Learning Automation through Hands-on Experience in Real Industry Project

IELM has been pioneering on using "Experiential Learning" model to teach **IELM 2100E Computing in Industrial Applications**. Further to the success in Spring 2016, this well-received experiential learning course was offered again in Spring 2017 - with the sponsorship from *HKUST Center for Education Innovation (CEI) Teaching Development Grant*. This year, the popular course has attracted the enrollment from 24 students, nearly doubling the class size.

Partnering with **Kerry Logistics**, Asia's premier logistics service provider, students in this industrial sponsored course have to develop automatic Optical Character Recognition (OCR) solutions to enhance the productivity in the company. Currently, tagging of carton boxes at their warehouses are done manually. Students have to come up with innovative automation solutions to increase the efficiency and cost effectiveness in the process.

Enrolled students are undergraduates from diverse academic backgrounds. Without attending any regular lectures or lab sessions, this group of highly motivated students individually study a wide range of challenging course materials at their own pace. Through working on a real industry project with strict deadlines, they are educated to steer their own learning journeys and learn through their experience and mistakes. A learning portfolio is kept to monitor their learning process - which is the most important part of the course.

Throughout the learning journey, **Professor Richard So**, *Professor* of IELM Department, plays a vital role as a facilitator. Rather than providing a clear direction to students, Professor So encourages them to search the information online as well as to explore possible solutions on their own. All students in the class have direct access to Professor So 24/7 via mobile chat apps; and regular meetings are initiated by students to keep them on the right track in producing the final deliverables.

The Competition Day was held on May 12 2017. Five multi-disciplinary teams presented their innovative prototypes to the class, in the presence of the industry advisors from *Quality Management Team* of *Kerry Logistics* (**Mr. Jacky Poon**, *Manager*, **Ms. Nicky Choi**, *Assistant Officer*, and **Ms. Denise Yeung**, *Trainee*) and representatives from *CEI* (**Dr. Beatrice Chu**, *Educational Developer*, **Ms. Phoebe Mok**, *Senior Education Development Officer*, and **Mr. Derek Lam**, *Assistant Teaching Development Officer*). Kerry Logistics was so impressed with our students' performance that they have submitted IPs registration for some of the prototypes, and have invested more to the prototypes to mature the technology. This is certainly a mutually beneficial course for both Kerry Logistics and students. Kerry Logistics gains a range of creative and innovative ideas from students on enhancing productivity and efficiency of systems within the company; at the same time, students can learn through hands-on experience on working on an industrial project in real business setting.

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