



# “Energy Challenges Germany 2050”

28.06.2012 – 8.00 am to 9.00 pm

8.00 - 9.00 am

## Registration

9.00 - 9.15 am

## Opening

Thomas Hofmann, VP Research & Entrepreneurship TUM

9.15 - 9.45 am

## Keynote Speaker

Paul van Son, CEO Dii GmbH

9.45 - 11.00 am

## Session Chair: Hartmut Spliethoff, CPG MSE

### Future Power Plant Requirements

Christian Schuhbauer, Institute for Energy Systems

### A Long-term Power Market Model

Matthias Silbernagl, Chair of Applied Geometry and Discrete Mathematics

### Solid Fuel Gasification an Old Technology with Modern Challenges

Federico Botteghi, Institute for Energy Systems

11.00 - 11.45 am

## Poster Presentation/Coffee Break

11.45 - 1.00 pm

## Session Chair: Müller-Buschbaum, NRG MSE

### In-operando Neutron Studies on Li-Ion-batteries

Anatoliy Senyshyn, Neutron Research Source  
Heinz Maier-Leibnitz (FRM-II)

### Direct Carbon Fuel Cell

Michael Werhahn, Institute of Interfaces and Energy Conversion

### Dye Sensitized and Hybrid Photovoltaics

Monika Rawolle, Chair of Functional Materials

1.00 - 2.30 pm

## Poster Presentation/Lunch Break

2.30 - 3.45 pm

## Session Chair: Markus Lienkamp, WZE MSE

### Harvesting Solar Energy: DFT Studies of Organic Photovoltaics and Photo-catalytic Water Splitting

Harald Oberhofer, Institute of Theoretical Chemistry

### Game Theory Approach for Interactive Wind Farm Control

Arman Kiani, Institute of Automatic Control Engineering

### Smart Wind Turbine Rotor Blades

Liuz da Rocha-Schmidt, Institute of Lightweight Structures

3.45 - 4.30 pm

## Poster Presentation/Coffee Break

4.30 - 5.45 pm

## Session Chair: Werner Lang, ENPB MSE

### Early Building Design: Heating and Cooling Plant Approach the Architect

Milica Grahovac, Institute of Energy Economics and Application Technology

### System Modeling for Energy-efficient and CO<sub>2</sub>-absorbing Building Design and City Planning

Philipp Geyer, Institute of Energy Efficient and Sustainable Design and Building

### Smart Grid Demonstrator of a Future Office Prosumer

Denis Bytschkow, fortiss – Affiliated Institute to TUM

5.45 - 6.00 pm

## Summary of the Day

6.00 - 6.45 pm

## Keynote Speaker

Daniel Hofmann, Energy Sector Siemens AG

6.45 - 9.00 pm

## Poster Award/Colloquium Dinner

Location: TUM – Institute for Advanced Study, Garching  
Registration Deadline: 17.06.2012  
Internet: <http://www.mse.tum.de> free for TUM-Members

**Free Online Registration until 17.06.2012**