



VICTORIA INSTITUTION (COLLEGE)

78-B, Acharya Prafulla Chandra Road, Kolkata-700 009

Phone : 91-33-2350 1959 ■ Fax : 91-33-2360 0046

Website : www.victoriacollege.co.in

Ref. No.....


Date 08/05/2023

NOTICE

It is hereby informed to all Sem IV Physics Hons. students that a 30 hours Add-On Course entitled "Use of Arduino in Environmental Issues" will be organized by the Department of Physics, Victoria Institution (College) during 16th-20th May, 2023.

The interested Sem IV Physics Hons. students are requested to enroll their name to the departmental HOD by 13th May, 2023.

Syllabus and Class schedule is attached herewith.


8/5/23

Dr. Uma Ray Srinivasan

Teacher-in-Charge

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Discipline Specific Add on Course on

Date...08/05/2023

Use of Arduino in Environmental Issues

Department of Physics, Victoria Institution (College)

Course Duration - 30 hrs [15hrs Theory + 15 hrs Project]


(Students must attend at least 60% classes to receive the certificate)

Syllabus

Module No	Topic	No. of classes (= Hours)
I)	Introduction to Arduino, Basics of micro-processor, Arduino Programming and Arduino Hardware.	6
II)	Working principles of the different sensors and components used in the project part (PIR- Motion Sensor, Humidity, Temperature and Pressure Sensor, Sound Sensor, LCD, Relay module, Dust Sensor Sensor etc).	6
III)	Environmental Pollution, Energy Crisis and Need of energy saving devices.	3
IV)	Developing few projects like a) Motion Sensing automatic light on/off. b) Measurement of Air Quality (Temperature, Humidity, Pressure, Particulate Matter, Presence of harmful gasses etc). c) Measurement of Noise Pollution. d) Developing Smart Dustbin etc.	15

References :

- 1) Arduino Cookbook by Michael Margolis, O' Reilly Media
- 2) <https://projecthub.arduino.cc/>


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Department of Physics, Victoria Institution (College)

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Class Schedule

Date	Time	Instructor
16.05.2023	11AM-5PM [6hrs]	Dr. Subhendu Chandra and Dr. Shinjinee Das Gupta, Dept. of Physics, VIC
17.05.2023	11AM-5PM [6hrs]	Dr. Subhendu Chandra and Dr. Shinjinee Das Gupta, Dept. of Physics, VIC
18.05.2023	11AM-5PM [6hrs]	Dr. Subhendu Chandra and Dr. Shinjinee Das Gupta, Dept. of Physics, VIC
19.05.2023	11AM-5PM [6hrs]	Dr. Subhendu Chandra and Dr. Shinjinee Das Gupta, Dept. of Physics, VIC
20.05.2023	11AM-5PM [6hrs]	Dr. Subhendu Chandra and Dr. Shinjinee Das Gupta, Dept. of Physics, VIC


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