

## Details of FDPs and Training Programmes organised by Civil Department

### 1. SERB sponsored two-day workshop on Sensors and Transducers for Testing Structural Elements

The Department of Civil Engineering, College of Engineering Trivandrum organized a two-day workshop on Sensors and Transducers for Testing Structural Elements on 29/02/2024 and 01/03/2024. The workshop was sponsored by Science and Engineering Research Board (SERB), Department of Science and Technology, Govt of India. The workshop was conducted for faculty from government and aided/ self financing engineering colleges. The main objective of the two-day workshop was to provide the know-how of the sensors and transducers used for testing structural elements for engineering academia.



### 2. DTE-sponsored Faculty Development Programme on 'Advanced Composites and Smart Materials for Structural Engineering Applications'

The Department of Civil Engineering, College of Engineering Trivandrum organized a DTE-sponsored Faculty Development Programme on 'Advanced Composites and Smart Materials for Structural Engineering Applications' from 12th - 16th February 2024 for the faculty members from AICTE approved

Govt./Aided Engineering Colleges and Self-financing colleges. 50 participants from various engineering streams attended the program. The FDP included a hands-on training on Composite modelling using Abaqus software and a field visit to the Composite Entity, VSSC, Vattiyoorkavu.



### **3. FDP titled “Unlock Your Research Potential: A Journey through MATLAB, Python, LaTeX, Machine Learning, and ChatGPT”**

The Faculty Development Programme (FDP) titled "Unlock Your Research Potential: A Journey through MATLAB, Python, LaTeX, Machine Learning, and ChatGPT" was a comprehensive four-day event held from January 22 to January 25, 2024, at the Golden Jubilee Research Block, Dept. of Electronics and Communication Engineering. This meticulously planned event aimed to bridge the gap between academic research and practical applications, specifically targeting faculty members.

The FDP was a multi-faceted event featuring a mix of hands-on sessions, insightful talks, and personal development workshops spread over four days. Each day was dedicated to distinct themes, progressively building participants' skills in MATLAB and Python programming, data science, machine learning applications, academic writing using LaTeX, and leveraging ChatGPT for research. Renowned educators and experts like Dr. Pradeep Kumar G., Dr. Linu Shine, and Dr. Savitha M.T. led the sessions, providing invaluable knowledge and practical expertise.

In addition to technical skills development, the programme also addressed the holistic development of participants through sessions on pedagogical teaching methods and stress management techniques for researchers, acknowledging the multifaceted challenges faced in academic careers.

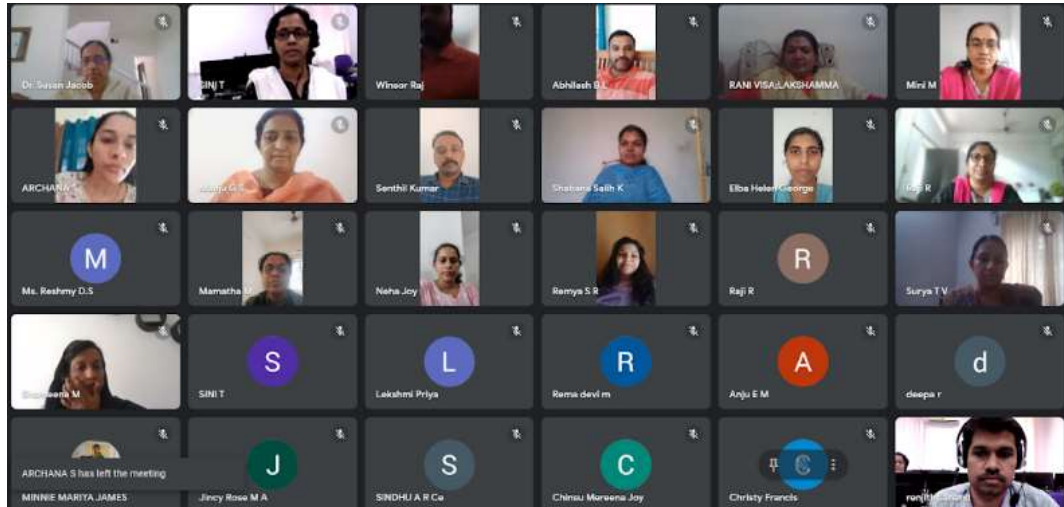
The event was not only a platform for learning but also for exchanging ideas and fostering collaboration among educators, thereby enhancing their teaching methodologies and research

capabilities. With 33 participants, the FDP succeeded in creating an engaging and enriching experience for all attendees, contributing significantly to the academic community's growth and development



