



NIT Raipur

# DIGITAL IMAGE PROCESSING, PATTERN RECOGNITION AND APPLICATIONS

TEQIP Sponsored  
Short Term Training Program (STTP)

**NIT  
RAIPUR**

**07th to 11th March, 2016**  
**Call for participation**

**Department of Electronics  
and Telecommunication**

## Objective

Image processing and Pattern Recognition play a significant role in the modern engineering and information processing system. Both are rapidly growing fields.

The aim of this training programme is to provide an exposure to both basics and recent advances in Digital image processing and Pattern Recognition to the teaching and research community associated with the Departments of Electronics, Electrical, Computer Science, IT, MCA, Bio Medical and Mechanical etc.

## Topics to be covered:

- Introduction to Digital Image Processing.
- Introduction to Matlab and IP toolbox.
- Image enhancement and filtering.
- Image Restoration and Segmentation.
- Image Morphology and Compression.
- Introduction to Pattern Recognition
- Statistical Pattern Recognition technique
- Dimensionality Reduction techniques
- Applications of Digital Image Processing
- Applications of Pattern Recognition.

## Important Dates:

Registration  
(on or before): **26.02.2016**,

Information of acceptance:  
on or before **29.02.2016**.

## Registration Fee

UG student: 500/-

PG students : 1000/-

Faculty: 2000/-

Industry delegates: 3000/-

## Address for Correspondence

Dr. T Meenpal  
Asst. Professor  
[tmeenpal.etc@nitrr.ac.in](mailto:tmeenpal.etc@nitrr.ac.in)  
+91 9575 45 1928

Mr. R K Chaurasiya  
Asst. Professor  
[rkchaurasiya@nitrr.ac.in](mailto:rkchaurasiya@nitrr.ac.in)  
+91 9165 97 1639

For registration and more details visit:

[www.nitrr.ac.in](http://www.nitrr.ac.in)

TEQIP Sponsored  
Short Term Training Program (STTP)  
on  
“Digital Image Processing, Pattern  
Recognition and Applications”

07 to 11 March, 2016

**REGISTRATION FORM**

Name: .....  
Designation: .....  
Organization: .....  
Qualification: .....  
Correspondence Address: .....  
.....  
Tel. (O) ..... (R) .....  
(M) .....  
E-Mail: .....  
DD Details:  
Amount .....  
No.....Date .....  
Name of the Bank  
.....  
Accommodation Required: Yes / No

Date: Place:

Signature

Note:

1.Demand draft should be made in favour of  
**Director, NIT Raipur**, payable at Raipur.  
2.DD along with the registration-form must  
reach to the coordinators on or before **26<sup>th</sup>**  
**Feb, 2016**.

3.A PDF copy of registration form can be  
downloaded from the institute website  
[www.nitr.ac.in](http://www.nitr.ac.in)

**CHIEF-PATRON**

**Prof S Tiwari**  
Director, NIT Raipur

**PATRON**

**Prof S Sanyal**  
Dean (R&C), NIT Raipur

**CHAIRMAN**

**Prof S Verma**  
HoD (Electronics and Telecom)  
& Dean (FW), NIT Raipur

**COORDINATORS**

**Dr T Meenpal** **Mr R K Chaurasiya**  
Assistant Professor Assistant Professor

**ORGANIZING COMMITTEE**

Prof S Verma  
Dr A S Raghuvanshi Dr B Acharya  
Mr S Majumder Mr S Chakroborty  
Mr A Gupta Dr S K Saha  
Dr A Naugarhiya Dr T K Das  
Dr V P Singh Dr N D Londhe  
Dr T Meenpal Mr R K Chaurasiya

**INVITED SPEAKERS**

**Prof P S Sastry** **Dr R K Jha**  
Dept. Of EE Dept. Of EE  
IISc-Bangalore IIT Patna

**ADDRESS FOR CORRESPONDENCE**

**Dr T Meenpal** **Mr R K Chaurasiya**  
(9575 45 1928) (9165 97 1639)  
[tmeenpal.etc@nitr.ac.in](mailto:tmeenpal.etc@nitr.ac.in) [rkchaurasiya@nitr.ac.in](mailto:rkchaurasiya@nitr.ac.in)

**Department of Electronics and  
Telecommunication**

National Institute of Technology, Raipur  
G.E. Road, Raipur, India-492 010  
Website: [www.nitr.ac.in](http://www.nitr.ac.in)

