CANbus Academy
Accelerating Knowledge

3-day Vehicle Electronics Workshop: ECU Design, CAN protocol & Integration

March 10, 11 and 12 2015 in Austin TX

Day One: CAN Protocol
Section 1: CAN Protocol
  1: Small Area Network,
  2: CAN Overview
  3: CAN Physical Layer
  4: CAN Data Link – Message Frame
  5: CAN Data Link – Error Frames
  6: J1939 Overview

Labs:
        Lab 1: Scope & Protocol decoder
        Lab 2: CAN Analyzer
        Lab 3: CAN Analyzer Project

Day Two: ECU Design Workshop
Section 2 - Part1: ECU Design Workshop
  1. ECU Architecture
  2. Embedded Hardware
  3. Embedded Software

Hands-On Exercises:
        Digital Outputs, Discrete & Variable Load Control, Analog signals & sensor interfacing.
        Large & small analog signals scaling, Discrete & Variable Large Load control, Complex
        load control, digital inputs, edge detection, bus interfacing.

  5. Class Project: Battle Tank

Day Three: CAN Integration
  6. Class Project: Battle Tank – Final Demo

Section 2, Part 3: ECU Manufacture Overview
  1. Exploring an controller design
  2. 3D Modeling
  3. Creating a Design
  4. PCB Manufacture

Section 3: CAN Integration
  1. CAN Integration: Physical Layer Challenges
  2. CAN Integration: Controller Challenges
  3. CAN Integration: Software Challenges

Course agenda may change without notice