Arduino Project Report

Conducted by: Dept of Physics, Dhruba Chand Halder

College Academic session: 2023-24

Project Coordinator: Anirban Shaw

➢ **Key features of this project:**

Arduino is an open-source electronics platform based on easy-to-use and inexpensive hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online etc. One can tell Arduino board what to do by sending a set of instructions to the microcontroller on the board. To do so the Arduino programming language (based on Wiring), and the Arduino Software (IDE) are used.

Arduino has been used in thousands of different projects and applications. The Arduino software is easy-to-use for beginners, yet flexible enough for advanced users. It runs on Mac, Windows, and Linux. Teachers and students use it to build low-cost scientific instruments, to prove chemistry and physics principles, or to get started with programming and robotics.

➢ **Arduino projects done by the students:**

1. LED Blinking and fading.

2. Measurement of voltages (Below 5 V and above).

3. Interfacing 7 Segment display.

4. Construction of thermometer using LM35 or Others.

5. Construct data logger for studying charging and discharging of RC circuit.

Details lectures were given to the students about the Arduino hardware and the Arduino software by the teachers. Also, hands-on demonstrations of the projects were given by the teachers. The students were focused, patient and participative during the course and they have done the above projects and submit the project report to the teachers on time.

List of students participating the Arduino project:

Name of the Students	Semester
SAGAR MONDAL	IV
SHUBHANKAR GURIA	IV
MRINMOY DAS	IV
SUMAN ACHARYYA	IV
RITTAM BHATTACHARYA	IV
SUBHAN NASKAR	IV