**DAILY ASSESSMENT FORMAT**

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| **Date:** | **01-06-2020** | **Name:** | **Yalpi Nandika** |
| **Course:** | **DIGITAL DESIGN USING HDL** | **USN:** | **4AL17EC096** |
| **Topic:** | •  **Industry Applications of FPGA** •  **FPGA Business Fundamentals** •  **FPGA vs ASIC Design Flow** •  **FPGA Basics – A Look Under the Hood** | **Semester & Section:** | **6th sem & B sec** |
| **Github Repository:** | **Yalpi-Online-Courses** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session**  page1image40617392 |
| **Industry Applications of FPGA:**  • **The impact of new FPGA features in industrial applications is analyzed in detail in three main areas, namely digital real-time simulation, advanced control techniques, and electronic instrumentation, with focus on mechatronics, robotics, and power systems design.**  **FPGA vs ASIC Design Flow:**  page2image40643344   |  | | --- | | **Write a verilog code to implement NAND gate in all different styles: 1. Gate Level Code:** | | module NAND\_2\_gate\_level(output Y, input A, B); wire Yd;  and(Yd, A, B); | | not(Y, Yd);  endmodule | | **2. Data Flow Code:** | | module NAND\_2\_data\_flow (output Y, input A, B); assign Y = ~(A & B);  endmodule | | **3. BehavioralModellingcode:** | | module NAND\_2\_behavioral (output reg Y, input A, B); always @ (A or B) begin  if (A == 1'b1 & B == 1'b1) begin Y = 1'b0;  end | | else Y = 1'b1;  end  endmodule | |  | |

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| **Date:** | **01-06-2020** | **Name:** | **Yalpi Nandika** | |
| **Course:** | **Python** | **USN:** | **4AL17EC096** | |
| **Topic:** | **Application 6: Build a Webcam Motion Detector** | **Semester & Section:** | **6th sem & B sec** | |
| **AFTERNOON SESSION DETAILS** | | | |
| **Image of session**  page4image40868768 | | | |
| **Report – Report can be typed or hand written for up to two pages.**  **Build a Webcam Motion Detector:**   * •  **In this Application we learnt about building a Webcam Motion Detector.** * •  **Creating Gray scale images and converting it into white and black.** * •  **Also having raw colored images to detect motion.** * •  **When motion is detected it starts noting the time at which the motion is detected.** * •  **And that time and date is stored in excel file**.   page5image57518816  • **Time at which motion was detected and saved in excel sheet is shown below.**  page5image40535680  **RPA(Robotic Process Automation) Certificate:**  **GUVI Certificate** | | | |