

Assigning platforms to incoming trains: simulation of kanpur central railway stat...



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Assigning platforms to incoming trains: Simulation of Kanpur Central Railway Station In this project we try to simulate the incoming trains and their allocation to different platforms in kanpur central railway station. The study is conducted for scheduled and actual traffic of trains occurring at kanpur central railway station Objective of the Study:- 1)To check the utilization of the platforms at the railway station, for both scheduled and actual traffic of the trains.

2)To study the scope of additional trains in the existing schedule. Problem Formulation:- Other details of the problem are as follows:-)There are nine regular platforms of which no 9 is inactive and two additional through lines especially for freight trains, so we restrict our study for 8 regular platforms and 2 through lines. 2)Also, separate calling population has been considered for passenger and freight train arrivals. 3)Large number of trains pass through Kanpur Central railway station.

Considering the volume of data available we have collected the data for one complete day (24hrs), for this study. 4)Arena software is used to simulate both the scheduled and actual traffic at kanpur central railway station. It is basically a multiserver queuing system, the queue is formed at the outer signal . 5)Passenger trains can be allocated to any of the available eight platforms, whereas freight trains will be allocated to the two loop lines. If the loop lines are busy then, the freight trains will be allocated to any of the available eight platforms Major modules used in Arena Model:- 1)Create (for arrivals of trains).

2)Hold (for queue formation at surrounding kanpur station). 3)Decision (for checking whether a particular platform is busy/free). 4)Process (for the platforms, which are considered as a resource). 5)Dispose (for departures/exit of trains).