



## Centre for Continuing Education

A One Week **ONLINE**  
Continuing Education Programme on

### Big Image Data Processing using Deep Learning Techniques

27<sup>th</sup> - 31<sup>st</sup> July, 2020

Call for Registration and  
Participation

Coordinators

Dr.U.S.N.Raju

Dr.Sushil Kumar

Organized by  
Department of Computer Sci. and Engg.  
National Institute of Technology  
Warangal – 506 004  
Telangana state, India



### Background of the Programme:

The digital content is generated with exponential speed due to scanners, web cameras, digital cameras, mobile phone cameras, video cameras and digital medical imaging devices etc. Processing such huge amounts of data generated in less time is a challenging task. Traditional Image Processing/Video Processing methods fail to process these data because of insufficient memory and computational power. In order to process such data high performance computing capability provided by Big Image Data Processing algorithms are more appropriate. In this context this workshop is proposed to discuss Big Image and Video technologies, Processing and Analytics, which can be used in different domains.

### Objectives of the Programme:

- To enable the participants to learn and conceptualize Big Image Data Processing.
- To empower the participants with to use the latest technologies like SPARK, Hadoop and knowledge of their integration with Matlab (Hands-On).
- To make the participants learn how deep learning techniques are used to analyze Big Image Data sets.
- To provide the participants with Hands-On experience in using deep learning techniques to classify images and object detection in images.
- To make the audience to understand the use of SVM and CNNs for classifying images.

### Resource Persons:

Faculty of the CSE & ECE departments, who have the expertise in these areas will be the core faculty of the workshop. Eminent Faculty from IITs, other premier institutes and Software Industry in the country are the external resource persons for this programme.

### Topics in the Programme:

- Overview of Big Image Data Processing.
- Installation of Hadoop, SPARK clusters and integrating them with MATLAB.
- To make used MATLAB cluster with 96 workers for processing Big Images.
- CBIR, Video Processing by using clusters.
- Introduction to Deep Learning Concepts
- Processing Big Image Data.
- Applying and implementing Machine Learning algorithms like Neural Nets, Decision trees on Big Image datasets.
- Applying transfer learning for Image Retrieval and classification using different pre-trained CNNs for Big Images.
- Usage of YOLO with DarkNet for Object Detection.

### Registration is open to:

The program is open to all the faculty members, research scholars, and students of all educational/ research institutions. Working Professionals from Industry and R&D Organizations

### Registration Fee and Selection:

Registration fee is ₹500/- per participant. Number of participants is limited to hundred fifty and the participants will be selected on first-come first-served basis. On receipt of the proof (Transaction ID) of online payment of registration fee, the applicants will be sent confirmation of their participation through Email immediately.

### Account Details for Online Payment:

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

### **How to Apply:**

One can register for the course by filling in the Google form available at the link given below:

<https://forms.gle/62ei2RU6Ht25AKbw9>

### **Important Dates:**

Last date of registration: 20<sup>th</sup> July 2020

### **Centre for Continuing Education of NIT Warangal:**

This Centre of NIT Warangal organizes Continuing Education Programmes 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.

### **Brief profile of the Department of Computer Science and Engineering:**

The Department of Computer Science and Engineering (CSE) offers B.Tech. course in CSE, M.Tech courses in CSE, Information Security (IS) and Master of Computer Applications (MCA). The Department has experienced faculty with good publications and well-established laboratories. The department focuses on imparting practical and project based training to students through competency based curriculum. The Department has liaison with reputed industries and R&D organizations like Microsoft, IBM, Oracle, Accenture, Infosys, TCS, EMC2, C-DAC, Motorola, NIC, Sun Micro Systems, SPSS and tie up with IISc in certain areas. The Department conducts various sponsored programmes and workshops throughout the year.

### **About NIT Warangal:**

National Institute of Technology Warangal, formerly known as Regional Engineering College was established in 1959. Last year NIT Warangal is celebrating its Diamond Jubilee (1959-2019) year of establishment. 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 14 Departments offering eight undergraduate and 31 post-graduate programmes besides doctoral programmes. About 5000 students across the country and about 500 international students study on the campus. It is a fully residential campus sprawling over 250 acres with excellent infrastructure in the form of state of the art library, seminar halls, guesthouses and laboratories. In recent years, NIT Warangal has grown strongly in terms of infrastructure, research facilities and Centres of Excellence This institute has produced notable alumni who excelling in various fields like politics, holding diplomatic positions, CEO of companies, etc.

### **About Warangal:**

Warangal is the second largest city of the new state of Telangana. It is situated at a distance of 140 km from the state capital Hyderabad (Nearest Airport). It is well connected by Rail (Kazipet Junction is two km away and Warangal Station is 12 km away) and by Road (NH 202). Warangal is renowned for its rich historical and cultural heritage. It was the seat of erstwhile Kakatiya dynasty. It is a seat of tourist attractions with a number of historical monuments like Thousand Pillars Temple, Warangal Fort, Bhadrakali Temple, Ramappa Temple and Laknavaram Lake located in a radius of 30 kms.

**For any queries regarding this Programme, please contact the Coordinators.**

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