POWER PLANT FALSE ALARM SYSTEM THROUGH VOICE

ABSTRACT

The main aim of this project is to continuously monitor the power plant and to alert through voice using front end application developed on C# .NET platform.

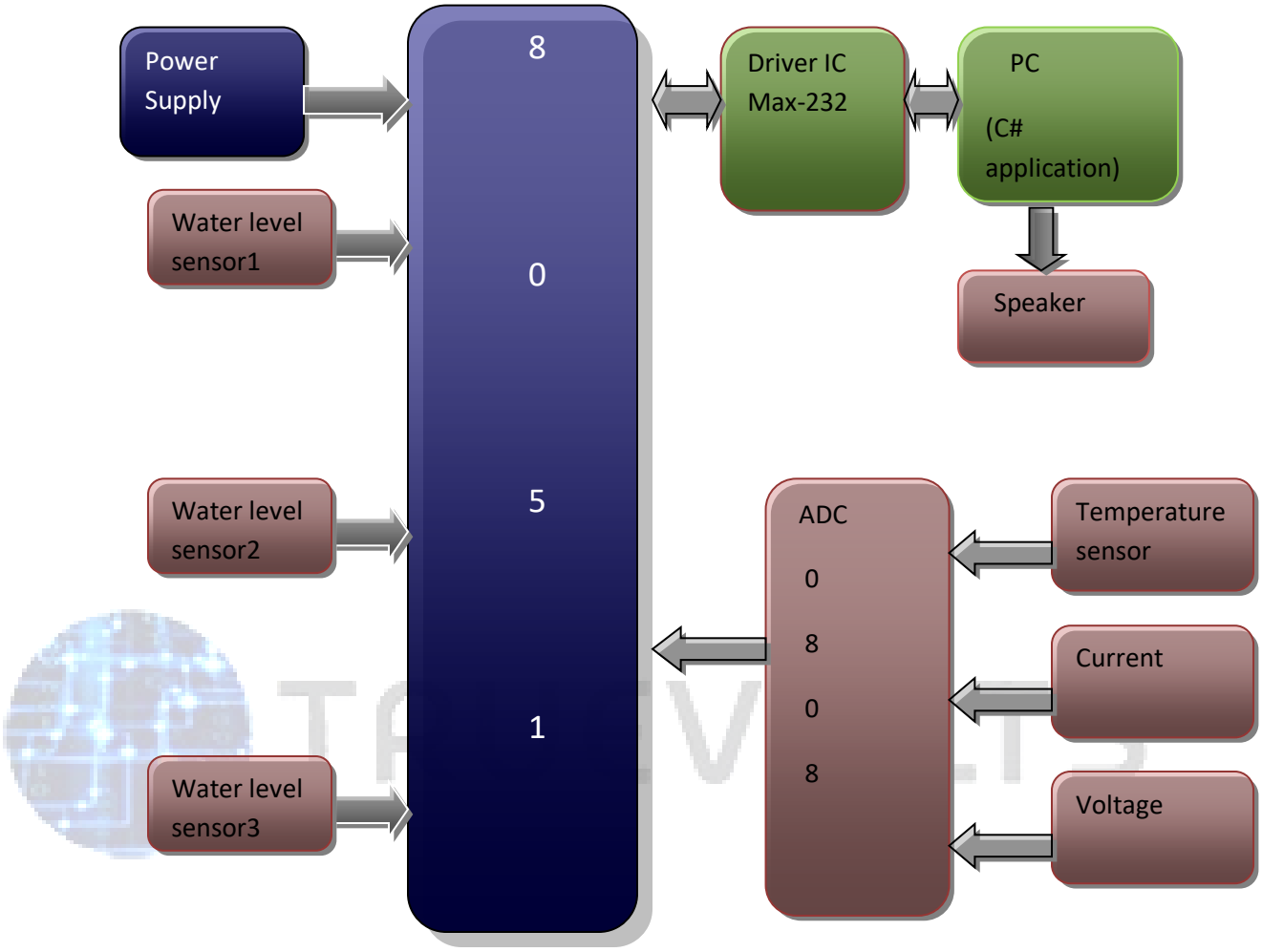
Here in this project we are considering the power plant parameters such as voltage, current, water level and temperature of the boiler. The project will be designed in such a way that an ADC0808 will be interfaced to the controller. Here the inputs for the ADC are the analog values of voltage, current and temperature of the boiler. The output of the water level sensors need not be given to ADC, as we consider the 3 digital water level sensors only. The ADC converts the analog values to digital and will feed them to the controller. And now the output of the sensors will be transmitted by the controller to the front end application of the PC which is interfaced to the controller through a line driver IC MAX32. Here the front end application will be developed on C# platform in which four text boxes will be designed to display the values of the considered parameters. And the code will be implemented in such a way that the application will play the voice based on the values of input parameters means if any value of the considered parameters i.e. any of the values of voltage, current, temperature crosses it's threshold value or if the water level reaches the min or max level of the water, the voice output will be delivered from the speakers of the PC through the front end application.

This project uses regulated 5V, 500mA power supply. 7805 three terminal voltage regulator is used for voltage regulation. Full wave bridge rectifier is used to rectify the ac output of secondary of 230/12V step down transformer.

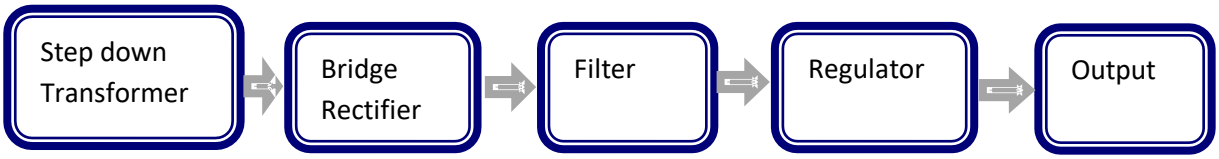
APPLICATIONS:

- Industrial applications
- Agriculture applications

BLOCK DIAGRAM:



POWER SUPPLY BLOCKDIAGRAM:



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