



**SRM**  
UNIVERSITY AP  
— Andhra Pradesh



**FACULTY DEVELOPMENT  
PROGRAMME ON**

# RECENT TRENDS IN DEEP LEARNING AND ITS APPLICATIONS

Organised By:

**Department of Computer Science and Engineering  
SRM University-AP**



**October 14 - 18, 2024**

## About the University:

SRM University-AP is a multi-stream research-intensive university established in 2017 with a focus on diverse fields from Engineering to Sciences and Liberal Arts to Management. The Department of Computer Science and Engineering aims to impart quality and value-based education to the students/researchers to meet the growing challenges in the industry. The students carry out multidisciplinary research to solve societal problems using state-of-the-art technology.

## About the Programme:

The FDP is a 5-day programme conducted in offline mode with live lectures, hands-on and interactive sessions. The program will consist of technical sessions and hands-on training modules. The technical sessions will include presentations from experts in academia and industry on the latest advancements in the themes mentioned. The hands-on training will lay a pathway to get real-time knowledge about recent trends in deep learning and its applications.

## Who Can Participate?



**Faculty members**



**Researchers**



**PG Scholars**



**Industry professionals**

from Engineering Colleges / Institutions, Universities, Research institutions, and Industries.

## Objectives:

- Strengthen knowledge of deep learning fundamentals and introduce the latest advancements, including transformers, generative AI, and responsible AI.
- Showcase practical applications of deep learning in areas like computer vision, healthcare, automotive, and manufacturing industries.
- Equip participants with research and development skills for cutting-edge deep learning projects, encouraging innovation and practical implementations.
- Promote the integration of deep learning with emerging technologies, such as IoT, to explore innovative and future-oriented applications.

Duration

**The Faculty Development Programme will be conducted over five days, with four sessions each day.**



# Resource Persons

The resource persons for the Faculty Development Programme will be experts from academia (NITs/IIITs/Foreign University) and industry.



**Dr. Arish P**  
Senior Associate, Quantum AI Team  
Pricewaterhouse Coopers (PwC),  
Bengaluru



**Dr. Midhula Vijayan**  
Associate AI Architect  
Forus Health Private Ltd Bengaluru



**Dr. M Sreenivasulu**  
Applied Scientist  
Neohumans, Hyderabad



**Dr. U.S.N. Raju**  
Associate Professor  
NIT Warangal



**Dr. K V Kadambari**  
Associate Professor  
NIT Warangal



**Dr. R Preeth**  
Assistant Professor  
IIITDM Kancheepuram



**Dr. Koppala Guravaiah**  
Assistant Professor  
IIIT Kottayam



**Dr. T Suresh**  
Senior Data Scientist  
Happiest Minds Technologies, Bengaluru



**Dr. Resmi R**  
Postdoctoral Scientist  
Northeastern University, USA



# Programme Schedule

Day-1 October 14, 2024 (Monday)		
Session	Time	Programme
	09:00 – 10:00 AM	Registration
	10:00 – 10:30 AM	Inauguration
	10:30 – 11:00 AM	Tea Break
Session-1	11:00 – 12:30 PM	<b>Introduction to Deep Learning: Exploring CNN Architectures</b> <i>Dr R Preeth, Assistant Professor, Department of CSE, IITDM Kancheepuram</i>
	12:30 – 01:30 PM	Research Labs Visit (Dept. of CSE)
	01:30 – 02:30 PM	Lunch Break
Session-2	02:30 - 04:00 PM	<b>Full residual CNN for Moving Object Detection</b> <i>Dr R Preeth, Assistant Professor, Department of CSE, IITDM Kancheepuram</i>
	04:00 - 04:30 PM	Tea Break
Session-3	04:30 - 05:30 PM	<b>Hands-on Session</b> <i>Dr M Naveen Kumar, Dr M Mahesh Kumar &amp; Dr Pandu Sowkuntla Department of CSE, SRM University-AP</i>

