Availability Evaluation of Sensor Networks for the Railway Facilities Condition Monitoring

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Some researches have been progressed on monitoring systems applying sensor network to observe the conditions of various facilities or surroundings. This paper reports on the result of the simulation to evaluate the sensor networks. This network is assumed to apply many wireless sensor nodes to surroundings near the railroad such as bridges, station buildings, side slopes and so on. We also consider the way of allocation of sensor nodes, the frequency of exchange for broken or battery-dead sensor nodes, and whether the network has the self-diagnosis function or not.