

Dynamics of flexible car/trucks/busses and comprehensive specifications for component design using virtual prototyping

Organized by Automotive Cluster Euregio Meuse Rhine2012
October 6th, 2011

CALL FOR PRESENTATION

Keywords

Multi-Body Simulation, Finite Element Analysis, Vehicle Dynamics, Vibrations, NVH

Overview

The Automotive Cluster of the Euregio Meuse Rhine is organizing a workshop around component design and analysis in the field of vehicle dynamics using numerical simulation.

The purpose of the workshop is to give the opportunity to industrials and universities to express their experiences and needs in the field of vehicle dynamics, more precisely in terms of component design and validation of the component integrated in the vehicle.

The workshop is dedicated to component analysis in the field of car/trucks/busses dynamics. Attendees will be asked to briefly present their company, their applications in the field of vehicle component design and limitations they are facing or desired improvements. You are also asked to mention and evaluate your collaboration with different supply chain levels in the engineering process.

This workshop is dedicated to lead a future European project in the field of component design. It aims at collecting information on the way components are analysed and to look for a methodology to improve components quality.

A common objective in the automotive sector consists in weight reduction. Light weight components/assemblies become more sensitive to vibrations. This affects comfort and durability. The first phase of component design requires accurate specifications. Then this

design should be validated as a part of a complete assembly of components e.g. car/truck/bus. The definition of specifications and the integration of the component in the vehicle assume a certain level of collaboration between partners: data exchange, confidentiality, compatibility, etc.

Proposals must be received by September 15th 2011 in the shape of a short abstract (15-20 lines). The schedule of the workshop will be available on the September 20th 2011.

Planning:

- 15th of September 2011: Deadline for abstract submission in the shape of a short summary (15-20 lines);
- 20th of September 2011: publication of a program;
- 30st of September 2011: Deadline for presentation submission illustrating the topics presented in the abstract;
- 6th of October 2011: Deep Dive Sessions.

General information:

Your proposal (15-20 lines) should include:

- Information about the author/speaker : title, full name, position, company, address, department, phone number, e-mail address;
- Company presentation ;
- Activity in car/truck/buses component design and analysis;
- Collaboration with tier suppliers, OEM, manufacturer: who and in which way;
- Limitations, needs and expected improvements.

General objectives:

- Generalize the introduction of flexibility and non-linearity for dynamic simulation;
- Define comprehensive specifications for components;
- Improve component design (mass reduction and increased lifetime);
- Improve collaboration by increasing communication while respecting a certain level of confidentiality.

Requirements:

- Lack of comprehensive specifications for components
 - Improve communication between partners : OEM ↔ TIER, TIER ↔ TIER;
 - Improve prediction techniques;

Impacted actors:

- Tier suppliers;
 - Software editors;
 - Measurement centers;
 - Universities;
 - OEM (in a second step);
 - Others.
- Language = English

The proposals have to be sent to:

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