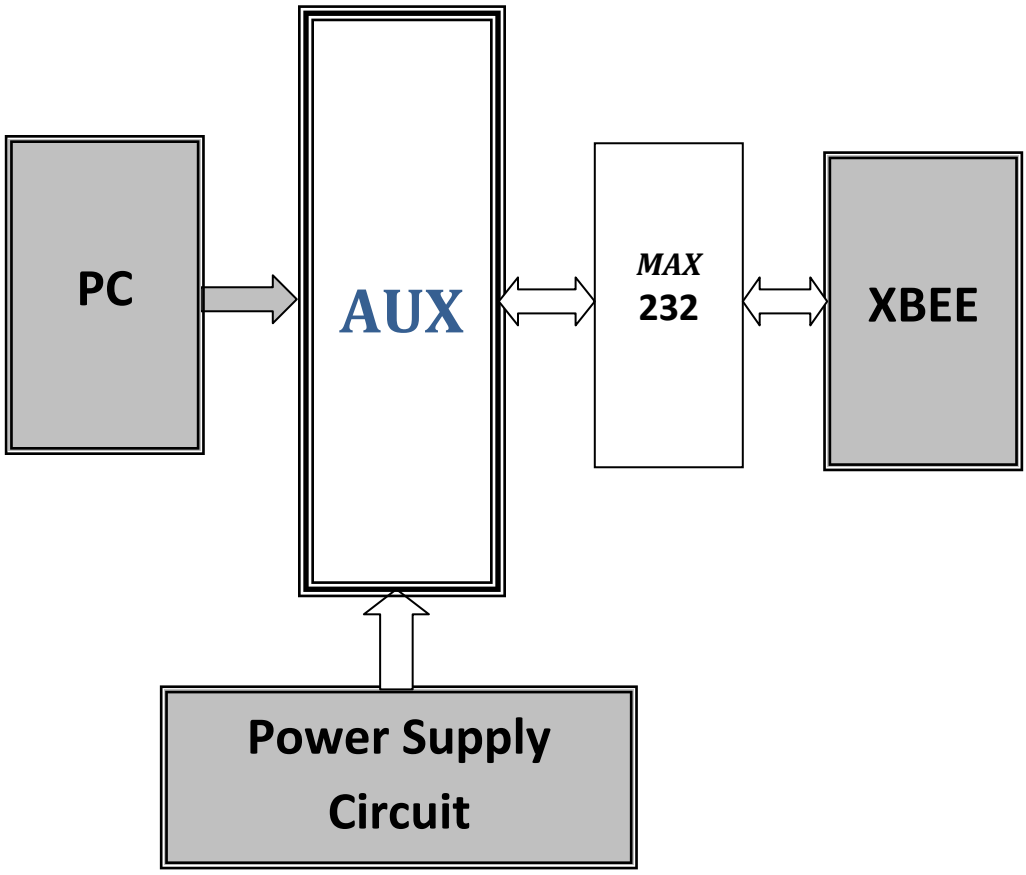
High Power Zigbee Based Wireless Sensor Network in Water Irrigation Control Monitoring System

Description:

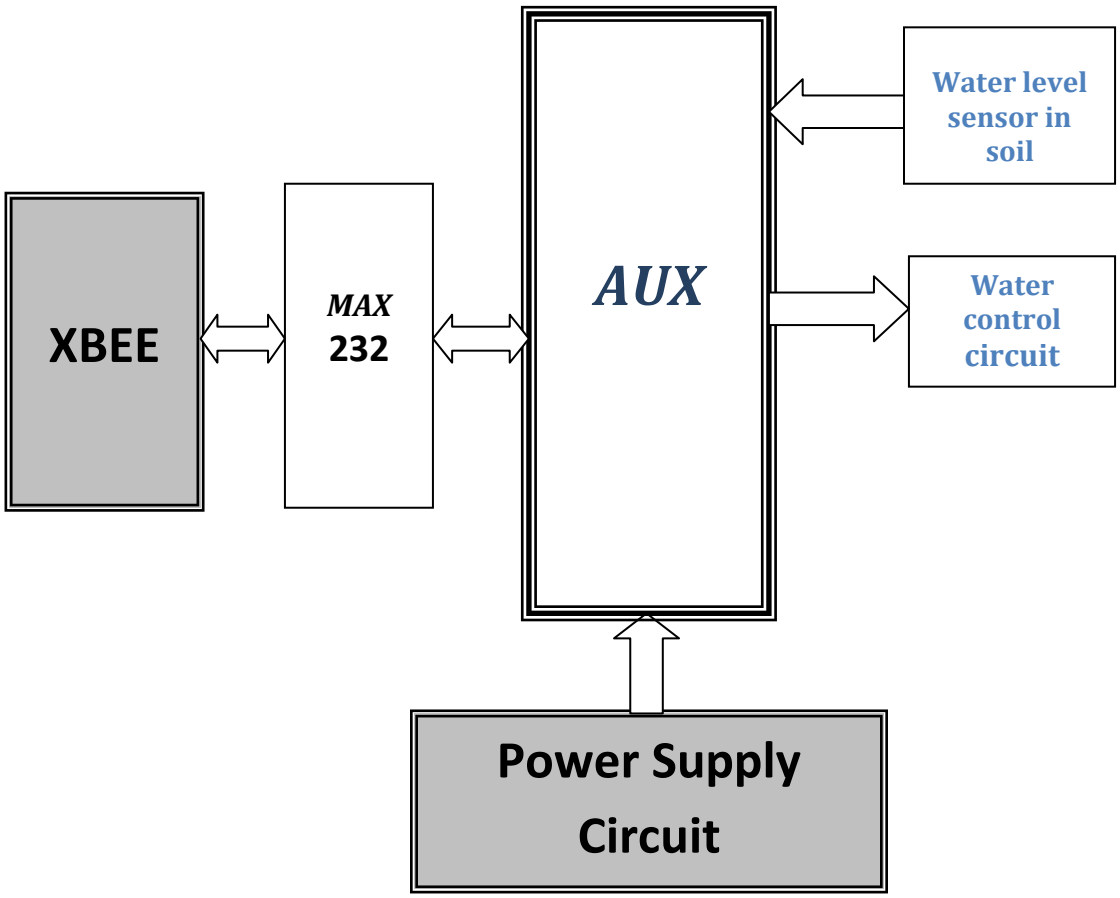
At present, labor-saving and water-saving technology is a key issue in irrigation. A wireless solution for intelligent field irrigation system dedicated to planting, based on ZigBee technology instead of conventional wired connection, the wireless design made the system easy installation and maintenance. The hardware architecture and software algorithm of wireless sensor/actuator node and portable controller are acting as the end device by coordinator in ZigBee wireless sensor network respectively.