TEQIP Sponsored One Week  
Short Term Training Program  
on

**Digital Image  
Processing, Pattern  
Recognition and  
Applications**

**07<sup>th</sup> to 11<sup>th</sup> March, 2016**



**Organized by**

**Department of Electronics and  
Telecommunication Engineering**



**National Institute of Technology  
Raipur, India-492 010**

## ABOUT THE INSTITUTE

**National Institute of Technology Raipur** situated in the capital of Chhattisgarh, has proven to be 'avant-grade' in the field of science and technology over past few decades in this region. With sweet memory of foundation ceremony by our president Hon'ble Dr. Rajendra Prasad on 14th September 1956, the institute started with two departments namely Metallurgical and Mining Engineering. Later the inauguration of the Institute building was done by our Prime Minister Hon'ble Pt. Jawahar Lal Nehru on 14th March 1963. From 1<sup>st</sup> December 2005, the institute has become the National Institute of Technology. It is well connected with Mumbai, Delhi and all metro cities by regular flights and is on the main Howrah-Mumbai railway route. The institute is 5 km from the Raipur railways station and 18 km from airport on NH-6, the Great Eastern Road.

## ABOUT THE DEPARTMENT

The **Department of Electronics and Telecommunication** came into existence in 1985. The department aims to be a national leader in imparting quality education, carrying out research and technology development in the field of Electronics and Telecommunication Engineering. The department provides an outstanding research environment and offers academic program leading to the award of B.Tech, and Ph.D. degree.

## VENUE

Department of Electronics and  
Telecommunication Engineering  
NIT Raipur (CG) – 492 010, INDIA

## OBJECTIVES

Image processing and Pattern Recognition play a significant role in the modern engineering and information processing systems. Both are rapidly growing field.

The aim of this training programme is to provide an exposure to both basics and recent advances in Digital image processing and Pattern Recognition to the teaching and research community associated with the Departments of Electronics, Electrical, Computer Science, IT, MCA, Bio Medical and Mechanical etc.

Expert lectures will be delivered by faculty and scientists from various academic institutes, including IISc, IITs and the host institute (NIT Raipur). Hands-on sessions will be suitably designed to supplement classroom discussions using MATLAB software.

## ELIGIBILITY

Participation in this short term training programme (STTP) is open to the under-graduate students, post- graduate students, faculty members, engineers, researchers, and other executives working on diverse fields in electronics engineering, computer engineering, electrical engineering, instrumentation engineering, biomedical engineering, biotechnology, mechanical engineering, etc.

## SELECTION

The course coordinators reserve the right of selection of participants. The preference will be given to the participants from outside the institute (NIT Raipur). Intimation regarding selection will be sent to the candidates by email as per the schedule. Certificates will be issued to the participants only after attending the complete course. No TA/DA will be paid to the participants. However, paid accommodation may be provided to outside candidates at the institute hostels, provided request for the same is made in the registration form, well in advance.

## TOPICS TO BE COVERED

- Introduction to Digital Image Processing.
- Introduction to Matlab and Image Processing (IP) toolbox.
- Image enhancement and filtering.
- Image Restoration and Segmentation.
- Image Morphology and Compression.
- Introduction to Pattern Recognition
- Statistical Pattern Recognition techniques-SVM, KNN etc.
- Dimensionality Reduction techniques- PCA, LDA etc.
- Applications of Digital Image Processing.
- Applications of Pattern Recognition.

## IMPORTANT DATES

### Registration

On or before **26.02.2016**,

### Intimation of acceptance

On or before **29.02.2016**,

## REGISTRATION FEE DETAILS

| Participants       | Amount (in Rs) |
|--------------------|----------------|
| UG Students        | 500/-          |
| PG/PhD Students    | 1000/-         |
| Faculty            | 2000/-         |
| Industry Delegates | 3000/-         |

Application in the prescribed format with registration fee in the form of Demand Draft drawn in favor of "**Director, NIT Raipur**" must reach the coordinator on or before **26 Feb, 2016**. Registration fee includes registration kit, tea and lunch during the program. Fee is non-refundable for selected candidates.

## TEQIP Sponsored-One Week

Short Term Training Program (STTP)  
on

# Digital Image Processing, Pattern Recognition and Applications

07<sup>th</sup> to 11<sup>th</sup> March, 2016

### REGISTRATION FORM

Name: .....

Designation: .....

Organization: .....

Qualification: .....

Correspondence Address: .....

.....

Tel. (O) .....(R) .....(M) .....

E-Mail: .....

#### **DD Details:**

Fee Type: (Please tick on appropriate-box)

|            |                          |                |                          |         |                          |                    |                          |
|------------|--------------------------|----------------|--------------------------|---------|--------------------------|--------------------|--------------------------|
| UG Student | <input type="checkbox"/> | PG/PhD Student | <input type="checkbox"/> | Faculty | <input type="checkbox"/> | Industry Delegates | <input type="checkbox"/> |
|------------|--------------------------|----------------|--------------------------|---------|--------------------------|--------------------|--------------------------|

Amount:.....DD Number:.....Date:.....

Name of the Bank.....

Accommodation Required: Yes / No

Date:

Place:

Signature

Note:

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