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

Flexible Pavements and Overlays - Design, Construction and Maintenance

04th – 08th September, 2023

Centre for Promotion of Professional Excellence

INTRODUCTION:

A highway pavement is a structure consisting of superimposed layers of processed materials above the natural soil sub-grade, whose primary function is to distribute the applied vehicle loads to the sub-grade. The pavement structure should be able to provide a surface of acceptable riding quality, adequate skid resistance, favorable light reflecting characteristics, and low noise pollution. The ultimate aim is to ensure that the transmitted stresses due to wheel load are sufficiently reduced, so that they will not exceed bearing capacity of the sub-grade. Improper design of pavements leads to early failure of pavements affecting the riding quality also.

Most of Indian roads are flexible pavements, the ones having asphalt-toppings. Flexible pavements have a great advantage that these can be strengthened and improved in stages with the growth of traffic. Another major advantage of these roads is that their surfaces can be milled and recycled. These are less expensive also. To create awareness among the Engineers/ Managers on the benefits of adopting proper design procedures, materials, construction techniques, quality control and maintenance reducing the life-cycle costs an Use of Software's like **IIT PAVE** which is the multi-layer analysis programmer used for analysis of flexible pavement and to determine the stresses and strains at critical locations of the pavement. Along with this also gives the information on application of **AI** in Pavement Maintenance and Repairs, Smart Pavement Materials & Latest Technologies, Materials Changing its functionalities. This Five days program is formulated to fulfill the needs of the agencies who are associated with formulation and developing the road sector in India.

OBJECTIVES:

- To give knowledge on Flexible pavements regarding Components of pavement system, transmission of pavement layers to subgrade
- To Understand Design principles of flexible Pavements
- Gives knowledge on Drainage considerations in pavement design
- Importance of Soil Investigations and Soil Stabilization Methods
- To give the Knowledge on IIT Pave Design Software
- To impart latest technologies adopted and Latest Machinery / Equipment for Flexible Pavement Construction for Speed Construction
- To give knowledge on Flexible Pavement Maintenance and Repairs

COURSE COVERAGE :

- Overview of Flexible Pavements and Overlays – Design, Construction & Maintenance
- Soil Investigation - Soil Stabilization methods & Materials used in Stabilization
- Design Principles of Flexible pavements as per IRC 37 – 2018
- Design of Overlay for Flexible Pavement
- Drainage Design Parameters and Preservation Techniques
- Design of Flexible Pavement with IIT Pave Design Software for different Pavement Compositions including
- Construction Methodology
- Machinery / Equipment for Flexible Pavement Construction for Speed Construction
- Smart Pavement Materials & Latest Technologies
- Implementation of AI in Flexible Pavement Maintenance and Repairs
- Field Visit

BENEFITS TO THE PARTICIPANTS:

- Participants will Understand the design procedure under various Conditions
- Participants will Understand the importance of Smart Pavement Materials & Latest Technologies
- Participants will know about the Latest Machinery / Equipment for Flexible Pavement Construction for Speed Construction
- Participants will Understand Construction methodologies of Flexible Pavements
- Participants will Understand about Implementation of AI in Flexible Pavement Maintenance and Repairs

TARGET PARTICPANTS:

Officers and Engineers from Government departments like Roads and Buildings, PWD, Municipal Corporations, Panchayat Raj, Housing Boards, Border Roads organization, Public and Private sector like RITES, Construction companies, organizations involved in Construction activities, Professionals and Consultants etc., working at junior level to senior level will all be benefited by attending this program.

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 providing the training.

PROGRAMME VENUE, DATES &TIMINGS:

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

DATES : **04th – 08th September, 2023**

Registration : 09:45hrs.

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

COURSE DIRECTOR:

Dr. R Venkat Reddy, Ph.D (Osmania), FIE
Head

COURSE COORDINATOR:

Ch. Tilak – Faculty

COURSE FEES:

Rs.20,000/- (Rupees Twenty Thousand Only) + GST 18% per participant. Fee includes, Soft copy of course material, course kit and Twin Sharing AC accommodation, 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
Mobile : **9490011311 / 9492011311**
Phone: 040-6630 4114, 4115, 4107
Email : **cte@escihyd.org**

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).