FACULTY DEVELOPMENT PROGRAMME (FDP)
ON
CLOUD AND FOG COMPUTING PLATFORMS FOR INTERNET OF THINGS APPLICATIONS
(26th February – 8th March 2024) Time: 3 PM to 7 PM
Organized by
E & ICT Academy, NIT 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 role is to offer faculty development programmes (FDPs) in standardized courses and emerging areas of Electronics, Information Communication Technologies, training and consultancy services for Industry, Curriculum development for Industry, CEP for working professionals, Advice and support for technical incubation and entrepreneurial activities.

This FDP is devoted to addressing the need to enhance the knowledge about the latest technologies pertaining to **Cloud and Fog Computing Platforms for Internet of Things Applications** is being conducted at **National Institute of Technology, Warangal**. The whole course is handled by academicians and industry experts.

Major Course Contents:
- **Introduction to Sensors and IoT, and Protocol Stack in Wireless Sensor Networks**
- **Introduction to Cloud Computing and its Platforms**
- **Introduction to Fog Computing and its Architecture**
- **Routing Protocols, Device to Device Communication and Service Discovery in IoT**
- **Resource Management and Task Offloading**
- **Resource Allocation and Task Scheduling in Cloud Computing**
- **IoT Data Analytics**
- **Cloud Computing Platforms: Amazon Web Service, Google App Engine and Microsoft Azure**
- **Sophistication of Systems and Role of Machine Learning in IoT-Cloud Platforms**
- **Design Challenges in IoT Applications: Case Study Approaches**
- **Fog Computing Application in Smart City: Case Study Approaches**
- **Programming Smart Devices and Data Gathering through Cloud Platforms**
- **Industrial IoT**
- **Fog Computing Architecture for Cloud of Things**
- **iFogSim Toolkit**
- **Energy-Efficient Cloud and Fog Computing**
- **Cloud-Fog-IoT Federation**
- **Cloud-Fog-IoT Queuing Model**
- **Towards Osmotic Computing: Integration of IoT-Fog-Cloud**
- **Autonomous Transportation Systems through IoT-Fog-Cloud**
- **Security Issues in IoT-Fog-Cloud**
- **Case Studies on IoT-Fog-Cloud**

Faculty conducting this programme:

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

Eligibility:

The program is open to the Faculty of Engineering Colleges, MCA Colleges and other allied disciplines in India. Industry personnel working in the concerned /allied discipline can also attend.

Registration Fee Particulars:

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

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

How to apply:

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

https://forms.gle/bfzStG7K6zgPYPJ38

Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 100 (hundred). The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the DD/online payment 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 for submission of Application	23/02/2024 (11:59 PM)
Selection List by E- mail	24/02/2024 (11:59 PM)
Duration	26/02/2024 (Monday) to 08/03/2024 (Friday) 03:00 PM to 07:00 PM

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 Department of **Computer Science and Engineering (CSE)** offers B.Tech course in CSE, M.Tech courses in CSE, Computer Science and Information Security (CSIS) and Master of Computer Applications (MCA). The Department has experienced faculty with good publications and well-established laboratories. The Department has liaison with reputed industries and R&D organizations like Microsoft, IBM, Oracle, Accenture, Infosys, TCS, EMC 2, C-DAC, Motorola, NIC, Sun Micro Systems, SPSS and tie up with IISc in certain areas. Department conducts various sponsored programmes throughout the year.

Coordinators

Prof. Rashmi Ranjan Rout / Prof. Sanjaya Kumar Panda
Dept. of Computer Science and Engineering
NIT Warangal, Warangal - 506 004, Telangana, India
Mobile: +91-8332969418 / +91-7978685893
Email: rashrr@nitw.ac.in, sanjaya@nitw.ac.in