Mobile Software Engineering I

**Course Code: DLBCSEMSE01**

Course Description

Using the “Android” mobile platform as an example, the course will demonstrate how the programming of mobile applications (apps) differs from the development of browser-based information systems, which technologies and programming concepts are typically used and the typical challenges in app development for industrial applications.

Contents

1. Basics of Mobile Software Development
   1. Special Features of Mobile Devices
   2. Special Features of Mobile Software Development
   3. Classification of Mobile Devices
   4. The Android Platform
2. Android System Architecture
   1. The Android System
   2. Safety and Security
   3. Communication with Networks
3. Development Environment
   1. Android Studio
   2. First App and Emulator Test
   3. Application Deployment
4. Core Components of an Android App
   1. Overview of the Components of an Android App
   2. Activities, Layouts and Views
   3. Resources
   4. Summary in an App
   5. Graphic Design
5. Interaction Between Application Components
   1. Intents
   2. Services
   3. Broadcast Receiver
6. Advanced Techniques
   1. Threading
   2. Application Memory