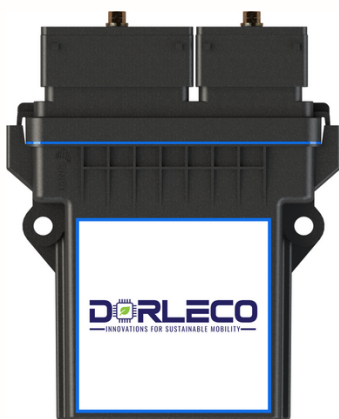# THE MONTHLY INSIDER

Smart Vehicle Control Unit

DORLECO is elated to announce its first automotive-grade Vehicle Control Unit (VCU) for electric mobility supervisory control applications. The VCU has fully-built base applications and Simulink-based application development capabilities. This VCU can be configured for multiple applications - from 2/3-wheelers and micromobility services to passenger and commercial vehicle applications (class 2 to class 8), in addition to tractors and electric boats too.

- AECQ100/200 production-grade materials
- Dimensions: 13 x 12 x 4.2 cm; Weight: 0.3 kg
- IP67 resistance and operating temperature range from -40°C to 80°C.

- Simulink-based Application Development with no additional license fees
- Supports 4 CAN channels – CAN, CANFD, CANOpen, J1939
- ISO 26262, ASIL B & D, and AUTOSAR Compliant
- EMC certified, shock, vibrations, thermal and ingress protection
- Optional – Multicore Processor, Remote diagnostics & OTA updates

Write to info@dorleco.com for the brochure and datasheet.

Newsletter Highlights

SMART VEHICLE CONTROL UNIT

DORLECO'S PLUG-&-PLAY FULL VEHICLE SIMULATOR

10-HOUR UPCOMING BOOTCAMPS

SNEAK PEEK INTO DORLECO

FULL-TIME OPENINGS

Enter Inputs	→	DORLECO *Plug-&-Play Simulator*	→	Receive Outputs
Vehicle Dimensions Performance Expectations				Motor and Battery Characteristics Component Recommendations

DORLECO Full Vehicle Plug-and-Play Simulator

At DORLECO, we are working on the development of a full vehicle plug-and-play simulator for analyzing the performance, energy consumption, and management, as well as controls development in Simulink. This simulator will provide the lateral and longitudinal behavior of passenger as well as commercial vehicles which can be extremely useful in sizing, selection, and parameter estimation.

The tool will also provide recommendations for component selection based on the simulation results. A free demo version will be out soon!

10-Hour Bootcamps

In the month of August, we will be conducting two bootcamps that will cover the fundamentals of drive-by-wire control systems and model-based systems engineering for autonomous vehicles. These bootcamps are best suited for students and working professionals looking to foray into the automotive controls software domain.

The two bootcamps are titled "DRIVE-BY-WIRE CONTROLS BOOTCAMP" and "AUTONOMOUS VEHICLE MBSE BOOTCAMP". Candidates will receive a Simulink model and reference materials along with theoretical know-how of controls, as well as a chance to get an IEEE certificate subject to the completion of a final quiz.
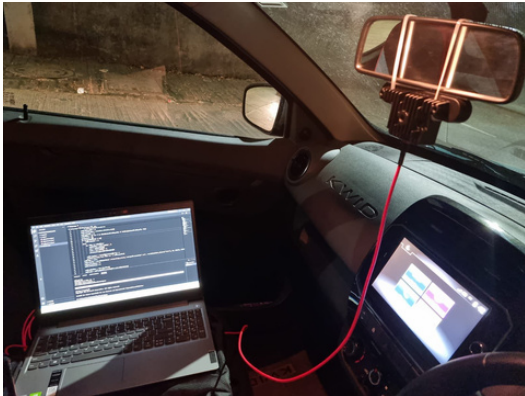
The DRIVE-BY-WIRE CONTROLS BOOTCAMP will be held on 6th and 7th August 2022.

For registering and more details, visit: https://dorleco.com/course/drive-by-wire-controls-bootcamp/
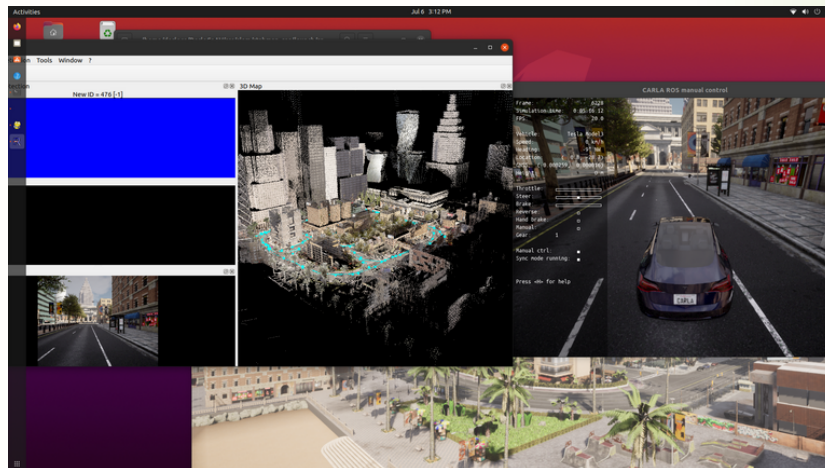
Sneak Peek into DORLECO!

Over the past few months, we have been working on some exciting in-house projects as we keep striving toward achieving "Innovations for Sustainable Mobility". Here are some glimpses from our Pune office in the past couple of months.

Data acquisition for depth estimation and RGB images for perception algorithms

Integration of EV powertrain on golf cart for in-vehicle testing

Simulation of driving scenarios in Carla virtual environment

Full-time Openings

We're looking to fill the following positions, split between our Pune and Farmington Hills (FH) offices. Details of each role have been specified on our careers page: https://dorleco.com/career/

For applying, send your resumes to **samruta@dorleco.com** (Pune) or **mayuri@dorleco.com** (FH) with the position title in the subject.

Job Titles
- Project Management Professional (PMP)
- Electrical Development Engineer
- Lead Engineer, Electrical and Electronics System Verification
- Lead Vehicle Electronics Engineer
- Senior Engineer, Electrical and Electronics System Verification
- Senior Systems Verification Engineer
- Senior Vehicle Electronics Engineer
- Senior Testing Engineer, NVH
- Senior Testing Engineer, Vehicle Dynamics
- XIL Simulation Engineer
- Simulation Engineer, Powertrain
- Sr. Simulation Engineer, Powertrain
- Mechatronics Engineer, Power Hatch / Liftgate
- Mechatronics Engineer, Interior Lighting Module
- Electrical Engineering Intern
- Embedded Controls Software Intern
- Model-Based Systems Engineering Intern
- Business Development Engineer