

## **Distribution Transformer Monitoring System with Zigbee Wireless Sensor Network in South Sulawesi**

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**Abstract.** In recent years, Wireless Sensor Networks (WSN) have received a lot of attention in the field of monitoring and control applications from industry environment aspects. As a type of pervasive computing, using of WSN provides several advantages both in terms of functionality and economics. The essence of electrical control scheme is Power Distributed Transformer and it is crucial to ensure a secure and consistent process. The power distribution transformer supervision in Indonesia housing is applied automatically and it notifies the regulating facility about the failure of convertor via individuals who reside nearby. The proposed research work suggests an automatic scheme for transformers which play a major role in electricity supply. And the application of Zigbee and sensing technologies for transformer monitoring in electrical power systems of Indonesia is highly required. Moreover, various regions of Indonesia like South Sulawesi will be taken for analyzing the electrical power system that are fixed with a suitable Zigbee network topology. For the said analysis distinct events of supposed power distributed transformers at the sides of roads and waterway will be considered. The proposed study also compromises the investigation of vital arrangement and network topology factors in order to find out the highly suitable designated system. The proposed scheme also describes in what way power distributed transformer neighborhood boundaries can be conveyed from the view point of ZCD (Zigbee Coordinator Device) towards the scrutinizing facility inside and outdoor of the sector. An examining display is recommended and needs to be applied at the monitoring hub.

**Keyword:** zigbee, sensor, monitoring, transformer.