REGISTRATION FORM

A

THREE DAY SHORT TERM COURSE

ON

WASTE HEAT RECOVERY AND THERMAL ENERGY STORAGE [WHRTES-2017]

24-26 FEBRUARY 2017

Name: ----------

Designation: ----------

Institute/Organization: ----------

Mailing Address: ----------

Phone No.(R)----------(O)---------- ----------

Mobile: ----------Fax: ----------

Email: ----------

DD No: ----------Date: ----------

Accommodation required: Yes/No

Date: ----------Signature: ----------

IMPORTANT DATES

Last date for receipt of application : 24-01-2017
Notification about selection : 26-01-2017
Confirmation by participants : 04-02-2017

Selected candidates will be informed by email. Complete information for communication must be necessarily provided in the registration form.

TRAVEL AND ACCOMMODATION

The participants will have to make their own arrangements for travel. Boarding and lodging can be arranged on payment basis in the guest house at NIT Rourkela based upon prior request and availability. There are also many good hotels in Rourkela; the same can be booked on request and prior payment.

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 rail and train frequency is very good.

Participants will be paid to and fro train fare (III AC) via shortest route (strictly on the production of ticket) and provided free boarding and lodging subject to the funds received from the funding agencies.

COURSE COORDINATORS

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PATRON

PROF. ANIMESH BISWAS

DIRECTOR

NIT ROURKELA

CHAIRMAN

PROF. S.S.MAHAPATRA

HEAD OF THE DEPARTMENT

DEPARTMENT OF MECHANICAL ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA-769008
ODISHA

ABOUT THE INSTITUTION

National Institute of Technology Rourkela is an institute of national importance created under the act of parliament. Times World Rankings has figured NIT Rourkela in the list of 601-800 universities in the world in 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. NIT Rourkela provides quality education in a diverse and multi-cultural environment. 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. The institute is offering Ph.D. and M.Tech by Research programmes in 21 branches of Engineering. The institute research centers are engaged in consultancy and research activities of several bodies such as DST, DAE, CSIR, DRDO, BARC, ISRO and private industries.

DEPARTMENT OF MECHANICAL ENGINEERING

The Mechanical Engineering Department of NIT, Rourkela is known for research in most of these fields. The main foci of research are on mechanical vibration, robotics, CAD/CAM, precision engineering, Metal forming, manufacturing, CFD, Industrial refrigeration and Cryogenics. The academic programme of the department reflects not only the core areas of Mechanical Engineer but also the research specialization of the faculty. The department at present has over one hundred research scholars pursuing projects on diverse fields. The faculty is organized under three divisions and six groups. All the groups are working in close co-operation while retaining individual identities. Many Research and Development projects being pursued by the faculty are sponsored by Government agencies and private industries. Among the major sponsors are BRNS, DST, ARDB, BRFST, HBL Power Systems and Lechier India Private Limited.

ABOUT THE SHORT TERM COURSE

The primary challenge of the world today is to control global warming potential (GWP) and ozone depletion potential (ODP). Several methods are being introduced to control these two potentials by reducing fossil fuel consumption, improving energy efficiency of combustion devices, introducing renewable energy source, reducing the size of power generation devices and decentralizing the power generation etc. In this regard, waste heat recovery and thermal energy are considered to have potential in reducing GHG emissions and reduce energy consumption. Waste heat technologies that enable conversion of lower grade (< 400°C) waste heat from mobile and/or stationary sources. On the other hand, the energy heat recovered from waste heat recovery systems and sources need to be effectively stored for a proper use. Thermal energy storage (TES) is a technology that stocks thermal energy by heating or cooling a storage medium so that the stored energy can be used at a later time for heating and cooling applications and power generation. TES systems are used particularly in buildings and industrial processes.

SCOPE OF THE COURSE

The course has been structured to cover basics of waste heat recovery and thermal energy systems and recent developments that have been in these two areas.

COURSE CONTENTS

The workshop will provide lectures on basics and latest development in research and development in the following topics;

Waste heat recovery

- Waste heat recovery systems
- Materials development,
- Development of next-generation lower grade (<400°C).
- Thermoelectric and thermionics for lower grade waste heat recovery
- Electrochemical approaches
- Lower-grade to higher-grade waste heat conversion
- Other technology concepts

Thermal energy storage

- Phase change materials
- Energy storage design for sensible and latent heat storage
- Heat pumps
- Compressed air energy storage
- Nanomaterials for energy storage
- Cold thermal storage

FACULTY

The course will be taught by the faculty members of NIT Rourkela. Experts from other academic institutions will be invited to share their latest research findings with the participants.

TARGET PARTICIPANTS

The course will be useful to engineers from industries, faculty members and research scholars from engineering colleges, universities, and research institutes. The successful participants will be given participation certificate.

COURSE FEE

Faculties from academic institutions	Rs: 3000
Participants from industries	Rs: 10000
Research Scholars/Students	Rs: 1500

PAYMENT

All payments should be made through A/C payee demand draft in favor of “Continuing education, NIT Rourkela”, payable at SBI NIT Campus branch, Rourkela (Code:2109)

You can also visit www.nitrkl.ac.in for downloading the registration form and other information.