## **ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)** ON **Research Trends in Wireless Sensor Networks**



# (7<sup>th</sup> March – 16<sup>th</sup> March 2022)

### **Organised by**

**Electronics & ICT Academy, NIT Warangal** 

In association with

NIT Tiruchirappalli

(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 Faculty Development Programme will help to disseminate the knowledge in the domain of Wireless Sensor Networks. It empowers the participants to facilitate up-gradation of knowledge, skills and intends to provide opportunities to enrich the knowledge and to interact with cutting-edge technologies in the field of Sensor Networks, Protocol Stack in Sensor Network and IoT, Wireless sensor networks and different Zigbee topologies, sensor devices. The outcomes of the program were as follows:

- 1. Understand the usability of the IoTs across various realworld applications.
- 2. Understand and design different application and communication protocols for IoTs/WSNs.
- 3. Demonstrate and Hands-on various IoT applications.
- 4. Demonstrate integration of IoTs/WSNs with cloud platform and perform data analytics.
- Design solutions for several applications using IoTs by 5. integrating machine learning.

#### **Major Course Contents:**

- Introduction to Wireless Sensor Networks and emerging applications
- Energy efficient protocol design
- Classification of wireless sensor networks
- Deployment strategies and 2D/3D sensor networks
- Research directions in designing MAC and routing
- protocols
- IEEE 802.15.4
- Sensor networks for smart city applications
- Body area sensor networks and Healthcare monitoring
- Underwater sensor networks
- Internet of Things
- Sensor networks and IoT for agriculture
- Sensor Data Analytics
- Research directions for Security in sensor networks
- Research issues and case studies in wireless sensor networks

#### 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 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.750/-
Industry Participants	Rs.2250/-
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Participants need to pay the Registration Fee Online using the following details

Online Transfer Details
Account Name: Electronics & ICT Academy NITW
Account No: <b>62423775910</b>
IFSC: <b>SBIN0020149</b>
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/iHzmRMZF8g3dZcwE9

#### **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)	03.03.2022
Selection List by E- mail	04.03.2022
Duration	07.03.2022 to 16.03.2022

#### **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 PhD programmes in various specializations. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

#### About NIT Tiruchirappalli:

National Institute of Technology (formerly known As Regional Engineering College) Tiruchirappalli, is one among the premier Institutions of India and is well known for its high standards in teaching and research. It offers 10 undergraduate and 23 postgraduate programs in disciplines spanning Engineering, Science, Architecture and Management. It has been declared as an Institute of National Importance by the Government of India under NIT Act. According to the Ministry of Human Resources Development, NIRF 2020, NIT Trichy has been ranked as the 1<sup>st</sup> NIT among all the NITs and 9th among all the engineering institutes in India. The Institute has signed MoUs with various Educational Institutions and Industries both in India and abroad as well with an aim to promote collaborative research and consultancy.

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1. Name :	SPONSORSHIP CERTIFICATE	
2. Designation :	Dr. /Mr. /Ms is an	
3. Institution :	employee of our Institute/Organization and is hereby	
4. Email :	sponsored to participate in the FDP on "Research	
5. Mobile No :	Trends in Wireless Sensor Networks," sponsored by	
	Electronics & ICT Academy, NIT Warangal during 7 <sup>th</sup> March – 16 <sup>th</sup> March, 2022 at NIT Tiruchirappalli.	
6.		
Reference No:	_	
Amount:	_	
Bank :	Signature of Head of Institution	
Date:	(with seal)	
7. Address for Correspondence:	Address for correspondence	
8. Educational Qualification:	Post your application form	
9. Subjects taught so far:	Dr. Sai Krishna Mothku	
10. No. of refresher courses/workshops attended:	Assistant Professor, Department of Computer Science and Engineering,	
11. Experience (in years):	NIT Tiruchirappalli, Tamil Nadu – 620 015.	
Teaching: Research: Industry:	It is requested to all the delegates, after completion of	
	application form, all the payment details, screenshot of	
12. Do you belong to SC/ST: YES /NO	the payment and scanned application form has to be uploaded in the following online registration link.	
<b>Declaration</b> 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 cours entire duration. I also undertake the responsi	bility to	
inform the Coordinator in case, I am unable to at	* I NIL WATANPAL DIEASE VISIL	
course.		
	For more enquiries please contact:	
Date Signature of the Appl	icant Mobile: 988 5648 901	
	<b>Email:</b> saikrishna@nitt.edu	

# Coordinators

### Dr. Rashmi Ranjan Rout

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### Dr. Sai Krishna Mothku

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