



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Mobile Handset Systems and Networking

CSE 5432

Credit Hours:

3.00

Course Levels:

Undergraduate (1000-5000 level)

Graduate (5000-8000 level)

Course Components:

Lecture

Course Description:

Mobile handset architecture: processors, memory, I/O devices, sensors, virtual machine and power management; different ranges of wireless communication technologies; TCP/IP over wireless; mobile social networking.

Prerequisites and Co-requisites:

Prereq: 2421, 3430, or 2451 and ECE 2560; or Grad standing.

Course Goals / Objectives:

- Be competent with mobile handset architecture processors, memory, I/O devices and sensors
 - Be familiar with mobile handset virtual machine and power management
 - Be competent with different ranges of mobile handset wireless communication technologies and TCP/IP over wireless
 - Be familiar with mobile social networking
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Course Topics:

- Mobile handset: history and trends; overview of mobile handset systems architecture and operating systems; overview of mobile handset networking
 - Mobile handset processor architecture; memory systems; I/O devices and sensors
 - Virtual machine; system power management
 - GSM/3G/LTE; WiFi direct; Bluetooth, Zigbee, NFC and other short range communication technologies; TCP/IP over wireless on mobile handsets; networking power management
 - Mobile social networking; security
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Designation:

Elective