



Centre for Continuing Education



*A Five Day
Continuing Education Programme on*

Big Image Data Processing using Machine Learning Algorithms

27th - 31st May, 2019

**Call for Registration and
Participation**

Coordinators

Dr.K.V.Kadambari

Dr.U.S.N.Raju

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 machine learning algorithms are used to analyze Big Image Data sets.
- To provide the participants with Hands-On experience in using machine learning tools to classify, predict and optimize the 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 Machine 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: AlexNet, ResNet, GoogleNet and VGG for Big Images.

Registration is open to:

- Faculty members working in Educational Institutions.
- Research Scholars and Post Graduate students.
- Working Professionals from Industry and R&D Organizations.

Accommodation:

Accommodation for outstation participants will be provided on request in the Institute Visitors' Block or International Students' Hostel.

Registration fee:

<i>Participant Type</i>	<i>Regst.Fee*</i>
Faculty	₹2,500
Research Scholars/ PG Students	₹1,500
Industry and R&D organizations	₹5,000

**Registration fee includes Accommodation, Breakfast, Lunch and Dinner.*

How to Apply:

Interested candidates can download brochure and registration form from our Institute website <http://www.nitw.ac.in>. As the programme is conducted in a workshop mode with **hands-on sessions**, the number of participants in the workshop is limited to 40. The selection of participants is based on **first come first serve** basis. So candidates are advised to apply early to avoid disappointment. The registration fee could be paid through demand draft (DD) in favor of **“Professor-in-charge, Continuing Education Programmes, NIT Warangal,”** payable at SBI, NITW Branch. Application in the prescribed format duly signed by Head of the department/Institution along with the DD should reach the coordinators by post and email (scanned copy) on or before **06-05-2019**. After receiving the original DD and registration form, participants will be sent a confirmation regarding their selection within two working days. In case a candidate is not selected, the DD will be sent back to the candidate.

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 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. This 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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Centre for Continuing Education Programme 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.



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REGISTRATION FORM

Name : _____

Date of Birth : _____

Gender (Put a \sqrt Mark) : Male Female

Qualification : _____

Designation : _____

Organization : _____

No. of years of Experience : _____

Address for Correspondence: _____

Mobile(s): _____

Email(s) _____

Payment Details:

(i) Name of the Bank : _____ (ii) Amount in Rs. _____

(iii) DD No : _____ (iv) Date: _____

Accommodation (Put a \sqrt Mark) : Required Not Required

Declaration by the Applicant

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the CEP programme and shall attend all the sessions.

Date:

Signature of the Applicant

Recommended and Forwarded

Office Seal

Signature of the Head of the Department/ Institution