



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS)

Accredited by NAAC & NBA (CSE, IT, ECE, EEE & ME)

Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada

L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

Report of

ONLINE THREE-DAY FACULTY DEVELOPMENT PROGRAMME (FDP)

ON

Advanced Topics in Geotechnical and Transportation Engineering

Event: Online three- day Faculty Development Program (FDP)

Date/Duration: 25th to 27th March-2021 (three days)

Resource person:

1. Dr. Ashok Julaganti , NIT-Tadepalligudem, PhD from IIT Guwahati.
2. Dr. G. Kalyan Kumar, NIT-Warangal, PhD from IIT Madras.
3. Dr. K.V.R. Ravi Shankar, NIT-Warangal, PhD from IIT Bombay.

Name of the Co-Ordinator: M.Manoj Kumar , Assistant Professor.

Convener: Dr.V.Ramakrishna, Hod & Professor

Target Audience: Faculty and Research scholars.

Total no. of Participants: 84

Platform: Microsoft Teams.

Objective of the event: To inculcate the advanced technologies in the field of transportation and Geo-technical engineering stream.

Topics delivered by Resource Persons:

- Dr. Ashok Julaganti: Hot mix asphalt and Warm mix asphalt
- Dr. G. Kalyan Kumar: Seismic hazard analysis and concepts of Soil Structure Interaction
- Dr. K.V.R. Ravi Shankar: Fuzzy logic and Neural Network applied in the field of transportation Engineering

Outcome of the event:

- Understand the warm mix asphalt (WMA) paving technology and the advantages associated with it over the traditional hot mix asphalt (HMA).
- Understand and able to apply the concepts of SSI in the real field applications.
- Understand the concepts, philosophy, and methodology behind neural networks and fuzzy logic.

REPORT

In the present-day scenario, role of geo technical and transportation engineering has increased manifold due to construction and development of infrastructural facilities for the community. Laying of new pavements and connecting the interior places in the country has become an important issue. The hot mix and warm mix asphalt technique will help improve the eco-friendly nature of pavement construction. The first presentation by Dr Ashok discussed the advantages and disadvantages, methods of applying the mixes in laying the pavements. Constructing structures in seismic prone areas is really a challenge to engineers. Several issues should be addressed in this regard to overcome all the difficulties. The second presentation by Dr Kalyan addressed these issues considering several successful cases. Modelling will help in analysing the problems and identifying solutions through predictions. The third presentation by Dr Ravi Shankar dealt with the modelling approaches using Neural networks and Fuzzy logic in the domain of transportation engineering using some specific case studies. The participants were satisfied with FDP about the content and interactive sessions and requested for more such events in the near future.

Name of the resource person	Date	Session	Topic	Content	Outcome
Dr. Ashok Ashokaram, NIT Tatyapet, Andhra Pradesh	25.03.2021	All	WMA: A Green Firing Technology	<ul style="list-style-type: none"> What is WMA? Advantages and Disadvantages How to overcome problems associated with WMA? What is WMA? Advantages of WMA. 	Understand the various mix options (WMA) paving technology and its advantages associated with it over the traditional hot mix asphalt (HMA).
Dr. Kalyan Kumar, NIT Warangal	26.03.2021	All	Soil Structure Interaction (SSI)	<ul style="list-style-type: none"> Basics and applications of SSI. Probabilistic Seismic Hazard Analysis. 	Understand and able to apply the concepts of SSI in the real field applications.
Dr. Ravi Shankar, NIT Warangal	27.03.2021	All	Neuro-Fuzzy Applications in Transportation Engineering	<ul style="list-style-type: none"> Basics of neural network. Fuzzy logic techniques. 	Understand the concepts, philosophy, and methodology behind neural network and fuzzy logic.

FDP Brochure

Address by HOD Dr V. Ramakrishna.

Presentation of Resource person Dr Ashok

Presentation of Resource person Dr Kalyan

Presentation of Resource person Dr Ravi Shankar

Panel discussion during FDP



Sample participation Certificate to Participants