282. DESIGN AND IMPLEMENTATION OF ARTIFICIAL NEURAL NETWORK CONTROLLER BASED ON MOTOR HEALTH MONITORING AND CONTROLING USING WIRELESS SENSOR NETWORK

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In all applications Electrical machines play an important role, the use of medium-sized electric machines burned every year around about 20%. Because of electrical failure, damage caused by accident's even at home appliances as well as factory production cause the indirect economic losses even greater. So we propose a novelty system based on Artificial Neural Network as the controller which will take care of all the test analysis need for safety standards (vibration, torque, voltage, current, power consumption bearing test and etc.,) of a AC/DC devices with its own training and testing principle of operation. Currently, Artificial Neural Network (ANN) has gained momentum as a controller for even non linear system. The complete test system is modeled in Matlab / Simulink. The test results have been analyzed for both steady state and dynamic conditions. It is evident from the results that the proposed ANN controller gives promising results than the PI, PID controller.

Keywords: ZigBee network, sensors, End-device, Coordinator device, embedded system.