

**Tutorial Session on
Analysis and Design of Flexible Pavement**

December 20, 2017 (14.00-17.00 hrs.)

Instructor: Aniket Katware, Ayyanna Habal and Prabin Kumar Ashish, IIT Bombay

Analysis and Design of Flexible Pavement (14.00 – 15.30)

A brief description of empirical mechanistic methods of design, Description of structural model and distress model, Design factors, Traffic inputs, Equivalent axle load factor, vehicle damage factor, Traffic analysis for design of flexible pavements, Inputs from materials (bitumen, aggregates, asphalt mixes), environment and reliability. A worked out example on the design of a flexible pavement by IRC method (IRC 37), using the charts and tables and also using the distress models (rutting and fatigue criteria) and verifying adequacy of design by IITPAVE software.

Introduction and Design of Flexible Pavement Overlay (15.30 – 16.30)

Introduction to need of overlay, different types of overlays, design methodologies, effective thickness approach, deflection approach, one worked out example on effective thickness approach method, use of Benkelman Beam for measurement of rebound deflection, temperature, rainfall, and moisture corrections, one worked out example on Benkelman beam deflection approach of IRC 81.