THE MONTHLY INSIDER

Automotive Cybersecurity

For the last couple of months, we have been working on a system-level smoke test plan and coverage analysis for the protection of Level2 ADAS ECU for an OEM. The work product consisted of identification of security-critical functions and data, identification of software and software protection mechanisms, system-level threat analysis and risk assessment (TARA), software security requirements assessment, and writing of test cases for protection. We helped our client develop tests and validate them for the following requirements.

The ECU was tested for:

- Secure Diagnostics
- Secure Debugging
- Secure Logging
- Secure Ethernet Communication
- Secure Software download/flashing
- Secure Features Activation
- Secure CAN Communication

Recently, we have also been involved in CAN Message Authentication (CMA), which is one of the broadest areas for testing. For CMA, we are developing the test cases and testing them on the hardware using CANoe and CAN box on our client's ADAS ECU. We created testing files using the database(.dbc) files and the system configuration (.arxml) files. These test files can be accessed by CANoe and can simulate all the messages which are security-critical. Based on these simulated messages different tests can be formed to test how secure the communication is on various fronts.

At Dorleco, we help companies implement robust cybersecurity solutions for software-driven vehicle systems, and provide design and development support including reference designs, prototype development, automotive protocol stacks configuration and integration, testing services, and more. Write to *jpeter@dorleco.com* today to know more about our cybersecurity-related services for vehicles.

Newsletter Highlights

BEYOND OBVIOUS

Bite-sized tips on e-Mobility and Vehicle Autonomy

Dorleco is elated to announce a new segment- **Beyond Obvious**, a section that aims at taking the readers one step beyond the fundamentals of engineering concepts being implemented in eMobility controls and autonomous systems. With the rapidly evolving trends in the eMobility and autonomous sector, it has become imperative for one to stay informed about all these latest technologies, and Beyond Obvious does just that! This new resource center will feature news updates, recent trends, and innovative technologies in these two highly sought-after domains in the automotive industry.

Click on the link below to dive in and explore the various technologies in electric & autonomous mobility!
https://dorleco.com/beyond-obvious/

VCSE Training Program

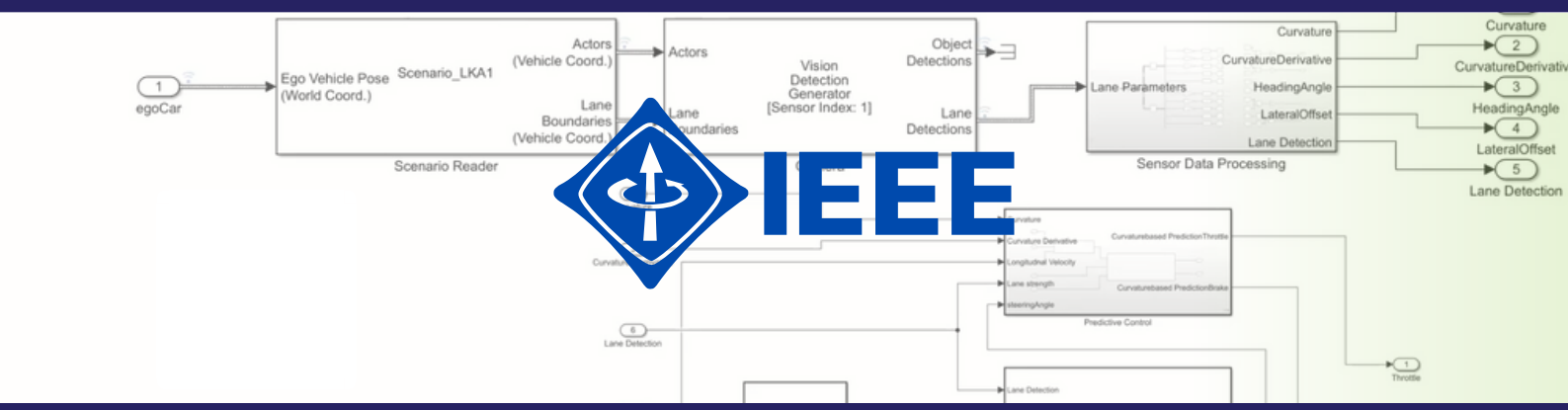
In the month of March, we successfully concluded yet another batch of the "Vehicle Control Systems for Everybody (VCSE)" training program. The applicants completed the projects "Modelling of Electronic Throttle Controller" and "Lane Keeping Assist System using Model-Based Design" in the eMobility and Autonomous tracks of the program respectively, and have received their course completion certificates from IEEE.

Our next batch of VCSE program starts 8th June, 2022 with enrolments closing on 6th June, 2022. To know more about the program, visit: https://dorleco.com/course/vcse/

If you wish to be a part of the next batch of this 1 month training program, here are a few prerequisites that will help you follow the program easily:

- Onramps for **MATLAB**, **Simulink**, **Simscape** and **Control Design**
- Basics of Python, Data Structures and Algorithms

To apply, write to: mayuri@dorleco.com






Our new flex facility at Farmington Hills, MI.

We are glad to announce that we have moved into new office space – our first flex facility, replete with executive suites, labs, training rooms for our IEEE-certified courses, and a shopfloor space that can accommodate multiple hardware setups for testing and integration. Our doors will be open for eMobility and Autonomous Driving professionals as we plan to build a closely-knit community!

Here's a glimpse of our new office in Michigan!

New office address:
39255 COUNTRY CLUB DR STE B12
FARMINGTON HILLS MI

We've Rebranded!

We are happy to announce that we are now doing business as DORLECO. We will now be offering some additional services, including prototype building, autonomous driving sensor suite, motor dyno, vehicle network reverse engineering, as well as a bespoke software stack for an EVCU. Additionally, we also offer Verification & Validation services, as well as consultation on functional safety, cybersecurity, and compliance with ASPICE.

DORLECO
INNOVATIONS FOR SUSTAINABLE MOBILITY

Full-time Openings

We're looking to fill the following positions, split between our Pune and Farmington Hills (FH) offices. All these roles demand 3-4 years of work experience or completion of our Hands-On Controls (HOC) training program.

The positions require academic background or professional experience in model-based controls software for electric and autonomous mobility, low-level device drivers, vehicle communication stack and firmware, rapid control prototyping, hardware-in-loop testing, data analysis, test automation scripting, and a good understanding of software architectures and AutoSAR framework.

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

Job Titles

- Technical Managing Director
- Model-Based Controls Software Engineer
- eAxle Controls Requirements Engineer
- eMobility Systems Engineer
- Autonomous Driving Software Engineer
- Low-Level Device Driver Engineer
- AutoSAR configurators/developers
- Vehicle Communication Stack & Firmware Engineer
- Motor Dyno, Drivability & Characterization engineers
- Rapid Control Prototyping and HIL engineers
- Data analysis & test automation scripting engineers
- eMobility and Autonomous controls course instructors
- Sensor Fusion Engineer
- Senior Embedded Software Engineer