ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON
Deep Learning and AI Applications
(28th August – 7th September 2021)
Organized by
E & ICT Academy, National Institute of Technology, Warangal

in association with
G. Narayanamma Institute of Technology & Science (for Women) 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'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 data science and Machine learning. It empowers the participants to understand how data science can be used to innovate and improve the business process. 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 in order to have an in-depth insight into the domain of Data Sciences and expose them to Feasibility & future scope

Major Course Contents:

1. Introduction to Artificial Intelligence, Machine Learning, Deep Learning and Representation Learning
2. Machine Learning with Feature Representation
3. Machine Learning Basics – Linear Regression, Perceptron's, Multilayer Perceptron's, Stochastic Gradient Descent, Backpropagation
4. Deep Learning Regularization Techniques: L1, L2, Noise Injection, Data Augmentation, Dropout, Ensemble, Parameter Sharing, etc.
5. Basics of TensorFlow/Keras/PyTorch/Python
6. CNN Architecture and Advanced Models
7. Object detection RCN and FRCNN
8. Recommendation Systems, BERT
9. Computer Vision Applications: Image Classification, Object Recognition and detection using TensorFlow
10. RNN Architecture and LSTM, Google Colab
11. Natural Language Processing(NLP) Applications : Machine Translation using TensorFlow/PyTorch
12. Current Research – Latest Architectures, Applications

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://docs.google.com/forms/d/1SUEKVy3O_bJm-PB8L4SRcIPVWPkyzWa416T9ZathAwA/edit

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)	26.08.2021
Selection List by E- mail	27.08.2021
Duration	28.08.2021 to 07.09.2021

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

About GNITS:

G. Narayanamma Institute of Technology & Science (GNITS), Hyderabad, a leading Engineering college for women, was founded by late Mr G. Pulla Reddy in 1997, with an objective to provide quality education in Engineering. GNITS received UGC Autonomous status for 10 years from 2018 and is affiliated to JNTU-H, Hyderabad with accreditation from NAAC, NBA and ISO certified. GNITS offers 8 B.Tech and 5 M.Tech programmes with 2640 students enrolled in B.Tech. stream and 180 in M.Tech stream. First college in India to establish Apple Lab inaugurated by Tim Cook. Its excellent infrastructure provides opportunity for students to excel and secure placements in top MNC's on par with NITs, IIITs and IITs.

About CSE:

The Department of CSE offers two new programmes under B. Tech CSE with specialization in AI & ML and Data Science. The department has 8 doctorates and 24 pursuing Ph.D from reputed universities. Two research centres are established one on IoT and another for AI & ML with AICTE-MODROB funds. quality research papers and 5 patents are published by the faculty. 95% of eligible students from CSE are placed in top MNC's with the highest pay package of 45 lakhs.

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1. Name :

2. Designation   :

3. Institution   :

4. Email   :

5. Mobile No :

6.

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):

   Teaching: Research: Industry:

12. 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.

Date   **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 "Deep Learning and AI Applications", sponsored by Electronics & ICT Academy during 28th August – 7th September, 2021 at G.Narayanamma Institute of Technology and Science, Hyderabad.

Signature of Head of Institution
(with seal)

Convenor/Advisory Member

Dr M Seetha Prof and Head CSE

Address for correspondence
Post your application form to
Head Department of CSE
G Narayanamma Institute of Technology and Science, Shaikpet, Hyderabad, Telangana, INDIA-500104

It is requested of all the delegates, after completion of application form and the payment details, screenshot of payment and scanned application form has to be uploaded in the following online registration link.
https://docs.google.com/forms/d/1SUEKVy3O_bJm-PB8L4SRcIPVWPkyzWa416T9ZathAwA/edit

Registration Link:

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

For more enquiries please contact coordinators:

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Coordinators

Dr. M. Srinivas
Ph.D. (IITH), Post-Doc (Academia Sinica, Taiwan and ETS, Canada)
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Day& Date	11.00pm – 1.00 pm			2.00 pm – 4.00 pm	
28.8.2021 Saturday	Inaugural Fn.	Introduction to Machine Learning RBV		Reinforcement Learning RBV	
29.8.2021 Sunday	Introduction to Neural Networks GRM			Single and Multi-Layered Neural Networks GRM	
31.8.2021 Tuesday	Research in Deep Learning and Applications MSV			Introduction to Deep Learning and CNN MSV	
1.9.2021 Wednesday	Deep Learning Applications MS			Introduction to Python with Hands on Session MS	
2.9.2021 Thursday	Recurrent Neural Networks and LSTM AK		Break	LSTM application, NLP, NLP Components AK	
3.9.2021 Friday	Types of Deep learning models MSV			Deep Learning parameters MSV	
4.9.2021 Saturday	Introduction to Transformers SR			Transformers Applications SR	
5.9.2021 Sunday	Introduction to GAN and Different Type of GAN's AP			Implementation on GAN's AP	
6.9.2021 Monday	Auto encoders with real time applications EP			BERT PRK	
7.9.2021 Tuesday	BERT with Applications PRK			Object Detection Using Deep Learning MSV	Exam

PRK: Prof. P Radha Krishna, NITW
MSV: Dr. M Srinivas, NITW
GRM: Prof. Garimella Ramamurthy, Mahindra University
Dr M Anand Kumar, NITK Surathkal
* Sunday 5/9/2021 session start from 3:00pm to 7:00pm

RBV: Prof. RBV Subramanyam, NITW
AP: Dr. Argya Pal, USA
EP: Dr. Ijjina Earnest Paul, NITW
MS: Dr. M. Seetha   SR: Subba Reddy, France

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Technology & Science (for Women)
Shaikpet, Hyderabad - 500 104
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REPORT ON

10 day Online FDP

on

Deep Learning and AI Applications

GNITS in Association with E &ICT Academy Warangal

28-08-2021 to 07-09-2021

About Resource Person: Prof. P Radha Krishna, Prof. RBV Subramanyam, Dr. M Srinivas, Dr. Ijjina Earnest Paul, NITW, Dr. Argya Pal, USA, Prof. Garimella Ramamurthy, Mahindra University, Dr M Anand Kumar, NITK Surathkal, Subba Reddy, France, Dr. M. Seetha, GNITS

About the Program:
The Faculty Development Programme will help to disseminate the knowledge in the domain of datascience can be used to innovate and improve the business process. 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 in order to have an in-depth insight into the domain of data sciences and expose them to Feasibility & future scope.

Outcomes: The basic knowledge gained by this FDP will definitely help faculty to get new ideas for projects and also to help students to do better in their projects.

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