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| BCE-014 | Railway Engineering. | 3L:0T:0P | 3 credits |
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Pre-requisites: Transportation Engineering.

Course Objectives:


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| 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.

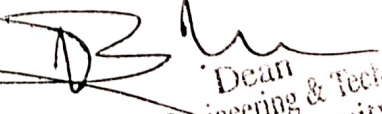
Railway track gauge, alignment of railway lines, engineering surveys and construction of new lines, tracks and track stresses; rails, sleepers; ballast; subgrade and formation, rack fittings and fastenings, creep of rails, geometric design of track, curves and super-elevation, points and crossings, track 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:

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| 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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