# **One Week Workshop** On

# **Image and Video Analytics** (WIVA - 2018)

Supported by TEQIP-III

Date: 29<sup>th</sup> March, 2018 – 02<sup>nd</sup> April, 2018



## Organized by

Department of Computer Science & Engineering Motilal Nehru National Institute of Technology Allahabad Allahabad-211004, Uttar Pradesh, India.

#### AIM AND SCOPE

This course covers introductory and advanced knowledge of Image and Video Processing. Various problems of the Computer Vision domain will be explored. Vision enables computer system to see and interpret the image and videos for the objects present in it. This makes computer and machines to understand the surroundings and behave accordingly. We can examine its role in many applications as surveillance, driver-assistance, driverless cars, human-machine interaction, intelligent agents, medical imaging and many more. Any kind of objectives achieved manually using cameras can be approached as an automatic solution with image and video processing fundamentals. This is really helpful to the mankind as the world is looking forward for automation in every domain of life. Since computer vision is a multidiscipline concept so workshop will also be covering some machine learning aspects of vision in addition to the image and video processing concepts. We also aim at imparting knowledge of current research spaces and challenges in image and video processing domain. MATLAB and Python with OpenCV will be used as the tools for practical handshaking.

### **COURSE CONTENTS**

The major contents of the course (but not limited to):

- Image and Video Acquisition and Representation techniques
- Image and Video Signal Processing
- Feature Extraction and pre-processing.
- Image Enhancement and Filtering techniques
- Image Segmentation

- Image/Video Annotation, Search and Retrieval
- Video Segmentation, Object Detection & Tracking
- Visual perception, human visual system
- Computer and Machine Vision
- Vision for Surveillance
- **Medical Imaging**
- **Human Machine Interaction**

#### RESOURCE PERSONS

The resource persons for the program shall include experts from NIT's, IIT's and other reputed academic/research institutions.

#### WHO SHOULD ATTEND

This course provides a forum for research students, faculties and R&D scientist/ engineers working in the related areas to enhance their background and get exposed to intricate research aspects. This is a general workshop that can also be attended by all UG/PG/PhD students, faculties and researchers.

#### REGISTRATION

To register for this course, the applicants will have to pay fees in advance via Demand Draft or NEFT. The details of the fees are as follows:

Category	Fees (Rs.)
U. G. Students	1000/-
P. G. Students	1500/-
PhD Students	2000/-
Faculties and Others	2500/-

#### Details of Demand Draft (DD)

The Demand Draft (DD) should be drawn in favour of WIVA-2018, payable at Allahabad.

#### Details of NEFT

Name of the Bank Account: WIVA-2018 Bank Account Number: 718400301000297

Bank Name: Vijava Bank

Bank Branch: MNNIT Allahabad

NEFT/IFSC Code of Branch: VIJB0007184

Account Type: Current

Applicants should also send a proof of their identity and designation for claiming the category.

- \* The participants have to bear their own travelling and accommodation expenses.
- \*\* Accommodation may be provided on first come first serve basis to the participants, based on the availability of rooms in the institute Guest house and Hostels.

### ADDRESS FOR COMMUNICATION

Complete registration form accompanied with the DD (or NEFT details) should reach to the course coordinator on or before 22nd March, 2018. The applicants are also requested to e-mail a scanned copy of the registration form with payment details.

The contact details are:

Dr. Dushyant Kumar Singh

Course Coordinator, WIVA-2018

Department of Computer Science and Engineering

Motilal Nehru National Institute of Technology Allahabad

Allahabad-211004. E-mail: 2018wiya@gmail.com

For any further information / assistance you may contact following student co-ordinators:

Mr. Shambhu Shankar- +91-7004394850 (Mob),

shambhu4u08@gmail.com

Ms. Neelam Dwivedi - neelamdw@gmail.com

Note: Please write the name of the course (WIVA-2018) on top of the envelope.

#### COMMITTEE

### **ORGANIZING COMMITTEE**

#### Patron

Prof. Rajiv Tripathi, Director, MNNIT, Allahabad

Prof. Neeraj Tyagi, Head, Department of Computer Science and Engineering, MNNIT, Allahabad

#### Convener

Prof. Suneeta Agarwal, Dept. of CSE, MNNIT Allahabad Dr. Dharmender Singh Kushwaha, Dept. Of CSE, MNNIT Allahabad

#### **Course Coordinator**

Dr. Dushyant Kumar Singh, C.S.E.D., MNNIT Allahabad Dr. Rajitha B., C.S.E.D., MNNIT, Allahabad

Mr. Pankaj Sikka, MNNIT, Allahabad

#### **REGISTRATION FORM**

Sample Registration form is as	s follows:
Name (in Block Letters)	
Date of Birth	Sex: Male/Female
Highest Qualification:	
Organization:	
Designation (Faculty / Resear	ch Scholar / Student /
Industry Personnel)	
Experience:Years _	Months
Correspondence Address:	
City:	Pincode:
Mobile No:	
E-mail:	
Accommodation Required:	Yes No
PAYMENT DETAILS: DD	NEFT
Draft NoI	Date:
Issuing Bank and Branch (with	h code)
Amount: D	Drawn on:
(In favour of "WIVA-2018" pay	vable at 'Allahabad')

For NEFT: Transaction ID Amount

Signature of Applicant

Date: