

Detailed Report

The Department of Physics, Asutosh College has organized a departmental workshop on “**Applied Electronics**” on 05/05/2022. The required data are presented below:

Name of the Dept. - Physics

Date & Day – 05/05/2022, Thursday.

Name of the seminar/webinar/workshop - Workshop on Applied Electronics

The organising committee -

- 1) Dr. Amit Kumar Bhattacharjee (convener),
- 2) Dr. Surjya Sarathi Bhattacharyya & Dr. Manorama Chatterjee (Joint convener),
- 3) Dr. Amit Kumar Bhattacharjee (Flyer Preparation),
- 4) Dr. Parikshit Dutta (Event Organizer),
- 5) Dr. Aditi Das (Joint Event Organizer),
- 6) Participants - Students of Semester 4 Honours.
- 7) Interview Panel – (a) Prof. Bikash Pal, Retired Professor, Department of Physics,
Asutosh College &
(b) All faculty members of Department of Physics.
- 8) Judge – Prof. Bikash Pal.

YouTube Link - No. It's an offline initiative.

Brief summary of the initiative:

The workshop was inaugurated in the presence of our Honourable judge Prof. Bikash Pal, Prof. Apurba Roy (Vice Principal), Dr. Manas Kabi (Bursar), Prof. Rina Kar Dutta (Teachers Council Member) and Dr. Sriparna Datta Roy (IQAC coordinator), alongwith the faculty members of the Department and **30** student participants of the 4th Semester Honours. Prof. Pal in his inaugural speech highlighted the importance of Application of Electronics for career progression in higher academics. All invited guests interacted with the student participants to learn about their Project and their varied application outside the domain of the subject. With the help of a Desktop PC/Laptop and Arduino uno board, students demonstrated various projects ranging from LED as traffic light to displaying decimal numbers from 0-7 using 7-segment display and LED. Details can be found in the attached Participation and Score card.

The students then faced a viva-voce by Prof. Pal & other faculty members of the Department. Depending on the overall performance these students earned the rank:

1st. Soumyajit Das, 2nd. Tamal Majumder, 3rd. Sourish Das & Rohit Dhawa.

The Workshop ended with a Vote of Thanks and distribution of Certificates. A few memories are attached.



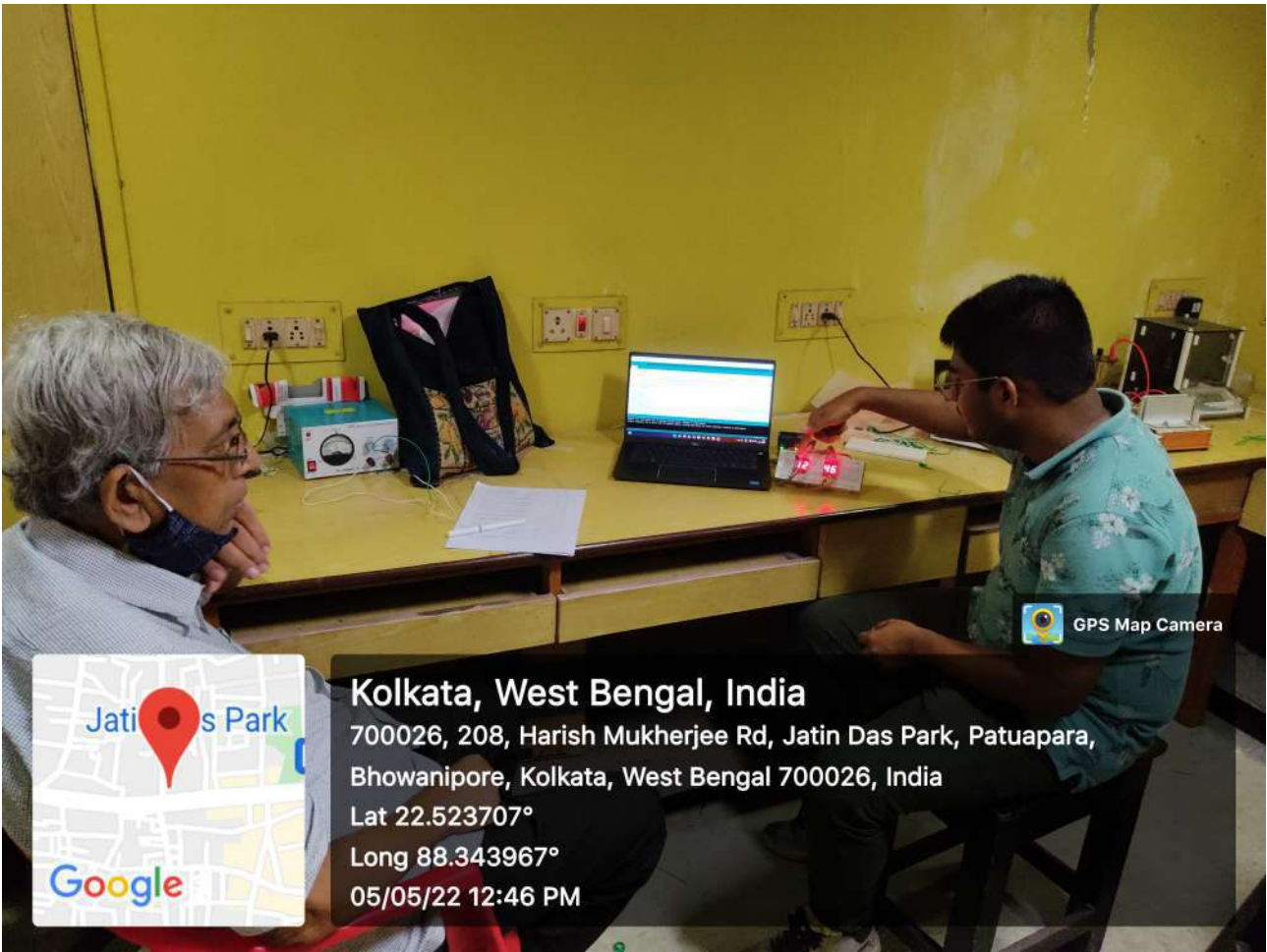
Inaugural Speech by Prof. Bikash Pal



Interaction with IQAC Coordinator Dr. Sriparna Datta Roy



Interaction with Dr. Apurba Roy & Dr. Manas Kabi.



Student Viva-voce with Demonstration

30

30

40

Name	CU Roll Number	CU Registration Number	Project Title	Demonstration	Design	Interview
✓ Harsh kumar rai	203012-21-0084	012-1111-0764-20	Led as traffic light	20	20	15
3rd Rohit Dhawa	203012-21-0097	012-1111-0805-20	24 hour format digital clock using 4 different 7 segment display	25	28	30
✓ Dipranil Bhattacharya	203012-21-0095	012-1111-0785-20	Displaying decimal numbers from 0-7 with their equivalent binary parts using 7 segment display and LEDs			
✓ Swapnil Saha	203012-21-0080	012-1111-0753-20	2 Lane Traffic Signal Controlling			
3rd Sourish Das	203012-21-0025	012-1111-0548-20	4-way traffic light system with count down timer using Arduino UNO	27	25	32
✓ Sagnik Dey	203012-21-0176	012-1111-1007-20	Fibonacci series using two 7 segment LED's			
1st Soumyajit Das	203012-21-0006	012-1111-0451-20	4 bit binary to decimal counter	27	27	36
Red ACHYUT PRAMANIK	203012-21-0113	012-1111-0846-20	Servo motor Potentiometer divider to control led brightness using Arduino UNO	20	25	20
Capacitor Sunzida Aktari Mollah	203012-11-0290	012-1215-0871-20	Seven Segment Led Mapping			
Ashim Barman	203012-21-0258	012-1112-0774-20	Control the brightness of LED using potentiometer			
✓ Abinash Mondal	203012-21-0070	012-1111-0722-20	CR discharging	15	15	15

55

83
(3rd)

81

77.5

84
(3rd)

80

90 (1st)

50

X

45

30 30 40

Tirthankar Mondal	203012-21-0074	012-1111-0730-20	6bit binary to decimal conversion using push button and seven segment display based I/O				81
Chittrak Roychowdhury	203012-21-0008	012-1111-0461-20	Ultrasonic Sensor using LEDs	26	24	20 20	70
Krishnendu Jana	203012-21-0128	012-1111-0878-20	Converting binary numbers into decimal with Arduino and displaying in seven segment display	26	20	32	78
Tamal Majumder	203012-21-0228	012-1112-0595-20	A timer using led and buzzer .	25	28	35	88 (2 nd)
Souptik Dutta	203012-21-0135	012-1111-0890-20	Construction of thermometer using thermistor				80 80
Ananya Mondal	203012-11-0194	012-1211-1046-20	Measurement of voltage using arduino uno				
Arbab Mondal	203012-21-0252	012-1112-0743-20	7 Shades of light using Arduino uno	25	20	22	67
Deepan Das	203012-21-0363	012-1112-1585-20	measurement of voltage through Led glow by the help of arduino	25	25	20	70
Joydeep Das	203012-21-0064	012-1111-0692-20	NUM-Menu A menu-driven code for displaying different types of numbers.	20 25	25	25	75

2nd

2nd

Blue Cable Printer

Rehan

Retd ✓	Soumyadwip Roy	203012-21-0034	012-1111-0590-20	Laser Security System Using LDR	20	25	25	70
✓	Reetam Ghosh	203012-21-0060	012-1111-0679-20	Voltage measurement using Arduino	25	20	20	65
	SOBAIR HOSSAIN MIR	203012-21-0360	012-1111-1590-20	To make a capacitance meter				
Ret ✓	Amit Ghosh	203012-21-0146	012-1111-0920-20	Control Led with Input Voltage	25	25	15	65
Calc ✓	Anirban Biswas	2.03E+11	1.21E+11	Voltage measurement using 7 segment display	25	20	20	65
Ret ✓	Ananna Mondal	203012-11-0244	012-1212-0705-20	Voltage measurements using 7 segment display	25	25	15	65
Ret ✓	Swarnanka Dutta	203012-11-0071	012-1211-0740-20	Control LED glow using Potential divider	20	20	15	55
✓	Sourovik Kundu	203012-21-0168	012-1111-0982-20	Seven segment using potentiometer				77.5
	soumyadeep chowdhury	203012-21-0110	012-1111-0837-20	Reading analog voltage using arduino	20	20	15	55
Bread Board	Sayantika Mondal	2.03E+11	1.21E+11	Voltage measurements using 7 segment	20	20	15	55

Part 2

Personal Copy

Arbab Biswas	203012-21-0403	012-1112-1749-20	Traffic Signal in railways	25	25	20
Supriyo Saha	203012-21-0291	012-1114-0525-20	2 Way traffic Signal	20	25	20
Laxmi Dey	2.03E+11	012-1211-0601-20	Seven Segment Display	15	20	10
Amit Ghosh	203012-21-0146	012-1111-0920-20	Led Glow when certain voltage is reached. Thus LED behaves as a flag.			
Amit Ghosh	203012-21-0146	012-1111-0920-20	Rotate pot to receive 3V as output and make LED to glow when just 3V is received. Therefore LED should work as a flag.			
Ananna Mondal	012-1212-0705-20	203012-11-0244	Led glow through measurement of voltage using potentiometer			

70

65

45

"Applied Electronics" Workshop Registration

05/05/2022

Name	CU Roll Number	CU Registration Number	Project Title	Email	Signature
Harsh kumar rai	203012-21-0084	012-1111-0764-20	Led as traffic light	harshrai049@gmail.com	Harsh Rai
			1) Arduino UNO 2) Breadboard 3) 220Ω Resistor 4) 3 red lights.		
Rohit Dhawa	203012-21-0097	012-1111-0805-20	24 hour format digital clock using 4 different 7 segment display	dhawarohit@gmail.com	Rohit Dhawa
Dipranil Bhattacharya	203012-21-0095	012-1111-0785-20	Displaying decimal numbers from 0-7 with their equivalent binary parts using 7 segment display and LEDs	Dip d.bhattacharya 2002@gmail.com	Dipranil Bhattacharya
					7 segment display Arduino board bread board, 3 red LEDs 470Ω resistor
Swapnil Saha	203012-21-0080	012-1111-0753-20	2 Lane Traffic Signal Controlling	swapnilsaha74549@gmail.com	Swapnil Saha
					220Ω resistor Red, Yellow, Green LED
Sourish Das	203012-21-0025	012-1111-0548-20	4-way traffic light system with count down timer using Arduino UNO	Sourishdas2425@gmail.com	Sourish Das
					seven segment display 10 Jumper wire
Sagnik Dey	203012-21-0176	012-1111-1007-20	Fibonacci series using two 7 segment LED's	Sagnikdey888@gmail.com	Sagnik Dey
					two 7-segment display, breadboard, jumper wire, cable, Arduino board.
Soumyajit Das	203012-21-0006	012-1111-0451-20	4 bit binary to decimal counter	dsoumyajit295@gmail.com	Soumyajit Das

ACHYUT PRAMANIK	203012-21-0113	012-1111-0846-20	Potentiometer divider to control led brightness using Arduino UNO	① Arduino Uno ② Bread board ③ Jumper wire ④ Potentiometer	Achyut Pramanik
Sunzida Aktari Mollah	203012-11-0290	012-1215-0871-20	Seven Segment Led Mapping (i) Capacitor.	sunzidaaktari.22@gmail.com	Sunzida Aktari Mollah
Ashim Barman	203012-21-0258	012-1112-0774-20	Control the brightness of LED using potentiometer		
Abinash Mondal	203012-21-0070	012-1111-0722-20	CR discharging	mondalabinash2003@gmail.com	Abinash Mondal
Tirthankar Mondal	203012-21-0074	012-1111-0730-20	6bit binary to decimal conversion using push button and seven segment display based I/O	tirthankarmondal3089@gmail.com	Tirthankar Mondal
Chittrak Roychowdhury	203012-21-0008	012-1111-0461-20	Ultrasonic Sensor using LEDs	chittrak.67890@gmail.com	Chittrak Roychowdhury
Krishnendu Jana	203012-21-0128	012-1111-0878-20	Converting binary numbers into decimal with Arduino and displaying in seven segment display		
Tamal Majumder	203012-21-0228	012-1112-0595-20	A timer using led and buzzer	987-tamal@gmail.com	Tamal Majumder

