Special Interest Group on Innovative Software (SIGIS)

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Characteristics of SIGIS

- Provide alternative learning opportunities
- Promote dynamic learning environment

By

- **Informal** discussion
- **Sharing**
- **Seminars/Workshops**

Workshop on Android App Development

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Instructors / Helpers

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Workshop on Android App Development

- Objective
  - Just **Kick-start**

- Approach
  - Lab

  - Pair-programming (2 person a group) [if need]

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Coverage

- Session 1 - Dec 27 (Thu)
  - **Application fundamentals**

- Session 2 - Dec 28 (Fri)
  - **User Interface & Navigation**

- Session 3 - Dec 31 (Mon)
  - **Communication between App and Server**
  - **QR Code Scanning**
  - **Location Service**

Today's Agenda

- Overview of mobile apps development

- Setup the dev environment
- Android App fundamentals
- Build and Test first app
- Basic User Interface
- Deployment

Overview of Mobile Apps Dev

Plan → Design → Develop → Test → Distribute

- Design
  - What will users **see**?
    - Multi-languages?

  - What things are **behind the scene**?
    - Program logic

  - How will users use your app?
    - Any expected flow? Event driven?
    - User friendliness is very important!

- Develop
  - **Front end**
  - **Back end**

- Test & Debug
  - Real devices
  - Emulators

Challenges in real world

- Lots of devices with variations in
  - **Screen size** and **ratios**
  - **Processing Power**
  - **OS version**
  - **Manufacturers** (Customizations)
  - …

Some terms (for Beginners in programming)

- UI
  - User Interfaces

- SDK (Software Development Kit)
  - Set of dev tools that <u>allows</u> the creation of apps in a software framework/ platform

- Eclipse
  - Integrated Development Environment (IDE)
    - Software for developing apps

Android dev terms

- ADT
  - Android Development Tools (Plugin for Eclipse)

- AVD
  - Android Virtual Device

- DDMS
  - Dalvik Debug Monitor Server

- Manifest
- Activity
- Service
- Fragment

Let's begin!