BCE-014	Railway Engineering.	3L:0T:0P	3 credits

Pre-requisites: Transportation Engineering.

Course Objectives:

CO1	Impart basic knowledge of railway track components and their functions.
CO2	Introduce geometric design, points and crossings, track resistances, signaling and control system.
CO3	Learn advancement in Railway stations, yards, modernization of railways & High Speed Trains.
CO4	Acquaint with bridge terminology, types of bridges, bridge hydrology and river training works.

Railway Engineering.

Railway track gauge, alignment of railway lines, engineering surveys and construction of new lines, tracks and track stresses; rails, sleepers; ballast; subgrade and formation, rack fittings and fastenings, creep of rails, geometric design of track, curves and super-elevation, points and crossings, track junctions and simple track layouts; rail joints and welding of rails; track maintenance, track drainage; modern methods of track maintenance, rehabilitation and renewal of track; tractive resistance and power, railway stations and yards; railway tunneling; signaling and interlocking; maintenance of railways and high speed trains.

Course Outcomes: After the completion of the course the student will be able to:

CO1	Understand the importance of railway infrastructure planning and design.
CO2	Identify the factors governing design of railway infrastructures.
CO3	Design and analyze the railway track system.
CO4	Understand the process of execution of railway projects.

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