ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)
on
Artificial Intelligence and
Machine Learning Applications in Engineering
(20th February – 1st March 2023)
Organised by
Electronics & ICT Academy, NIT Warangal
in association with
Bhoj Reddy Engineering College for Women, Hyderabad
(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 AI and Machine learning with python for Real Time Applications. It empowers the participants to understand how AI & ML can be used to innovate and improve the real time applications. With Artificial Intelligence you do not need to pre-program a machine to do some work, despite that you can create a machine with programmed algorithms which can work with own intelligence. Machine 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 to have an in-depth insight into the domain of AI & ML and expose them to Feasibility & future scope.

Major Course Contents:

1. Introduction to Artificial Intelligence, Knowledge Representation, Machine Learning, Deep Learning and Representation Learning
2. Research in AI-ML and Applications
3. Machine Learning with Feature Representation
4. Feature Selection and Ensemble Methods
5. Machine Learning Basics – Linear Regression, Perceptron's, Multilayer Perceptron's, Stochastic Gradient Descent, Backpropagation
6. Basics of Python, Decision tress, Naive Bayesian Classification
7. KNN, Unsupervised Learning Methods, K-Means
8. Dimensionality Reduction Methods, PCA, GMM
9. Computer Vision Applications: Image Classification, Object Recognition and detection
10. Natural Language Processing (NLP) Applications
11. Current Research – Latest Architectures, Applications and Hands on Sessions and supervised and unsupervised Learning Methods

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 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/Z1EdFMmyLw8uLaBH8

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)	**18.2.2023**
Selection List by E- mail	**19.2.2023**
Duration	**20.2.2023 to 1.3.2023** **Time: 2:00pm to 6:00pm**

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 BRECW:
Bhoj Reddy Engineering College for Women is sponsored and managed by Sangam Laxmibai Vidyapeet, a registered voluntary social action group working since 1952 for empowerment of women and girls through education. The Vidyapeet has more than 70 years of experience in the field of education. The College has well experienced and committed faculty. The development of faculty is pursued vigorously on a continuous basis. The college offers 5 UG (B. Tech) programs. BRECW is striving hard to empower the women students in their technical knowledge and assimilate adequate skills through the teaching by eminent faculty.

About CSE Department:
The future of computing systems and information systems rests with the engineers in Computer Science and Engineering (CSE). The Course is meant to advance, evolve and enhance computer science and computing engineering fundamentals to build the intellectual and research capital in the domains of science, engineering and technology. The Course endeavours to equip the CSE in development of computing and IT systems and their proper applications. This is an emerging and powerful branch of engineering, which has the tremendous advantage of abstraction and flexibility. The department has well-established computer laboratories. The faculty in the department have good experience and strive to improve the quality of students.

Coordinators

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