



## **FIRST ANNOUNCEMENT**

### **NATIONAL CONFERENCE**

**On**

### **Tissue Engineering & Regenerative Medicine (NCTERM-2017)**

**Chairperson  
Prof. K. Pramanik**

**Conveners  
Prof. S. S. Mahapatra  
Prof. Amit Biswas**

**JULY 19-20, 2017**

***Organized by***

**Center of Excellence in Orthopaedic  
Tissue Engineering & Rehabilitation  
(CoE-OTER)**

**National Institute of Technology Rourkela,  
Odisha, India 769008**

#### **ABOUT THE INSTITUTION**

National Institute of Technology Rourkela, is a publicly funded premier institute of higher learning for engineering, science and technology located in the steel city of Rourkela, Odisha, India. It is one of the 31 National Institutes of Technology in India and has been recognized as an Institute of National Importance by the National Institutes of Technology Act, 2007. It is ranked 12 in the NIRF Rankings 2017 of Indian Engineering Universities. Times World Rankings has figured NIT Rourkela in the list of 601-800 universities in the world for the year 2016-17. NIT Rourkela is the only NIT to appear in the top 980 universities in the world. BRICS 2016 has figured NIT Rourkela in the list of 111-120 top universities in Brazil, Russia, India, China and South Africa in 2016-17. The mission of the institute is to become an internationally acclaimed institution of higher learning that will serve as a source of knowledge and expertise for the society and be a preferred destination for undergraduate and graduate studies.

#### **ABOUT THE CENTER**

The Center of Excellence in Orthopedic Tissue Engineering and Rehabilitation (CoE-OTER) was established under TEQIP II in the year 2013. The center is located in the Department of Biotechnology & Medical Engineering of the Institute. The prime goal of this program is to develop affordable orthopaedic and rehabilitation solution for the patient. As orthopaedic and rehabilitation problems are complex in nature involving the issues of biomaterials, tissue engineered scaffold fabrication, biomechanics, stem cell technology, cryopreservation etc. it needs a systematic research and development effort in multi-disciplinary aspects. Keeping this in view, the major focus areas of research has been planned under the center includes-

- Development & fabrication of scaffolds targeting bone tissue regeneration.
- Development of construct /tissue graft for orthopedic application.
- Development of orthopedic implants for knee & hip joint defects
- Development of cryopreservation strategy for tissue grafts.
- Development of orthotic solution for patient having abnormal GAIT
- Strategy for long term preservation of the developed tissue constructs

#### **ABOUT THE CONFERENCE**

Tissue and organ failure due to injury or other type of damage, is a major health problem, accounting for about half of the total annual expenditure in health care in most of the countries. Treatment options include transplantation, surgical repair, artificial prostheses, mechanical devices, and in a few cases, drug therapy. However, major damage to a tissue or organ can neither be repaired nor long-term recovery effected in a truly satisfactory way by these methods. In recent years Tissue Engineering and Regenerative Medicine has emerged as promising approaches to repair & restore damaged &/or diseased tissues and organs. This is an interdisciplinary field that requires knowledge and skills from a wide range of scientific, engineering and medical disciplines. It has significant potential for alternative or complementary solution, whereby tissue and organ failure is addressed by implanting natural, synthetic, or semi-synthetic tissue and organ mimics that are fully functional from the start, or that grow into the required functionality. Initial efforts have focused on skin equivalents for treating burns, but an increasing number of tissue types are now being engineered, as well as biomaterials and scaffolds used as delivery systems. A variety of approaches are used to coax differentiated or undifferentiated cells, such as stem cells, into the desired cell type. Notable results include tissue-engineered bone, blood vessels, liver, muscle, and even nerve conduits. As a result of the medical and market potential, there is significant academic and corporate interest in this technology.

