

**SELF FINANCED**  
**Short Term Training Program**  
**On**  
**“Medical Signal and Image Processing”**  
**22<sup>nd</sup> – 27<sup>th</sup> August, 2015**  
**REGISTRATION FORM**

Name: .....

Designation: .....

Organization: .....

Qualification: .....

Correspondence Address: .....

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

(M) .....

E-Mail: .....

Registration Fee is paid in the form of Cash/DD

Amount .....

No..... Date .....

Name of the Bank.....

Accommodation Required: Yes / No: .....

Date: ..... Place: .....

Signature

Note: Demand draft should be made in favour of  
Director, NIT Raipur, payable at Raipur.

**Chief Patron**

Dr. S. Tiwari, Director, NIT Raipur

**Patron**

Dr. S. Sanyal, Dean (R&C), NIT Raipur

**Convener**

Prof. H. Bikrol

Department of Computer Applications

Prof. S. Ghosh

Department of Electrical Engineering

**Coordinators**

Dr. Narendra D Londhe

Dr. Mitul Kumar Ahirwal

**Address for Correspondence**

**Dr. Narendra D. Londhe**

Assistant Professor

Department of Electrical Engineering, NIT Raipur (CG)

Email: ndlondhe.ele@nitrr.ac.in

Contact No.: 09039-898-860

**Dr. Mitul Kumar Ahirwal**

Assistant Professor

Department of Computer Applications, NIT Raipur (CG)

Email: mkahirwal.mca@nitrr.ac.in

Contact No.: 09981-216-927

**IMPORTANT DATES**

Last date of receipt of application: 10-August-2016. Notification  
about selection: By email.

**One Week Self Financed**  
**Short Term Training Program**  
**on**  
**“Medical Signal and Image Processing”**  
**(MSIP-2016)**  
**22<sup>nd</sup> – 27<sup>th</sup> August, 2015**



Organized by

Department of Electrical Engineering and Department of  
Computer Applications



National Institute of Technology  
Raipur-492 010 (Chhattisgarh)

### About the Institute:

National Institute of Technology Raipur (Formerly Government Engineering College Raipur), situated in the capital of a newly incepted state 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 1st December 2005, the institute has become the National Institute of Technology. It is well connected with Mumbai, Delhi, Hyderabad, Kolkata, Bhopal, Ahmedabad, Bangalore, Chennai and Chandigarh 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 Department

The department of Electrical Engineering came in existence in 1958. The department offers undergraduate as well as postgraduate programs.

The department of Computer Applications was established in 1988. The department offers postgraduate course, Master of Computer Applications.

These are leading departments of NIT Raipur, running several sponsored projects from the government organizations. These departments provide an outstanding research environment and offers academic program leading to the award of Ph.D. degree. Various multidisciplinary research programs are running in these departments. The Academy is envisioned to become a central hub of research and training activity.

### Objective:

The aim of this training program is to provide an exposure to both basics and recent advances in medical signal and image processing to the students, teaching and research community associated with the Departments of Electrical Engg, Electronics Engg, Computer Science, IT, MCA, Bio Medical and Bio Technology etc. This workshop mainly divided into three parts, basics to recent trends biomedical signal and images processing, tools for implementation: MatLab basics, and hands-on practice over biomedical signal and images.

### Theme /Scope:

Medical Signal and Image processing plays a significant role to develop biomedical and health-care technologies. Medical signals like ECG and EEG have great impact in detection and analysis of heart and brain deceases. Medical images like Ultrasound, CT etc., provide a base for easy visualization of organ's medical conditions. At present day, automation and computation are required to enhance these biomedical technologies. Various types of computer methods have been adapted to automate and enhance such medical technologies. This course will provide a concrete base and hands-on experience on well known medical signal and images and their processing for Computer Aided Diagnosis Systems.

Expert lectures will be delivered by medical professionals to introduce the medical signal and image and discuss the challenges to be taken by the researchers from medical signal and image processing area. The new designs of Computer Aided Diagnosis Systems will be presented by the resource persons. Apart from this, the group of the area experts from various departments of the host institute will deliver the lectures and share their research work. This will benefit the candidates to gain knowledge in diverse medical applications of signal and image processing.

Hands-On Sessions will be suitably designed to supplement classroom discussions using softwares and databases.

### Course contents:

- Introduction to Medical Signal and Imaging Methods (from medical experts).
- Introduction to Medical Signal and Image processing techniques.
- Electrocardiogram (ECG) signal processing.
- Electroencephalogram (EEG) signal processing.
- Intravascular Ultrasound (IVUS) Image Processing.
- Carotid Ultrasound Image Processing.
- Psoriasis Disease Image Processing.
- Lung CT Image Processing

### Targeted Participants:

UG/PG Students, Research Scholars, Academicians, and Industry Professionals.

### Registration Fee Details: Participants Amount (in Rs)

| Participants               | Reg. Fee |
|----------------------------|----------|
| Students/Research Scholars | 3,000.00 |
| Faculty                    | 4,500.00 |
| Industry Delegates         | 4,500.00 |

Applications in prescribed format with registration fee in the form of Demand Draft drawn in favour of "**Director, NIT Raipur**" must reach the coordinator on or before 10-Aug-2016. Registration fee includes registration kit, tea and lunch during the programme. Fee is non-refundable. Since the number of seats is limited to 30, the selection will be made on first cum first serve basis and intimation 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.