

Recent Research and Development of Railway Signalling and Telecommunications Technologies

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This paper introduces new train control systems that utilize wireless telecommunications technology and information technology. It also describes the efforts to solve problems of existing signalling equipment, such as a modeling of switch-and-lock system, a system to make up an interlocking circuit diagram automatically, a track circuit with high noise immunity. In addition, it describes simulation techniques of radio disturbance wave emitted from railway systems to railway side, and of telecommunications networks intended to railway environments. It outlines some applications of image processing and GPS to railway systems.