



Introductory Workshop in Physics: Physics Remote Laboratory Workshop (SCIS1022A)

Introduction

This course aims at teaching students to build a remote experiment on their own. In this course, students will build a specific heat capacity experiment by using Arduino and Raspberry Pi to control the equipment and collect the experimental data. The experiment will then be performed via a webpage. Students could analyse the data generated, explain the scientific theory behind the specific heat capacity experiment, and experience and apply the technology of remote controlling hardware in the course.

Programme Type / Level

Introductory Workshop in Physics (Level 1): ([Token-required](#))

Instructor(s)

WONG Wang Cheung
YUNG Fai Ho Tony

Pre-requisite

No special prerequisites are needed

Target Participants



- S1 – S3 HKAGE student members
- Class size: 35

Medium of Instruction



English with English handouts

Certificate



E-Certificate will be awarded to participants who have:

- ❖ Attended all sessions ; **AND**
- ❖ Completed all the assignments with **satisfactory performance**

Intended Learning Outcomes



Upon completion of the course, students should be able to:

1. explain the scientific theory of specific heat capacity with experimental data;
2. explain the technology of remote controlling over real experimental equipment;
3. use Arduino and Raspberry Pi to control the experimental equipment for performing the specific heat capacity experiment.

Screening



This programme is Programmes with No Screening

There are no screening questions, written test or other screening methods for this type of programmes.

- Student members can select up to 5 programmes from a list of selection. Applicants have to state the priority when submitting the application. (1st priority, 2nd priority, 3rd priority, etc). 1 token is required for each programme (For programme list, please refer to the issue 14 of Gifted Gateway ([click here](#)));
 - Application can only be submitted once. Once it is submitted, the priority and the programme selection cannot be changed;
 - If a student member removes a programme from the application before the application deadline by withdrawal, the choice priority will remain unchanged. (For example: A student has selected three programmes and removed the programme with the 1st priority from the application. The choices of 2nd and 3rd priority will remain unchanged with no promotion in priority.);
 - We will select the students based on the student's choice of priorities and a randomly generated selection by the computer system. If there is time clash between the applied programme and other programmes with offer, HKAGE will consider if the application will be accepted;
 - Priority will be given to student members who have not completed the applied programmes;
 - Student members should avoid applying programmes with time clash;
- The decision of HKAGE on the result of selection should be final.

Application Deadline

18 Apr 2019
12:00 n.n

Application Result Release
Date

26 Apr 2019

Student members may withdraw from the programme on or before the deadline. Otherwise, the token will be deducted.

Schedule



Session	Date	Time	Venue
1	15 Aug	9:30 a.m. – 12:30 p.m.	Room 105, HKAGE
2		1:30 p.m. – 4:30 p.m.	

Enquiries



For enquiries, please contact us at 3940 0101 after language selection, press "1".

SCIENCES

科學