

SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Faculty of Engineering

Website: <https://www.eng.nus.edu.sg/ece/>

Area: Power and Energy Systems

Host: Prof Dipti Srinivasan

Jointly Organized By:

**Green Energy Management and Smart Grid Research Center (GEMS),
Department of Electrical & Computer Engineering, National University of Singapore
and IEEE Power & Energy Society, Singapore Chapter**

Technical Talk

TOPIC	:	Transforming the final energy sector: an experimental approach
SPEAKER	:	Prof. Thomas Hamacher Renewable and Sustainable Energy Systems Technical University of Munich (TUM), Germany
DATE	:	24 September 2019, Tuesday
TIME	:	11am to 12pm
VENUE	:	E3-06-08, Engineering Block E3, Faculty of Engineering, NUS

ABSTRACT

Renewable energies like wind and PV produce electricity, making electricity to the final energy carrier of choice. Still – at least in the German context – gas, gasoline and diesel play a major role in the energy sector. The transformation to electric heating and electric transport requires a complete restructuring of the distribution level of the electricity system.

Therefore, the Technical University in Munich designed and implemented in the Munich-School of Engineering (MSE) a new microgrid laboratory COSES (Center for Combined Smart Energy Systems). The central goal of the laboratory is to demonstrate the transformation of final energy sector to a purely electric sector in the context of households.

The talk will describe the situation of the German energy transition, highlight the role of the final energy sector and describe the newly build laboratory in detail.

BIOGRAPHY

Professor Hamacher (b.1964) conducts research on energy and systems analysis, focusing on urban energy systems, the integration of renewable energy into the power grid, and innovative nuclear systems (including fusion). Other focuses of his work are the methods and fundamentals of energy models.

After studying physics in Bonn, Aachen and Columbia University (New York), Professor Hamacher received a doctorate from the University of Hamburg for his work on baryonic beta decay. Professor Hamacher has been with the Max Planck Institute for Plasma Physics since 1996, most recently as head of the Energy and System Studies Group. From 2010 to 2013 he served as acting head of the Chair of Energy Management and Application Technology. In 2013, he was appointed Full Professor for Renewable and Sustainable Energy Systems. Furthermore he is Director of the Munich School of Engineering. Prof. Hamacher is a member of the Environmental Science Centre (WZU) of the University of Augsburg and the Energy Working Group of the European Physical Society (EPS).