

Memorandum

To: Dr. Vinod Prasad
Dr. Thomas Stewart

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Date: September 30, 2002

Subject: Senior Capstone Project

Project Title: Signal Processor Using FPGA and VLSI Technology

For our Senior Capstone Project, we will be constructing a general-purpose digital signal processor. This tool can be used in a variety of applications such as audio and wireless communication. This user-friendly application will include the following features: a four-bit adder, a four-bit by four-bit multiplier, data shifting and management, and a self-tester for reliability purposes. We anticipate adding other functions to this project as it progresses. This project will be implemented using our knowledge of digital technology, especially FPGA, VHDL, and digital-signal processing technology. When finished, this project will be ready for many different dedicated signal-processing applications.