

PROJECTCONTEST INNOVATIONS (PCI) LLP AND EDIYLABS TECHNOLOGY SOLUTIONS

EMBEDDED SYSTEM DESIGN USING RASIBERRY PICO INTERNSHIP

Course Schedule- (4.7.2023 to 2.8.2023)

Week	Date	Time period	Syllabus Coverage	Activity
Week 01	3.7.2023 5.7.2023 8.7.2023	7.00 pm to 9 pm	<ul style="list-style-type: none"> ✓ Introduction to Embedded System Design ✓ Introduction to Raspberry Pi Pico ✓ In/Out Ports of Raspberry Pi Pico ✓ Introduction to Arduino IDE ✓ Program Raspberry Pi Pico with Arduino IDE ✓ Raspberry Pi Pico GPIO Programming – LED Blinking ✓ LED Control using Push Button with Raspberry Pi Pico ✓ Colourful Flowing Lights using Raspberry Pi Pico ✓ Seven Segment display control using Raspberry Pi Pico ✓ Project 1: Traffic Light Controller with Raspberry Pi Pico ✓ Project 2: Smart Lamp with Raspberry Pi Pico ✓ Project 3: Traffic Light Controller with Raspberry Pi Pico 	2 Quiz Event + 2 Assignment
Week 02	10.7.2023 12.7.2023 15.7.2023	7.00 pm to 9 pm	<ul style="list-style-type: none"> ✓ Introduction to Micro Python & Thonny IDE ✓ Getting Started with Raspberry Pi Pico using Thonny IDE ✓ Controlling LED using Raspberry Pi Pico ✓ Controlling RGB LED using Raspberry Pi Pico ✓ Seven Segment Display interfacing with Raspberry Pi Pico ✓ Interface Push Button with Raspberry Pi Pico and Control LED ✓ LED bar graph with Raspberry Pi Pico ✓ Dark Activated Night Lamp using LDR & Raspberry Pi Pico 	2 Quiz Event + 2 Assignment

			<ul style="list-style-type: none"> ✓ PIR Motion Sensor with Raspberry Pi Pico ✓ TM1637 4-Digit 7 Segment Display Module with Raspberry Pi Pico ✓ Project 4: Security Alert System using Raspberry pi Pico ✓ Project 5: Stopwatch Using Raspberry Pi Pico ✓ Project 6: Desktop Dimming Light using Raspberry Pi Pico 	
Week 03	17.7.2023 19.7.2023 22.7.2023	7.00 pm to 9 pm	<ul style="list-style-type: none"> ✓ ADC with Raspberry Pi Pico ✓ Interface Analog Joystick Module with Raspberry Pi Pico ✓ Soil Moisture Sensor with Raspberry Pi Pico ✓ PWM based LED Fading using Micro Python ✓ Voice Activated Light with Sound Sensor & Raspberry Pi Pico ✓ HC-SR04 Ultrasonic Sensor with Raspberry Pi Pico using Micro Python ✓ I 2C LCD Interfacing with Raspberry Pi Pico ✓ Servo Motor with Raspberry Pi Pico using Micro Python ✓ BME280 with Raspberry Pi Pico using Micro Python ✓ Generate Delay with Raspberry Pi Pico Timers using Micro Python ✓ MPU6050 with Raspberry Pi Pico (Accelerometer & Gyroscope) ✓ Project 7: Create a smiley in the LCD using Raspberry Pi Pico ✓ Project 8: Fan Speed Controller using Raspberry Pi Pico ✓ Project 9: Anti-Theft Alarm using Raspberry Pi Pico 	2 Quiz Event + 2 Assignment
Week 04	24.7.2023 26.7.2023 29.7.2023	7.00 pm to 9 pm	<ul style="list-style-type: none"> ✓ DHT11 with Raspberry Pi Pico using Micro Python ✓ Stepper Motor with Raspberry Pi Pico using Micro Python ✓ Raspberry Pi Pico Web Server Control GPIO Outputs ✓ Introduction to Raspberry Pi Pico W ✓ Introduction to Blynk 2.0 Platform 	2 Quiz Event + 2 Assignment

			<ul style="list-style-type: none"> ✓ Getting started with Blynk2.0 Cloud Server ✓ Getting Started with Blynk2.0 APP ✓ How to create a template ✓ How to create Data Stream ✓ Working with Web & Mobile dashboard ✓ How to add a new device in all new Blynk2.0 ✓ How to control LED using Blynk2.0 mobile app ✓ Explore Various Blynk2.0 widgets ✓ IoT LED Control using Blynk 2.0 & Raspberry Pi Pico W ✓ Project 10: Create a weather station to record temperature periodically using Raspberry Pi Pico ✓ Project 11: Smart Dustbin using Raspberry Pi Pico ✓ Project 12: Control an LED using Blynk 	
Week 05	30.07.2023 to 06.08.2023		Issuing Course completion certificate and Report submission	
Week 06	Within 5 days after report submission deadline		Issuing Internship certificate and best Intern award(based on report submission)	