camelot

UNDERSTANDING CHARGE, MASS AND HEAT TRANSFER IN FUEL CELLS FOR TRANSPORT APPLICATIONS

WORKSHOP 2023

Fuel Cell Modeling: Understanding Charge, Mass, and Heat Transfer in Proton Exchange Membrane Fuel Cells

www.camelot-fuelcell.eu

6-7 December 2023
Chemnitz University of Technology
Germany

The CAMELOT project is focused on understanding the limitations in performance of proton exchange membrane fuel cells to guide the development of next generation PEMFCs.

As part of this work, a free and open source Fuel Cell Performance Model has been developed and extended to describe the transport and kinetic processes in ultra-thin, low-loaded membrane electrode assemblies.

The workshop will provide attendees an understanding of the general theory behind the model and highlight the improvements made within the project, as well as a hands-on implementation of the model through tutorial sessions supported by the FAST Simulations team.

Clean Hydrogen Partnership

This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking (now Clean Hydrogen Partnership) under grant agreement No 875155. This Joint Undertaking receives support from the European Union's Horizon 2020 Research and Innovation program, Hydrogen Europe and Hydrogen Europe Research.

Co-funded by the European Union

Programme

Free registration @ www.camelot-fuelcell.eu

Wednesday December 6th, 2023

18:00	21:00	**Networking Event**

Thursday December 7th, 2023

8:30	9:00	**Welcome and Introduction** *P. Fortin, SINTEF & S. Saez, TU Chemnitz*
09:00	9:30	**General Introduction to CAMELOT** *P. Fortin, SINTEF*
09:30	10:30	**General Introduction to FAST-FC** *D. Harvey, FAST Simulations UG*
10:30	*10:45*	*Mid-Morning Break*
10:45	12:00	**Thin Ionomer Model** *J. Hrdlicka, FAST Simulations UG*
12:00	*13:00*	*Lunch*
13:00	14:00	**Application of FAST-FC** *D. Harvey, FAST Simulations UG*
14:00	15:30	**FAST-FC Tutorials** *D. Harvey and J. Hrdlicka, FAST Simulations UG*
15:30	*15:45*	*Mid-Afternoon Break*
15:45	17:30	**Open Application and Q & A Session** *D. Harvey and J. Hrdlicka, FAST Simulations UG*