



Engineering Staff College of India
An Autonomous Organ of The Institution of Engineers (India)
Old Bombay Road, Gachi Bowli, Hyderabad-500 032
(An ISO 9001:2015 ISO 14001:2015, ISO 45001:2018, ISO 50001:2018 &
ISO/IEC 17025:2017 Certified Institution)



CIVIL & TRANSPORTATION ENGINEERING DIVISION

Training and Development Programme on
Recent Trends in Design, Construction & Maintenance
of Rigid Pavements

23rd – 27th September, 2024



Centre for Promotion of Professional Excellence

INTRODUCTION:

India has been building highways and expressways in record pace faster than ever before. Both pavement materials – Rigid and Bituminous asphalt, provide some advantages and disadvantages. However, considering the life-cycle cost, availability of local materials, and durability, rigid pavements prove more suitable for Indian conditions. Rigid pavements are practically unaffected by weathering agents, have a higher load bearing capacity, offer good ride quality. It is an ideal choice for the construction of highways.

However, the applications of Rigid Pavement have not attracted a place due to high initial costs. The tendency of rigid pavements, to distribute the load over larger area contributing to substantial structural strength by itself has helped towards realizing Durability of Rigid Pavement with minimum maintenance costs. With the Raise of Traffic Volume in India rapidly, there is an immediate need to adopt the latest techniques for road construction and to maintain the existing roads. Now it is time to look into the latest advanced developments and adopt them to maximum possible extent. Need of the hour is to reframe our road specifications, induct use of machinery in road construction and to introduce innovative methods of Road Construction.

This training program create awareness among the engineers how to make rigid pavements by adopting proper design procedures, material selection, construction techniques, quality control and adequate maintenance measures reducing the life-cycle cost.

OBJECTIVES:

- The main aim of this program is to provide information on “Design, Construction & Maintenance of Rigid Pavements & Emerging Trends
- To provide awareness on components of rigid pavement system and how loading is supported and transmitted by different pavement layers to sub-grade.
- To provide background information regarding various rigid pavement design methods and drainage considerations under a variety of traffic and environmental conditions.
- To equip engineers with the latest techniques in the construction of rigid pavements.
- To Provide knowledge on AI in Pavement Maintenance and Management System

COURSE COVERAGE :

- Over view of Recent trends in Design, Construction & Maintenance of Rigid pavements
- Geotechnical Investigation – Methods of Soil Stabilization
- Design & Construction of Rigid Pavements (IRC 58: 2015) and Overlays
- Standard Specifications and Code of Practice for Construction of Concrete Roads (IRC :15-2011)
- Construction techniques & Mix design of concrete Roads (IRC 44: 2017)
- Drainage Design Parameters and Preservation Techniques
- Innovation in Concrete Technology, usage of industrial wastes, By-products & Smart Pavement Materials
- Highway Development and Management Model Four (HDM-4) - Application for Pavement Maintenance and Management System
- Applications of AI in Pavement Failures: Causative Factors & Remedial Measures
- Field Visit

BENEFITS TO THE PARTICIPANTS:

- Participants will learn about advance material in concrete for many different purposes.
- Participants will understand the costs and benefits of construction and maintenance of concrete roads.
- Designers will be benefitted from understanding the methodologies adopted for rigid pavements analysis & design.
- Construction and maintenance engineers will be benefitted from learning the latest technologies and techniques used in construction of rigid pavements.
- Participants will know the Innovations in Concrete Technology, usage of industrial wastes & By-products in Rigid Pavement construction.
- Participants will learn about HDM-4 tool and its applications.

TARGET PARTICIPANTS:

This course is suitable to all engineers and officers working at junior level to senior level from Government departments like R&B, PWD, Municipal Corporations, Panchayat Raj, Housing Boards, GHMC, RITES, SCCL, and Border Roads Development. Engineers from all State and Central Government Departments, Private organizations, Structural Engineers & Contractors.

RESOURCE PERSONS:

Renowned personalities both from Industry / Educational Institutions like IIT's/ NIT's / Research Institutes, Reputed Universities, who are experts in this field, will be involved in imparting the training.

PROGRAMME VENUE, DATES &TIMINGS:

VENUE : Engineering Staff College of India (ESCI) Campus, Old Bombay Road, Gachi Bowli, Hyderabad- 500 032.

DATES : **23rd to 27th September, 2024**

Registration : 09:45hrs.

Session timings : 09:45 – 17:15 hrs with 3 times breaks.

COURSE DIRECTOR:

Dr. D. Adinarayana, FIE

Sr. Faculty & Head

COURSE COORDINATOR:

Ch. Tilak – Faculty

COURSE FEES:

Rs.25,000/- (Rupees Twenty Five Thousand Only) + GST 18% per participant. Fee includes, Soft copy of course material, course kit and Twin Sharing AC accommodation as per availability, breakfast, lunch, dinner, tea / coffee and snacks during the actual days of training programme.

DISCOUNTS

- ❖ **Non-Residential Fee-** 10% discount on course fee is allowed for non-residential participants.
- ❖ **Group Discount:** Additional 10% discount for three or more participants, if sponsored by the same organization.

GST 18% is to be paid extra over and above the training fee, as training is also brought under the purview of **Service Tax. PAN Card No AAATT3439Q; Service Tax registration No AAATT3439QST008 (under commercial training or coaching services – clause 65(105) (ZZC) of Finance act – 1994). GSTN Number – 36AAATT3439Q1ZV (HSN Number – 999293)**

Programme fee is to be paid in favor of “**IE (I) – Engineering Staff College of India**” in the form of demand draft payable at Hyderabad.

Alternatively the payment may be made by **Electronic Fund Transfer (EFT) to ESCI - SB A/c No. 10007111201 with The SBI, PBB, Rajbhavan Road Branch, Khairatabad, Hyderabad-500004 by NEFT / RTGS / IFSC Code No. SBIN 0004159 – MICR No.500002075.** While using EFT method of payment, please ensure to communicate us your company name, our invoice reference and programme title.

REGISTRATION:

Please send your nominations

To
The Head
Civil & Transportation Engineering Division
Engineering Staff College of India
Old Bombay Road, Gachi Bowli, Hyderabad - 500 032
Phone: 040-6630 4114, 4115, 4107, 4134
Email : cte@escihyd.org
Mobile No : **9052313252**

CERTIFICATE:

A certificate of participation will be awarded to each participant.

GENERAL INSTRUCTIONS

- ESCI encourages participants to present case studies from their respective organizations.
- ESCI provides complimentary accommodation and boarding to the participants one day before commencement (Check-in 1200hrs) and one day after conclusion (Check-out 1100hrs) of the program duration. Overstay charges will be applicable as per ESCI rules (subject to availability of accommodation).