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Design and implementation of embedded sensors nodes for wireless network control system and data transfer using long range RF Transceiver

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Multi-purpose wireless sensors nodes for wireless network and control system using long range RF Transceiver is proposed. The added contributions to this work is, portability of the system and compact, customizable according to the application needs, allows for higher degrees of security and data encryption and allow for routing thus extending the coverage area. The system makes a good utilization of the BW using variable length frames. Proteus circuit simulation program is used with actual frame for the proposed bit frame generation. The presented system can be used in various fields including but not limited to: Medical applications, security systems, military applications, small scale SCADA system, home automation, industrial monitoring, irrigation and agricultural systems, telecom applications for small range communication.

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