Good construction practices

Time Period	Description of Topic
Day-1	
09:45-13:00 & 14:00-17:15	**Construction of Rigid Pavements** ➢ Provisions as per Section 600 of MoRT&H Specifications ➢ Construction of Dry Lean Cement Concrete Sub base ➢ Machinery and Equipments required for laying, transporting, mixing, compaction, texturing, curing, joint cutting, sealing joints etc. ➢ Methodology for mixing, laying & curing of concrete pavement ➢ Construction by Slip Form Paver & Fixed Form Paver ➢ Texturing with brooming or tinning and joint cutting/forming ➢ Details of types of joints • Transverse Joint (Contraction & Expansion) • Transverse Construction Joint • Longitudinal Joint ➢ Tie bars and Dowel Bars ➢ Choice in construction of different types of rigid pavements ➢ Construction of cell fill pavements and specification ➢ Construction of pre cast block pavements and specification ➢ Self-compacted concrete pavements and specification ➢ Construction Practices ➢ Case Study
Day 2	
09:45-13:00	**Expansion Joints:-** ➢ Type of expansion Joints & Performance Requirement • Filler Joints • Reinforced Elastomeric Joint • Single Strip/ Box Seal Joint • Modular Strip/ Box Seal Expansion Joints • Asphaltic Plug Joint • Compression Seal Joint ➢ Provisions as per Section 2600 of MoRT&H Specifications, IRC:SP:69 ➢ Installation of Expansion Joints ➢ Construction Practices ➢ Case Study
14:00-17:15	**Approaches to Bridges & Bearings:-** ➢ Provisions as per Section 2000 of MoRT&H Specifications ➢ Construction Practices ➢ Case Study
Day 3	
09:45-	**Reinforced Earth Retaining Structure:**

13:00 & 14:00-17:15	➢ MoRT&H Specifications as per Section 3100 ➢ Proper methodology for Earth work compaction with flyash ➢ Construction of High Embankment with RE Wall by using Geo-synthetics / Steel strips ➢ Need for retaining structures ➢ safe slope angles ➢ Introduction to reinforced soil and RE wall ➢ Concept of reinforced soil embankment ➢ General arrangements details, CQA Plan, provision for drainage ➢ Construction Practices ➢ Case Study
Day 4	
09:45-13:00 & 14:00-17:15	**<u>Highway Drainage:-</u>** ➢ <u>Requirement and Overview of Drainage</u> • Adverse Impacts of Stagnant Water on Pavement Courses • Drainage Consideration for Roads in Rural Sections and Urban Sections • Drainage Considerations for Road in Embankment, Road in Cutting and Road with Hill on One Side and Valley on other Side ➢ Types of Surface and Sub-surface drains ➢ Drainage of Medians, At-grade Intersections, High Embankments and Bridge/Structures ➢ Drainage of Hill Roads • Road Side Drain • Catch-Water/Intercepting Drain • Chute • Sub-surface Drainage ➢ MoRT&H Specifications as per clause 309, Section 6 of IRC :SP:84-2019, Relevant provisions as per IRC: SP:42, IRC: SP:50, IRC : SP: 90 ➢ Construction Practices ➢ Case Study
<u>Day-5</u>	
09:45-13:00 & 14:00-17:15	**<u>Appurtenances:</u>** ➢ Railings ➢ Footpaths ➢ Utilities along bridges ➢ Drainage spouts ➢ Crash barriers