



# Creative Design Thinking and IoT Application - Making Innovative Rehabilitation Products (E3INO001C)

<b>Introduction</b>	This course is designed to enhance students' interest in the concept of Design Thinking, IoT (Internet of Things) and applying STEM theories to real-life practice by producing an innovative rehabilitation product for stroke patients. 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 course, students will acquire skills including CAD design drawing, and making a prototype by using paper/3D printing, electronic circuit design and computer programming (e.g. Python) skills. The group design mini project is targeted to inspire students in creativity, collaboration and design talent.
<b>Programme Type / Level</b>	Innovation Course (Level III) ( <a href="#">Token-required</a> )
<b>Instructor(s)</b>	Mr Chris Leung (Decatron Innovation Limited)
<b>Pre-requisite</b>	Nil
<b>Target Participants</b>	<ul style="list-style-type: none"><li>➤ S1-S6 HKAGE student members only in 2020/21 school year</li><li>➤ Class size: 20</li></ul> This programme is the same as Intermediate Course in Innovative Technology: Creative Design Thinking and IoT Application - Making Innovative Rehabilitation Products (TECS2303) in 2019/20 school year.
<b>Medium of Instruction</b>	Cantonese with English Handouts
<b>Certificate</b>	<b>E-Certificate</b> will be awarded to participants who have: <ul style="list-style-type: none"><li>❖ Attended <b>AT LEAST 8</b> sessions AND</li><li>❖ Completed all the assessments with satisfactory performance.</li></ul>
<b>Intended Learning Outcomes</b>	Upon completion of the programme, participants should be able to: <ol style="list-style-type: none"><li>1. design and make their own innovative products for stroke patients and modify the products to fulfill patients' needs.</li><li>2. apply circuit design, IoT sensors, advanced programming skills and real-time database technology to design the products.</li><li>3. Incorporate design thinking process in making the products.</li><li>4. develop collaboration skills via conducting the group design projects.</li></ol>
<b>Screening</b>	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 knowledge of innovation in the screening question can be enrolled in the programme.

Application  
Deadline

1 Feb 2021, 12:00 n.n

Application Result  
Release Date

11 Feb 2021

If student members withdraw from the programme after the Application Deadline, the token will be deducted.

### Schedule

Session	Date	Time	Venue
1	6 Mar	9:30 a.m. - 12:30 p.m.	Decatron Innovation Limited <sup>1</sup>
2	13 Mar	9:30 a.m. - 12:30 p.m.	Decatron Innovation Limited <sup>1</sup>
3	20 Mar	9:30 a.m. - 12:30 p.m.	Decatron Innovation Limited <sup>1</sup>
4	27 Mar	9:30 a.m. - 12:30 p.m.	Decatron Innovation Limited <sup>1</sup>
5	7 Apr	4:00 p.m. - 5:00 p.m.	Zoom Meeting <sup>2</sup>
6	8 Apr	9:30 a.m. - 12:30 p.m.	Decatron Innovation Limited <sup>1</sup>
7	10 Apr	9:30 a.m. - 12:30 p.m.	Decatron Innovation Limited <sup>1</sup>
8	<del>12 Apr</del> 17 Apr	9:30 a.m. - 12:30 p.m.	Decatron Innovation Limited <sup>1</sup>
9	24 Apr	9:30 a.m. - 12:30 p.m.	Decatron Innovation Limited <sup>1</sup>
10	7 May	4:00 p.m. - 5:00 p.m.	Zoom Meeting <sup>2</sup>

<sup>1</sup> Address: Unit 03, 19/F, Yen Sheng Centre, 64 Hoi Yuen Road, Kwun Tong, Kowloon ([map](#))

<sup>2</sup> Zoom Meeting login details will be sent to students via email.

### Enquiries

For enquiries, please contact Academic Programme Development Division on 3940 0101 after language selection, press "1".