FACULTY DEVELOPMENT PROGRAMME on
Research Challenges, Issues and Trends in Soft Computing and Machine Learning
(August 09-18, 2021)
Organized by

Department of Computer Science & Engineering

CVR COLLEGE OF ENGINEERING

An UGC Autonomous Institution, NAAC "A" Grade, NBA Accredited
Vastunagar, Mangalpalli (V), Ibrahimpatan (M), R.R. Dist–501 510
in association with
E & ICT Academy, NIT Warangal
(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. The role of 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 developmentfor Industry, CEP for working professionals, Advice and support for technical incubation and entrepreneurial activities.

This Faculty Development Programme (FDP) is devoted to address the need to enhance the knowledge about the latest technologies pertaining to **Soft Computing and Machine Learning** is being conducted at **CVR College of Engineering, Hyderabad**. The course is handled by academicians and industry experts.

Major Course Contents:

- Mathematical Foundations: Linear Algebra, Statistics, Probability, Hypothesis formation, and Inference.
- Overview of Fuzzy logic Fuzzy Inference Systems and Applications, Overview of Neural Networks. Activation functions, Hyper parameters, Iterative ANN Models: MLPNN, MLFFNN, Back-propagation.
- Perceptron Learning Law, Gradient descent, stochastic gradient descent, Batch gradient descent, Non-iterative ANN Models, RBFNN, PNN, ELM, Rule based models.
- Clustering Basics, Cluster validity Indices, Clustering using ANNs and GAs, ANN-issues, and challenges.
- Derivative-free Optimization using GA: Basic concepts, encoding, fitness function, reproduction, Differential Evolution, Difference between GA, and traditional optimization methods.
- GA and DE Applications: Feature selection, parameter tuning, clustering, classification, Simulated Annealing, Swarm optimization: Basics and Applications.
- Classification models : Regression techniques, Decision tree based, SVM, Multi-class SVM, K-NN, Naïve Bayes
- Ensemble methods, Challenges, issues and trends in design and development of of machine learning models in health sector, and light on research hypothesis formation.

Faculty conducting this programme:

The programme will be conducted by the faculty members from NIT Warangal, and CVRCE. 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 programme.

Eligibility:

The programme is open to the Faculty of Engineering Colleges, MCA Colleges, other allied disciplines, and Industry personnel working in the concerned /allied discipline can also attend.

Selection Criteria:

Selection will be done based on **first-come-first-serve** basis to a maximum number of 100.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.

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

About CVR Hyderabad:

CVR College of Engineering was established in 2001, and its 16th batch of students graduated from the College, in May 2020. CVR is ranked among the top few of more than 600 colleges in AP and Telangana that started in the last decade and as per NIRF ranking CVR is in 101-150 groups. The College has been given Permanent Affiliation and Autonomous Status by JNTUH. The College received UGC autonomous status for a period of 5 years from 2020-21 to 2024-25. The college is also accredited by NAAC with 'A' grade.

About the Department:

B.Tech(CSE) and M.Tech(AI) programs were started in the Department in 2001 and 2018 respectively. The Department is offering three new courses in emerging areas namely B.Tech CSE(AI&ML), B.Tech CSE (Data Science) and B.Tech CSE (Cyber Security) from the AY 2020-21 onwards.The department has set up 2 research labs and approved with one research center, equipped with advanced systems to encourage research and projects. The department was accredited by the NBA.

Registration Fee and Payment details:

Faculty and Research Scholars	Rs. 750 /-
Industry Participants	Rs. 2250 /-
Online payment Details:	
Account Name: Electronics & ICT Academy	
NITWAccount No: 62423775910	
IFSC: SBIN0020149	

How to apply:

Participants are required to fill the online registration form through the following link:

https://forms.gle/qZgJKyT7n1WhqqnB7

Calendar dates to Note:

Last date to submit Registration	05-08-2021
Selection of Applicant by E-mail	07-08-2021
FDP duration	09-08-2021 to 18-08-2021

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1. Name :
2. Designation :
3. Institution :
4. Email :
5. Reference No :

   Bank :

   Date :

   Amount :

6. Address for Correspondence :

7. Educational Qualification :
8. Subjects taught so far :

9. No. of refresher courses/workshops attended:
10. Experience (in years):

    Teaching: Research: Industry:

11. 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.

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 **"Research Challenges, Issues and Trends in Soft Computing and Machine Learning"**, sponsored by Electronics & ICT Academy during August 09 - 18, 2021 **at CVR College of Engineering,** Hyderabad.

Signature of Head of Institution
(With seal)

Address for correspondence
Post your application form (if it becomes offline)
Dr. A. Vani Vathsala
Professor and Head
Computer Science & Engineering
CVR College of Engineering
Vastunagar, Mangalpalli (V), Ibrahimpatan (M)
Ranagareddy – 501510, Telangana, India.

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

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Coordinators

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