



G H Patel College of Engineering & Technology, V. V. Nagar

Department of Civil Engineering

Report on

Expert talk on Sustainable Pavements Construction using technology

Department of Civil Engineering, GCET organized an expert talk on **“Sustainable Pavements Construction using technology”** on Saturday 17th July, 2021 by Mr. Himanshu Agarwal, the Senior Vice President, Zydex Industries, Vadodara. There are more than 80 students and faculty members have actively attended the talk. With vast experience in the field, Mr. Agarwal enlightened the students about the technology to construct sustainable pavement.

AIM:

The primary aim of the expert talk is to inform and enlighten the students concerning conventional techniques and advancements that have been achieved in the field of sustainable pavement construction. Through this event it is our goal to expose students to practical aspect of the industry.

About the Talk:

The expert talk consisted different sections where the primary section was the introduction of the speaker, and his experience within the field. Mr. Agarwal described the different technologies and procedures that are used in the industry for pavement construction. He discussed about the materials consumed for construction as well as its effect to the environment. He explained about the sustainability and why there is a need in the field of pavement construction. He explained about the emulsions/products such as TerraSil, ZycoBond, TerraPrime, NanoTac and ZycoTherm used for the soil stabilizing of subgrade, for enhanced quality of Tack coat, prime coat emulsion, and seal coat of surface course etc. and how it is used.

Mr. Agarwal also focused on the economical aspect of the project. He discussed about circular economy and its principle. He talked about his projects such as Andaman Road and Ladakh Road. He illustrated step by step procedure for pavement construction. He also explained about the quality control and checks done at the time of construction. He discussed in depth about the bonding of materials and mechanisms on the road. He concluded the lecture by discussing about the Sustainable Highway Construction- Pavement Life Cycle.

Glimpse of the event:

39:53

TerraSil & ZycoBond

Soil Stabilisation & Waterproofing

- ✓ Reduced Water Permeability
- ✓ Eliminates Capillary Rise
- ✓ Nano-bonding for higher Flexibility
- ✓ Prevents Freeze Thaw
- ✓ Reduces swell
- ✓ Higher Strength & Load Bearing Capacity
- ✓ Eliminates Deformation
- ✓ Improves Compaction Density
- ✓ Use of local soils - reduced aggregate consumption

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Zydex
Innovating for Sustainability

Himanshu Agarwal (Guest)

+71 DP 1 HA 1

Prof Ratansharan Pan... Dr Khadeja Priyan 180110106004 Himanshu Agarwal (Guest)

01:05:50

Bitumen Mixes Faster Coating at Lower Temperatures

20 % less time is required, even at 40 °C lower mixing temperature

Mix	Temperature (°C)	coated 50% [s]	coated 100% [s]
AC 16 BS 50/70	NPG @ 135 °C	~25	~65
	NPG + ZT @ 135 °C	~15	~45
	NPG+ZT @ 115 °C	~18	~50
	NPG+ZT @ 95 °C	~18	~55
AC 11 DS 25/55-55A	PMB @ 145 °C	~35	~80
	PMB+ZT @ 145 °C	~22	~55
	PMB+ZT @ 125 °C	~30	~65
	PMB+ZT @ 105 °C	~30	~60

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Zydex
Innovating for Sustainability

Himanshu Agarwal (Guest)


+65 1 DP 1 PS HA

Prof Nirajkumar P Ma... Dr Khadeja Priyan 180110106004 Prof Ratansharan Pan... Prof Poorav Shah Himanshu Agarwal (Guest)


iTUBS
Innovationsgesellschaft
Technische Universität
Braunschweig mbH

37:24

Roads Below, On Which We Drive



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 Zydex
enabling the sustainability

Himanshu Agarwal (Guest)


+71

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Prof Nirajkumar P Ma...


DP

Dr Snehal Popli

DP


Prof Ratansharan Panc...

DP


Dr Khadeja Priyan


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180110106004


Himanshu Agarwal (Guest)


25:19


Dr Khadeja Priyan ...

180110106004


Prof Ratansharan Panchal ...


Dr Snehal Popli


Himanshu Agarwal (Guest)


Prof Nirajkumar P Mandowara


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RAVI


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
JAY'S RAO


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