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AUTONOMOUS VEHICLE MBSE BOOTCAMP

AUTONOMOUS SYSTEMS - AUGUST 2022

Course Preview

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

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Domain Focus

AUTONOMOUS SYSTEMS

COURSE TITLE

Model-Based Systems Engineering for Autonomous Vehicles
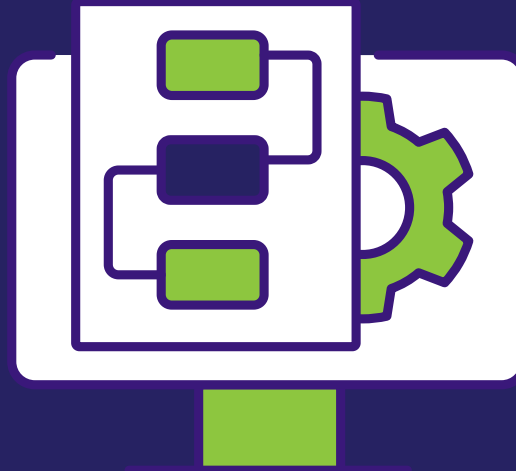
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Course Outline

Model-Based Systems Engineering for Autonomous Vehicles

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MODULE 1

Introduction to Autonomous Driving and ADAS feature development.
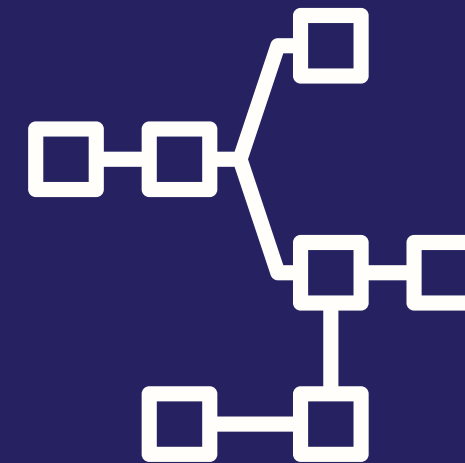
MODULE 2

Introduction to MBSE, MBD methodology, AD toolbox by MathWorks

MODULE 3

Requirements generation, architecture development in SysML, emulator subsystem development

MODULE 4

Building model for LKA, Stateflow logic for requirements, system level test case generation

MODULE 5

Verification & Validation (MIL & SIL), code generation, PIL & HIL basics

Key
Takeaways

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

ADVANCE YOUR EV/AV CAREER

Leverage the knowledge gained in the course for further research, interviews, internal/external projects etc.

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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

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

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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

  Program fee - $150

  Registration link - https://dorleco.com/course/autonomous-vehicle-mbse-bootcamp/

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Got questions?

WRITE TO

info@dorleco.com

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INNOVATIONS FOR SUSTAINABLE MOBILITY