ECE-5

Intelligent Wireless Sensors Network for Industrial Automation Applications

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Technologies of Wireless Sensors Networks (WSN) and Internet of Things (IoT) are being widely introduced to Industrial Automation field; enabling new aspects in big data analysis, preventive maintenance and crises prevention, which makes industrial processes more efficient and less costly. Introducing these new technologies to industry faces difficulties due to the existence of current irreplaceable automation systems, which requires developing solutions compatible and friendly with the existent systems. This work aims to introduce an efficient, low-cost solution for industrial WSN. The applications of this system include: environmental data collection, industrial hazards alarms, security applications, controlling actuators, etc. The proposed system works cooperatively with the existent Programmable Logic Controllers (PLC) automation systems, which makes it flexible, having advantages of both wired and wireless control systems