



Course: M.Tech. (Electronics & Communication Engineering)	Name of Faculty: Dr. Tripti S Warriar
Topic: 20-437-0112 FPGA Based System Design Lab	Semester: FIRST
Lecture Hall:	Timings: as per CBCS

Set of experiments

1.	Design and implement a 4/8-bit counter on a Xilinx FPGA using Vivado .
2.	Creating a system (hardware and software) that can output a simple message via the UART and blink LEDs on the board.
3.	Write a C program and run it on a single processor system, based on a MicroBlaze soft core, using the available Xilinx FPGA platform.
4.	Create a simple ARM Cortex based processor system through Vivado and IP integrator on available Xilinx FPGA platform.
5.	Create an ARM Cortex based processor system through Vivado and IP integrator with two GPIO IPs in Programmable logic (PL).
6.	Create a custom IP and adding it in the PL of the previously created processor system.
7.	Write a basic software application using SDK and verify its functionality on the developed processor system in the Xilinx FPGA platform.