



Keynote speaker:

Name: Cristina Mihaela Dragan

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Title of the Presentation:

Car Environment Conditions vs. Thermal Chamber

Short CV:

Cristina Mihaela Drăgan is a Thermal Analyst Expert in the Continental Automotive Company, in Advanced Driver Assistance Systems department. Her experience is in thermal management of different electronic control unit for different environment conditions. Additional to thermal management experience, she has experience in Design for Six Sigma. Her thermal studies include passive cooling solutions and active solutions: liquid cooling, fan cooling, heat pipes, and Peltier. She holds bachelor's and master's degree in Mechanical Faculty at the University Politehnica Timisoara, Romania and currently she is enrolled for PhD in Thermal Optimization for Electronic Control Units in Automotive Industry.

Abstract:

In car environment conditions we have as boundary conditions the solar radiation and the ambient temperature. Additional to these we have the surrounding parts, like brackets, protection covers and other electronic units, which will affect a lot the thermal behaviour. In thermal chamber there is only ambient temperature and a turbulent unknown airflow behaviour, which vary from thermal chamber to thermal chamber and from one testing position to another testing position. In this presentation we will check the difference in thermal behaviour for both conditions and decide if these two conditions are substituting each other or not. Also, the paper presents the main steps in thermal evaluation of an electronic unit.