



TWO WEEK ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP)
ON
Artificial Intelligence and Machine Learning: Real Time Applications
 (20th - 30th September, 2021)
 Organized by
E & ICT Academy, National Institute of Technology, Warangal.
 In association with
G. Narayanamma Institute of Technology and Science (for Women)
AUTONOMOUS, Shaikpet, 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 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:

Technology plays a major role in day to day life activities. To drive a huge attention of consumer, companies are relying on advance algorithms to make things easier. Artificial intelligence and Machine learning are the major technologies in recent scenario. The advancements in Machine Learning create an exemplary rise in technological industry. The Artificial Intelligence goes ahead in developing a more intelligent computer system that adapts, evolves and learns. This has tremendous application in industry, defense, healthcare, agriculture and many other areas. This FDP will be a platform in gaining knowledge in Artificial Intelligence & Machine Learning domains.

Major Course Contents:

- Introduction to AI & ML and its applications in real world
- Introduction to Python (Hands-on)
- Linear Regression
- Polynomial Regression
- Logistic Regression along with data preprocessing and feature analysis (Hands-on)
- Exploratory data analysis with Seaborn, SVM, K means clustering (Hands-on)
- Bayesian learning, decision tree based classification methods
- Dimensionality reduction methods
- Introduction to Deep learning methods and applications, CNN, RNN
- Neural networks and practical implementation
- Sentimental analysis, Dialogue systems (Hands-on)
- Vanishing gradient problem (Hands-on)
- Ensemble modeling techniques
- Reinforcement Learning, Optimization and Data driven Methods
- GAN

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 as 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 and Research Scholars	Rs. 750/-
Industry Participants	Rs. 2250/-

The fee is to be paid through online transfer 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 in the Online registration form given in the below link:

<https://forms.gle/JHBAgSCA9nUDZq517>

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. 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 for Registration	16th September, 2021
Selection List by E- mail	17th September, 2021
Duration	20th September -30th September , 2021

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 GNITS:

G. Narayanamma Institute of Technology & Science (For Women), a leading engineering college in Hyderabad for women founded by Late Sri G. Pulla Roddy Garu in 1997, with the objective of providing an excellent learning facility for women to pursue education in engineering. The institute aims to promote Technical Education among Women to enhance and build-up a new generation of thinkers, innovators and planners in the technical realms of Science & Technology. GNITS received UGC autonomous status for 10 years from 2018 and is affiliated to JNTU-H, Hyderabad. It is approved by AICTE, accredited by NAAC & NBA (AICTE). College has 202 well qualified and committed faculty members out of which 59 are Doctorates. College has 8 UG courses (CSE, ECE, EEE, IT, ETE, AI&ML, Data Science, CS&T) & 5 PG courses (CSE, DECE, WMC, CNIS, PEED) with a total intake of 930.


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1. Name
2. Designation
3. Institution
4. Email
5. Mobile No
- 6.

Online Transfer
Reference No:
Amount:
Bank:
Date:

7. Address for Correspondence :

8. Educational Qualification :
9. Subjects taught so far :
10. No of refresher courses/workshops attended:
11. Experience (in years) :
12. Teaching: Research: Industry:
13. Do you belong to SC/ST :

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 "Artificial Intelligence and Machine Learning: Real Time Applications", sponsored by Electronics & ICT Academy during 20th - 30th September, 2021.

Signature of Head of Institution
(With seal)

Registration Link:

<https://forms.gle/JHBAgSCA9nUDZq517>

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

For more enquiries please contact:

1. Dr. A. Naveena, - 9866937347
2. Mr. N. Rama Krishna - 9866130638
3. Mr. V. Vikas, - 9494269322

Coordinators:

Dr.A. Naveena,
Assistant Professor,
Dept. of ETE,
G. Narayanamma Institute of Technology and Sciences (For Women) Autonomous, Shaikpet, Hyderabad, Telangana-500104.