After the success of International and National conferences, CoE-OTER, NIT Rourkela is organizing National Conference on Tissue Engineering & Regenerative Medicine (NCTERM-2017) under CoE. in Orthopaedic Tissue Engineering and Rehabilitation. The conference will provide an excellent platform for the delegates with multidisciplinary backgrounds to come together and share latest advancements of this field. It is hoped that NCTERM-2017 will make a meaningful contributions towards the existing knowledge domain and motivate young talents to pave an extra mile in the field of tissue engineering and regenerative medicine related to orthopaedic.

The conference will focus on following topics, but not limited to:

- Novel & smart bio-Materials & tissue scaffold Designs
- Advance Techniques for Scaffold Fabrication
- Stem Cells and its Application in Regenerative Medicine
- Orthopaedic Biomechanics
- Cryopreservation of Orthopaedic Tissue Grafts
- Cell and Organ Regeneration
- IPR & Ethics in Tissue Engineering
- 3D Technology for Orthopaedic Applications

#### **PARTICIPANTS**

Engineers, Medical Professionals, Scientists, Faculties, Research Scholars and Students from Academic & Research Institution.

#### **CALL FOR ABSTRACTS/FULL PAPERS**

Abstract of research/ technical/review papers followed by the full paper are invited based on the themes of the conference for oral or poster presentation. After peer reviewing selected papers will be published in the conference proceeding. Based on the merit of the paper, a limited number of full papers will be published in an international Journal or in book. Abstracts and full papers must be submitted in soft copies. The acceptance of the paper will be communicated to the participants by email. For your papers/poster to be included in the conference proceedings, it is mandatory that at least one of the co-authors be registered.

#### **GUIDELINES FOR SUBMISSION**

The abstract of the paper must be about 400 words in MS WORD format (times new roman, 12 font). The title should be in capital and bold followed by the names of the author(s), their address (es) and corresponding Author email id. Name of the presenting author must be underlined. Different affiliations of authors are indicated by numbered superscripts. The content of the abstract includes background, objectives, methods, results & conclusion. The spacing should be maintained at 1.5 points. The guidelines for full paper will be available on the website.

#### **IMPORTANT DATES TO REMEMBER**

**Abstract Submission Deadline:** 7<sup>th</sup> July, 2017

**Acceptance of Abstract:** 10<sup>th</sup> July, 2017

**Date of Registration:** 12<sup>th</sup> July, 2017

**Full Paper Submission Deadline:** 15<sup>th</sup> July, 2017

#### **REGISTRATION FEES**

<b>Participant Status</b>	<b>Amount (INR)</b>
Delegate	2000.00
Student	1000.00
Accompanying Person	1000.00

Registration fee is inclusive of Conference kit, Abstract book, Proceedings, Food & Accommodation (on sharing basis Subject to availability)

#### **PAYMENT**

Payment method and details will be updated soon.

You can also visit [www.nitrkl.ac.in](http://www.nitrkl.ac.in) for downloading the registration form and other information.

#### **HOW TO REACH ROURKELA**

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 bus and rail. Also train frequency is very good.

#### **CORRESPONDENCE**

Please visit the conference website for further information and updates

#### **Prof. Siba Sankar Mahapatra**

Department of Mechanical engineering

Email: [ssm@nitrkl.ac.in](mailto:ssm@nitrkl.ac.in)

#### **Prof. Amit Biswas**

Department of Biotechnology & Medical Engg.

Email: [amitb79@nitrkl.ac.in](mailto:amitb79@nitrkl.ac.in)

## **REGISTRATION FORM**

### **NATIONAL CONFERENCE ON TISSUE ENGINEERING AND REGENERATIVE MEDICINE (NCTERM-2017)**

**NAME:**

**DESIGNATION:**

**INSTITUTE/ORGANIZATION:**

**MAILING ADDRESS:**

**PHONE (OFFICE):**

**MOBILE:**

**E-MAIL:**

**PAYMENT DETAILS:**

**ACCOMODATION REQUIRED: YES NO**

**DATE:**

**SIGNATURE**

**PLACE:**