

# ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON

# Deep Learning Algorithms Implementation In Cloud Technology



(1st JULY - 10th JULY 2021)

Organised by

Department of Computer Science and Engineering & Department of Information Technology

Malla Reddy Engineering College (Autonomous), Hyderabad in association with NIT, Warangal

Under the scheme of Electronics & ICT Academy

(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:**

- Introduction to Artificial Intelligence, Machine Learning, Deep Learning and Representation Learning
- Machine Learning Mathematics Linear Algebra, Optimization
- 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
- 6. CNN Architecture
- 7. Object detection RCN and FRCNN
- 8. Image Segmentation UNet Model
- 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://forms.gle/LJx25uGPBhLXL87c9

### **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)	29.06.2021
Selection List by E- mail	30.06.2021
Duration 1.07.2021 to 10.07.202	

### **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 Malla Reddy Engineering College:**

Malla Reddy Engineering College (MREC) is a fulfilment of the distinct vision of its founder Chairman, Mr. Ch. Malla Reddy, the present MLA, Medchal Constituency and Hon'ble Minister Labour & Employment, Factories, Women & Child Welfare and Skill Development, Telangana State. MREC is one of the premier Engineering Colleges in the State of Telangana, established in the year 2002, affiliated to Jawaharlal Nehru Technological University Hyderabad (JNTUH), Hyderabad and conferred autonomous status by JNUTH in 2011, UGC in 2014- 2020 and 2020-2025. MREC has 11 academic programmes in UG and 7 programmes in PG which is serving the needs of the student body for the last 19 years. The institute is accredited by the National Board of Accreditation (NBA) for 8 programs (5 UG & 3 PG) and National Assessment and Accreditation Council (NAAC) with 'A' grade. It offers B. Tech. Programs in the disciplines of CE, EEE, Mech., ECE, CSE, CSE-AI&ML, CSECS, CSE-DS, CSE-IoT, IT and Mining Engineering besides six M. Tech. Programs with SE, EPS, VLSI&ES, TE, MD, CSE specializations and MBA. MREC is established with the aim of providing high quality technical education through constant innovation and academic excellence. MREC has an impressive on-campus recruitment record with many leading corporates regularly visiting and recruiting students. MREC is guided by Dr. A. Ramaswami Reddy, Director and Professor of CSE, Dr. A. Ravindra, Principal, both has a rich teaching and industrial experience of many years.

The department of Computer Science & Engineering was established in 2005. The department offers a four years degree program in Computer Science & Engineering with an annual intake of 240 students and two years M.Tech P.G program in Computer Science and Engineering with an annual intake of 30 students. The department of Information Technology was established in 2007 with an annual intake of 60 students.



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1. Name:	
2. Designation	:
3. Institution	:
4. Email	:
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- 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

(If yes, please specify and attach a copy of caste certificate to claim the concession)

### **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

Signature of Head of Institution (with seal)

# Address for correspondence:

Post your application form to

### Dr. N Lakshmipathi Anantha

Professor & HOD of CSE Malla Reddy Engineering College (A) Hyderabad - 500100, Telangana.

It is requested to all the delegates, after completion of application form, all the payment details, screenshot of the payment and scanned application form has to be uploaded in the following online registration link.

## Registration Link:

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

## For more enquiries:

### Please contact:

**Dr. R. P. Ram Kumar,** Professor & Dean CSE Mobile No: 9842611828.

Dr. Sk. Jakeer Hussain, Assoc. Professor CSE

Mobile No: 9912721786

**Email:** cseevents@mrec.ac.in, fdp.eict@gmail.com

# Coordinators

### Dr. M. Srinivas

Ph.D. (IITH), Post-Doc (Academia Sinica, Taiwan and ETS, Canada) Computer Science and Engineering NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL – 506 004 (Telangana State)

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Professor

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