



Prof. Vivek Tandon, is in the faculty of University of Texas at El Paso, USA. The main area of expertise and interest is development of innovative climate resilient materials for highway infrastructure that generates minimal carbon footprint. This includes modification of existing materials like asphalt, aggregate, asphalt concrete, soils, and PCC, and development of new materials like geopolymers. The minor areas of expertise include nondestructive testing of highways and impact of climate change on transportation infrastructure.



Prof. Mahabir Panda is a Professor in Civil engineering, NIT Rourkela, Odisha, India. He has received his M.Tech & Ph.D. from IIT Kharagpur. He teaches courses at Graduate (B.Tech) and Post-graduate (M.Tech) level for more than thirty years. He has published over 60 articles in national and international journals and conferences. His research area includes pavement materials, analysis and design. His present research interest covers use of waste, local and marginal materials in bituminous mixes, unbound granular bases and subbases and PQC for road pavements.

About NIT Rourkela

NIT Rourkela is one of the premier national level institutions for technical education in the country and is funded by MHRD, Government of India. The institute established 1961 as Regional Engineering College, Rourkela was elevated to a deemed university under the name of National Institute of Technology, Rourkela in the year 2002. NIT Rourkela has been recognized as an institute of National importance by National Institute of Technology Act, 2007. According to the Times Higher Education (THE) ranking of the World's best Universities 2017, it is ranked in top 800 institutes of world, and it is only NIT to feature in the list.

The main objective of the Institute is to produce quality Engineers and Scientists in Graduate and Post-Graduate levels in various branches of engineering and science. The institute with a lush green campus area of 650 acres has twenty departments, three academic centers and six service centers. The Institute accommodates around 6000 students and more than 700 faculties and staffs are contributing their services to the Institute. The Institute has a very vibrant campus life with ten hall of residence for students, residential quarters for employees and two guest houses for visitors. The Institute has been consistently ranked among the best technical institutes in India. The Institute has been modernized by several foreign collaborative research projects. A very good number of sponsored research and consultancy projects are running at present.

For More Information

Visit: <http://www.gian.iitkgp.ac.in/GREGN>

Contact:

Prof. Mahabir Panda

Course Coordinator

Phone: 0661-2462312

Mobile: 9437172237

E-Mail: mpanda@nitrrkl.ac.in, panda.mahabir@gmail.com

Prof. Sarat Kumar Patra

Local Coordinator for GIAN, NIT Rourkela

Phone: 0661-2462457

Mobile: 9437221578

E-Mail: skpatra@nitrrkl.ac.in



Maintenance and Preservation Treatment of Highways to Economically Enhance Service Life in Sustainable Manner

December 21 – 30, 2016



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

Under the aegis



Government of India

Ministry of Human Resources and Development

Course Overview

Diminishing budgets and the recent recognition of the benefits of considering life-cycle costs have motivated changes in agency policies that advocate environmental and financial sustainability through the practice of highway preservation. This is in stark contrast to the “worst-first” approach that was commonly practiced in the past, in which highways were allowed to deteriorate to a highly distressed condition before performing major (and more intrusive) rehabilitation. In fact, the Federal Highway Administration has been a strong proponent and supporter of the concept of cost effectively preserving the USA’s roadway network. This has helped to spur a countrywide movement of highway preservation and preventive maintenance programs, with an overall goal of improving safety and mobility, reducing congestion, and providing smoother, longer lasting highways. The philosophy of pavement preservation is often succinctly captured in terms of “applying the right treatment to the right pavement at the right time. Highway preservation is inherently a sustainable activity.

This course will cover topics like low-cost and low-environmental-impact treatments to prolong or extend the life of the highways by delaying major rehabilitation activities which will minimize energy consumption and use of virgin materials while reducing GHG emissions over the life cycle. Furthermore, well-maintained highways provide smoother, safer, and quieter riding surfaces over a significant portion of their lives, resulting in higher vehicle fuel efficiencies, reduced crash rates, and lower noise impacts on surrounding communities, which positively contributes to their overall sustainability.

International expert with demonstrated credentials in teaching, research, consulting, and training will be part of the course to deliver lectures, and discuss case studies and real life experience of highway preservation techniques.

Professors/ Experts from nearby IITs/reowned organisations will also deliver in this course.

Course Objectives

Primary objectives of the course are as follows:

- ❖ Identify Pavement Condition Assessment Tool and how to incorporate Falling Weight Deflectometer in evaluating and assessing existing condition of highway using accepted agency standards at a set inspection frequency.
- ❖ Identify conditions that can be beneficially addressed through preservation.
- ❖ Identify and select highway performance models to forecast future performance with and without the application of preservation treatments.
- ❖ Identify highway treatment rules and treatment impact rules.

You Should Attend If...

- ❖ You are a Civil/ Transportation engineer/ Planner or research scientist interested in non-destructive testing, assessment and planning related to Highway maintenance and rehabilitation.
- ❖ You are practicing Civil Engineers working in various private and government organizations
- ❖ You are a student or faculty from academic institution interested in learning how to do research / project/ field work related to highway preservation.

Registration/Course Fees...

- ❖ Faculty/ Staff from Academic Institutions: Rs.2000/-
- ❖ Industry/ Research Organizations: Rs.10000/-
- ❖ Students (India): Rs.1000/- (without award of Grade)
- ❖ Students (India): Rs.2000/- (with award of Grade)
- ❖ Students (abroad): US \$100
- ❖ Participants from abroad : US \$200

This regd./course fee is in addition to the one-time online fee of Rs.500/- for registration in the GIAN web portal.

Register online @ <http://www.gian.iitkgp.ac.in/GREGN/index>

In addition to the one-time online fee of Rs.500/- for registration in the GIAN web portal as above, the registration/course fee is to be paid through a Demand Draft which should be drawn in favor of ‘Continuing Education, NIT Rourkela’ payable at SBI, NIT Rourkela Branch (Code:2109) or by NEFT/RTGS to A/C. No: 10138951784, State Bank of India, NIT Rourkela Branch IFSC Code: SBIN0002109.

Accommodation

Out-station participants can be provided accommodation and boarding in the Institution Guest Houses in the campus on direct payment as the Registration charges do not include lodging and boarding. The lodging (twin sharing) and boarding charges may range from Rs. 4000/- to Rs. 8000/- for the entire duration of the course.

Important Dates

Last date for receiving applications: 28.11.2016

Intimation to Participants: 01.12.2016

Course Dates: December 21 – 30, 2016

Registration Form

Name:

Designation:

Department:

Address:

.....

.....

Email:

Phone:

Category of Participant

- ❖ Faculty/ Staff from Academic Institutions
- ❖ Industry/ R&D Organizations
- ❖ Students (India)/ Students (abroad)
- ❖ Participants from abroad

Accommodation Required

☐ Yes

☐ No

Award of Grade Required (For Students)

☐ Yes

☐ No

Payment Details

Online Registration and Payment of Online Fee (Rs.500/-) made

☐ Yes

☐ No

Institute Registration/course fee paid

☐ Yes

☐ No

Signature of Applicant

Date:

Place: