

NEW DOCTORAL PROJECTS AT THE INSTITUTE OF AUTOMOTIVE ENGINEERING

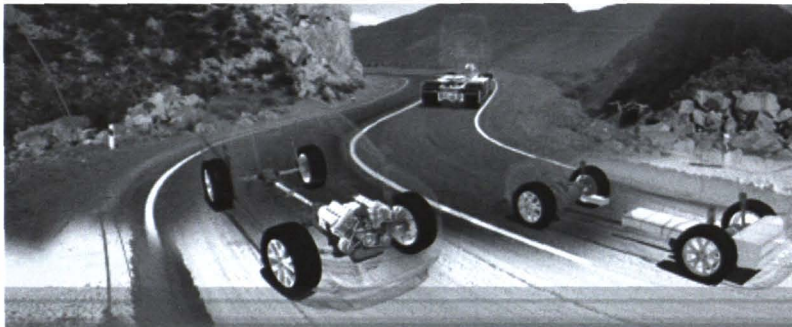
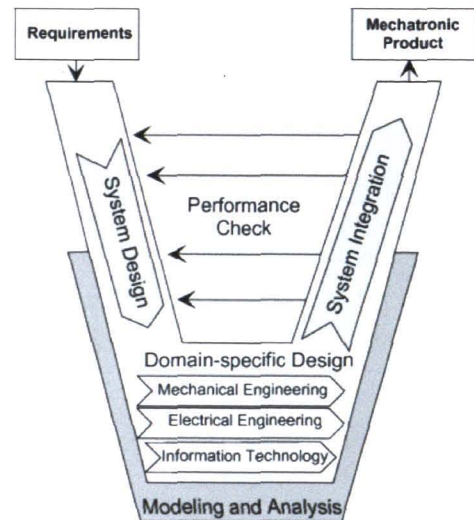
At the Institute of Automotive Engineering, an independent department of the Frank Stronach Institute [FSI] of Graz University of Technology, three new doctoral research projects have been initiated.

Development Process for Automotive Mechatronic Systems

Mechatronic components are essential parts in the development of automotive products. However, during operation, safety-related malfunctions and failures of these components and systems can occur, which may lead to unacceptable consequences, representing a major risk in the field of functional safety in the automotive industry. To counteract this problem effectively, the overall development process of mechatronic systems is dissected and investigated by taking the example of powertrain components under the consideration of the guideline „Development methodology for mechatronic systems“ VDI 2206 as well as the standard „Functional Safety Road Vehicles“ ISO 26262

For this purpose, both safety-related malfunctions based on field data as well as the development processes of mechatronic components are analyzed.

The acquired knowledge is integrated into and serves as a basis for the creation of a new prediction model. The approach is to include development of methods to support a reduction



of malfunctions as well as their probability of occurrence, even this is also done already in the layout phase of future mechatronic systems.