9th INTERNATIONAL MODELICA CONFERENCE

September 3-5, 2012
Munich, Germany

python™

▸ JOIN THE JMODELICA.ORG TUTORIAL AT THE 9TH INTERNATIONAL MODELICA CONFERENCE

Dynamic optimization is becoming a standard industrial technology to solve a wide range of industrial engineering problems. These include optimal control and model predictive control, model calibration and state estimation as well as design and sizing problems. In this tutorial, participants will get hands on experiences with formulating and solving engineering problems where simulation based on the FMI standard, dynamic optimization based on the Optimica extension and Python scripting are used as building blocks. During the tutorial, we will also discuss challenges and pitfalls in optimization of industrial processes, and we highlight modeling considerations for dynamic optimization.

JModelica.org is an open source platform for modeling, simulation, optimization and analysis of complex dynamic systems. The platform integrates established technologies, including Modelica, the Functional-Mock-up Interface, and Python.

Several tutorial exercises demonstrating how to solve typical problems will be provided in order for participants to tailor their experience. You will also get the opportunity to meet with experienced users and developers of JModelica.org from Modelon AB.

▶ ABOUT THE INSTRUCTORS:

Johan Åkesson has a Ph.D. in automatic control and 10 years' experience with tools and applications in optimization of dynamic systems. Johan is also the founder of the JModelica.org project.

In addition, experienced members of the JModelica.org development team will support participants during the tutorial.

Requirements:

JModelica.org is freely available as open source software from www.jmodelica.org. Participants are expected to bring their own computer, preferable with the latest version of JModelica.org installed.

Time, place and registration:

The tutorial will take place on Monday, September 3rd at the same location as the Modelica Conference.

13:00–14:00
Getting started and introduction to JModelica.org.

14:00–17:45 Tutorial

Sign up for the tutorial when registering to the Modelica Conference, see
www.modelica.org/events/modelica2012

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