Souptik Dutta	203012-21-0135	012-1111-0890-20	Construction of thermometer using thermistor	duttasouptik0@gmail.com	Souptik Dutta
				Multimeter and Resistor.	
Ananya Mondal	203012-11-0194	012-1211-1046-20	Measurement of voltage using arduino uno	Ananyamondal47@gmail.com	Ananya Mondal
				Arduino uno board, bread board, 9V battery	
Arnab Mondal	203012-21-0252	012-1112-0743-20	7 Shades of light using Arduino uno	Arnab Mondal arnabmondal28536@gmail.com	Arnab Mondal
Deepan Das	203012-21-0363	012-1112-1585-20	measurement of voltage through Led glow by the help of arduino	deepanddas64@gmail.com	Deepan Das
			v) 10K POT vi) LEDs	i) Arduino Uno ii) Bread Board iii) Resistance iv) Jumper Wire	
Joydeep Das	203012-21-0064	012-1111-0692-20	NUM-Menu A menu-driven code for displaying different types of numbers.	joydeepdas21052002@gmail.com	J.D.
Soumyadwip Roy	203012-21-0034	012-1111-0590-20	Laser Security System Using LDR	Sdroy2002@gmail.com	Soumyadwip Roy
				i) Arduino Uno Board ii) Bread board iii) LED, iv) Jumper wire v) Resistance	
Reetam Ghosh	203012-21-0060	012-1111-0679-20	Voltage measurement using Arduino	ghoshreetam02@gmail.com	Reetam Ghosh
				Arduino UNO, Jumper wire, resistance (22Ω), bread board	
SOBAIR HOSSAIN MIR	203012-21-0360	012-1111-1590-20	To make a capacitance meter		
Amit Ghosh	203012-21-0146	012-1111-0920-20	Control Led with Input Voltage by	amitghoshag02@gmail.com	Amit Ghosh

Rotating pot. Thus LED behave as flag

- i) Arduino UNO
- ii) LED
- iii) Jumper wire
- iv) Resistance
- v) Breadboard

Anirban Biswas	2.03E+11	1.21E+11	Voltage measurement using 7 segment display	purnimanayan8966@gmail.com	Anirban Biswas
				Arduino board, bread board, potentiometer, 7 segment display, jumper wire	
Ananna Mondal	203012-11-0244	012-1212-0705-20	Voltage measurements using 7 segment display		
Swarnanka Dutta	203012-11-0071	012-1211-0740-20	Control LED glow using Potential divider	Swarnanka.student@gmail.com	Swarnanka Dutta
				1) Arduino UNO 4) POT 2) LEDs 5) Resist- 3) Jumper wire -ance	
Sourovik Kundu	203012-21-0168	012-1111-0982-20	Seven segment using potentiometer	kousaik ksourovik@gmail.com	Sourovik Kundu
soumyadeep chowdhury	203012-21-0110	012-1111-0837-20	Reading analog voltage using arduino	soonty pingochowdhury@gmail.com	Soumyadeep Chowdhury
Sayantika Mondal	2.03E+11	1.21E+11	Voltage measurements using 7 segment	sayantikamondal46@gmail.com	Sayantika Mondal
Arnab Biswas	203012-21-0403	012-1112-1749-20	Traffic Signal in railways	arnabbiswas.roni@gmail.com	Arnab Biswas
			4) 3 green LED 5) Resistors 6) Jumper wires	1) Arduino Uno 2) Seven segment 3) 3 red LED	
Supriyo Saha	203012-21-0291	012-1114-0525-20	2 Way traffic Signal	supriyosaha5120@gmail.com	Supriyo Saha
				1) cable 1) JUMPER WIRE (Male to Female)	
Laxmi Dey	2.03E+11	012-1211-0601-20	Seven Segment Display	dey.laxmi.367@gmail.com	Laxmi Dey

- 1) Breadboard
- 2) Arduino Uno
- 3) Jumper wire
- 4) Resistance 220-Ω
- 5) 7-segment display

