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"Internet of Things (IoT) and its Applications"

(22.03.2021 to 25.03.2021)

SESSION PLAN

Time	TOPICS TO BE COVERED
DAY 1 - 22.03.2021	
9:00AM to 09:30AM	Inauguration
9:30AM to 10:30AM	✓ Introduction to Internet of Things(IoT) ✓ Architecture of IoT ✓ IoT communication Model ✓ Converting "Things" to "Smart Things"
10:30AM to 10:45AM	Break
10:45AM to 12:30PM	✓ Introduction to Arduino Uno ✓ Specification of Arduino Uno ✓ Pin Description of Arduino Uno ✓ Software installation & Interfacing Arduino Board
12:30PM to 01:00PM	Lunch break
01:00PM to 02:15PM	✓ LED Control (digitalWrite) ✓ Button Interfacing (digitalRead) ✓ **Project: When button is pressed switch LED ON for 5Sec and OFF for 3 Sec**
02:15PM to 02:30PM	Break
02:30PM to 03:30PM	✓ Potentiometer Interfacing (analogRead) ✓ PWM control(analogWrite) ✓ Serial Communication(Serial.Read) ✓ **Project: Switch on the LED when we send "H" & OFF when we send "K"**
DAY 2 - 23.03.2021	
9:30AM to 10:30AM	✓ Introduction to Blynk ✓ Installing Blynk library in Arduino IDE ✓ Installing Blynk app in Android mobile ✓ Creating account and generating token for Arduino Uno
10:30AM to 10:45AM	Break
10:45AM to 12:30PM	✓ Controlling LED using Blynk app ✓ Controlling RGB LED using zeRGBainBlynk app ✓ **Project: Control Red, Yellow and Green Led using blynk mobile app**
12:30PM to 01:00PM	Lunch break
01:00PM to 02:15PM	✓ Controlling brightness of LED using Slider in blynk app ✓ Using Notification function in Blynk app ✓ **Project: When the Potentiometer value is less than 500 send notification**
02:15PM to 02:30PM	Break

02:30PM to 03:30PM	✓ Controlling Relay using Blynk app ✓ Monitoring LDR value using Gauge in Blynk app ✓ **Project: IoT based smart street light**
DAY 3 - 24.03.2021	
9:30AM to 10:30AM	✓ Rain Drop monitoring using Blynk app ✓ Soil Moisture level monitoring using Blynk app ✓ **Project: Smart Irrigation system- Send Notification to mobile when soil moisture level is wet**
10:30AM to 10:45AM	Break
10:45AM to 12:30PM	✓ PIR Sensor Moduleusing Blynk app ✓ LCD Widget Interfacing using Blynk app ✓ **Project: Detect the person entry and display it in LCD widget**
12:30PM to 01:00PM	Lunch break
01:00PM to 02:15PM	✓ IR sensor interfacing using Blynk app ✓ Flame sensor interfacing using Blynk app ✓ **Project: Switch Buzzer ON when fire is detected & send notification to mobile**
02:15PM to 02:30PM	Break
02:30PM to 03:30PM	✓ Joystick interfacing using Blynk app ✓ Proximity sensor interfacing using Blynk app ✓ **Project: Control your Room Lights using your Computer**
DAY 4 - 25.03.2021	
9:30AM to 10:30AM	✓ Capacitive Touch Sensor interfacing using Blynk app ✓ DC motor speed control using Blynk app ✓ **Project: Switch on the Motor when the touch sensor is pressed**
10:30AM to 10:45AM	Break
10:45AM to 12:30PM	✓ Serial Communication using Terminal in Blynk app ✓ Real time data monitoring using Superchart in Blynk app ✓ **Project: Control LED from your mobile. Send 1 to ON and 2 to OFF.**
12:30PM to 01:00PM	Lunch break
01:00PM to 03:00PM	**Concept Discussion** ✓ IOT Car Parking System ✓ Smart Dustbin with IOT Notifications ✓ IOT Based ICU Patient Monitoring System ✓ Weather Reporting Over IOT ✓ IOT Color Based Product Sorting Machine Project.
	Project Competition
03:00PM to 03:30PM	**Valedictory Function**