### **KURUKSHETRA**

Kurukshetra is popularly known for its historical and religious importance. Here, the battle of Mahabharata was fought, and Lord Shree Krishna delivered the divine message as enshrined in the holy book "Shrimad Bhagwad Gita". It is also known as DHARAMKSHETRA and it attracts devotees from all corners of world all round the year. Kurukshetra is very well connected by Rail, Delhi- Ambala section, by Road (NH1, connecting Delhi- Chandigarh-Amritsar-Jammu) and by Air (Delhi 160 km and Chandigarh 80km). The NIT Kurukshetra campus is situated about 10 km from Pipli, Bus stand located on NH1 and about 4 km from Kurukshetra railway station.

### NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

NIT Kurukshetra, formerly known as Regional Engineering College, Kurukshetra was founded in 1963. It was conferred upon the NIT status, with Deemed University on June 26, 2002. The Institute offers several courses, in various disciplines of B.Tech., M.Tech., MBA and MCA and Ph.D. with an annual intake of about 1500 students. Institute also provides excellent facilities for advanced research in the emerging areas of Engineering, Science, and Technology. The institute has well qualified and dedicated faculty along with supporting staff, laboratories and other infrastructure. The infrastructure is geared to enable the institute to produce technicalpersonnel of high quality.

#### ELECTRONICS & COMMUNICATION ENGINEERING DEPARTMENT, NIT Kurukshetra

The branch of Electronics and Communication Engineering was started in the year 1971 under the aegis of Electrical Engineering Department. The "Department of Electronics and Communication Engineering" came into existence in the year 1973. In 1987, Computer Engineering branch was also started and the department was renamed as "Electronics, Communication and Computer Engineering". In 2003, the department was again renamed as "Electronics and Communication Engineering" because of inception of "Computer Engineering Department" separately. The department started M.Tech. program in ECE and VLSI design in the year of 1987 and 2007, respectively. Presently, M.Tech. (VLSI Design) is being offered by the School of VLSI Design and Embedded Systems independently.

### PATRON

Prof. B. V. Ramana Reddy Director, NIT Kurukshetra

> **Co-PATRON** Dr. Vrinda Gupta HOD, ECED

#### **CONVENER**

Dr. Umesh Ghanekar

Professor, ECED

NIT Kurukshetra

#### **COURSE COORDINATORS**

Dr. Arvind Kumar Associate Professor, ECED, NIT Kurukshetra Dr. T. N. Sasamal

Assistant Professor, ECED, NIT Kurukshetra IMPORTANT DATES

 Last date for submission of filled RegistrationForm: 10<sup>th</sup> July, 2022

Confirmation to the participants (on website or byemail): on or before 12<sup>th</sup> July, 2022

#### **Address for Correspondence:**

Dr. T.N. Sasamal, Dr. Arvind Kumar

**Coordinator IPAM-2022** 

ECE Department, NIT Kurukshetra – 136119,Haryana, India

Email: <u>tnsasamal.ece@nitkkr.ac.in</u> <u>arvind sharma@nitkkr.ac.in</u> Phone: +918050333079, +919466368417



Short Term Course On

# Image Processing and its Applications Using MATLAB

(IPAM -2022) (18<sup>th</sup> July-22<sup>nd</sup> July 2022)



## **Organized by**

Department of Electronics & Communication Engineering National Institute of Technology Kurukshetra Kurukshetra-136119, Haryana, India

# **Objective of STC**

The STC is concerned with the basics of Image processing and its applications using MATLAB, Rapid development of Image processing and computer technology has affected all the scientific areas. In the same time, programmers were working on designing different algorithms for Image Processing using MATLAB. Not long time after creating Matlab, it became very popular, especially among teaching facilities. Many libraries have been developed, among them Image Processing Toolbox. It gives multiple opportunities of illustrating mathematical equations. 'Normal' applications lose with MATLAB in the area of an image recognition and filters adaptation. No program works better with using for example morphological transformation than MATLAB. It also gives a lot of possibilities for creating linear and nonlinear filters. High level programming language that hides unnecessary details from designers can definitely be considered as an asset too. In order to decide if MATLAB is the right tool to implement a software with, the future programmer has to take a closer look on the main purpose of the Image processing applications.

# **Contents to be covered**

# Following topics will be covered during the Course

- Basics of Image Processing
- Single Image Super-resolution (SISR)
- Image Dehazing
- Noise Removal
- Steganography
- Image Forensic, etc.

# **RESOURCE PERSONS**

The resource persons will be from premier Institutions of India like IITs, NITs, and experts from Industries/ Govt. organizations.

# Who can attend?

Faculty members/ research scholars/ students from academic institutes approved by the AICTE/ UGC/ MHRD and Scientists/ Engineers working in Private/ Public/ Govt. organizations/ industries etc. can attend the course. However, faculty members and research scholars engaged in Ph.D will be greatly benefited. The application should be made on the registration form and should accompany registration fee as mentioned below:

Participant's category	<b>Registration fee*</b>
Students/ Research	Rs. 1000/-
Scholars	
Faculty	Rs. 3000/-
Industry/ R&D / Govt.	Rs. 6000/-
Organization	

## \* Registration fee is non-refundable.

Registration fee include course certificate and refreshment during STC.

The Registration fee is to be paid through SBI Collect. Please write the short name of STTP(IPAM2022) in remarks during online SBI Collect payment and save a copy of payment receipt.

# How to Apply

Interested candidates can apply online through the Google form.

#### https://forms.gle/kUHY5cNXcGLDSdKL8

Note: Please note that registrations will be accepted on a first come first serve basis. During STC, Food and accommodation will not be provided by the organizers.

# Registration Deadline: 10<sup>th</sup> July, 2022.

**Note:** The participants need to upload (i) Proof of payment (receipt of SBI collect payment) and (ii) Signed copy of registration form by 10<sup>th</sup> July, 2022.

# **REGISTRATION FORM**

**Short Term Course** 

on

# 'Image Processing and its Applications Using MATLAB'

# From18<sup>th</sup> July to 22<sup>nd</sup> July 2022

	Title: (Dr./Mr./Mrs./Ms.) :	
	Name (in BLOCK LETTER) :	
	Qualification	
	Sex (M/F) :	
	Date of Birth: (dd/mm/yyyy)	
-	Designation :	
	Organization:	
	Address for correspondence:	
	Phone :	
	E-mail :	
	Category (Please Tick) : Students/ Faculty/ Industry/R&D / Govt. Organization	
	Payment Details	
	Transaction ID/ Reference ID:	
2	Date of Payment:	
	Amount :	
•	Attachment(s) Fee Payment Receipt	
	Signature of applicant (with date):	

# **REGISTRATION FORM**

# Short Term Course

#### on

# 'Image Processing and its Applications Using MATLAB' From18<sup>th</sup> July to 22<sup>nd</sup> July 2022

Title: (Dr./Mr./Mrs./Ms.):
Name (in BLOCK LETTER) :
Qualification
Sex (M/F) :
Date of Birth: (dd/mm/yyyy)
Designation :
Organization:
Address for correspondence:
Phone :
E-mail :
Category (Please Tick) : Students/ Faculty/ Industry/R&D / Govt. Organization
Payment Details
Transaction ID/Reference ID:
Date of Payment:
Amount :
Attachment(s) Fee Payment Receipt
Signature of applicant (with date):