## NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI

The National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli, situated in the heart of Tamil Nadu on the banks of river Cauvery, was started as a joint and co-operative venture of the Government of India and the Government of Tamil Nadu in 1964 with a view to cater the needs of man-power in technology for the country. The institute offers Under graduate programmes in ten branches and Post graduate programmes in twenty five disciplines of Science, Engineering & Technology, Management and Architecture, besides M.S. (by Research) and Ph.D. in all the departments.

#### **HOW TO REACH NITT?**

NIT-T is located on the Tiruchirappalli - Tanjore Highway (NH-67) about 23 kms from Trichy Railway station. One can avail Bus No.128 or Tanjore bound buses from the Central Bus Stand (CBS) to reach NIT. Town buses are also available from Chatram city bus stand.

#### IMPORTANT DATES

Submission of application form through Post/Email: 13<sup>th</sup> November 2017

Intimation of Selected Candidates through Email: 14th November 2017

#### ADDRESS FOR CORRESPONDENCE

#### Dr. V. Sunitha

Assistant Professor
Department of Civil Engineering
National Institute of Technology
Tiruchirappalli – 620 015, Tamilnadu, India

Phone: 0431-2503165 (O) 09443302930 (M)

Fax: 0431-2500133 E-mail: sunitha@nitt.edu

#### DEPARTMENT OF CIVIL ENGINEERING

The Department of Civil Engineering has been one of the oldest and finest departments of the Institute. Right from its inception in 1964, it has been involved in fulfilling its vision to shape infrastructure development with societal focus and thus accomplish its mission by providing professional Civil Engineers who will work for the society. The Department offers an Undergraduate programme in Civil Engineering and four Postgraduate programmes in Transportation Engineering and Management, Structural Engineering, Environmental Engineering and Construction Technology and Management. The B.Tech. and M.Tech. (Transportation Engineering and Management) programmes have been recently accredited by NBA for 5 years. The Department also offers M.S. and Ph.D. (Full time & Part time) for aspiring researchers.

#### **CETransE**

The Centre of Excellence in Transportation Engineering (CETransE) at NIT Tiruchirappalli was established in the year 2013 by the Department of Higher Education, Ministry of Human Resource Development, and Govt. of India under the scheme 'Establishment of 50 Centers of Excellence in frontier areas of Science and Technology'. It was established with a vision of creating sustainable transportation technologies and infrastructure for optimal national and societal impact through shaping professional Transportation Engineers, assisting National and State agencies, providing R&D for Industry and offering continuing education. It is carrying out focused research in the areas of Transportation Planning, Intelligent Transportation Systems and Pavement Engineering.



Workshop

# Design and Construction of Sustainable Pavements

November 20 - 24, 2017



Coordinators
Dr. V. SUNITHA
Dr. SAMSON MATHEW
Dr. S. MOSES SANTHAKUMAR

Sponsored by



COIR BOARD Ministry of MSME, Govt. of India

Organized by
Centre of Excellence in Transportation
Engineering
(CETransE)

Department of Civil Engineering National Institute of Technology Tiruchirappalli - 620 015 Tamil Nadu, India www.nitt.edu

#### INTRODUCTION

In light of the exigent demand for sustainable and long lasting road infrastructure in India, this workshop aims at exposing the participants to the latest information on design, construction, maintenance and management of sustainable pavements. The workshop provides the latest information on flexible and rigid pavements viz., material characterization, design, construction, maintenance and management. Department of Civil Engineering, NITT is currently executing a collaborative project with Coir Board entitled Pavement Performance Studies on Coir Geotextile Reinforced Rural Roads in Tamilnadu, the outcomes of which will also be discussed. The workshop also explores the recently developed sustainable technologies in pavement construction, rehabilitation and other related topics such as the application of geosynthetics in enhancing pavement performance.

#### **OBJECTIVES OF PROGRAMME**

At the end of the workshop the participants will be able to gain knowledge on:

- Pavement material characterization
- Design and construction of bituminous pavements
- Maintenance, repair and rehabilitation of bituminous pavements
- Design of concrete pavements and joints as per IRC
- Design of concrete pavements by mechanisticempirical design approaches
- White Topping design, construction and quality control
- Application of Coir-Geotextiles in pavement construction
- Repair, rehabilitation and retrofitting of concrete pavements
- Pavement Management System (PMS)

#### COURSE CONTENT

- Materials and its characterization
- Bituminous mix design
- Design of flexible pavements as per IRC
- Bituminous pavement construction
- Distresses in flexible pavements
- Concrete pavement fundamentals
- Design considerations in concrete pavements
- Typical distresses in concrete pavements
- Construction of concrete pavements and overlays
- Advances in Geosynthetics in pavement construction
- Pavement maintenance & management system
- Pre-cast concrete pavements

#### RESOURCE PERSONS

**Dr. Neeraj Buch** is a Professor in the Department of Civil and Environmental Engineering at **Michigan State University**. His research interests include concrete pavement design, rehabilitation, non-destructive testing of pavements and composite materials. He is also a Fellow of the American Concrete Institute.

**Dr. A. Veeraragavan** is a Professor in the Department of Civil Engineering at **IIT Madras, India**. His research interests are pavement maintenance and management, recycling of bituminous mixes for sustainable highway pavements, forensic investigation of pre-mature failure of pavements and use of modified binders for long lasting pavements.

**Dr. G. V. Rao** has a distinguished career of over three decades at the **IIT**, **Delhi**. Honorary Professor of Civil Engineering, University College of Engineering, Osmania University, Hyderabad and Visiting Professor at **IIT**, **Hyderabad**. His area of interest include geosynthetics and its testing, advances in geosynthetics and ground improvement for infrastructure development etc.

**Dr. Ramachandra** is a Zonal Technical Head, **Ultra Tech Cement Ltd.**, **Mumbai**. His area of interests are design, construction and rehabilitation of rigid pavement, specifically for rigid overlay on flexible pavement (white Topping).

#### TARGET AUDIENCE

The workshop is intended for Faculty, Research Scholars, Post Graduate students and Highway/ Corporation/Municipality/Rural Road Engineers.

#### **REGISTRATION FEE**

Registration fee: **Rs.1180/-** (including 18% GST) per participant.

The registration fee shall be paid by DD drawn in favour of **The Director**, **NIT**, **Tiruchirappalli** – **620015** payable at SBI, NITT Branch (Code - 1617) and can be submitted in person on the first day of the programme.

Participants will be provided lodging in the Institute, Guest House/Hostels (sharing basis) on payment. The participants who do not avail this facility will not be entitled to any rebate.

Working lunch and refreshments will be provided during the workshop.

### Workshop on Design and Construction of Sustainable Pavements November 20 - 24, 2017

REGISTRATION FORM						
	1.	Name:				
	2.	a) Age:b) Gender: Male/Female				
	3.	Qualifications:				
	4.	Designation:				
	5.	Organisation:				
	6.	Address for Communication:				
	7.	Mobile:Land Line:				
	8.	E-mail:				
	9.	Area of Specialization				
10. Accommodation required? Yes/No						
The information furnished above is true to the						
	best of my knowledge. I agree to abide by the					

The information furnished above is true to the best of my knowledge. I agree to abide by the rules and regulations governing the programme. If selected, I shall attend the programme for the entire duration. I also undertake the responsibility to inform the Coordinator sufficiently in advance, in case I am unable to attend the programme.

F	12	ac	e:

Date: Signature of the applicant