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Bridge Health Monitoring System using IOT

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Abstract: *This research paper presents a The bridge is an important transportation infrastructure for the development of social and economic activities of a country. Indonesia has a lot of long-span bridges which need regular monitoring and maintenance. All of these bridges are managed and supervised by the Indonesia Ministry of Public Works. The fact, that the bridges are located in a remote area and provide difficulty in data management. Therefore, it need a system to monitor on the health of the bridges in real time and centralized in order to manage these bridges. Few of literature describing the structural health monitoring (SHM) system based on wireless sensor network (WSN) implementing for several bridges. In this project the system is designed for IOT based monitoring acceleration in 3 dimensions, tilt, variation in height and vibration. Thus this project can monitor bridges located on remote area by a single station with complete considerations including time efficiency, human resource efficiency and without risking human life.*

Keywords: Bridge health monitoring, IoT, Structural Health Monitoring, Wireless Sensor Network, Damage Detection

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