

Mobile Applications for Sensing and Control (EEP 523) - Spr 23

Course Description:

In this course, students will gain the practical skills necessary to develop modern mobile applications, taking advantage of many sensors and control capabilities that modern smartphones offer. Students will use React Native, an open-source framework developed by Facebook, to create native mobile apps for both iOS and Android, using a single codebase.

Course Format:

- In Person
- Attendance: highly encouraged but not mandatory, real-time Zoom and lecture recording will be provided. All course material will be posted in Canvas.

Teaching Team:

Instructor: Sep Makhsous (ECE 234, sosper30@uw.edu)

Office Hours: By appointment only

Teaching Assistant: TBA

Learning Objectives:

By the end of this course, students will demonstrate the ability to:

- Apply React Native programming concepts to cross-platform mobile application development.
- Implement dynamic graphical user interfaces for mobile apps which combine different elements and actions.
- Access and use native features and APIs in React Native.
- Navigate and create user interactions in React Native.

Assignments & Grading:

- 3 Homework Assignments: 50%
- Final Project: 50%
- No late work will be accepted.

Course Schedule:

Week 1: Introduction to React Native and Cross-Platform Mobile Development

Week 2: Setting up a Development Environment and Creating a Hello World App

Week 3: Components, Props, and State in React Native

Week 4: Navigation and User Interaction in React Native

Week 5: Accessing Native Features and APIs in React Native

Week 6-9: Hands-on lab sessions to work on HW and Final Project

Week 10: Demos and Presentations

Join us for an exciting journey into the world of mobile application development with Mobile Applications for Sensing and Control (EEP 523)!