

# **PRIORITIZED FAULT REPORTING USING WIRELESS SENSOR NETWORKS IN INDUSTRIAL ENVIRONMENT**

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## **ABSTRACT**

Wireless Sensor Networks (WSNs) are now established as one of the most cost effective and efficient mechanism for collecting data on the industrial shop floor. The sensors, apart from just collecting data, can also be used to detect faults occurring in the process being monitored by them. Traditionally, such faults are accumulated in the central node and processed collectively at one place. Instead of this, a distributed approach for fault processing is proposed. The faults can be temporarily stored in the sensor node and only selected faults can be sent on priority basis to the central node. The algorithm for filtering of the fault alarms is presented. The algorithm is tested in a simulated environment on RT-Linux platform.

**KEYWORDS:** Wireless Sensor Network, IWSN, Alarm Filtering, Industrial Process Control