SISP 1312 Developing Android Applications for Beginners

Course Description
The course will give students hands-on experience in developing interesting Android applications. No previous experience in programming is needed, and the course is suitable for students with any level of computing experience. The MIT App Inventor will be used in the course. It is a blocks-based programming tool that allows everyone, even novices, to start programming and build fully functional apps for Android devices. Students are encouraged to bring their own Android devices for hands-on testing and exploitation.

Topics
To engage students interest in the course content, flipped classroom approach will be used in the course. Students will acquire basic programming skills through different hands-on in-class activities. The lectures and labs will prepare them for the final capstone project, students will demonstrate their Android applications to the class on the last day.

1. Introduction to MIT App Inventor
2. Programming Basics
3. TimePicker, Clock and Sound Components
4. Canvas Component for Drawing
5. Vibration and Sensor Components
6. Internet and Location-Based Services
7. Mobile Game Development

Grading Scheme
- Attendance of lectures and labs (20%)
- Quizzes (15%)
- In-class exercises (25%)
- Group Project (40%)

[Topics and grading schemes are subject to change as deemed appropriate. Students will receive information and guidelines in class on how they will be assessed for the course.]

Instructor
Dr Kenneth LEUNG
Dr. LEUNG is a Lecturer in the Department of Computer Science and Engineering at HKUST. Receiving his Computer Science degree in University of British Columbia, he has further pursued his Master and PhD studies in Computer Science and Engineering at HKUST. He has been teaching a variety of computer science courses at all levels. He is the project leader of "Flipping the Classroom with iPad", a Teaching Development Grant (TDG) Project under Center for Education Innovation in 2015-2016. Dr. Leung uses interactive and collaborative in-class activities that stimulate critical and creative thinking in his classes. He has received numerous positive comments about his teaching style and skills from students in his teaching evaluations.