SIES COLLEGE OF ARTS, SCIENCE AND COMMERCE, AUTONOMOUS, Sion w.

Workshop Report

08.03.2022

Title: "Programming and Interfacing using Raspberry Pi" Skill Development Program organized by Department of Physics under RUSA

Background:

UG and PG Students of Science stream learning computer programming languages need application-based programming skills. Micro controllers are widely used in several commercial products. Knowledge of programming and interfacing using Micro controllers can improve employability of students and also trigger entrepreneurship.

Aims/ Objectives of the program:

1. The course is designed to provide Basic knowledge of Python and Linux.
2. Learning programming and Interfacing using Raspberry-pi.
3. Applications of Raspberry-pi in industrial and other fields.

Location: Online Lectures on MS Teams Platform, Offline Demo-Sessions in SIES College Physics Laboratory.

Target Audience /Participants with expected number:

Students with a prior knowledge of programming: Students in TYBSc. Phy/Stats/ Maths/ CS/ IT and MSc. Phy/CS/ IT. Expected number: 100

Details of Session:

Students from TYBSc (Physics), MSc (Physics) and FYBSc (Computer Science) Attended the workshop.

The program was conducted using online platform MS Teams, through power point presentations, White board, Demo-Videos, and live demos. Study material was uploaded in the MS teams.

It was followed by question- answers session between the resource person and participants. All online sessions were conducted from 4 to 6 pm.

One day Off-line Demo session was conducted in the Physics Laboratory. In this five-hour session, interfacing with various types of peripherals was demonstrated.

Sr. No	Date	Lecture Title	No. of Lecture/Session
1.	14-02-2022 to 05-03-2022	Programming and interfacing using Raspberry-Pi	13 Online lectures of 2 hours each
2.	06-03-2022	Laboratory Demonstration of interfacing with Raspberry-Pi	1 offline Session of 5 hours

The workshop schedule was as follows:

SESSION DAY	DATE
DAY-1	14-02-2022
DAY-2	15-02-2022
DAY-3	16-02-2022
DAY-4	17-02-2022
DAY-5	18-02-2022
Holiday	*19-02-2022*
Sunday	*20-02-2022*
DAY-6	21-02-2022
DAY-7	22-02-2022
DAY-8	23-02-2022
Utkarsha & Visions(Non-instructional days)	*24-02-2022*
	25-02-2022
	26-02-2022
Sunday	*27-02-2022*
DAY-9	28-02-2022
Holiday	01-03-2022
DAY-10	02-03-2022
DAY-11	03-03-2022
DAY-12	04-03-2022
DAY-13	05-03-2022
Practical Session	06-03-2022

Name of the Resource Person:

Mr. Balkrishna M. Wagle,
Director, Microbyte Solutions.
Mr. Wagle is a highly experienced person in the field of Computer Machine Language.

Expected Outcome:

60 student participants attended online lectures and 40 student participants attended offline demonstrations.

The feedback of participants reflects the following points:

The program helped them to understand

1. Linux Operating System.
2. Hardware - Software Interfacing
3. Nearly 2/3rd of participants expressed that they understood Python programming.

Techniques taught in the workshop are useful to design commercial applications like temp. control.

1.

Convener 2.