

Dr. B.R. AMBEDKAR NATIONAL INSTITUTE OF TECHNOLOGY JALANDHAR

Department of Civil Engineering

One Week On-line Short Term Course on ‘Emerging Trends in Highway Engineering and Infrastructure Development’ held at NITJ amidst overwhelming response

A One Week On-line Short Term Course on ‘Emerging Trends in Highway Engineering and Infrastructure Development (ETHEID-2020)’, sponsored under TEQIP-III and organized by the Department of Civil Engineering of Dr. B.R. Ambedkar National Institute of Technology Jalandhar was held at NIT Jalandhar recently (23-27th June 2020).

Prof. Dr. Praveen Kumar, Director, NIT Delhi was the Chief Guest on this occasion. Prof. Lalit Kumar Awasthi, Director, NIT Jalandhar was also present on this occasion. Also present were Prof. S.P. Singh, Head of the Civil Engineering Department and Dr. Hemant Chore (Convener), Dr. Mrs. Shailaja Bawa (Co-ordinator) of the Programme, respectively, in the inaugural session.

Prof. Praveen Kumar while joining via ‘Google Meet’ reviewed the development in the field of Highway Engineering and Infrastructure Development in the country over the years and said, “India is on the threshold of a major forward thrust in the field of transportation Infrastructure”. Pointing out Highways in a country rightly comparable to the arteries of a human being, their importance not only in the social and economic upliftment of India, but also in the strategic movement in emergency for defense of the country as well as maintaining better law and order, can not be over emphasized; he added.

Consistent research and development in the country has resulted into considerable advances in the area of Highway Engineering and Technology. These include the use of better performing materials, improved design of pavement structures and other appurtenances, advanced construction technology using mechanized methods of construction and improved maintenance practices and techniques. Nowadays, more importance is given to the road safety issues through proper traffic planning and management.

On this background, Prof. Praveen Kumar appreciated the efforts of the Department of Civil Engineering for organizing this course expressing the confidence that it would be useful for

the academicians, field professionals, practicing engineers, research scholars and UG and PG Students.



Prof. L.K. Awasthi (Director) and Prof. S.P. Singh (HoD Civil) being felicitated by the organizing team; also seen (from left) are Dr. Hemant Chore, Dr. Mrs. Shailaja Bawa and Dr. Rajiv Kumar

Prof. Lalit Kumar Awasthi, Director NITJ, while pointing out the progress the Institute has made in last couple of years, said that the theme of the course is apt in the today's context. He also added that there was a lot of scope whereby field of highway engineering can be linked with other branches of engineering such as Computer Engineering, Electronics and Mechanical Engineering for joint collaboration in terms of Research and Development activities. Prof. Awasthi appreciated the efforts of the organizing team comprising Dr. H.S.Chore, Dr. Mrs. Shailaja Bawa and Dr. Rajiv Kumar under the guidance of Prof. S.P. Singh, for bringing the renowned personalities working in diverse spectrum of the field of Highway Engineering on one common platform to enable them to exchange their eminence and experience in their respective fields with the stakeholders. Prof. S.P. Singh, HOD (Civil), also spoke on this occasion and attributed success of such endeavours to the guidance and encouragement rendered by Prof. L.K. Awasthi, Director.

The speakers who spoke in 15 different sessions of this five days' course on various topics pursuant to the theme of the course include: Prof. Praveen Kumar (Professor of IIT

Roorkee and Presently, Director of NIT Delhi), Prof. P.K. Sikdar (Retired Professor from IITB and former Director, Central Road Research Institute, New Delhi), Professor M. Parida, Prof. V.A. Sawant and Dr. G.D. Ransinchung R.N. from IIT Roorkee; Prof. Bharbag Maitra and Dr. Swati Maitra from IIT Kharagpur; Prof. Gopal Patil from IITB; Prof. A. Veeraragavan and Dr. Surender Singh from IITM, Prof. C.H. Solanki and Dr. Satyajeet Patel from SVNIT Surat; and Dr. Ankit Gupta and Dr. Nikhil Saboo from IIT BHU; and Dr. Dulal Saha, Director, Infrastructure Design Consultants (IDC) Pvt. Ltd., Mumbai.

Prof. Praveen Kumar in his lecture titled ‘Non-Conventional Materials for Road Construction’ laid emphasis on utilization of the non-conventional materials in the highway construction in order to preserve the natural resources and also reduce the pollution. Prof. C. H. Solanki asserted the importance of the extensive geotechnical investigations in the laboratory and field for geotechnical characterization of the subgrade soil and other granular materials to be used for the design and construction of roads and pavements. Dr. Satyajeet Patel dwelt on the pavement geotechnics in the context of the significance of resilient modulus in the design of flexible pavement and discussed the application of industrial wastes in the highway construction.

Dr. Ankit Gupta elaborated on different waste materials used in flexible pavement and ranked such waste materials on the basis of various parameters. Prof. V. A. Sawant explained applications geosynthetics in conjunction with waste materials in highway embankment. Prof. M.Parida while explaining the guidelines of traffic management, laid emphasis on the construction zone safety and road safety audit for all type of roads.

Dr. Swati Maitra explained various characteristics of the concrete pavement and innovations in the design methodology for such pavements. Prof. A. Veeraragavan explained different types of distresses in pavements and causes of the premature failures of highway pavements in the light of some case studies. Dr. G.D. Ransingchun spoke about the use of Reclaimed Asphalt Pavements in the construction of rigid pavement as a sustainable approach in wake of the different projects presently going on involving the construction using RAP.

Dr. Nikhil Saboo pointed out the use of reliability in the design of flexible pavement. Dr Dulal Chandra Saha presented the design methodologies for the flexible pavement using CBR methods and further, presented the comparative cost analysis. Dr. Surender Singh spoke about inducing the sustainability in rigid pavements through recycled aggregates.

Prof. Bhargab Maitra while pointing out more than 400 casualties per day due to road accident, sought interventions for enhancing road safety in the country. Along similar lines, Prof. P.K. Sikdar presented the road safety scenario in the country in general and Punjab in particular and laid emphasis on the evolution of management capacity. Prof. Gopal Patil talked about the maneuvering behaviour of drivers at un-signalized intersections.

Prof. Lalitkumar Awasthi was the chief guest at the valedictory function. Prof. Gopal Patil (IITB) and Prof. S.P. Singh, HoD (Civil) were also present on this occasion. Prof. Awasthi expressed happiness on the overwhelming response from participants and their positive feedback and assured many more such programmes in the future. Dr. Hemant Chore (Convener) presented the report of the proceedings of the Course. Dr. Rajiv Kumar proposed vote of thanks. Dr. (Mrs.) Shailaja Bawa conducted the proceedings of the valedictory function.

In all 476 delegates including faculty members, scientists, field professionals, practicing engineers; and UG and PG students along with research scholars affiliated to various IITs, NITs, Central and State Universities and affiliated colleges thereof from different parts of the country and also from abroad participated in the course via online mode.
