

## Centre for Continuing Education of NIT Warangal:

The Centre for Continuing Education of NIT Warangal organizes Continuing Education Programs and Workshops in the frontier areas of Science, Engineering, Technology, Management, Humanities, Social Science and socially relevant themes on self-financing basis in three different modes: (i) At NIT Warangal by NIT Warangal (ii) At NIT Warangal in collaboration with other Organizations (iii) By NIT Warangal Faculty at the Host Organization/Institute.

### About NIT Warangal:

National Institute of Technology Warangal, formerly known as Regional Engineering College was established in 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 13 Departments offering eight undergraduate and 32 post-graduate programs besides doctoral program. About 5000 students across the country and about 500 international students study in the campus. It is a fully residential campus sprawling over 250 acres with excellent infrastructure, state of the art library, seminar halls, guest houses and laboratories.



### Brief Profile of the Department of CS & E:

The Department of Computer Science & Engineering was established in the year 1991. The department offers high quality undergraduate, postgraduate and doctoral programs. The Department has a team of well experienced faculty, graduated from IIT's, NIT's, Central Universities and other premier Institutes of higher learning. The department provides state-of-art research facilities to generate knowledge and develop technologies in the thrust areas of Computer Science and Engineering.

**For any query regarding this program, please contact the Coordinators.**

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## Center for Continuing Education

### Online Continuing Education Programme on "Deep Learning and Applications"

14<sup>th</sup> September  
to  
18<sup>th</sup> September, 2020

### Call for Registration and Participation

#### Coordinators

**Dr. Venkateswara Rao Kagita**  
**Dr. Balaprakasa Rao Killi**

**Organized by**  
**Department of CSE**

**In association with the**  
**Center for Continuing Education**



## Overview of the FDP:

The ability to process large numbers of features makes deep learning very powerful when dealing with unstructured data. Deep learning architectures such as deep neural networks, deep belief networks, recurrent neural networks and convolutional neural networks have been applied to fields including computer vision, machine vision, speech recognition, natural language processing, audio recognition, social network filtering, machine translation, bioinformatics, drug design, medical image analysis, material inspection, where they have produced results comparable to and in some cases surpassing human expert performance. This FDP is aimed to bring out current trends of Deep learning in various applications.

## Objectives:

- The objective of the FDP is to introduce fundamentals of deep Learning with its applications.
- The program would help the participants to understand the key concepts behind deep learning.
- Identify the deep learning algorithms which are more appropriate for various types of learning Comprehensive knowledge of various Neural Network architectures such as Convolutional Neural Network, Recurrent Neural Network.
- This FDP also focuses on exploring various research opportunities and challenges in the field of deep learning and its applications.

## Topics to be covered:

- ✦ Introduction to Deep Learning, Neural Networks Basics.
- ✦ Shallow Neural Networks, Deep Neural Networks.
- ✦ Convolutional Neural Networks (CNNs): Foundational Concepts, Models, Case Studies, and Applications.
- ✦ Recurrent Neural Networks (RNNs): Foundational Concepts, Models, Case Studies, and Applications.
- ✦ Improving Deep Neural Networks: Hyper-parameter tuning, Regularization and Optimization.
- ✦ Deep Learning Applications in Image Processing, Vision, NLP, etc.
- ✦ Hands-on Tour to Deep Learning with PyTorch.

## Resource Persons:

Eminent faculty from IITs, NITs, IIITs, Central Universities, Industry and Senior Faculty from different departments of NIT Warangal, will deliver lectures and conduct hands on sessions.

**Registration is open to:** Faculty members in all disciplines of Engineering, Sciences, Mathematics, Life sciences, Management, Post-Doctoral Fellows, Research Scholars, PG students, UG students who have an aptitude to work in the areas of Deep Learning.

**How to Apply:** Eligible candidates may apply by filling the following google form with payment proof on or before 7<sup>th</sup> September, 2020.

<https://forms.gle/Xif4q56r2KRA85TC7>

## Registration fee:

Category	Amount
Faculty, Post-doctoral fellows, Research Scholars, PG students, UG students	Rs. 500 /-
Industry participants	Rs. 1000/-

Registration fee may be remitted Online through NEFT to the Bank account given below. Proof of remittance of the requisite registration fee (with transaction number if online transaction) shall be uploaded in the google form.

<b>Account Number</b>	62403680215 (Savings Account)
<b>Account Name</b>	Center for Continuing Education NITW
<b>Bank Name:</b>	State Bank of India (SBI)
<b>Branch:</b>	NIT Warangal
<b>IFSC Code:</b>	SBIN0020149

## Confirmation of Participation:

On receipt of the google form and fee remittance receipt, participants will be sent confirmation of their participation through email by 10<sup>th</sup> September, 2020. As the program is conducted online, the number of participants in the workshop is limited to 100. *Candidates are advised to register early to avoid disappointment.*