

Online Modelica Training

Object-Oriented Modeling and Simulation of Thermal Systems

TLK Energy GmbH and TLK-Thermo GmbH offer a three-day online training on object-oriented modeling and simulation of thermal systems. The training is conducted web-conference with a small group of people. There will be two supervisors, so that everyone will receive the support they need. We will have short breaks and time for individual questions and discussions.

The training course includes the following topics:

- Object-oriented and equation-based formulation of differential-algebraic equation systems for the description of thermal systems using the simulation language Modelica (www.modelica.org)
- Characterization of DAE systems and solution processes such as index reduction
- Hybrid (event-oriented) modeling
- Object-oriented analysis and modeling

During the course, the participants work with the assistance of Modelica experts on the following examples and more:

- Formulation of physical balances and conservation laws
- Creation of an object-oriented model library for the simulation of refrigeration and air-conditioning systems
- Model library with electronic elements for the object-oriented description of heat transfer mechanisms

After the training course, the participants will be capable of independently creating complex Modelica libraries based on an object-oriented approach. They also receive the necessary mathematical and numerical understanding to formulate “balanced” Modelica models and to recognize and handle numerical difficulties in solving. The technical basics of simulation required for understanding complex libraries is taught.

For the course you need a computer or laptop with a reliable internet connection. A microphone, speakers and a webcam are required for communication. It is recommended that you test the functionality of your audio and video in advance.

The course examples and necessary software will be provided in advance. Shortly before the course starts, we will send you an access link to the web conference. We look forward to meeting you.

The cost of the training is € 1100 (+ VAT) payable in advance. University students as well as PhD candidates may receive a discount upon request.

Modelica Training

9 November 2020, 8:30 am – 2:30 pm

10 November 2020, 8:30 am – 2:30 pm

11 November 2020, 8:30 am – 1:30 pm

Free Introduction to TIL:

11 November 2020, 1:30 pm – 3:00 pm

Course Fee: € 1100 (+ VAT)

We will do our best to meet your specific needs. In the case that you are interested in the training and would like to learn more about the content of the training course, do not hesitate to contact us.

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