

## ABSTRACT

Processor is an IC which has control and data mining process in it. According to the technology development that requires high ability, flexibility and efficiency so it is require processor's development too.

*Field Programmable Gate Array (FPGA)* is a kind of *Programmable Logic Device (PLD)*, a device that the component is consist of logic gates. The interconnections of the logic gates can be programmed by using *Very High Speed Integrated Circuits Hardware Description Language (VHDL)* programming language so the device have a function is like the designer wanted.

In this Final Project, FPGA will be designed to be a processor. The processor that will be designed is 8051 processor modification. By using FPGA that have a processor's function in it, designer can design a complex electronic design only in an IC that supported by some I/O device as an interface to the user.

Key Words :Processor, FPGA, VHDL.

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