United Kingdom

Session Link: Please click here to join  
<https://zoom.us/j/9845770100>

[illegible]

The screenshot shows a web browser window with the GitHub repository page for 'HuggingFace/huggingface-transformers'. The repository name is highlighted in a green box. Below the repository name, the star count '12,119' is displayed. A list of recent commits is shown, with the commit 'd700000' by 'dr-sarnitz' highlighted. The commit message 'Merge pull request #1000 from dr-sarnitz:fix-1000' and the commit hash 'd700000' are visible. The commit is dated '2020-01-10 10:00:00'.



## MANDATE FORM



DAYANANDA SAGAR  
UNIVERSITY

Ref: DSU/REG/2024-25-251



ದಯಾನಂದ ಸಾಗರ್  
ವಿಶ್ವವಿದ್ಯಾಲಯ

Date: 20.11.2024

### All India Council for Technical Education

Nelson Mandela Marg, Vasant Kunj, New Delhi - 110070

#### Mandate Form for Institute/College/University/Other Organisations

1	Name of the Beneficiary Institute	DAYANANDA SAGAR UNIVERSITY
2	Permanent Id of Institute, if any	1-7324150851
3	Head of Institute (Tick one)	Dr Puttamadappa C Registrar
4	Type of Institute (Tick one)	PRIVATE UNIVERSITY
5	Address of the Institute	Dayananda Sagar University Devarakagalahalli, Harohalli, Kanakapura Road, Ramanagara District - 562 112
6	PAN No. of the Institute	AAAJD1151D
7	GST No., if allotted	29AAAJD1151D1ZS
8	E-mail id of Head of Institute	registrar@dsu.edu.in
9	Name of the Bank	BANK OF BARODA
10	Branch Name & Bank Code	KUMARASWAMY LAYOUT BRANCH
11	Address of Bank with PIN Code	SHAVIGE MALLESHWARA HILLS, KUMARASWAMY LAYOUT, BENGALURU - 560 111
12	Telephone No. of the Bank	1800 5700
13	Name of the Account Holder with Designation	DAYANANDA SAGAR UNIVERSITY
14	Account Type (Tick One)	Savings
15	Account Number	A/c No - 74370100004926
16	Bank Branch IFSC Code	BARBOVJDASC (5 <sup>th</sup> digit is Zero)
17	Bank Branch MICR Code	NONMICR
18	Whether the Account is in the Name of Beneficiary Institute (Tick One)	Yes
19	Whether the Account is Operational (Tick One)	Yes
20	Whether the Account is No-Frill Account (Tick One)	Yes
21	Whether the Account is a Joint Account (if yes, give details)	NO

It is declared that all the information provided above are true and complete in all respects.

Signature of Account Holder with Designation  
**Dr. Puttamadappa C.**  
Registrar  
Dayananda Sagar University  
HAROHALLI

Certified that the above details are verified

Bank of Baroda  
Branch Manager  
(Banker's Signature with Seal)

Main Campus : Devarakagalahalli, Harohalli, Kanakapura Road, Ramanagara District, Karnataka - 562 112, Ph: +91-80-24496999  
City Campus : Kudlu Gate, Hosur Main Road, Bangalore - 560 114, Ph: +91-80-49092908, Web: www.dsu.edu.in

983

## ANNEXURE - I

**DAYANANDA SAGAR UNIVERSITY**  
**KUDLU GATE CAMPUS, HOSUR ROAD, BANGALORE – 560068**  
**UTILIZATION CERTIFICATE ATAL FDP GRANT IN AID**  
**FOR THE FINANCIAL YEAR – 2024-25**

Name of the Scheme under which Grant was sanctioned: AICTE Training & Learning (ATAL) Programme

Name of Coordinator

: Dr. S. Senthil

Application No.

: 1730893166

Title of the ATAL FDP

: AI and Next-Gen Technologies for a Sustainable World: Breakthroughs in Health, Agriculture, and Intelligent Infrastructure

S.No.	AICTE Sanction Order/Letter No. & Date under which grant was sanctioned	Amount (Rs.)	
1.	Letter No: AICTE/ATAL/2024  Date: 21/11/2024	1,00,000	Certified that out of the grant-in-aid of Rs. 1,00,000 (One Lakh only) sanctioned by AICTE during the financial year <u>2024-25</u> in favour of Dayananda Sagar University, a sum of Rs. 1,00,000 (One Lakh) has been utilized for the purpose for which it was sanctioned & to be received from AICTE.

