

Current Status of Sensor Network Research and its Applicability to Railways

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This paper describes the state of the art of the sensor network technologies which is applicable to railways, particularly focusing on the application to monitoring of railway infrastructures. First, we give an overview of ongoing activities in sensor network research community both in academics and in industries. This paper covers not only the hardware aspect of sensing devices and sensor networks but also the issues related to software platforms and interface designs which are essential parts of the sensing/monitoring systems. In the latter half of this paper, we discuss the applicability of sensor network technologies to railways and identify the issues that we have to cope with in order to deploy sensor networks in railway environment.