



ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON

AI/ML for Computer Vision and IoT Applications

(10th June – 20th June 2024)

Organised by

Electronics & ICT Academy, NIT Warangal

In Association With

Department of Electronics and Communication Engineering

Sumathi Reddy Institute of Technology for Women, Hasanparthy, Warangal.

(Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI)



Preamble:

"Electronics & ICT Academy" was set up at NIT Warangal with financial assistance from MeitY, GoI. The jurisdiction of this academy is Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry and Andaman & Nicobar Islands. This academy's role is to offer Faculty Development Programmes in standardized courses and emerging areas of Electronics, Information Communication Technologies, training & consultancy services for Industry, Curriculum development for Industry, CEP for working professionals, Advice and support for technical incubation and entrepreneurial activities.

About the FDP:

The FDP on AI & Machine Learning for IOT and Computer Vision applications Focuses on providing an introduction on the impacts of Deep learning and Artificial Intelligence for various IOT and Computer Vision applications. The FDP will help to disseminate the knowledge in the domain of Signal processing, ML and Deep learning. It empowers the participants to understand how AI/ML, data science can be used to innovate and improve the business process. Artificial intelligence (AI) has gained significant attention due to its widespread applications in various domains including designing of different IOT and CV based systems like health care, automation, smart cities, biometric and surveillances. This course will give an opportunity to gain exposure in recent advances in IOT, Computer Vision and machine learning techniques, which are used in designing various AI-driven based systems. This course aims to impart knowledge and train on fundamentals of engineering aspects of physiology and insights in recent IOT, Computer Vision and machine learning techniques that can help participants in developing smart systems

Major Course Contents:

- IoT Architecture, Communication protocols, interconnections, system design and development, Microcontrollers, latest sensors, actuators and wireless communication technologies.
- Introduction of IoT and Applications in Smart city. Programming Tools for IoT, Smart IoT devices and applications
- Overview of Embedded systems in practical world, Use Cases and Security Issues
- IoT cloud, Image processing applications in IoT, Implementing IoT with Arduino and Introduction to Raspberry PI
- Introduction to Machine Learning (ML), Supervised and Unsupervised Learning and Classifications
- Support Vector Machine, Decision Tree and Random Forest, Dimensionality reduction techniques-PCA, LDA etc.
- Neural Networks, CNN and Deep Learning
- Introduction to Computer vision and Its approaches
- Machine Learning Applications in Computer Vision (Example: Video Surveillance and Medical Imaging)
- Object Detection/Tracking, biometric detection, and Multi-view activity recognition using Deep Learning in Python
- Research issues and Case Studies on Cloud and IoT Applications, Case Studies on AI and ML for CV and IOT Applications
- Implementing IoT and Programming RaspberryPi with Python, Hands-on Session for ML/DL Applications for IOT and CV implementation using Python

Faculty conducting this programme:

The faculty members from NIT Warangal will conduct the programme; Academicians in the concerned field from IITs/NITs/IIITs are invited to deliver lectures in the programme. Speakers from industries are also expected to deliver as part of the course.

Registration Fee Particulars:

Faculty and Research Scholars	Rs.1000/-
Industry Participants	Rs.2250/-

Participants need to pay the Registration Fee Online using the following details

Online Transfer Details
Account Name: Electronics & ICT Academy NITW
Account No: 62423775910
IFSC: SBIN0020149
Bank and Branch: State Bank of India, NIT(REC) Warangal

How to apply:

Participants are required to fill the online registration form by clicking on the following link:

<https://forms.gle/1o4J8cRXVEQfjTrX7>

Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 60 (sixty). Additionally, 10 participants from industry are allowed to participate. The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the DD will be sent back. Candidates will be issued satisfactory certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

Important Dates:

Last date (Application & DD)	07.06.2024
Selection List by E- mail	08.06.2024
Duration	10.06.2024 to 20.06.2024

About NIT Warangal:

National Institute of Technology, Warangal is the first among 17 RECs setup as joint venture of the Government of India and the state government. Over the years, the college has established itself as a premier Institute imparting technical education of a very high standard leading to the B.Tech degrees in various branches of engineering, M.Tech. and Ph.D. programmes in various specializations. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

About SRITW, Warangal:

Sumathi Reddy Institute of Technology for Women (SRITW) was established in 2009 by Sri A. Varada Reddy with a focus on empowering women in Science & Technology. The college offers undergraduate programs with modern infrastructure, labs, amphitheater, conference room, sports facilities, smart classrooms, and a green campus. SRITW is the only Women's Engineering College in India with the NewGen Innovation Entrepreneurship Development Centre (NewGenIEDC) sanctioned by NSTEDB, DST, Govt of India. It also hosts a Technology Business Incubator (TBI) sponsored by MSME, Govt. of India. All B. Tech programs are NBA accredited, AICTE approved, and affiliated to JNTU Hyderabad. SRITW collaborates with organizations like Amazon Web Service (AWS), CISCO Network Academy, TASK, NETRA, Leading India.AI, WE HUB, and IEEE. The institute has received the Dewang Mehta 'Education Leadership Award.' Currently, SRITW offers five undergraduate programs: CSE, CSE-AI&ML, CSE-DS, CSE-CS, and ECE.



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1. Name :

2. Designation :

3. Institution :

4. Email :

5. Mobile No :

6.

Reference No:
Amount:
Bank :
Date:

7. Address for Correspondence:

8. Educational Qualification:

9. Subjects taught so far:

10. No. of refresher courses/workshops attended:

11. Experience (in years):

Teaching: Research: Industry:

12. Do you belong to SC/ST : YES /NO

Declaration

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the Coordinator in case, I am unable to attend the course.

Date

Signature of the Applicant

SPONSORSHIP CERTIFICATE

Dr. /Mr. /Ms. is an employee of our Institute/Organization and is hereby sponsored to participate in the FDP on “AI/ML for Computer Vision and IoT Applications”, sponsored by **Electronics & ICT Academy** during **10th June 2024 – 20th June 2024** at Department of ECE, SRITW, Warangal, Telangana.

Signature of Head of Institution
(with seal)

Address for correspondence

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It is requested to all the delegates, after completion of application form, all the payment details, screenshot of the payment and scanned application form has to be uploaded in the following online registration link.

Registration Link:

For more details about Electronics & ICT Academy, NIT, Warangal, please visit:

<https://nitw.ac.in/eict>

For more enquiries, please contact:

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