ELECTRONIC SYSTEM DESIGN FOR BIOMEDICAL ENGINEERS

Event No	BM017
Organizing Department	Biomedical Engineering
Associate Dept. | NSC	Ignittron Clubs
Date	17/02/2023
Time	09:00 AM to 12:00 PM
Event Type	Workshop
Event Level	State
Venue	Medical Analytics lab
Total Participants	20
Students - External	20

Related SDG

Involved Staffs

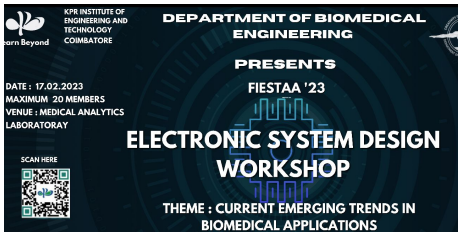
Sl	Name	Role
1	Allwyn Gnanadas	Coordinator

Outcome

Workshop on "Electronic system design for Biomedical Engineers"
With this workshop, the students were able to understand the basics of a system and its components.
The students simulated simple designs using online tools such as TinkerCAD and Wokwi.

Event Summary

On 17/02/23, the department of Biomedical Engineering organized a workshop on "Electronic system design for Biomedical Engineers" as a part of FIESTAa 23. The participants were restricted to 20. The event began at 9.00 AM in the morning in the Medical Data Analytics laboratory. The event started with an introduction to microcontrollers and microprocessors. Ms Joselyne Sneka I T III BME explained the concepts. Then Ms Kowshika R III BME demonstrated an experiment using Arduino, Servo motor and PIR sensor. Mr Saalih Sulthan S II BME and Ms Varnika M II BME simulated the same experiment using TinkerCAD. Then Mr Vishnu K III BME and Ms Joselyne Sneka III BME demonstrated another experiment using ESP32 on board and on the simulator Wokwi as well. After the demonstrations, the participants were given space to simulate their own models. The participants were given small tasks and the student coordinators guided them through the practice session in completing their tasks. The doubts were cleared then and there. Later the faculty Coordinator Dr A Allwyn Gnanadas addressed the participants sharing the importance of electronic system design. He showed them various microcontroller boards starting from 16MHz fast controllers to 1.4GHz fast controllers. All the possible single core, dual-core processing capabilities and their need were discussed. The professor also shared the options and various protocols that are available with the respective boards and shared how these features enable IoT in medical field. finally, the session ended with a Question answer session followed by a feedback session.



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