#### **4. DTE-sponsored Online Faculty Development Programme named "Recent Advances in Transportation Geotechnics" (ReATraG'24)**

The Department of Civil Engineering at the College of Engineering Trivandrum conducted a six-day Online Faculty Development Programme named "Recent Advances in Transportation Geotechnics" (ReATraG'24) from January 15-20, 2024. The program was designed for faculty members from AICTE approved Government/Aided Engineering colleges. A total of 58 participants from self-financing engineering colleges, Government/Aided engineering colleges, and colleges under CAPE actively participated in the program. The FDP focused on the practical application of Geotechnical Engineering principles in the context of Transportation Infrastructure.



## 5. DTE sponsored Faculty Development Programme titled ‘Sustainable Development Goals - The Way Ahead’

The department of Civil Engineering, College of Engineering Trivandrum organized a DTE sponsored Faculty Development Programme titled ‘Sustainable Development Goals - The Way Ahead’ from 8th - 13th January 2024 for the faculty members from AICTE approved Govt./Aided Engineering Colleges and Polytechnic Colleges. 54 participants from various engineering streams attended the programme. The Sustainable Development is a normative concept aiming towards creating pathways to find well-being of human without trespassing the boundaries of our planet. Therefore, it is vital for the Higher education institution and all its stakeholders to spread this awareness and recreate institutions of the 21st century that actively engage in solving real-world problems - that would create a sustainable future for us and to the next generation. This FDP provided insights to United Nations (UN- SDGs and the Role of Higher Education Institutions in creating a sustainable future by adopting the targets listed in UN SDGs. The aim is to look at sustainable development holistically.

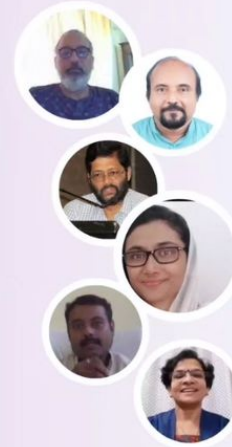
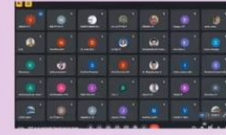


## ENVIRONMENTAL ENGINEERING DIVISION

DEPARTMENT OF CIVIL ENGINEERING  
COLLEGE OF ENGINEERING TRIVANDRUM

GLIMPSES FROM FDP ON

### SUSTAINABLE DEVELOPMENT GOALS - THE WAY AHEAD



- MISSION OF THE DEPARTMENT**
- To impart quality education in Civil Engineering by integrating theory, practice and research keeping pace with emerging technologies .
  - To equip students with technical expertise so as to take up challenges in the field of Civil Engineering.
  - To encourage students for pursuing higher education and research.
  - To create competent professionals who are capable of upholding ethical values and principles of sustainable development.

#### VISION OF THE DEPARTMENT

A Centre of Excellence for moulding technically competent and ethically strong Civil Engineering Professionals with global perspective.

## 6. DTE-sponsored Faculty Development Programme on 'Unveiling the Latest Advancements in Material Characterization in Civil Engineering'

The Department of Civil Engineering, College of Engineering Trivandrum organized a DTE-sponsored Faculty Development Programme on "Unveiling the Latest Advancements in Material Characterization in Civil Engineering". The program is scheduled from 4th to 8th of December 2023 and focuses on imparting latest advancements and insights to faculties in the area of material characterization in civil engineering. The course is coordinated by Dr. Thushara V.T. and Prof. Asha B. of Civil Engineering Department. Dr. Manu Santhanam, Professor and Dean ICSR, IITM inaugurated the five day DTE-sponsored training program. The course focused on Characterisation of Civil Engineering materials such as cement concrete, bituminous mixtures, and granular materials carried out at different scales of measurement depending on the intended purpose. The course is designed to familiarize faculty members of engineering colleges and student researchers with the advancements in material characterization for different classes of civil engineering materials. The objectives of the course (i) to familiarize advancements in testing of cementitious materials, bituminous materials and granular materials at multiple scales of measurement (ii) to understand the sophistication in measuring devices used to test Civil Engineering materials at multiple scales (iii) to enable hands on experience on different non-destructive testing methods for different Civil Engineering applications



