ECEN 489

Smart Phone Laboratory

Instructor Information:
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Office Hours: TBA

Course description: This is a lab course on Smart Phone programming with a focus on application development. The course will focus on the Android platform due to its simplicity and open source availability. Topics covered will include fundamentals of Java programming, working with the Android Interface, networking protocols and application development. The course will involve the development of a usable Android application as the final project.

Prerequisites: The course will assume that students have programming experience in some object-oriented language (eg. C++ or equivalent). Upper level Juniors and Seniors will have this background.

Learning Objectives: At the end of this course the student should understand how to design and develop an Android application utilizing the interface features, available services, networking features and sensors.

Recommended Texts:

Grading: Machine Problems (65%), Project (35%)

Grading scale (will be adjusted according to student performance distribution): 90-100 A, 80-89 B, 70-79 C, 60-69 D, below 59 F.

Topics:
- Week 1: Java basics
- Week 2: Multi threaded programming on Java
- Week 3: Networking on Java: TCP
- Week 4: Networking on Java: UDP
- Week 5: Android Interface
- Week 6: Android Activities and Services
- Week 7: Project discussion
- Week 9: Project seminar
• Week 10: TCP and UDP
• Week 11: Networking: Chat server
• Week 12: Project
• Week 13: Project
• Week 14: Project

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