Certified that I have satisfied myself that the conditions on which the grant-in-aid was sanctioned have been duly fulfilled and that I have exercised the following checks to see that the money was actually utilized for the purpose for which it was sanctioned.

**Kinds of checks exercised: -**

Audited Annual Accounts of the Institute, Receipt and Payment account, Periodical Progress Reports.

(1) Signature of the Coordinator:

DEAN

Name & Address of the Coordinator with seal:  
 Dr. S. Senthil, Dayananda Sagar University,  
 Kudlu Gate, Hosur Road, Bangalore - 560068

Date:

(3) Signature of Chartered Accountant:

(if the institute is private/ aided)

Membership No: **247553**

Rubber stamp:

Date: **27/01/2025**

UDIN: 25247553BMLLZE6709

Address: G1 102, Godrej Eternity, Holiday Village Road, Mallasandra, Bangalore 560062

(2) Signature Name and Address of the Head of Institute with seal:

Dr. Puttamadappa C

Registrar, Dayananda Sagar University, Kudlu Gate, Hosur Road, Bangalore - 560068

Date:

(4) Signature of the FO/AO (If the institute is Govt.)

Name of the FO/AO & Office stamp

Date:





**AICTE Training and Learning (ATAL) Academy Programme****STATEMENT OF EXPENDITURE**

AICTE File No. (Sanction Letter File No.) : AICTE/ATAL/2024

Title of the Programme

: AI and Next-Gen Technologies for a Sustainable World: Breakthroughs in Health, Agriculture, and Intelligent Infrastructure

Application No.

: 1730893166

Name of the Coordinator

: Dr. S. Senthil

Sanction No. and Date	No.	Details of expenditure incurred Item wise	Maximum eligible amount	Amount claimed Rs. (in each head)	Duration of the Programme (with dates)
AICTE/ ATAL/ 2024 dt. 21-11-2024	1.	Honorarium to Coordinator	Rs. 8,000	Rs. 8,000	Six Days (06-01-2025 to 11-01-2025)
	2.	Honorarium to Co-coordinator	Rs 5,000/-	Rs 5,000	
	3.	Honorarium for computer operator	Rs 2,000/-	Rs 2,000	
	4.	Honorarium for experts (Rs.5000/ session for 11 sessions)	Rs 55,000/-	Rs 55,000	
	5.	Honorarium for overseas experts (Rs.10000/ session for 02 sessions)	Rs 20,000/-	Rs 20,000	
	6.	Miscellaneous charges (petty expenses, recording etc which is not covered above)	Rs 10,000/-	Rs 10,000	
<b>Total</b>			<b>Rs. 1,00,000/-</b>	<b>Rs. 1,00,000</b>	
<b>Grant in AID amount to be Received</b>			<b>Rs. 1,00,000</b>		

(1) Signature of the Coordinator:

Name &amp; Address of the Coordinator with seal:

Dr. S. Senthil, Dayananda Sagar University,  
Kudlu Gate, Hosur Road, Bangalore - 560068

School of Computer Applications

Dayananda Sagar University

Bengaluru-560114

Date:

(3) Signature

of

Chartered

Accountant:

(if the institute is private/ aided)

Membership No: 247553

Rubber stamp:

Date: 27/01/2025

UDIN: 25247553BMLLZE6709



Address: G1 102, Godrej Eternity, Holiday Village Road,

Mallasandra, Bangalore 560062

(2) Signature Name and Address of the Head of Institute with seal:

Dr. Puttamadappa C

Registrar, Dayananda Sagar University,  
Kudlu Gate, Hosur Road, Bangalore - 560068DAYANANDA SAGAR UNIVERSITY  
Bengaluru

Date:

(4) Signature of the FO/AO (If the institute is Govt.)

Name of the FO/AO &amp; Office stamp

Date:

(1) Signature of the Coordinator:

DEAN

School of Computer Applications

Dayananda Sagar University

Name & Address of the Coordinator with seal:

Dr. S. Senthil,

Dayananda Sagar University,

Kudlu Gate, Hosur Road, Bangalore - 560068

Date: 03/02/2025

(2) Signature of the Head of the

Institute with seal:

**Dr. Puttamadappa C.**

Registrar

Name & Address of the Head of

the Institute with seal:

Dr. Puttamadappa C

Registrar, Dayananda Sagar University,

Kudlu Gate, Hosur Road, Bangalore -

560068

Date: 03/02/2025