



DRIVE-BY-WIRE CONTROLS BOOTCAMP

E-MOBILITY SYSTEMS



Course Preview

This Bootcamp is a 10-hour real-time learning program ideal for beginners in the automotive software development space focused on e-mobility systems.

IEEE will be providing PDH/CEU certificates for all the participants who successfully complete this program.

Learn how the industry implements V-cycle development, system modeling, MBD methodology, requirements generation, architecture development, controls, and software (development, flashing, and calibration) for the development of intelligent vehicle systems.

Domain Focus

E-MOBILITY CONTROLS

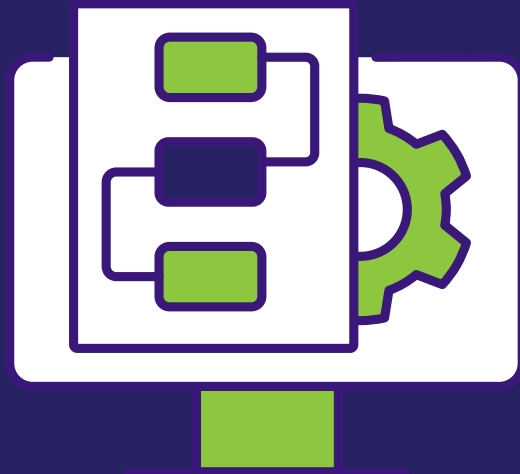
COURSE TITLE

**Real-Time Drive-by-Wire Controls
Using MBD**

Course Outline

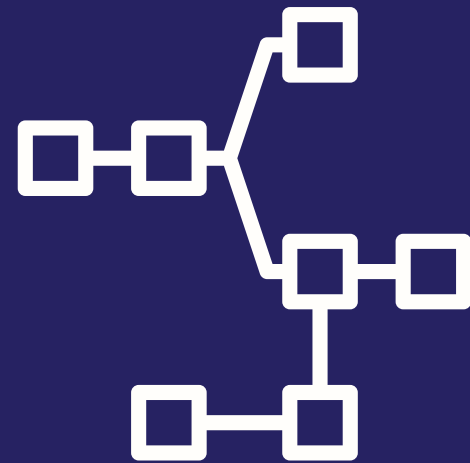
Real-Time Drive-by-Wire Controls Using MBD

MODULE 1



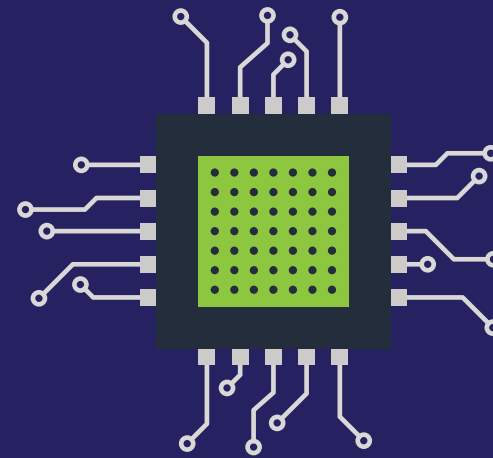
Introduction to model based design and drive by-wire systems

MODULE 2



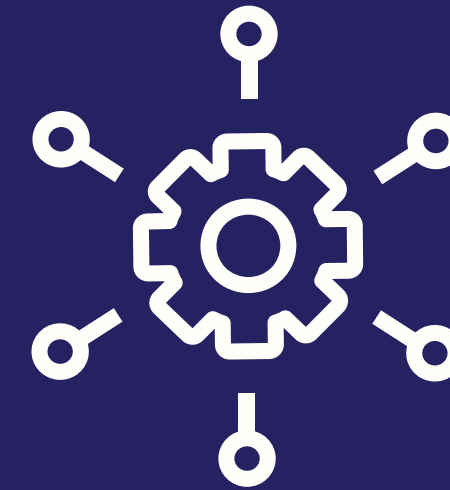
Development of throttle-by-wire plant model & controls in Simulink

MODULE 3



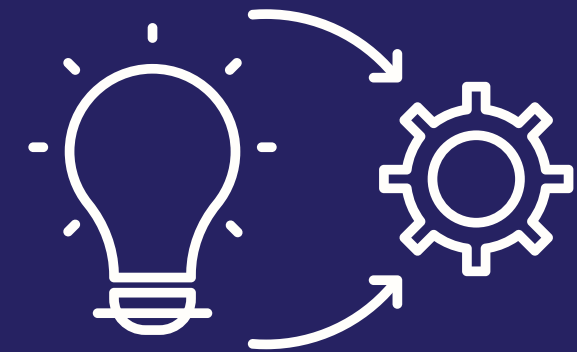
Introduction to Raptor, software flash & calibration for Bosch ECU

MODULE 4



Development of control algorithm for Suzuki hardware.

MODULE 5



CAN protocol and real time implementation in Raptor CAN.

Key Takeaways

Bootcamp Details:

Dates: 30th January to 3rd February

Schedule: 2 hours per day

Registration link:

<https://dorleco.com/courses/drive-by-wire-controls-bootcamp/>

IEEE CERTIFICATE

Take a quiz and successfully complete this program to get valuable Professional Development Hours (PDHs) under your belt.

COURSE MATERIAL

Take home all of the lecture notes, Simscape/Simulink model and relevant reference material.

LEARN ONE ADVANCED AUTOMOTIVE FEATURE

Learn real time controls implementation following standard automotive software development practices

LIVE DEMO OF HOW DBW SYSTEMS WORK

Get to watch how drive-by-systems work through a live demo on a Class 1 commercial truck

Prerequisites

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MATLAB

On-ramp:

<https://in.mathworks.com/learn/tutorials/matlab-onramp.html>

SIMULINK

On-ramp:

<https://in.mathworks.com/learn/tutorials/simulink-onramp.html>

STATEFLOW

On-ramp:

<https://in.mathworks.com/learn/tutorials/stateflow-onramp.html>

CONTROLS DESIGN

On-ramp:

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

Key Pointers

MINIMUM QUALIFICATION

Background in Mechanical/ Electrical/ Electronics/ Computer Engineering

METHOD OF DELIVERY

The program will be delivered completely online via zoom sessions

MATLAB/SIMULINK

License NOT required for the completion of this program

COURSE FEE & REGISTRATION LINK

Please write to info@dorleco.com for more information on company specific BootCamp training programs.

Got questions?

WRITE TO

info@dorleco.com

