

# LALBABA COLLEGE

B+ NAAC ACCREDITED COLLEGE  
(Affiliated to the University of Calcutta)  
ESTD. - 1964

Website : [www.lalbabacollege.net](http://www.lalbabacollege.net)  
E-mail : [lalbabacollege@yahoo.com](mailto:lalbabacollege@yahoo.com)



117, Grand Trunk Road,  
Belur Math, Howrah  
Phone (033) 2654-6289

Ref .....

Date 17.08.2021

## PROJECT COMPLETION CERTIFICATE

DEPARTMENT OF PHYSICS

TO WHOM IT MAY CONCERN:

This is to certify that, students of Part-III (number of students-5) have completed their Project Reports on "Module-I and II" in paper- PHSG-IV B during the session 2021-22 under the supervision of Dr. Chhatradhar Das and Dr. Ruma Das, Department of Physics, Lalbaba College successfully as fulfillment of the syllabus.

List of students has been attached.

*Ruma Das*

(Dr. Ruma Das)

Incharge of Dept. of Physics

Lalbaba College

Incharge

Department of Physics

Lalbaba College

117, G. T. Road, Belurmath, Howrah

# **PROJECT REPORT**

**DEPT. OF PHYSICS**

**SEMESTER-IV**

**PAPER- IVB (Practical project)**

**TITLE OF THE PROJECT:** Module I and II of paper-IV B

**PLACE OF WORK:** Online mode due to pandemic (Following the guideline of C. U. notification No. - )

**DURATION:** Throughout the SESSION 2021-22 as per routine

**LIST OF STUDENTS:** Annexure-I

**NUMBER OF STUDENTS ELIGIBLE FOR SUBMISSION:** 5

**NUMBER OF STUDENTS SUBMITTED:** 5

**SUBMISSION DATE:** 08.08.2021

**PROJECT REPORT SUBMITTED BY THE STUDENTS:** Annexure-II

## **OBJECTIVE OF THE PROJECT:**

**Module I:** This is basically computer Practical in which the objective is to familiarize the students with the hardware such as memory, RAM, ROM, CD-ROM, DVD, pendrive etc. Basic knowledge of computer softwares such as operating system, Windows, Linux/Uni are also are also the part this practical course. In this course the students are also taught how to solve some simple problems by C/ Fortran Programming.

## **Module II:**

This part of practical includes some electrical experiments with OP AMP. The main purpose of teaching these experiments is to familiarize the students to the conversion of voltmeter into an ammeter and vice versa. Additionally, the use of OP AMP as an inverting, Non-inverting, differential amplifier and adder will enhance the knowledge of the students in the area of analogue electronics.

**OUTCOME OF THE PROJECT:** Gaining basic knowledge of the computers both software and hardware as well as analogue electronics and OPAMP which will lead the students into the practical application of these areas.

**Annexure-I**

**List of Students**

Part-III (session: 2021-22)

Project title: Module I and II of paper-IV B

<b>Name</b>	<b>C. U. Roll No.</b>
Anchal Singh	3431-55-0002
Sourav Prasad	3431-65-0001
Deepak Sharma	3431-65-0002
Abhishek Singh	3431-65-0003
Prakash Kumar	3431-66-0005

**PROJECT COMPLETION CERTIFICATE**

DEPARTMENT OF PHYSICS

TO WHOM IT MAY CONCERN:

This is to certify that, the students of semester-IV (number of students-2) have completed their Project Report entitled "Arينو" in paper- PHSG-SEC-B1 during the session 2021-22 as per routine under the supervision of Dr. Chhatradhar Das and Dr. Ruma Das, Department of Physics, Lalbaba College successfully as fulfillment of the syllabus.

List of students has been attached.

(Dr. Ruma Das)

Incharge of Dept. of Physics

Lalbaba College

**PROJECT REPORT**

**DEPT. OF PHYSICS**

**SEMESTER-IV**

**PAPER- SEC-B1**

**TITLE OF THE PROJECT:** Arduino

**PLACE OF WORK:** **PLACE OF WORK:** Online mode due to pandemic (Following the guideline of C. U. notification )

**DURATION:** Throughout the semester of IV of the SESSION 2021-22

**LIST OF STUDENTS:** Annexure-I

**NUMBER OF STUDENTS ELIGIBLE FOR SUBMISSION:** 2

**NUMBER OF STUDENTS SUBMITTED:** 2

**SUBMISSION DATE:** 08.08.2021

**PROJECT REPORT SUBMITTED BY THE STUDENTS:** Annexure-II

**OBJECTIVE:** Arduino is an easy-to-use programmable device for interactive art design projects. Over the years, Arduino plays a significant role for the thousands of projects, from everyday objects to complex scientific instruments. It serves many applications such as robot/motor control, miniaturized applications, UAVs, sensor networks, etc.

Following objectives have been achieved through Arduino projects:

- (1) It provides a simple and easy-to-understand coding platform through the Arduino IDE.
- (2) It is friendly to students and to those who are still new in electronics projects.
- (3) Arduino controller is used for programming the control system with a high accuracy level of the simple control circuits.
- (4) Arduino is the best choice for beginners; programmers to start learning about Microcontrollers and electronics.

**OUTCOME:**

The goal of Arduino is to create an accessible way for software developers to enter the world of Micro-controller programming.

**Annexure-I**

**List of Students**

Semester-IV (session: 2021-22)

Project title: Arduino

<b>Name</b>	<b>C. U. Roll No.</b>
Abhishek Pandey	193431-22-0015
Md. Arif	193431-22-0016