## 7. DTE sponsored Short Term Training Programme on “Application of Machine Learning in Transportation Engineering”

Department of Civil Engineering and Department of Electronics and Communication Engineering, College of Engineering Trivandrum organized a five day long Short Term Training Programme on “Application of Machine Learning in Transportation Engineering” for the faculties of Government Engineering Colleges and Polytechnic Colleges of Kerala, sponsored by Directorate of Technical Education, from 20/11/2023 to 24/11/2023. The course was attended by Faculties of Government Engineering Colleges and self financing institutes. There were 25 participants from Government Engineering Colleges and 5 participants from self financing institutes. A total of 45 including 30 participants, two course coordinators, two HoDs, 4 lab support staffs and 7 students for assistance, attended the meeting. There were 10 resource persons from premier academic institutes such as NIT Calicut, IIT Madras, IIT Palakkad, industries such as CDAC, KELTRON handling the sessions. The schedule of the sessions is included along with the Enclosures. The inauguration of the course was done by Shri. Hemachandran S., Executive Director, KSEDC

Ltd. and presided over by Dr. J. S. Savier, Principal, CET. The sessions included industry visits to provide training on the procedure of traffic data collection and analytics to the participants. The course concluded on 24/10/2023 and the function was presided over by Dr. J. S. Savier, Principal, CET. Certificates were distributed to the participants and the feedback from the participants indicated that they were highly benefitted from the training program.



## 8. DTE-sponsored Faculty Development Programme on 'Advanced Seismic Analysis and Design of Structures'

STTP on 'Advanced Seismic Analysis and Design of Structures' Inaugurated. Dr. Yogendra Singh, Railway Bridge Chair, IIT Roorkee inaugurated the five day DTE-sponsored training program for faculty of engineering college. The program is scheduled from 9th to 13th Oct, 2023 and focuses on imparting hands-on training to faculties in area of linear and non-linear seismic Analysis. Dr. Yogendra Singh congratulated CET for organizing the course and urged the faculty to look for collaborative opportunities with IIT Roorkee. Principal, Dr. Savier J S presided over the function. HOD Dr. Anil R delivered the welcome address. Professor UG studies, Dr. Bindu J, Professor PG Studies, Dr. Jaya V and Head Structural Engineering

Division, Dr. Smitha M S, felicitated the gathering. The course is coordinated by Prof. Shalu RF and Prof. Sarif N.



### 9. Technical talk on the topic 'Geo – disasters mitigation techniques'

A technical talk on the topic 'Geo – disasters mitigation techniques' was organized by Department of Civil Engineering, College of Engineering Trivandrum and Indian Geotechnical Society CET Student Chapter on 26th October 2023. The session was handled by Mr. Manu K Sajjan who is an alumnus of the department (2019 MTech GE) and presently a Research Scholar in the Department of Civil Engineering at NIT Suratkal, Karnataka. His research activities include Geo-disaster prevention and mitigation, dynamic soil-structure interaction, coastal geotechnics, renewable energy and ground improvement. He also highlighted the scope of research in this area and application of Internet of Things (IoT) in developing early warning system for earthquakes and tsunamis. The active participation of PG students from GE, EE and GI divisions made the session lively.







**ENVIRONMENTAL ENGINEERING DIVISION  
DEPARTMENT OF CIVIL ENGINEERING  
COLLEGE OF ENGINEERING TRIVANDRUM**



***Expert Talk on***

**'PERSISTENT ORGANIC POLLUTANTS FROM  
WASTE TO ENERGY FACILITIES'**

14th November, 2023

**9:30 AM**

at

**Environmental Engineering Seminar Hall**



***Resource Person***

**Prof. Babu J Alappat,**

Professor, Department of Civil Engineering,  
Indian Institute of Technology Delhi.





