

**ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)**

ON

**Deep Learning and Machine Learning in Biomedical Signal Processing**

**(23<sup>rd</sup> August 2021 – 3<sup>rd</sup> September 2021)**

Organized by

**E & ICT Academy, National Institute of Technology, Warangal.**

in association with

**Department of Electronics and Communication Engineering**

**G. Narayanamma Institute of Technology and Science (for Women) (AUTONOMOUS)**

**Shaikpet, Hyderabad**

and

**G. Pulla Reddy Engineering College (AUTONOMOUS), Kurnool**

**(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, Gol. 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 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 Workshop:**

Healthcare occupies an indispensable part in human lives. The healthcare industry contains large amount of psychiatric data hence machine learning models were used to provide conclusion effectively in the disease prediction. Clinical data from electronic medical records, registries or trials provide a large source of information to apply machine learning methods in order to foster precision medicine. Even though there is a growing interest in the application of machine learning (ML) techniques to address clinical problems, the use of deep-learning in healthcare have just gained attention recently.

**Major Course Contents:**

- ❖ The prediction of spread of COVID-19 using Regression Models
- ❖ Breast cancer analysis using logic regression
- ❖ Data Clustering Algorithms: k-means and K nearest Neighbor Algorithms
- ❖ SVM Algorithm in predicting the outbreak of cardiovascular diseases in patients on dialysis
- ❖ Blood Diseases Detection using Classical Machine Learning Algorithms
- ❖ Introduction to Deep Learning, Deep Neural Networks
- ❖ Foundations of Convolutional Neural Networks Object Detection
- ❖ Recurrent Neural Networks
- ❖ Deep neural network medical image segmentation
- ❖ Linear Algorithms and Optimizations
- ❖ Deep Convolutional Models

**Faculty conducting this programme:**

The programme will be conducted in online mode 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 a part of the course.

**Eligibility:**

The programme is open to 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: Rs. 750/-
- Industry Participants: Rs. 2250/-

The fee shall be paid by online transfer using the following details: Please write "DLMLBM" in remarks or purpose while doing online payment transaction

**Bank details for Online Transfer:**

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

**How to apply:**

A filled in form of application in the prescribed format (\*refer to page 2 of this brochure for format and the printout of the same can be used to fill), duly signed and sponsored by appropriate authorities should reach the coordinator by email since the confirmation of selection will be intimated only through mail.

Coordinator Mail ID: [DLBM.GNITS2021@GMAIL.COM](mailto:DLBM.GNITS2021@GMAIL.COM)

**Selection Criteria:**

Selection will be done based on first-come-first-serve basis to a maximum number of 100. 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 registration fee amount will be refunded. Short listed 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 (Registration and fee payment)	20 <sup>th</sup> August, 2021
Selection List by E- mail	21 <sup>st</sup> August, 2021
Duration	23 <sup>rd</sup> August – 3 <sup>rd</sup> September, 2021

**About NIT Warangal:**

National Institute of Technology, Warangal is the first among 17RECs 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.

**About GNITS:**

G. Narayanamma Institute of Technology & Science, a leading Engineering college in Hyderabad for Women, was founded by late Sri. G. Pulla Reddy garu in 1997, with an objective of providing excellent learning facilities for Women to pursue education in Engineering since two decades. The aim is to promote Technical Education among Women to enhance and build up a new generation of thinkers, innovators and planners in the realms of Science and Technology. GNITS received UGC autonomous status for 10 years from 2018 and is affiliated to JNTUH. It is approved by AICTE, accredited by NAAC & NBA (AICTE) and ISO 9001:2015 certified institution.

**About ECE department of GNITS:**

The department of ECE was started in the year 1997 with an intake of 60 students. The intake was increased to 180 students. The department also offers PG course in DECE with an intake of 18. The department has applied for 5 patents, published 4 books, R&D equipment costing 3.57 crores and received 43 lakhs funding from AICTE for carrying out the projects to its credit. It has 8 doctorates in diversified fields of electronics & 17 faculty Pursuing Ph.D from IITs/IIITs/NITs with alumnae in IITs/Top class MNCs/Public sectors/Abroad universities.

