

Date: 27-06-2023

Report on Student Development Programme on “Hands-on Session on IOT-ESP32 and Raspberry Pi”

Name of the Program:	Hands-on Session on IOT-ESP32 and Raspberry Pi.	Program Dates & Timings:	24-06-2023 & 9.00 AM to 4.30 PM		
Name & Details of the Resource Person:	GK Bhat Kakunje CEO & Managing Director Kakunje Software Private Limited				
Organized by (Clubs/ Dept.)	IOT Club	In Association with	CSI		
Number of Participants	66	Students	66	Faculty	0
Program Outcome (PO) Mapping	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11, PO12				
Coordinators	Mrs. Snitha Shetty, IoT Club & CSI Coordinator, Assistant Professor, Department of CSE				

About the Program:

The IoT Club in association with CSI organized a student development Programme on “**Hands-on Session on IOT-ESP32 and Raspberry Pi**”. The event was scheduled on 24-06-2023 from 9:00 am to 4:30 pm at CAED Lab, ground floor.

The program was inaugurated by Dr. Shantharama Rai C, principal and Dr. Antony P J, Vice-Principal and IoT Club & CSI Chairman. The various heads of the department and all the faculties of CSE attended the inaugural function.

The vice-principal welcomed the gathering and introduced the resource person. The Principal addressed the gathering and motivated students to participate in workshop and upgrade themselves in current technologies. Mrs. Snitha Shetty delivered vote of thanks. Ms. Nagavarshini, 2nd year CSE was the master of the ceremony.

The Resource person of the program was **GK Bhat Kakunje**, CEO & Managing Director, Kakunje Software Private Limited, **Aparna GK Bhat**, CTO & Director, Kakunje Software Private Limited, **Ravishankara** Web Developer , Kakunje Software Private Limited **Ramya N**, Technical Assistant, Kakunje Software Private Limited

The students were given a brief introduction on the following topics

- Introduction to IoT
- Introduction to ESP32 and its Operating Modes
- Introduction to Arduino IDE
- Creating a Simple ESP32 Web Server in Arduino IDE

The following courses were discussed by the participants

- Installing or Updating the Arduino IDE
- Installing the USB-to-Serial Bridge Driver
- Installing the ESP32 Arduino Core
- Selecting the Board and Port
- Testing the Installation

After the course the following quests were discussed

- Arduino IDE – intended for those who are familiar with Arduino
- Espruino – JavaScript SDK and firmware closely emulating Node.js
- Mongoose OS – An operating system for IoT devices that is recommended by Espressif Systems and Google Cloud IoT
- MicroPython – Implementation of Python 3 for microcontrollers

Objectives

- Creating a simple ESP32 web server in the Arduino IDE
- Accessing the Web Server in AP Mode
- Accessing the Web Server in STA Mode

Outcomes:

- Configured the ESP32 Web Server in Access Point (AP) mode and serve web pages to any connected client.
- Configured the ESP32 web server in Station (STA) mode and serve web pages to any connected client on the existing network.

Articulation Matrix:

Course Outcomes	Program Outcomes											
	1	2	3	4	5	6	7	8	9	10	11	12
1	2				3	2						
2		3							3	2	2	1
3	3	1	2	2					3		2	1
4					2	1			2	3	2	
Average	2.5	2	2	2	2.5	1.5			2.7	2.5	2	1

Photos:





Mrs. Snitha Shetty
IOT Club & CSI Coordinator

Dr. Antony P J
Vice- Principal

Dr. Shantharama Rai
Principal