#### 10. TRC Sponsored Stakeholders Meeting & Workshop on Draft IRC 111:2023 Revision @ Civil CET - 21/09/2023

College of Engineering Trivandrum (CET) being the State Technical Agency (STA) for the PradhanMantri Gram SadakYojana (PMGSY), the Flexible Pavement, Airfield & Runways Committee (H-2) of Indian Roads Congress (IRC) assigned CET to collect feedback and experience from the stakeholders of Kerala related to paving industry towards the process to revise the current code of practice IRC:111-2009 "Specification for Dense Graded Bituminous Mixes". In this pursuit, a discussion meeting and workshop is organized at CET under the banner of Transportation Research Centre of CET on 21/09/23 at Civil Seminar Hall. The major stakeholders who took part in the event are Kerala Highway Research Institute (KHRI), Kerala Infrastructure Investment Fund Board (KIIFB), Kerala State Rural Roads Development Agency (KSRRDA), Local Self Government Department (LSGD), National Transportation Planning and Research Centre (NATPAC), National Highway Authority of India (NHAI), Kerala Public Works Department (PWD), Rebuild Kerala Initiative (RKI) and major contractors in Kerala. Twenty senior members from these institutions, including the Kerala PWD Chief Engineer Er.AjithRamachandran and LSGD Chief Engineer Er. Sandeep K G, took part in the event. Dr. Loui, Professor and co-coordinator TRC welcomed the gathering. Dr. Savier J. S, Principal CET presided over the inauguration function. Dr. Anil R., Coordinator TRC, PMGSY-STA & Head of the Department of Civil Engineering, CET briefed the program and moderated the open discussion. Dr. Thushara V. T., Assistant Professor, Department of Civil Engineering

presented the various aspects of the proposed revision in comparison with the current revision, and opened the discussion points. Further open discussion was a brain storming session to review the revisions made in the draft IRC 111: 2023. The suggestions were documented and shared with the IRC committee to expedite further action in that regard.



### **11. Two weeks AICTE-ATAL Sponsred FDP on Design and Production of Reclaimed Asphalt Pavement Mixtures: A step towards sustainable green pavement**

Department of Civil Engineering has organsed Two weeks AICTE-ATAL Sponsred FDP on Design and Production of Reclaimed Asphalt Pavement Mixtures: A step towards sustainable green pavement from 9/1/23-20/1/23. The course aims to equip the faculty members, researchers, Government officials, and consultants to keep their knowledge upgraded with the scope, challenges, recent technology options, mix design, and material characterization of reclaimed pavement mixtures. It also provides a platform to interact with the academic and industry practitioners working in this field and provides technical knowledge for them to take up thesetechnologies to the next level. The expert lectures were be handled by eminent persons in Pavement Engineering from variousIITs, academicians, industry practitioners from India and abroad, and those from research institutes. The FDP was inaugurated by the first week was inaugurated by the Honorable Minister of Higher Education and Social Justice, **Dr. R. Bindu** and concluded with a Panel discussion n which eminent members from academia, industry and research institutes have participated. There was participation from many engineering colleges and industry across the country.