**About GPREC:**

G. Pulla Reddy Engineering College is the brainchild of Late Sri G. Pulla Reddy garu, the renowned philanthropist, and a great humanist, established in 1984-85. It is one of the earliest private engineering colleges in Andhra Pradesh. The trust was instituted by late Sri G. Pulla Reddy Garu in the year 1977 with the motto of rendering service to the society. The College has been approved by AICTE and affiliated to JNTUA, Ananthapuramu and accredited with Autonomous Status by the UGC, New Delhi. Accredited by NAAC Grade(A+) of UGC & NBA of AICTE and Ranked 190 by NIRF- 2020, Recognized as Mentor Institution by AICTE under Margdarshan Scheme.

**About the ECE Department of GPREC:**

The ECE dept. was established in the academic year 1984-85 with an intake of 40 and currently with 198 regular and 18 lateral entry students. The department also offers PG Programme in VLSI and Embedded Systems with an intake of 18. The department is recognized as a research centre by JNTUA, Ananthapuramu and offers full-time Ph.D programme. It has a strong pool of faculty with 14 Ph.D's, 17 faculty Pursuing Ph.D.



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1. Name of the Applicant:

2. Designation :

3. Institution Name:

4. Email id:

5. Mobile No:

6. **Details of payment using Online Transfer**

Reference No:

Amount:

Bank :

Date of transfer:

7. Address for Correspondence:

8. Educational Qualification:

9. Subjects taught so far  
(\*Applicable for Faculty):

10. No. of refresher courses/workshops attended related to this FDP area:

11. Experience (in years):

Teaching:

Research:

Industry:

12. If belongs to

SC

ST

13. **Declaration by the Applicant:**

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.

**Signature of the Applicant**

14. **SPONSORSHIP CERTIFICATE**

Dr. /Mr. /Ms. .... is an employee of our Institute/Organization and is hereby sponsored to participate in the FDP on "Deep Learning and Machine Learning in Bio- medical Signal Processing", sponsored by Electronics & ICTAcademy during 23<sup>rd</sup> August to 3<sup>rd</sup> September, 2021.

**Signature of Head of Institution  
(with seal)**

**Registration Process:**

It is requested to all the delegates, after completion of application form, all the payment details, upload the screenshot of the payment and scanned copy of duly filled and signed application form in the following online registration link

**Registration Link:**

<https://forms.gle/2G8ubrB8SXVJHHj96>

✓ Email the screenshot of the payment and scanned copy of duly filled and signed application form to the following mail id

[DLBM.GNITS2021@GMAIL.COM](mailto:DLBM.GNITS2021@GMAIL.COM)

❖ For more details about Electronics & ICT Academy, NIT, Warangal, please visit: <https://nitw.ac.in/eic>

❖ Please Post your queries if any by joining the whatsapp group with the below link

➤ <https://chat.whatsapp.com/Cd0tKjsMEs65q8XlxsZZoz>

Or Contact

➤ (1) Mrs. Sarada.A ,Asst.Prof, ECE,GNITS  
Contact number: 8374683421

➤ (2) Mrs.P.Sri Padma,Asst.Prof,ECE,GNITS  
Contact number:9849161246

➤ (3) Dr.G.Amjad Khan, Assoc.Prof,ECE,GPREC  
Contact number: 9912555105

**Chief Patron:**

Sri. P. Subba Reddy, Chairman,  
GNITS, Hyderabad & GPREC, Kurnool

**Patron:**

Smt. G. Sridevi Reddy, Secretary  
GNITS, Hyderabad

**Chairman:**

1. Dr. K. Ramesh Reddy, Principal,  
GNITS, Hyderabad

2. Dr.B.Sreenivasa Reddy, Principal,  
GPREC, Kurnool

**Convener:**

1. Dr. B.Venkateshulu, Professor of ECE & Head,  
GNITS, Hyderabad

2. Dr. S.Nagaraja Rao, Professor of ECE & Head,  
GPREC, Kurnool

**Coordinators:**

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