Electrical/Computer Engineering Design Project Proposal

Title: *Development of Microprocessors Labs*

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Description

This project is to investigate and develop up-to-date microprocessors labs for undergraduate ECE program. Three basic microprocessor/microcontroller-based platforms will be first evaluated. Some possible candidates include Motorola/Freescale MC9S12DG256, Microchip microcontrollers (e.g., PIC18F4550 or PIC24), and Atmel AVR microcontrollers (e.g., ATMega644p). And then a group of software and hardware labs targeted for different microprocessors/microcontrollers are to be developed. Observation and analysis are finally derived in order to recommend the best choice for supporting a certain junior ECE microprocessor course.

Note that the experimental material will be provided to the students who work for this project.

Roles

Around three students are needed for this project. They can be from either Electrical Engineering or Computer Engineering program. The students are expected to know microprocessors, assembly languages, and interfacing circuits.