ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON
Medical Applications Using Machine & Deep Learning Techniques
(2nd January–12th January 2023)
Organised by
Electronics & ICT Academy, NIT Warangal
in association with
Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology, Vijayawada
(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 DL and Machine learning with python for Medical Applications. It empowers the participants to understand how ML & DL can be used to innovate and improve the Medical related applications. Deep Learning is a fast-growing field of Artificial Intelligence concerned with the study and design of computer algorithms for learning good representations of data, at multiple levels of abstraction. Since data is overwhelming, organizations are struggling to extract the powerful insights they need to make smarter business decisions. The participants will be trained with hands-on approach in order to have an in-depth insight into the domain of ML& DL and expose them to Feasibility & future scope

Major Course Contents:

1. Introduction to Artificial Intelligence, Machine Learning and Deep Learning
2. Research in Machine Learning, Deep Learning and Applications
3. Regression Models
4. Perceptron's, Multilayer Perceptron's, Stochastic Gradient Descent, Backpropagation
5. Basics of Python
6. Decision tress, Unsupervised Learning Methods, K-Means
7. Dimensionality Reduction Methods, PCA
8. Support Vector Machine
9. Introduction to Deep Learning and CNN models
10. RNN, LSTM and BiLSTM
11. Bio Medical Applications:Neural Networks protein structure prediction, Profile hidden Markov model sequence analysis, Analysis of Microarray, learning rules for biological data, Deep Learning in Mining Biological Data, Prediction of protein structure using ML, Medical Image data classification and segmentation

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/-**

Participants need to pay the Registration Fee Online using thefollowing 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**

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How to apply:

Participants are required to fill the online registration form by clicking on the following link:
https://forms.gle/Qrr5sG4WMDjkDVRB7

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)	**31.12.2022**
Selection List by E- mail	**1.1.2023**
Duration	**2.1.2023 to 12.1.2023**

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 PSCMR College of Engineering & Technology:
PSCMR College of Engineering & Technology is SKPVV Hindu High Schools Committee's contemporary contribution to the cause of education with a new discipline in the sphere of Engineering & Technology. The college is under the affiliation of Jawaharlal Nehru Technological University, Kakinada, and Established in 2008 the PSCMRCET has an excellent infrastructure and highly committed, qualified, competent and involved faculty. The college aims at empowering students with social and career oriented education that can benefit themselves and the society, as well. The college is known for its excellent placement record, with good ambience and serenity. The college offers various branches in B.Tech Degrees (CSE, ECE, EEE, CSE-AI & ML, CSE-AI, CSE-DS, CSE-IoT, CSE- IoT & CS incl BCT), M.Tech(Data Science) & MBA. The college campus is conveniently located in the heart of the city with easy accessibility from any part of the city. The college is accredited with NBA (CSE, ECE& EEE) and NAAC.

Coordinators

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