

# ONLINE FACULTY DEVELOPMENT PROGRAM (FDP)

ON

# AI & Machine Learning for Biomedical signal and Image Analysis



(09th - 18th MAY 2022)

Organized by

# E & ICT Academy, NIT Warangal

in association with

# Kakatiya Institute Of Technology and Science, Warangal -Telangana, India

(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 jurisdictionof 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 FDP:**

The Faculty Development Programme will help to provide a solid conceptual background in advancements in signal processing techniques and their application to research area focused on Processing of Biomedical signals. This FDP introduces various AI & ML algorithms for signal classification of various biomedical signals and research strategies to be adopted for effective & efficient processing of acquired biomedical signals. This course will give an opportunity to gain exposure in implement the highly computational & efficient AI & ML algorithms into the research problems of one's area of interest. Detection of abnormalities in signals based on effective implementation of AI & ML algorithms. It illustrates how AI and ML may actually be useful in biomedical signal analysis for development of modules related to health care

# **Major Course Contents:**

- Biomedical signals- signal processing techniques
- Classification of Biomedical Signals
- Modern ECG signal processing
- Estimation of the PSD
- Time-varying Analysis of Heart-rate Variability
- PCA & ICA
- Analysis of ECG, EEG & PPG signals using MATLAB Data Science Revolution
- Exploratory Data Analysis
- Preprocessing of Data
- Classification and Clustering
- Machine Learning
- Fundamentals of Deep Learning
- $\bullet$  Demonstration using Python
- Case Studies

# Faculty conducting this programme:

The programme will be conducted by the faculty members from NIT Warangal and The NORTHCAP university; Academicians in the concerned field from IITs/NITs/IIITs have been invited to deliver lectures in the programme.

# **Registration Fee Particulars:**

Faculty and Research Scholars	Rs.750/-
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/wfUFo1YZeDoDC3vDA

## **Selection Criteria:**

Selection will be done based on first-come-first-serve 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 the candidate is not selected, the registration amount will be refunded. Candidates will be issued certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

# **Important dates:**

Last date (Application & DD)	06/05/2022
Selection List by E- mail	07/05/2022
Duration	09/05/2022 to 18/05/2022

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

# **About Kakatiya Institute of Technology and Science:**

Kakatiya Institute of Technology & Science, Warangal popularly known as KITSW, is a 41 years old institute, was established, in 1980 by Ekasila Education Society (EES), Warangal, a philanthropic society, with a primary objective of providing quality technical education. KITSW is approved by the AICTE, New Delhi and recognized by the UGC under section 2(F) and 12(B) of UGC act 1956. The UGC, New Delhi granted autonomous status in 2014 under Kakatiya University (KU), Warangal and extended autonomy for a period of 5 years from AY 2021-22 to AY 2025-26. It is accredited by NAAC with 'A' grade (CGPA: 3.21). The Government of India's NIRF-2020 placed KITSW in 197 rank.



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1.	Name	:	
2.	Designation	:	
3. :	Institution	:	
4.	Email	:	
5.	Mobile No :		
6.			
	Reference No:		
	Amount:		
	Bank:		
	Date:		
7.	Address for C	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 & Machine Learning For Biomedical signal and Image Analysis", sponsored by Electronics & ICT Academy during 09<sup>th</sup> - 18<sup>th</sup> May-2022 at Kakatiya Institute of Technology and Science Warangal.

# Signature of Head of Institution (with seal)

# **Address for correspondence**

Post your application form to

# Prof. K. Ashoka Reddy

Professor

Dept. of ECE,

Kakatiya Institute of Technology and Science Warangal Telangana - 506015, India

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:

# https://forms.gle/SUi25XH7L7MQAzaB8

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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# Coordinators

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