



# Creative IoT Application Workshop for Designing Smart Home Products (TECS2302)

## Introduction

This course is designed to enhance students' interest in Internet of Things (IoT) and applying STEM theories to real-life practice by producing a smart home product. Students will be responsible for the entire product design process, including CAD design drawing, and making a prototype by using 3D printing, electronic circuit design and computer programming (AI2, C++ and Python) skills. This product design mini project is targeted to inspire students in creativity, teamwork and design talent.

Programme aims:

- To introduce the mechanisms and applications of 3D printing and modeling, electronic circuit design and coding;
- To enhance students' creativity and problem solving skills in their daily life by applying the concept of Internet of Things (IoT);
- To enhance students' critical thinking ability by evaluating the application and future development of hardware and software design.

## Programme Type / Level

Intermediate Course in Innovative Technology ([Token-required](#))

## Instructor(s)

Mr. Chris Leung from Discovery Technologies Limited

## Pre-requisite

No special prerequisites are needed

## Target Participants



- S1 – S3 HKAGE student members
- Class size: 20

## Medium of Instruction



Cantonese with English handouts

## Certificate



**E-Certificate** will be awarded to participants who have:

- ❖ Attended **at least 6 sessions; AND**
- ❖ Completed all the assignments with **satisfactory performance**

## Intended Learning Outcomes



Upon completion of the programme, participants should be able to:

1. Design and make their own innovative products with specific theme and demonstrate the application of the products in real life;
2. Apply circuit design, IoT sensors, advanced programming skills and real-time database technology to design smart home applications;
3. Incorporate product design workflow in making the 3D products;
4. Develop their collaboration skills via conducting the group design projects.

## Screening



Please answer the screening question in the online application form.

\*The screening question is designed to help the applicant understands the course level and the course content. The question must be answered by the student applicant and it can only be attempted once. The answer cannot be changed once the application is submitted. Selection is based on students' performance in answering the question. Only students who can demonstrate motivation and the basic knowledge of Internet of Things (IoT) Application in the screening question can be enrolled in the programme.

Application Deadline

**12 Nov 2018**

Application Result Release  
Date

**23 Nov 2018**

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

## Schedule



Session	Date	Time	Venue
1	9 Feb	9:00 a.m. – 12:00 noon 2:00 p.m. – 5:00 p.m.	DTSL Group (Address: Unit L, 11/F, MG Tower, 133 Hoi Bun Road, Kwun Tong, Kowloon, Hong Kong) ( <a href="#">map</a> )
2			
3	11 Feb		
4			
5	12 Feb		
6			
7	13 Feb		
8			

## Enquiries



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

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