Day-2 October 15, 2024 (Tuesday)		
Session	Time	Programme
Session-1	09:30 – 11:00 AM	<b>Foundations of Deep Learning for Image Processing.</b> <i>Dr U.S.N. Raju, Associate Professor, Department of CSE, NIT Warangal</i>
	11:00 - 11:30 AM	Tea Break
Session-2	11:30 - 1:00 PM	<b>Advanced Techniques and Applications in Image Analysis</b> <i>Dr U.S.N. Raju, Associate Professor, Department of CSE, NIT Warangal</i>
	01:00 - 02:00 PM	Lunch Break
Session-3	02:00 - 03:30 PM	<b>Fairness: Metrics and Methods</b> <i>Dr Resmi R, Postdoctoral Scientist at Institute of Experiential AI at Northeastern University, USA.</i>
	03:30 - 04:00 PM	Tea Break
Session-4	04:00 - 05:30 PM	<b>Hands-on Session</b> <i>Dr M Naveen Kumar, Dr M Mahesh Kumar &amp; Dr Pandu Sowkuntla Department of CSE, SRM University-AP</i>

<b>Day-3 October 16, 2024 (Wednesday)</b>		
<b>Session</b>	<b>Time</b>	<b>Programme</b>
Session-1	09:30 – 11:00 AM	<b>Deep Learning in the Medical Field: Transforming Healthcare</b> <i>Dr Midhula Vijayan, Associate AI Architect, Forus Health Private Limited, Bengaluru</i>
	11:00 - 11:30 PM	Tea Break
Session-2	11:30 - 1:00 PM	<b>Innovations and future directions in ophthalmology</b> <i>Dr Midhula Vijayan, Associate AI Architect, Forus Health Private Limited, Bengaluru</i>
	01:00 - 02:00 PM	Lunch Break
Session-3	02:00 - 03:30 PM	<b>Introduction to Recurrent Neural Networks.</b> <i>Dr KV Kadambari, Associate Professor, Department of CSE, NIT Warangal</i>
	03:30 - 04:00 PM	Tea Break
Session-4	04:00 - 05:30 PM	<b>Applications of RNNs in Real-world Scenarios.</b> <i>Dr KV Kadambari, Associate Professor, Department of CSE, NIT Warangal</i>

<b>Day-4 October 17, 2024 (Thursday)</b>		
<b>Session</b>	<b>Time</b>	<b>Programme</b>
Session-1	09:30 – 11:00 AM	<b>Retrieval Augmented Generation in Generative AI</b> <i>Dr Arish P, Senior Associate, Quantum AI Team, Pricewaterhouse Coopers (PwC), Bengaluru</i>
	11:00 – 11:30 PM	Tea Break
Session-2	11:30 – 1:00 PM	<b>Multi-agent Generative AI Applications.</b> <i>Dr Arish P, Senior Associate, Quantum AI Team, Pricewaterhouse Coopers (PwC), Bengaluru</i>
	01:00 – 02:00 PM	Lunch Break
Session-3	02:00 – 03:30 PM	<b>Introduction to Transformers</b> <i>Dr M Sreenivasulu, Applied Scientist, Neohumans, Hyderabad</i>
	03:30 – 04:00 PM	Tea Break
Session-4	04:00 – 05:30 PM	<b>Applications of Transformers across domains</b> <i>Dr M Sreenivasulu, Applied Scientist, Neohumans, Hyderabad</i>

## Day-5 October 18, 2024 (Friday)

Session	Time	Programme
Session-1	09:30 – 11:00 AM	<b>Real-Time Applications of IoT: Revolutionizing Connected Systems</b> <i>Dr Koppala Guravaiah, Assistant Professor, IIIT Kottayam</i>
	11:00 - 11:30 PM	Tea Break
Session-2	11:30 - 1:00 PM	<b>Integrating Deep Learning for Enhanced IoT Solutions</b> <i>Dr Koppala Guravaiah, Assistant Professor, IIIT Kottayam</i>
	01:00 - 02:00 PM	Lunch Break
Session-3	02:00 - 03:30 PM	<b>Recent Trends and Applications in Computer Vision</b> <i>Dr Suresh T, Senior Data Scientist, Happiest Minds Technologies, Bengaluru</i>
	03:30 - 04:00 PM	Tea Break
	04:00 - 05:00 PM	<b>Closing Ceremony and Feedback</b>

## Registration & Contact Details



Email  
[fdp.rtda@srmap.edu.in](mailto:fdp.rtda@srmap.edu.in)



Registration Link  
<https://forms.gle/KMDEbCyFmzLhEaCr6>



Registration Fee (Industry /Academia)  
**INR 500/-**



Seats Available  
**Limited to 75 Participants**

## Programme Coordinators



**Convenor**

**Dr Mahamkali Naveen Kumar**  
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**Co-Convenor**

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**Co-Convenor**

**Dr Pandu Sowkuntla**  
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