ECSE 444. MICROPROCESSORS.

Credits: 4

Offered by: Electrical & Computer Engr (Faculty of Engineering)

This course is not offered this catalogue year.

Description

Design techniques for developing modern microprocessor-based systems, multiple state-of-art instructions set architectures (ISAs) and associated assembly languages, use of tools for compiling, linking, memory overlay; debug techniques for start-stop and real-time debugging, together with debug infrastructure and interfaces: flash patching, variable watching and instruction stream tracing. Use of coprocessors and computer peripherals, such as SPI, I2C, I2S, SAI, USB, wireless standards, timers, DMA units and FLASH accelerators. Interfacing and processing sensor data including multi-sensor integration. Design techniques that promote structured approaches for separation of concerns in computing and communication. Real-time systems and software engineering for tightly integrated hardware.

- (3-4-5)
- Prerequisite(s): ECSE 324
- (3-4-5)