Subject : Digital Design-II Project Proposal

Submitted To : Dr. Poornima Mittal

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Topic Name – MIPS Processor (**Microprocessor without Interlocked Pipelined Stages)**

Objective – To write the VHDL code for the MIPS Processor and perform simulation.

Work Plan – Firstly, we will use the instruction set and architecture design for the MIPS processor provided on the internet. Based on the provided instruction set, we will design and implement the data path and control unit. After completing the design for the MIPS processor, we will write the code for the whole design of the MIPS processor. After that we will verify the code by doing simulations on ModelSim or Xilinx ISE in order to see how the MIPS processor works.

Applications - The Microprocessor without Interlocked Pipeline Stage (MIPS) microprocessor is one of the world's most popular processors

for embedded applications. MIPS microprocessor can be found in applications ranging from hard disk controllers to laser-jet printers to gaming consoles and audio applications in consumer devices.