Experts from Academia			
 <p><b>Prof. Veeraragavan A</b>            Asst. Professor            Department of Civil Engineering            Indian Institute of Technology            Madras  <i>Keynote address</i></p>	 <p><b>Dr. Anjan Kumar</b>            Associate Professor            Department of Civil Engineering            Indian Institute of Technology            Guwahati  <i>Construction aspects related to the recycled pavement - hot mix recycling and cold-mix recycling</i></p>	 <p><b>Dr. Ahmed Asif</b>            Business Manager - Asphalt            Ingeeraj India Pvt Ltd  <i>Different options, challenges, current practice in hot-mix recycling</i></p>	
 <p><b>Dr. K. Sudhakar Reddy</b>            Professor, Civil Engineering            Department            Indian Institute of Technology            Kharagpur  <i>An overview of asphalt recycling in India</i></p>	 <p><b>Dr. A Padmarekha</b>            Associate Professor            Department of Civil Engineering            SRM Institute of Science and            Technology, Kattankulathur  <i>Modulus determination of RAP mixtures</i></p>	 <p><b>Sreejith G H</b>            Deputy Director, Kerala Highway            Research Institute, Trivandrum  <i>An overview of RAP construction projects in Kerala Asphalt mix design in practice Implementing laboratory mix designs in the field</i></p>	
 <p><b>Dr. J Murali Krishnan</b>            Professor, Department of Civil            Engineering, Indian Institute of            Technology, IT            Madras  <i>Intricacies of RAP mix design and RAP mixture characterization</i></p>	 <p><b>Dr. Neethu Roy</b>            Professor, Department of Civil            Engineering, Mar Basilio's            College of Engineering and            Technology, Trivandrum  <i>HMA material characterization</i></p>	 <p><b>Arpan Ghosh</b>            Principal Consultant, Technical V            &amp; TECHNICE Consultants Pvt            Ltd  <i>Construction challenges related to the recycled pavement- Perspective from a pavement owner</i></p>	
 <p><b>Dr. Animesh Das</b>            Professor            Department of Civil Engineering            Indian Institute of Technology            Kharagpur  <i>Current challenges with asphalt recycling and future</i></p>	 <p><b>Dr. M.R.Nivitha</b>            Assistant Professor            Department of Civil Engineering            PES College of Technology,            Coimbatore  <i>RAP binder characterization</i></p>	 <p><b>Dr. Nivedya M K</b>            Associate Data Scientist at San            Diego Association of            Governments, California, USA  <i>Building Sustainable Road Infrastructure using Foamed Bitumen Technology</i></p>	
 <p><b>Dr. Aravind Krishna Swamy</b>            Associate Professor            Department of Civil Engineering            Indian Institute of Technology            Delhi, New Delhi  <i>Quantification of Recycled Asphalt Concrete Mixtures variability</i></p>	<th colspan="2">Experts from Research Institutes/Industry</th>	Experts from Research Institutes/Industry	
 <p><b>Dr. Charmot Shephane</b>            Asphalt Technical group leader,            Asia Pacific Technical Center,            Ingeeraj, Shanghai, China  <i>The international practice in the production of RAP mixtures and recycled pavements</i></p>	 <p><b>Dr. Samson Mathew</b>            Director, National Transportation            Planning and Research Centre            (NTPRC), Kerala  <i>Construction aspects related to the recycled pavement- Challenges in Kerala</i></p>	 <p><b>Ajay B Poojary</b>            Area Manager - Product            Management, Road Technologies,            Warrington, UK Ltd  <i>Sharing experience on Recycled Pavements &amp; Foam Bitumen Technology</i></p>	

 **Department of Civil Engineering**  
**COLLEGE OF ENGINEERING TRIVANDRUM**

**AICTE - ATAL - FDP**



AICTE - ATAL - FDP on  
 "Design and Production of Reclaimed Asphalt Pavement Mixtures"  
 09-01-2023 - 20-01-2023 at CE Seminar Hall-II, Organized by Dept. of Civil Engineering, College of Engineering Trivandrum

## 12. DTE sponsored FDP on "Road Safety audit and related aspects"

Department of Civil Engineering, College of Engineering Trivandrum organized a six day long Short Term Training Programme on "Road Safety audit and related aspects" for the faculties of Government Engineering Colleges and Polytechnic Colleges of Kerala, sponsored by Directorate of Technical Education, from 22/08/2022 to 27/08/2022. The course was

attended by Faculties of Government Engineering Colleges and self financing institutes. There were 62 participants from Government Engineering Colleges and 7 participants from self financing institutes. There were 2 participants from academic institutions outside Kerala that brought visibility of the institute at a larger scale. A total of 43 including 32 participants and two course coordinators attended the meeting. There were 13 resource persons from premier academic institutes such as SVNIT Surat, National institutes such as CRRI, industries such as M3 India Limited, other institutes such as NATPAC, Kerala Road Safety Authority, Motor Vehicles Department, PWD handling the sessions. The

schedule of the sessions is included along with the Enclosures. The inauguration of the course was done by D.r S. Velmurugan, Chief Scientist, CRRI, New Delhi and presided over by Dr. V. Suresh Babu, Principal, CET. The sessions included field visits to provide training on the procedure of Road Safety Audit to the participants. The course concluded on 27/08/2022 and the function was presided over by Dr. V. Suresh Babu, Principal, CET. Certificates were distributed to the participants and the feedback from the participants indicated that they were highly benefitted from the training program.

