

ile for Second part 977-220

no	date	topic	Talk Topics	labwork Topics
1	14/10/2025	Verilog-FPGA-1	Digital systems/Tools	Xilinx Vivado
2	15/10/2025	Verilog-FPGA-2	FPGA /Architecture	Xilinx Nexys A7
3	16/10/2025	Verilog-FPGA-3	Verilog HDL/Digital logic	Basic Logic Gates
4	20/10/2025	Verilog-FPGA-4	Design and systhesis	Adder Design
5	21/10/2025	Verilog-FPGA-5	Combinational Design 1	MUX and DMUX Design
6	22/10/2025	Verilog-FPGA-6	Combinational Design 2	Encoder and Decoder Design
7	27/10/2025	Verilog-FPGA-7	Combinational Design 3	Rotator and Shifter Design
8	28/10/2025	Verilog-FPGA-8	Sequential Design 1	Simple ALU Design
9	29/10/2025	Verilog-FPGA-9	Sequential Design 2	Counters and Clock Divider Design
10	30/10/2025	Verilog-FPGA-10	System Design	Display Counter
11	3/11/2025	Verilog-FPGA-11	Finite State Machines	Multiplier Design
12	4/11/2025	Verilog-FPGA-12	FPGA Projects and Applications	Traffic Light Controller
13	5/11/2025	IoT-1	IoT Concepts and Design	Connecting ESP32 to Wi-Fi
14	6/11/2025	IoT-2	IoT End Nodes	Reading Sensor from ESP32
15	10/11/2025	IoT-3	IoT Connectivity 1	Publishing via MQTT
16	11/11/2025	IoT-4	IoT Connectivity 2	Subscribing and Controlling Devices
17	13/11/2025	IoT-5	IoT Platforms	Bi-Directional MQTT
18	17/11/2025	IoT-6	IoT Data Visualization 1	Controlling via Node-RED
19	18/11/2025	IoT-7	IoT Data Visualization 2	Displaying on Node-RED
20	19/11/2025	IoT-8	IoT Application	Bluetooth Low Energy (BLE)

labwork scripts	labwork + Report (2%)	Quiz (2%)
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/lab_1_Xilinx_Vivado">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/lab_1_Xilinx_Vivado</a>	2	2
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_2_Nexys_A7">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_2_Nexys_A7</a>	2	2
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_3_Basic_Gates">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_3_Basic_Gates</a>	2	2
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_4_Adder">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_4_Adder</a>	2	2
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_5_MUX-DMUX">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_5_MUX-DMUX</a>	2	2
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_6_Encoder_Decoder">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_6_Encoder_Decoder</a>	2	2
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_7_Rotator_Shifter">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_7_Rotator_Shifter</a>	2	2
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_8_Simple_ALU">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_8_Simple_ALU</a>	2	2
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_9_Counter">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_9_Counter</a>	2	2
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_10_Display_7Segment">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_10_Display_7Segment</a>	2	2
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_11_Multiplier">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_11_Multiplier</a>	2	2
<a href="https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_13_Traffic_Control">https://github.com/komsan-k/verilog-fpga-lab-series/tree/main/Lab_13_Traffic_Control</a>	2	2
<a href="https://github.com/komsan-k/977-220/tree/main/iot/lab-02">https://github.com/komsan-k/977-220/tree/main/iot/lab-02</a>	2	2
<a href="https://github.com/komsan-k/977-220/tree/main/iot/lab-03">https://github.com/komsan-k/977-220/tree/main/iot/lab-03</a>	2	2
<a href="https://github.com/komsan-k/977-220/tree/main/iot/lab-04">https://github.com/komsan-k/977-220/tree/main/iot/lab-04</a>	2	2
<a href="https://github.com/komsan-k/977-220/tree/main/iot/lab-05">https://github.com/komsan-k/977-220/tree/main/iot/lab-05</a>	2	2
<a href="https://github.com/komsan-k/977-220/tree/main/iot/lab-06">https://github.com/komsan-k/977-220/tree/main/iot/lab-06</a>	2	2
<a href="https://github.com/komsan-k/977-220/tree/main/iot/lab-07">https://github.com/komsan-k/977-220/tree/main/iot/lab-07</a>	2	2
<a href="https://github.com/komsan-k/977-220/tree/main/iot/lab-08">https://github.com/komsan-k/977-220/tree/main/iot/lab-08</a>	2	2
<a href="https://github.com/komsan-k/977-220/tree/main/iot/lab-09">https://github.com/komsan-k/977-220/tree/main/iot/lab-09</a>	2	2
	40	40