

## **0902471 Highway Engineering**

Characteristics of the driver, the pedestrian, the vehicle, and the road. Geometric Design of Highway Facilities, Highway Functional Classification, Highway Design Standards, Design of Horizontal and Vertical Alignment, Special facilities in Steep Grades, Computer Use in Geometric Design. Highway Surveys and Location, Principles of Highway Location, Preparation of Highway Plans. Calculations of Area and Volumes and Cross Sections. Earthwork calculations cut and fill and Mass Haul Diagram MHD. Intersection Design, Types of at-grade Intersections, Interchanges types. Highway Drainage, Surface Drainage, Highway Drainage Structures.