

Registration Form

**A Short-Term Training Programme for
Medical and Allied Industry Personnel On**

IMAGING TECHNIQUES FOR CHARACTERIZATION OF CELLS, TISSUE CONSTRUCTS & BIOIMPLANTS

November 23-27, 2016

Name: _____

Designation: _____

Institute/Organization: _____

Mailing Address: _____

Phone No. (R) _____

(O) _____

Mobile: _____

Email: _____

Age: _____ **Yrs** **Gender:** Male / Female

Forwarded through H.o.D / Institute

Organisation:

Signature of the participant

Note: The details of the training program and the registration form can also be downloaded from our website <http://www.nitrkl.ac.in>

About the institution

The National Institute of Technology, Rourkela is one of the premier national level institutions for technical education in the country and is funded by Government of India. NIT Rourkela is a prestigious institute which provides quality education in a diverse and multi-cultural environment. The main objective of the institute is to produce quality Engineers & Scientists in Graduate and Post Graduate level in various branches of Engineering and Science.

About the Center

The Center of Excellence in Orthopedic Tissue Engineering and Rehabilitation was established under TEQIP II in the year 2013. The center is located in the Department of Biotechnology and Medical Engineering of the Institute

The major focus areas of research under the center includes

1. Development and fabrication of scaffolds targeting bone tissue regeneration.
2. Development of contract/tissue graft for orthopaedic application.
3. Development of orthopaedic implants for knee and hip joint functionalized implants.
4. Development of cryopreservation protocol for constructs/tissue grafts.
5. Development of orthotic solution for patient having abnormal GAIT.
6. Strategy for long term preservation of the developed tissue constructs.

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(ITCCTCB-2016)

Coordinators:

Prof. A. Biswas

Prof. K. Pramanik

Nov 23 – 27, 2016

Organized by

**Centre of Excellence in Orthopedic Tissue
Engineering and Rehabilitation,
TEQIP II Sponsored**

Supported by

**Centre of excellence (CoE) In Tissue
Engineering**



National Institute of Technology
Rourkela, Odisha

CONTENTS OF THE PROGRAMME

1. Introduction to tissue engineering products related orthopaedic diseases and defects
2. Importance of imaging techniques in tissue engineering
3. Introduction to Phase contrast/ Fluorescence
4. Introduction to basic principle of Confocal microscopes and Environmental Scanning Electron microscope (ESEM)
5. Characteristics of cell seeded scaffolds using Phase contrast/ Fluorescence
6. Characterization of cell-scaffold constructs by ESEM and Confocal microscope
7. Analysis of cell-implant surface interaction by imaging techniques using ESEM and Confocal microscope

GOALS OF THE PROGRAMME

In recent years orthopedic tissue engineering has been emerged as a promising clinical technique alternative to conventional surgical treatment for various orthopedic diseases and defects. Imaging and image analysis has a great role in the assessment of tissue engineered products during the various stages of their development. The main objectives of this training program is to educate and provide hands on training to the participants on the basic concepts of various microscopes and microscopic image analysis of cells, tissue grafts and bioimplants for medical applications under the expert guidance of faculties of the institute and experts from industries.

Who are eligible for applying?

Participants shall be from medical and allied industry including Pharmaceutical companies, Bioimplant industry, Orthopedic industry, Medical Hospitals & Clinics.

A few participants from R & D organizations and Engineering Institutions dealing with Biomedical Engineering/Science may be given an opportunity.

Registration:

Registration is free for all participants (Registration kit, course materials, refreshments will be provided. Free Accommodation may be provided in the Institute Guest House on first come first serve basis and on the basis of availability)

How to apply:

The filled in registration form should sent through E-mail to:

Coordinators:

Prof. Amit Biswas

[amitb79@nitrkl.ac.in, Ph: 0661-2462285 (O), 09438211346(M)]

Prof. (Mrs.) Krishna Pramanik

[kpr@nitrkl.ac.in, Ph: 0661-2462283, 09437191611(M)]

Centre of Excellence in Orthopedic Tissue Engineering and Rehabilitation

National Institute of Technology, Rourkela
Odisha- 769008, India

Accommodation and Food

The participants will be provided with free shared air conditioned accommodation and food at institute guest house during the course. No travel allowance will be given.

How to reach?

Rourkela is on the Howrah (Kolkata)–Mumbai main line of South Eastern railway. The railway station and intrastate bus stand are 6kms and 2kms from NIT Rourkela campus respectively. The airports near to Rourkela are Ranchi, Bhubaneswar and Kolkata. Rourkela is well connected to these cities by rail and train frequency is very good.

Important Dates:

Last date for receipt of registration form:
Nov. 20, 2016

Course duration:
Nov 23 – 27, 2016