IoT Based Industrial Machine Health Monitoring and Control

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Abstract: *Machine health monitoring in today's complex plant systems has gained more prominence than ever before because of steep increase in machinery costs, plant investments and maintenance expenses. A breakdown in any one machine or a component in a plant could mean huge losses coupled with safety and environmental threats as in the case industrial and commercial plants. The advances in manufacturing technology and the competition in the market necessitate the continuous availability of machinery for production. This has created a need for integrating maintenance with other manufacturing activities for better plant availability and efficiency. The objective of present research work is to present one such Machine health monitoring (MHM) system developed using knowledge-based systems. The proposed model can be a useful maintenance tool in majority of small and medium scale manufacturing plants. A comprehensive knowledge-based system (KBS) could be developed over a period of time for industrial machinery which can monitor the major machinery faults and provide expert maintenance solutions through measurement and analysis of machine parameters such as current, voltage, vibration, temperature*

Keywords: Machine health, condition monitoring, voltage, temperature, Vibration Analysis, Sensor-Based Monitoring