TWO WEEKS ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)

ON

Artificial Intelligence (AI) Enabled Internet of Things (IoT) for Engineering Applications

(08th – 19th August, 2022)

Organized by

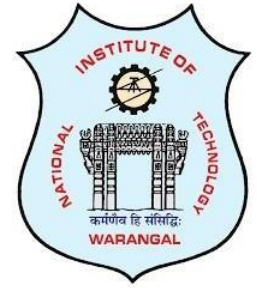### E&ICT Academy, National Institute of Technology, Warangal

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

in association with

Department of Electronics and Communication Engineering

Francis Xavier Engineering College, Tirunelveli - 627003, Tamil Nadu, India

(An Autonomous Institution)

PREAMBLE

"Electronics & ICT Academy" was setup 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 THIS FDP

This FDP is committed to cater to the faculty needs to update their knowledge in advancements in Artificial Intelligence (AI) & Internet of Things, and is being conducted by E & ICT Academy, NIT Warangal in association with Francis Xavier Engineering college, Tirunelveli, Tamil Nadu, India.

Artificial Intelligence (AI) is a field of study which tries to make computers "smart". Internet of things (IoT) is a network of various devices and sensors connected over the internet and can collect and exchange data with each other. These IoT devices generate a lot of data that needs to be collected. Internet of Things is used to collect and handle the huge amount of data that is required by the Artificial Intelligence algorithms. So it is essential to gain the knowledge of designing IoT-based products which has the impact of Artificial Intelligence makes an application smarter with decision making ability. The topics will focus on basics, advances and applications to benefit faculty and research scholars from academic and research communities associated with Science and Engineering. The whole course is handled by academicians and industry experts.

MAJOR COURSE CONTENTS (40 Hours)

Expert lectures and extensive hands-on sessions cover following topics:

- Artificial Intelligence – Trends and Challenges.
- Cloud Computing and its Services.
- IoT Architecture and Protocols.
- Overview of AI for IoT Connected Devices.
- Data optimization using machine learning algorithm
- Role of Data Science in Artificial Intelligence and IoT
- Moving from Machine Learning to Deep Learning
- AI enabled Wireless communication technologies for IoT Applications.
- Applications and Challenges of Smart Sensor in IoT.
- Hands on session on IoT with ESP8266.
- Hands on Session on IoT using Raspberry Pi.
- Applied AI Hands on Session

Faculty Coordinator this FDP

Dr.K.Lakshmi Narayanan,
Associate Professor, ECE Department,
Francis Xavier Engineering College,
Tirunelveli, Tamil Nadu, India
Email: klnarayanan@franicsxavier.ac.in
Ph.9840624407

Dr. M. Udaya Bhasker,
Assistant Professor Grade-I , Dept. of EE,
National Institute of Technology, Warangal
Email: ub@nitw.ac.in , Ph. No: 9703264416

ELIGIBILITY

The programme is open to faculty and PhD students of Engineering Colleges, Degree Colleges and other allied disciplines in India. Industry personnel working in the concerned /allied discipline can also attend.

REGISTRATION FEE

Faculty and Research Scholars	Rs.500/-
Industry Participants	Rs.1500/-

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

1. Pay the registration fee as mentioned in the above table.
2. Fill the online registration form using the link given below:

https://forms.gle/BBoSKcpSCbCigwpg9

Scan for Registration

3. Selection will be done based on first-come-first-serve basis to a maximum number of 150.
4. Candidates will be issued satisfactory certificates on successful completion of the course.

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 programs in various specializations. All B. Tech and M.Tech programmes of NIT Warangal are NBA accredited. The Institute is well known for its dedicated faculty, staff and the state-of-the art infrastructure conducive to a healthy academic environment. The Institute is constantly striving to achieve higher levels of technical excellence. Evolving a socially relevant and yet internationally acceptable curriculum, implementing innovative, and effective teaching methodologies and focusing on the wholesome development of the students the concerns.

About Francis Xavier Engineering College:

The Francis Xavier Engineering College popularly known as FX Engineering College which was established in the year 2000 with the vision to empower budding engineers in technical and entrepreneurial training and to contribute to the socio-economic augmentation of the nation. The college is an Autonomous Institution, with AICTE -CII Platinum rated, DST-FIST funded, IIC-Four Star Rated, ARIIA -Excellent Band category and many more laurels. The college is located the heart of the city of Tirunelveli and is well connected by Road, Rail and Air. Students of FX Engineering College are given the opportunity to pursue first-rate and advanced technical education regardless of background, gender or financial constraints. The college is full of opportunities where students' talents can thrive and it systematically transforms a graduate to a future ready professional.

About the Department of ECE:

The ECE department of Francis Xavier Engineering College is a DST–FIST supported Department, Anna University Recognized Research centre, Accredited by NBA and permanently affiliated to Anna University. Our Department aims to achieve a balance between depth of knowledge acquired through specialization and breadth of knowledge gained through exploration. The courses offered by the department provide a comprehensive foundation in the core topics of ECE coupled with an area of specialization relevant to emerging engineering challenges.

The ECE Department holds several International level conferences, seminars and workshops and Faculty Development Programs. These provide a platform for the staff and students to share their views and experience among industrialists, fellow researchers and academicians in the emerging areas of Electronics & Communication Engineering. It offers two P.G Programs M.E. VLSI Design and M.E. Communication Systems. It also offers Ph.D in Information and Communication Engineering.

Organizing Committee:

CHIEF PATRON
Dr. S. CLETUS BABU Chairman,
SCAD Group of Institutions.

PATRONS
Dr.K.JEYAKUMAR Professor & GM (D),
SCAD Group of Institutions
Mr.S.KRISHNAKUMAR, GM (A),
SCAD Group of Institutions
Dr.V.VELMURUGAN
Principal, Francis Xavier Engineering College

CONVENER
Mrs.J.FRISKA,
Professor & Head,
Dept. of ECE – Francis Xavier Engineering College

COORDINATORS
Dr. K. LAKSHMI NARAYANAN,
Associate Professor,
Dept. of ECE, Francis Xavier Engineering College,
Tirunelveli, Tamilnadu
Email: klnarayanan@francisxavier.ac.in
Ph. No: 9840624407

Dr. M. UDAYA BHASKER,
Assistant Professor Grade-I,Dept. of EE, NIT Warangal
Email: ub@nitw.ac.in
Ph. No: 9703264416

For more information visit:
www.francisxavier.ac.in

**Two Weeks Online
Faculty Development Program**

On

**Artificial Intelligence (AI) Enabled
Internet of Things (IoT) for Engineering
Applications**
(08th – 19th August 2022)

Sponsored by

Ministry of Electronics and
Information Technology

Government of India

Ministry of Electronics and
Information Technology (MeitY), GoI

Organized by

**Electronics & ICT Academy
National Institute of Technology, Warangal**
In association with
Department of Electronics and Communication
Engineering
Francis Xavier Engineering College,
Tirunelveli, Tamil Nadu.