

ABOUT THIS COURSE

The training program on New Technology Initiatives in Rural Roads including Use of Marginal Materials is designed to enhance the knowledge and technical capacity of engineers and professionals involved in rural infrastructure development. The program focuses on innovative practices, sustainable construction techniques, and the effective utilization of locally available marginal materials to improve cost-efficiency and durability of rural roads. It covers modern design approaches, material characterization, construction methodologies, and quality assurance practices aligned with current national standards. Through expert lectures, case studies, and interactive sessions, participants will gain practical insights into implementing resilient and eco-friendly road solutions, ultimately contributing to the development of safe, sustainable, and long-lasting rural connectivity.

THEMES OF THE COURSE

Recent Design Practices of Pavements, Pavement Evaluation and Strengthening, Advanced Construction Practices in rural roads, Advanced Technologies in Pavement, Case Studies on Innovative Pavement Construction Practices, and Troubleshooting.

REGISTRATION FEES

- The short-term course is sponsored by the National Rural Infrastructure Development Agency (NRIDA), Government of India, and is exclusively intended for officials/engineers nominated by NRIDA. The registration fee (offline mode) covers the course fee, as well as expenses for food, boarding, and lodging. The registration fees are 4500 per nominated participant per day as per NRIDA norms.

For Contact

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NRIDA



Short Term Course

on

**New Technology Initiatives in Rural Roads including
Use of Marginal Materials**

05th - 09th January 2026



Chairman

Prof. Mahabir Panda

Course Coordinators

Prof. Gourab Saha

Prof. Aditya Kumar Das

Organized by

Department of Civil Engineering

National Institute of Technology Rourkela, Odisha, India-769008

NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA



National Institute of Technology Rourkela is one of the premier national level institutions for technical education in the country and is funded by Government of India. NIT Rourkela has a rich legacy of more than sixty dedicated years of service to the nation and is the pride of Odisha. 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. Excellence in teaching and high-quality research are the pillars on which the Institute is built.

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 education of undergraduate and post-graduate 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 advanced equipment related to pavement materials.

OBJECTIVE OF THE COURSE

The objective of the course is to enhance the technical knowledge and practical skills of engineers in adopting new technologies for rural road development, with a focus on the effective use of marginal materials, sustainable practices, improved construction quality, and cost-efficient solutions for durable rural infrastructure.

SPEAKERS

Eminent Professors from IITs/NITs and field professionals from reputed organizations will deliver lectures.

COURSE OUTLINE

Date / Time	05.01.2026	06.01.2026	07.01.2026	08.01.2026	09.01.2026
Session I 09:45 - 11:15 hrs	Low Cost Rural Road Surfacing (Prof. M. Panda, NIT Rourkela)	Role of Commercial Additives in Rural Roads (Dr. Rohit K. Sharma, Zydex Industries)	Key aspects of design of bridges for rural roads (Prof. P. Sarkar, NIT Rourkela)	Design and Application of Cold Bituminous Mixes in Rural Roads (Prof. U.C. Sahoo IIT BBSR)	Field Applications of New Technologies in Rural Roads (Dr. Rishi Singh Chhabra, Moglix)
Session II 11:30-13:00 hrs	Evaluation of Rural Road Pavements using FWD (Prof. G. Saha, NIT Rourkela)	Utilization of Waste plastics in bituminous construction (Prof. M. Panda, NIT Rourkela)	Stability issues for slopes in Hill side cutting (Prof. C.R. Patra, NIT Rourkela)	Design and Construction of Panelled Concrete Pavement (Prof. A.K. Chandrappa IIT BBSR)	Rural Road Pavement Design Factors (Prof. V. Chowdary, NIT Warangal)
Session III 1400 - 1530 Hrs	Applications of steel byproducts in PQC for low volume roads (Prof. A.K. Das NIT Rourkela)	Application of geopolymer binder in rural roads (Prof. S.P. Singh, NIT Rourkela)	Design, Construction, and maintenance of Jointed Plain Concrete Pavement (Prof. A.K. Chandrappa, IIT BBSR)	Application of Geogrid-reinforcement in Flexible pavements (Prof. G. Saha NIT Rourkela)	Applications of Coir Geotextiles in Low-Volume Rural Roads (Prof. S. Shankar, NIT Warangal)
Session IV 1545 - 1715 Hrs	Design and Approach for high embankments in Rural Roads (Prof. C.R. Patra, NIT Rourkela)	Design and construction of Cell fill Concrete Pavement for Rural Roads Prof. K. K. Kuna, IIT Kharagpur)	Design and Construction of Cement Stabilised Bases using FDR Technique (Prof. U.C. Sahoo IIT BBSR)	Use of waste materials in non-bituminous paving layers of rural roads (Prof. S.P. Singh NIT Rourkela)	Sealing Options for Gravel Roads (Prof. Venkaiah Chowdary, NIT Warangal)