

REGENT EDUCATION AND RESEARCH FOUNDATION Barrackpore Budget Proposal for organizing Workshop on Robotics in RERF

- 1. NAME OF THE EVENT: Workshop on Arduino
- 2. PURPOSE AND JUSTIFICATION: Training & advance learning
- 3. DATE: 24.5.22 25.5.22
- 4. VENUE: RERFGI Campus

5. DETAILS OF PARTICIPANTS IN THE EVENT:

- a) No. of Invited Experts: NA
- b) No. of in-house faculty/staff members: 2
- c) No. of in-house staff members: NA
- d) No. of students: 20
- e) No. of external participants: NA

Total No. of participants: (a+b+c+d+e): 22

6. BUDGET:

Head	Expected Expenditure
Cost of Memento/medal for the participants	0
Cost of Memento for the Invited Experts /Guests	0
Honorarium for the Invited Experts/ Guests	0
Honorarium for the Reviewers	0
TA for the Invited Experts/Guests	0
Boarding & Lodging for Invited Experts	0
Preparation of venue	0
Logistic arrangement	0
Hospitality to participants	0
Charges for preparing offline infrastructure	Rs. 10,000/-
Publication Charge: Please specify the cost of Flex,	0
Banner, Certificates, Proceedings etc.	
Grand Total Rs.	Rs. 10,000/-

Place: RERFGI, Barrackpore Date: 10th May 2022

Approval for the event by the Head of Institution

Approval of the budget by Chief Administrative Officer:

Phamad Kan

Signature of Applicant/ Convener

& Res Principa



Robotics Club

Report of Workshop on Arduino

A two days workshop on Arduino was held at Regent Education and Research Foundation Group of Institutions on 24th and 25th May, 2022. Twenty students of various departments from the parent institute were present in the workshop.

Objective:

- The primary objective of the workshop was to familiarize the student with the recent technology such as Arduino.
- Provide basic knowledge of Arduino board.
- Provide a practical experience in interfacing sensors with the aforesaid board.
- Inspire students to involve in Robotic Club and develop different projects using Arduino.

Organising Committee:

SL	Name of the Faculty Members	Department	Associated as		
1	Suparna Panchanan	ECE	Chairperson		
2	Avik Ghosh Dastidar	BSH	Convenor		
3	Bikram Saha	EE	Member		
4	Enakshmi Nandi	EEE	Member		
5	Anindita Das	BSH	Member		
6	Debarati Ghosh	BSH	Member		
7	Aninda Das	ME	Member		
8	Payel Ray	CSE	Member		
9	Krishna Kanta Maity	MCA	Member		
10	Pabitra Kumar Mandal	CE	Member		



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Program Schedule:

SI	Schedule	Date	Time
1	Inauguration	24 th May, 2022	10:30 am to 10:45 am
2	Motivational speech by Principal	24 th May, 2022	10:45 am to 11:00 pm
3.	Session – 1	24 th May, 2022	11:00 am to 01:00 pm
	Basics of The ATmega328 microcontroller		
	• Different type of Arduino Boards and PIN	270	
	diagrams	100 million	
	Introduction to Sketch	250	
	• Variables, functions, library etc	10	÷
	Simple blink program		
4.	Session – 2	24 th May, 2022	02:00 pm to 5 pm
	• Hands-on to Blink program, connecting and		-1
	controlling external LED		0
5.	Session – 3	25 th May, 2022	11:00 am to 01:00 pm
	Installing and importing external library		
	Serial input and Output	DINE I	<
	• Connecting and handling 16x2 LCD,	ANY A	0
	DHT11 temperature sensor, Connecting a	11/2 1	
	DC motor through relay		2
6.	Session – 2	25 th May, 2022	02:00 pm to 04:45 pm
	• Hands-on training to connect DHT11 and	- P	
	display the temperature and humidity to	1	
	LCD panel		
7.	Closing ceremony	25 th May, 2022	04:45 pm to 05:00 pm

Description of the Programme:

A total of 20 students from RERF have participated in this workshop. Ms Suparna Panchanan, Assistant Professor, ECE Department and Mr. Avik Ghosh Dastidar, Assistant Professor, BSH Department participated and delivered

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Principal

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lecture on this topic as Robotics experts. The workshop was divided in two sessions for two days. In the morning session of the 1st day, a basic description of the Arduino board was given. In the afternoon session, students experienced the idea of interfacing preliminary components such as LED with the board.

On the 2^{nd} day, some advanced topics were discussed in the morning session. DHT11 temperature and humidity sensor was interfaced with the Arduino board in the afternoon session. The entire 2^{nd} session was a practical session, students got a hands-on experience during this session.

The entire programme was coordinated with the support of the Principal, RERF, Registrar, RERF and the faculty members of RERF. All the participants expressed their gratitude to the whole members of the Robotic Club. A strong request of this kind of workshop was produced from the participant side. The Robotic Club of RERF is looking forward to organize future workshop on the advanced topics of Robotics.

Speakers:



Ms. Suparna Panchanan

Assistant Professor, ECE Department, RERF, Barrackpore

Ms. Panchanan has a teaching experience of 16+ years in the electronics domain and 3 years of research experience. She has specialization in VLSI, Microprocessor and Microcontroller and devices. She complete her M.tech from University of Calcutta and currently pursuing her Ph.D. from Mizoram University.



Mr. Avik Ghosh Dastidar

Assistant Professor, BSH Department, RERF, Barrackpore

Mr. Ghosh Dastidar has a working experience of 13+ years in Physics. He worked as a research fellow in Jadavpur University for 4 years. He has a specialization in Arduino and MEMs. He completed his M.Sc. from Jadavpur University, MCA from IGNOU, and currently pursuing Ph.D. from Mizoram University.

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Picture Gallery:



Conclusion:

In conclusion, everyone who attended the two-day class on Arduino had a truly remarkable experience. Participants were exposed to the exciting world of Arduino, an open-source electronics platform, and its wide range of applications throughout the class.

Participants engaged in practical exercises and hands-on activities during the course, which helped them understand the core ideas behind Arduino programming and electronics. Attendees had the opportunity to learn everything from the fundamentals of setting up an Arduino board to more complex challenges involving the integration of sensors. Participants were given the tools they needed to use Arduino to solve real-world issues, which was one of the workshop's main takeaways. They have improved their ability to design and create their own prototypes and automated solutions by becoming more skilled in coding and electronics.

It was evident that the sessions sparked an interest in embedded systems and electronics.

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