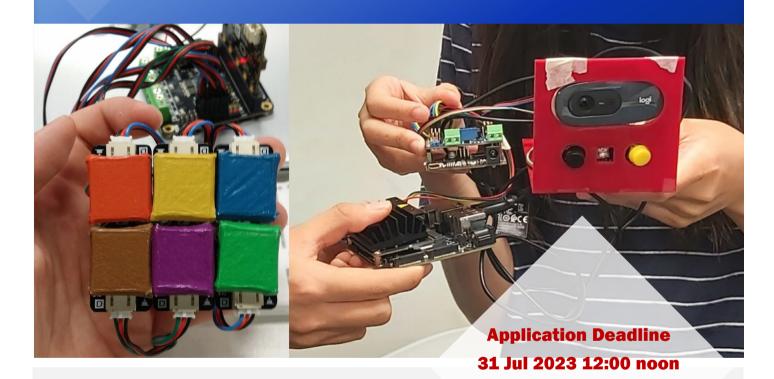
E2IN0001C, E2IN0001C-2

<u>(Token- required)</u>

Innovation Course (Level II):

Artificial Intelligence and Internet of Things Application – Making Innovative Smart Living Products (Phase I)

Mr Chris LEUNG (Decatron Innovation Limited)



Intended Learning Outcomes

Result Release 11 Aug 2023

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

- 1. describe the concepts and 5-step processes of design thinking;
- 2. explain the basic knowledge of Al and IoT and their applications in real life;
- 3. design electronic circuit and coding;
- 4. make prototypes by using 3D printer and laser cutter;
- 5. apply creative problem-solving skills.

Introduction

This programme series is designed to enhance students' knowledge and interest in Artificial Intelligence (AI) and Internet of Things (IoT) through applying design thinking process to make smart living products. Students will engage in hands-on design challenges that focus on developing empathy, encouraging ideation, developing metacognitive awareness, and fostering creative problem-solving. Throughout the programme, students will acquire skills including computer-aided design (CAD) drawing, making a prototype by using 3D printer, laser cutter, electronic circuit, and computer programming. The group design mini project is targeted to inspire students in creativity, collaboration, and design talent.

Schedule

Admitted students only need to attend either Class A or Class B below.

Class A (E2INO001C)

Session	Date	Time	Venue
A1	7 Oct	9:30 a.m. – 12:30 p.m.	Decatron Innovation Limited
A2	14 Oct		
A3	21 Oct		
A4	28 Oct		

Class B (E2IN0001C-2)

Session	Date	Time	Venue
B1	11 Nov	9:30 a.m. – 12:30 p.m.	Decatron Innovation Limited
B2	18 Nov		
В3	25 Nov		
B4	2 Dec		

Address: Decatron Innovation Limited, Unit 03, 19/F, Yen Sheng Centre, 64 Hoi Yuen Road, Kwun Tong, Kowloon. (MAP)

Remarks:

- 1. Interested student please apply at either Class A (E2INO001C) or Class B (E2INO001C-2) only. If you are also available for the other class, please indicate it in the last screening question (which may slightly increase your chance of getting an offer). We shall assign you to attend either Class A or Class B according to your availability, provided that you pass the screening.
- 2. The 25 best-performing students will be promoted to join Phase II. Grades and selection results will be announced after both Class A and Class B have completed, tentatively around 20 - 30 Dec 2023.
- 3. Tentative schedule for Phase II is 6 sessions on: 13, 20, 27 Jan, 3, 17 & 24 Feb, 2024; at 9:30 a.m. -12:30 p.m.

Target Participants

- S1 to S3 HKAGE student members in 2023/24 school year
- Class size: 25 for Class A, 25 for Class B, totally 50.

Pre-requisite

No special prerequisites are needed

Medium of Instruction

Cantonese with English Handouts

Certificate

E-Certificate will be awarded to participants who have:

- attended at least 3 sessions; and
- completed all the assignments with satisfactory performance.

Screening

Please answer the screening questions in the online application form.

*The screening questions are designed to help the applicant understands the course level and the course content. The questions must be answered by the student applicant and it can only be attempted once. The answers cannot be changed once the application is submitted. Selection is based on students' performance in answering the guestions. Only students who can demonstrate motivation and knowledge of artificial intelligence and product design in the screening questions can be enrolled in the programme.

Sample Notes

Testing

Investigation

Mathematics

Data Collection and

• Applications of Scientific

Processing (Statistics and

The 5-Step Process of Design Thinking

Empathize

- Select Specific Demographic groups
- Carry out 1st hand and 2nd hand research
- "Be in someone else's shoes"

Define

- Define Problem
- Set SMART Goals

Prototyping

- Application of Technology and Engineering
- 3D / 2D CAD CAM
- Coding and Programming

Ideate

- Brainstorming
- 5W1Hs
- · Design Sketching

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Cause and Effect Diagram

