

**CE711M: Construction Equipment and Methods – I (Modular)****3-0-0-0 [5]****Course Contents:**

The emphasis of the course is on the construction equipment and the construction methods as relevant for infrastructure creation. Initially, the course introduces different types of infrastructure viz, transportation, irrigation and water supply, power and buildings. Subsequently the course delves into various components of infrastructure along with their specific requirements will be explained. The common elements across the infrastructure types will be introduced. Building on the knowledge from the general civil engineering courses, the course focuses on recent developments, equipment, practices and issues in Surveying, Earthwork in Excavation, Slope Stabilization, Ground Improvement, Earthwork in Embankment, Concrete – Production, Transportation and Placement, and formwork design. Besides the broad principles involved, specifications and quality requirements, and productivity and cost issues will also be addressed.

**CE712M: Construction Equipment and Methods – II (Modular)****3-0-0-0 [5]****Course Contents:**

The emphasis of the course is on the construction equipment and the construction methods as relevant for infrastructure creation. Initially, the course introduces different types of infrastructure viz, transportation, irrigation and water supply, power and buildings. Subsequently the course delves into various components of infrastructure along with their specific requirements will be explained. The common elements across the infrastructure types will be introduced. Building on the knowledge from the general civil engineering courses, the course focuses on recent developments, equipment, practices and issues in Tunnelling and Underground Construction, Foundations, Highways, Railways, Irrigation structures like dams and canals, Pipelines, Airports, Harbours, and Ports. Besides the broad principles involved, specifications and quality requirements, and productivity and cost issues will also be addressed.