Important

- The filled in registration form along with the registration fee should reach the coordinator on or before 24.04.2014 (Thursday).
- The applicants will be informed about their participation on 25.04.2014 (Friday) by email/fax/phone. Late/ on-the-spot registration may also be allowed in deserving cases.
- Soft copy of the registration form can be downloaded from Institute website or can be obtained from the coordinator on request.

Department of Civil Engineering

The Department of Civil Engineering has been functioning as a full-fledged department since the inception of the institute. Presently, it is not only catering to the education of undergraduate and postgraduate students but also for pursuing research and development activities through research scholars. The department is actively involved with several research and consultancy projects. The Highway Engineering laboratory is equipped with most of the modern equipments related to bituminous binders and mixes.

National Institute of Technology, Rourkela

The National Institute of Technology, Rourkela was founded as the Regional Engineering College, Rourkela on 15th August 1961. The Institute was declared as National Institute of Technology with Deemed to be University status on 26th June 2002 by the Ministry of Human Resource Development, Government of India. The Institute was declared as an Institute of National Importance on 15th August 1997. It is a prestigious institute with a reputation for excellence at undergraduate, postgraduate and research levels. The Institute is spread over 262 hectares of lush green picturesque landscape, against a hilly backdrop, creating a tranquil environment within a completely residential campus for students, staff and faculty. En route Howrah – Mumbai main line of South Eastern Railway, it is well connected by railway service network with the rest of India; and also by inter and intra – state bus services. Rourkela railway station is approximately 7 km from NIT Rourkela Campus.

Resource Persons

Faculty members of NIT, Rourkela and experts from other reputed organisations will deliver during various sessions.

Participants

This short term course is open to all civil engineering or equivalent fraternity that include engineers/officers from field/ industry, academicians and students (PG and Research).

Registration Fee

<table>
<thead>
<tr>
<th>Category</th>
<th>Fee</th>
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</thead>
<tbody>
<tr>
<td>Engineers (from field/ industry)</td>
<td>Rs.7000/-</td>
</tr>
<tr>
<td>Scientists/Faculty (from Research/ Academic Institutions)</td>
<td>Rs.5000/-</td>
</tr>
<tr>
<td>PG Students and Research Scholars</td>
<td>Rs.2500/-</td>
</tr>
</tbody>
</table>

Accommodation

A limited number of rooms are available in the Institute Guest Houses on twin sharing basis. Besides, a number of good hotels are available in the city, which can be booked in advance under prior confirmation/intimation.

Short Term Course on
Advances in Bituminous Pavement Materials and Design
May 08 – 11, 2014
(Thursday to Sunday)

Course Coordinator:
Prof. Mahabir Panda

Organized by
Department of Civil Engineering
National Institute of Technology
Rourkela – 769008, Odisha
**Course Overview**

Since last few years, developments in road infrastructure have been quite significant in our country. The noteworthy road projects which have been taken up for heavy traffic corridors of the metros and rural sector are National Highway Development Programme (NHDP) and Pradhan Mantri Gram Sadak Yojana (PMGSY) respectively. Many more such activities are either being undertaken or in the pipeline. The success stories of these activities depend on clear understanding of the pavement structure which is currently a necessity for all those involved in design, construction and maintenance of pavements. In India, more than 90% of the pavements are made of flexible pavements with bituminous materials in the surface/wearing courses. However, the bituminous paving binders and mixes, being continuously subjected to loading and climatic conditions, face a number of challenges in terms of their durability and sustainability.

Many innovative and scientific approaches have been made to achieve not only the quantity but also the quality of the bituminous pavements. For creating more sustainable bituminous pavement infrastructures, it is customary that the engineers/academicians and other associated with bituminous pavements should be aware of various issues that affect the performance of bituminous pavements. The important issues are related to (a) selection and characterization of appropriate binders for different traffic and climatic conditions, (b) selection of appropriate design criteria for different types of bituminous mixes for different situations and (c) analysis and design of bituminous pavements for high and low volume roads.

**Objective**

The primary objective of this short term course is to upgrade the knowledge of the participants with regard to the latest developments in this emerging topic. The participants will be provided a basic understanding of the manner in which the different types of bituminous materials are characterised and bituminous pavements are designed. The participant should bring a calculator to enable them to take part in the practical and tutorial sessions.

<table>
<thead>
<tr>
<th>Course Contents:</th>
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<tbody>
<tr>
<td>Bituminous Paving Binders: Different types and considerations</td>
</tr>
<tr>
<td>Viscoelasticity considerations in bituminous materials</td>
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<tr>
<td>Bituminous paving mix design</td>
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<tr>
<td>Cold bituminous mix</td>
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<tr>
<td>Pavement analysis and design</td>
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<tr>
<td>Quality control and quality assurance issues</td>
</tr>
<tr>
<td>Low volume roads: Latest technological issues</td>
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<tr>
<td>Miscellaneous issues</td>
</tr>
</tbody>
</table>

**Tentative Programme:**

May 08, 2014 (2-5PM): Demonstration of advanced equipments and related experiments on bituminous paving binder and mix characterisation

May 09-11, 2014 (Main Course): Theory presentations, Practical and tutorial works

**Contact Address:**

Prof. Mahabir Panda  
Phone: 0661-2462312 (O), 91-9437172237 (M)  
Email: mpanda@nitrkl.ac.in

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**Registration Form**

Short Term Course on Advances in Bituminous Pavement Materials and Design  
May 08-11, 2014

- Name:  
- Designation:  
- Educational Qualification:  
- Specialization:  
- Experience (in years):  
- Organization:  
- Mailing Address:  
- Phone/Fax:  
- Email:  

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Required / Not required</th>
</tr>
</thead>
</table>

Date:  
Signature of Participant