Here in this project the water control for the irrigation field by detecting the soil water level and the quantity of the water to be provide to the field at each stage of irrigating can be controlled and monitored. The controlling and monitoring of each field is done by the slave kits fixed in each field and this will communicate to the master kit which gives instruction to the slave kits i.e. when to give water to the field and how much quantity etc.

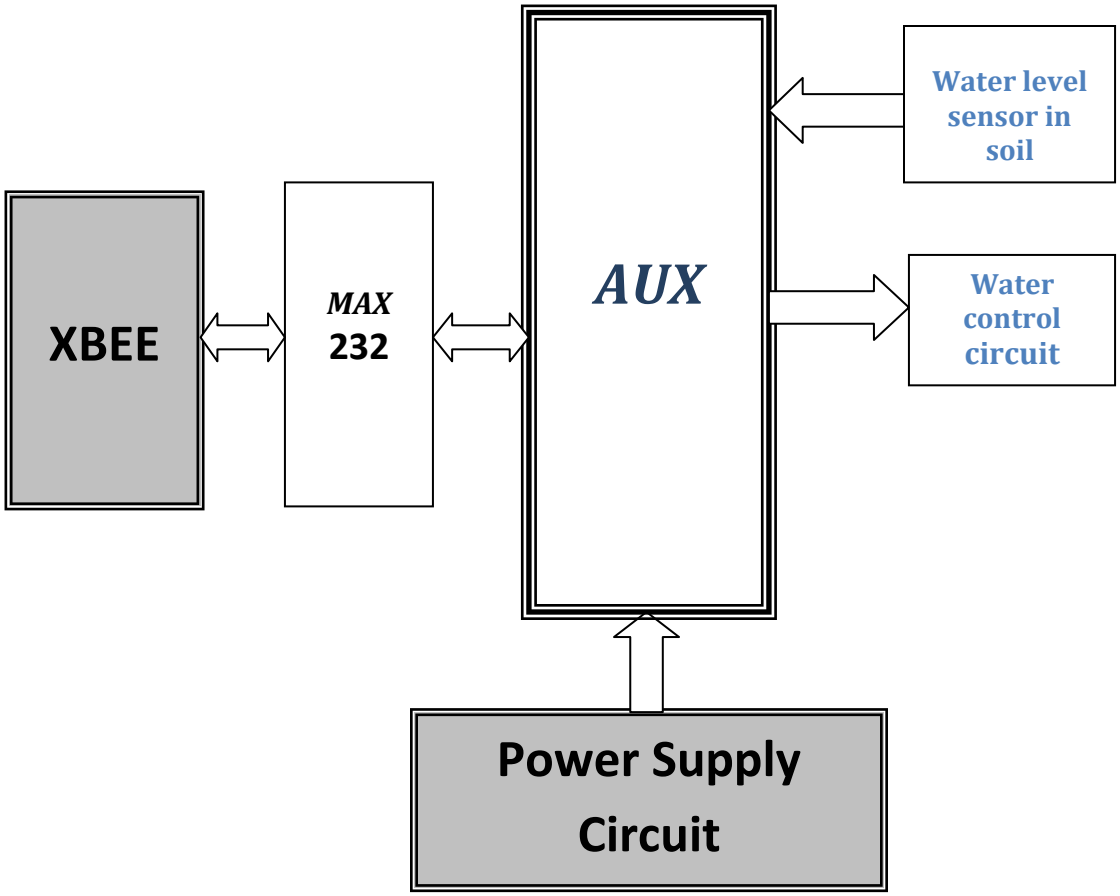
Master unit



Slave unit1


XBEE
MAX
232
AUX
Water level sensor in soil
Water control circuit
Power Supply Circuit

Slave unit2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