

Introduction to Transportation Engineering - Video course

Modes of Transportation, their importance and limitations, the importance of highway transportation

Introduction to

- Road Development Plans
- Various Highway Developmental Projects like Golden Quadrilateral and East-West & North South Corridors under NHDP, PMGSY etc.
- Road Development Organisations
- Financing of Road Projects – Past and Present Trends

Stages in the Preparation of Project Report: Prioritization, Feasibility Studies, Preparation of Preliminary and Detailed Project Reports

Elements of Traffic Engineering: Fundamentals of traffic flow, traffic studies, concept of Capacity and Level of Service, Travel Demand Forecasting for Highways, design of signalized intersections

Highway Alignment Study, Controls for selection of Alignment, Engineering Surveys
Geometric design of highways: cross-sectional elements, horizontal and vertical alignments

Geometric Design of Intersections – rotaries etc.

Pavement Materials: functions, specifications and evaluation, Bituminous mix design

Pavement Design: Flexible and rigid pavements, principles of design, empirical and analytical design procedures.

Pavement Construction: embankment, subgrade, subbase and base courses, bituminous surface courses

Internal and surface drainage of pavements

Pavement Evaluation, Maintenance and strengthening.



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