Introduction to the Module

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Module Code: ELEE1146

Module Name: Mobile Applications for Engineers

Credits: 15

Module Leader: Seb Blair BEng(H) PGCAP MIET MIHEEM FHEA
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Module Aims

The main aims of this module are to develop [your] understanding and practical skills in object-oriented programming and to introduce the principles of mobile application design and development to [you].

Module Learning Outcomes

On successful completion of this module, a student will be able to:

[1] have an in-depth understanding of object-oriented concepts and constructs

[2] understand multithreading

[3] understand the basic principles of mobile application development

[4] design and implement mobile applications

Indicative Content

Encapsulation and Information Hiding, Constructors, Inheritance, Polymorphism, Interfaces, Exception Handling, Files and Streams, Threads, User Interface Design, Widgets, Activities, Views, Intents, Menus, 2D and 3D Graphics, Animation.

This is non-exhaustive.

Programming

- Android Studio

    - The Intergrated Development Environment for developing on the Android platform.

- Kotlin

    - Now the preferred programming language for Android development
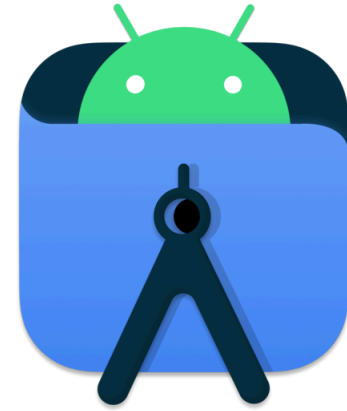
Teaching and Learning Activities

This module will be taught based on a problem-solving approach. [You] will be given specific problems to solve with the underpinning material supplied by lectures and tutorials.

At the end of this module, [you] will be able to undertake an engineering challenge such as designing and developing a mobile app. The app will be developed using the basic principles of mobile development technology and incorporating various additional features like an animated user interface, playing music, and sound effects.

Learning and teaching will be by a combination of:

- Lectures/tutorials/laboratory sessions (face-to-face, video, or computer-mediated)
- Individual or group-based teaching tutorial/project
- Self-study-supported structured learning materials

Assessments ELEE1146

Remember this is a level five module it is more technical than level 4.

1. Report

    i. 1500 words.

    ii. Design of a mobile prototype.

    iii. Weighting: 30%

2. Practical

    i. Implementation of a mobile application based on a detailed specification.

    ii. Weighting: 70%