



INTRODUCTION TO EMBEDDED SYSTEMS

COURSE OVERVIEW

This 10-day, hands-on course assumes no prior knowledge and is intended to teach:

- Microcontroller background history
- Number representation in digital computers and introduction to passive and active electronic components
- Operation of test equipment for circuit analysis
- Integrated development environment setup and operation
- C programming fundamentals
- Techniques for source code optimization
- Principals for developing efficient algorithms
- Design and build digital and analog systems utilizing various sensors

COURSE OBJECTIVES

To teach the fundamental principals required for developing a small, rugged low power embedded system utilizing the C programming language and custom development board.

- The intent is to impart the basic understanding of microcontrollers as a general subject and enable the students to independently develop solutions based on the knowledge provided.
- Utilizing the internal digital, analog and communication peripherals built into the microcontrollers, the students should be able to apply this knowledge to most microcontroller and sensor suites commercially available.