

Research Work Title

Railway Domestic Signalling System



Executive Organization

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Abstract

Railway signalling system is one of the most important electronic and control systems in the railway industry that ensures traffic safety in subway and railway lines. In general, safety improvement, reduction in manpower and human errors, the possibility of increasing speed and thus saving costs are seen as advantages of implementing the signalling system. It is practically irrational and impossible to run a railway line without using and setting up this system. This signalling system has various hardware and software components as well as several subsystems for which special design requirements should be considered. The safety, high availability, easy maintenance, high reliability and domestic interlocking system standards are considered some of the distinctive features of this design which provide a unique product serving the customer's needs. This domestic interlocking system has the ability to manage and perform all defined operations and activities in railways and subways. In addition to meeting the safety, availability, maintenance and reliability requirements, this system has distinctive features such as a fast response as well as ease of use. The main tasks of the signalling system are:

- Control over the safe movement of trains at stations and lines
- Train movement control in adjacent railway areas
- Emergency control at the station
- Continuous monitoring of the display status and performance of the station equipment
- Recording of the station's important events and the possibility of their replay