Dr.J.Ravi Kumar
Associate Professor,
Dept. of ECE,
National Institute of Technology,
Warangal, Telangana - 506004.

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40 Hrs Online FACULTY DEVELOPMENT PROGRAMME

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Shaikpet, Hyderabad



Day	Session 1 11.00 A.M - 1.00 PM		Lunch Break	Session 2 2.00 P.M - 4.00 P.M	
20-09-2021	Inauguration (10.30 A.M - 11.00 A.M)	Introduction to Machine Learning and Applications Dr. J Ravi Kumar NIT Warangal		Introduction to Python M Vijay Kumar NIT Warangal	
21-09-2021	Working with Python Dr. J Ravi Kumar & M Vijay Kumar NIT Warangal			Linear Regression Dr. J Ravi Kumar & M Vijay Kumar NIT Warangal	
22-09-2021	Machine Learning Techniques: Multiple Linear Regression Dr. J Ravi Kumar & M Vijay Kumar NIT Warangal			Logistic Regression Dr. J Ravi Kumar & M Vijay Kumar NIT Warangal	
23-09-2021	Polynomial regression & K Nearest neighbor Algorithm Dr. J Ravi Kumar & M Vijay Kumar NIT Warangal			Colour Quantization using K-Means Clustering Algorithm Dr. J Ravi Kumar NIT Warangal	
24-09-2021	Support Vector Machine Dr M. Srinivas , CSE, NITW			Support Vector Machine Dr M. Srinivas , CSE, NITW	
25-09-2021	Basic Neural Network and Back Propagation using Python Dr. J Ravi Kumar & M Vijay Kumar NIT Warangal			Convolution Neural network Dr. J Ravi Kumar & Adit NIT Warangal	
27-09-2021	Image Processing Using Python Libraries. Mr Adit NIT Warangal			Convolution Neural network & and Character recognition using Python Dr. J Ravi Kumar & Adit NIT Warangal	
28-09-2021	Recurrent Neural Networks Dr Kadambari, CSE, NITW			Implementation and Demonstration of Project Implementation Using Deep neural Networks Prof. Bhurchandi, NIT Nagpur	

K. A. J.

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Day	Session 1 11.00 A.M - 1.00 PM		Session 2 2.00 P.M - 4.00 P.M
	29-09-2021		Auto Encoders Sri Ayush Utkarsh Engineer.IBM
30-09-2021	Introduction to Generative Adversarial Network Dr. Swagatam Das ISI Kolkata	Lunch Break	Generative Adversarial Network with application to Vocal Style transfer Dr. Swagatam Das ISI Kolkata

1. Dr Ravi Kumar Jatoth, Associate Profesor , Dept of ECE, NITW
2. M. Vijay Kumar, Dept of ECE, NIT Warangal
3. Mr Adit, Dept of ECE, NIT Warangal
4. Dr Anil Kumar Uppala, IIT Hyderabad
5. Sri Ayush Utkarsh, Engineer, IBM India
6. Dr M Srinivas, Asst Professor , Department of CSE, NITW
7. Dr Kadambari, Asst Professor, NITW.
8. Dr. Swagatam Das, ISI Kolkata
9. Prof M.Bhurchandi, NIT Nagpur

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Coordinators

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Department: Information Technology

2021-22

REPORT

FDP on Artificial Intelligence and Machine Learning : Real time Applications

Date of program: 20-9-2021 to 30-9-2021

Resource person: Dr kishor Bhurchandi, Professor, VNIT Nagpur.

Dr J.Ravi kumar, NIT Warangal

M.Vijay Kumar NIT Warangal

Dr M Srinivas, NIT Warangal.

About the Program:

This FDP was organized by Department of ETE of GNITS, it is a 40 hours course conducted online. This FDP has covered right from basics of python to different machine learning algorithms like Regression, Support Vector Machines, Neural Networks, K-Means etc. Different libraries used for processing image and video data. This FDP gave us skills that would help in projects and course handling.

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Signature of the Faculty member