DORLECO
INNOVATIONS FOR SUSTAINABLE MOBILITY

EVCU - MODELING, FLASHING, CALIBRATION, AND CONTROL

1-DAY FREE WORKSHOP

Workshop Overview

This free 3-hour workshop offers a real-time learning opportunity for novice professionals who are interested in the automotive software development domain. The program concentrates on application software development, flashing, and calibration of vehicle control units.

Participants will gain knowledge of electronically-controlled systems in contemporary vehicles and hardware distinctions among combustion, hybrid, and electric vehicles. Moreover, the participants will receive a comprehensive overview of Dorleco hardware, including VCU, display, and CANopen keypad.

The workshop will also provide insight into the simulation, flashing, and testing of throttle control software on the test bench.
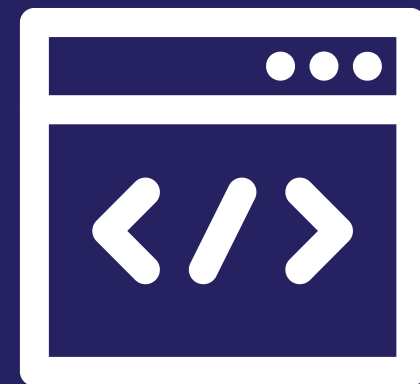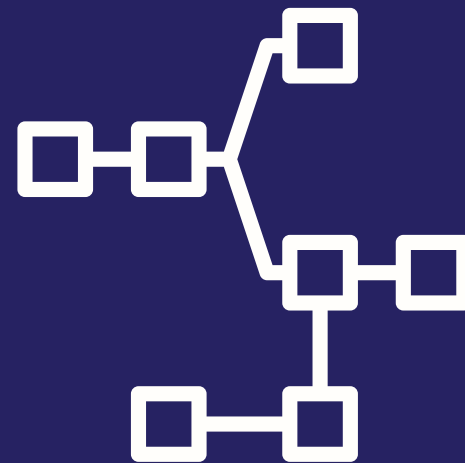
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Workshop Outline
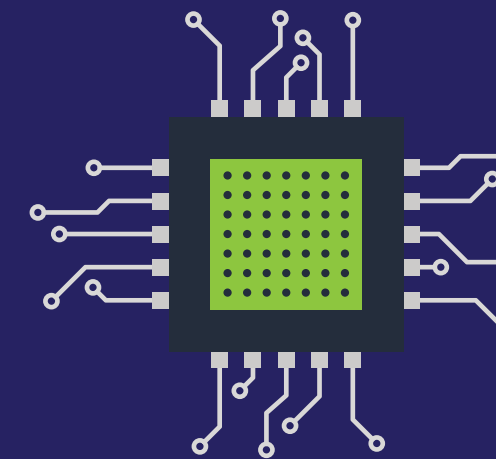## eVCU - Modelling, Flashing, Calibration, and Control

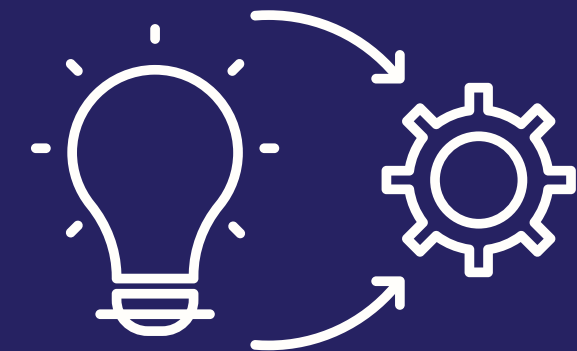Understanding the difference in software and hardware setups in CV/HEV/BEV

Introduction to C and Simulink programs and Dorleco hardware overview

Development of a throttle control model in Simulink and understanding the build toolchain

Introduction to CAN communication protocol & flashing the software on the test bench

Development of additional features like cruise control and display programming

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Key Takeaways

HANDS-ON EXPOSURE TO SUPERVISORY CONTROLS

Get comprehensive exposure to development, flashing, and testing controls software for supervisory automotive functions.

SYSTEM INTEGRATION

Learn how to use the right toolchain blocks in Simulink to ensure compatibility of the code with the hardware components.

LIVE TESTING OF AUTOMOTIVE FEATURES

Understand how automotive features like cruise control are conceptualized, developed, and tested on a test bench.

CALIBRATION TOOLS FOR BENCH TESTS

Learn a new calibration tool that can be used while testing autogenerated code on the bench.

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Prerequisites

MATLAB

On-ramp:
https://in.mathworks.com/learn/tutorials/matlab-onramp.html

SIMULINK

On-ramp:
https://in.mathworks.com/learn/tutorials/simulink-onramp.html

CONTROLS DESIGN

On-ramp:
https://in.mathworks.com/learn/tutorials/control-design-onramp-with-simulink.html

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Key Pointers

- **MINIMUM QUALIFICATION**

  Background in Mechanical/ Electrical/ Electronics/ Computer Engineering

- **METHOD OF DELIVERY**

  The program will be delivered on-site at the Farmington Hills office in Michigan.

- **WORKSHOP FEE**

  This workshop is completely free.

- **REGISTRATION LINK**

  Registration Link - https://forms.gle/RieP3FRHL8utTr8WA

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Got questions?