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Sino-EU Doctoral School for Sustainability Engineering (SESE)

Summer School 2017 @ KIT

28.08.2017 – 02.09.2017



Participants:

University	Doctoral Students	Professors and Officials
Tongji University, Shanghai	12	7
Harbin Institute of Technology (HIT)	11	7
Instituto Superior Técnico (IST), Lisbon	3	1
Karlsruhe Institute of Technology (KIT)	8	3

Venue:

Lecture room:

Karlsruhe Institute of Technology (KIT)

Kaiserstrasse 12
76131 Karlsruhe, Germany
www.kit.edu

Audimax Seminar Room A + B, Building 30.95



Hotel:

Hotel am Markt GmbH & Co. KG

Kaiserstraße 76
76133 Karlsruhe, Germany
t +49 (0)721 91998 0
f +49 (0)721 91998 99
www.hotelammarkt.de



HOTEL | CAFÉ | DACHTERRASSE
AM MARKT



Overview:

Agenda:

- 5 keynote speeches
- 7 presentation sessions
- 4 panel discussions
- Social and cultural events

Topics:

Three major-related topics are set for each part of the session, and other flexible/open topics are also optional.

- a. Sustainable energy
- b. Sustainable transportation
- c. Sustainable / advanced manufacture and Industry 4.0
- d. Flexible / open topics

Keynotes:

Keynotes will be given by speakers from industry or by Professors / Senior Researchers.

Doctoral students' presentations:

Each presentation slot will be 20 minutes. Preferably 17 min presentation and 3 minutes for question and answers. Best presentations will be rewarded with a small gift, certificates for participation will be issued. The best presentations will be recommended by the session chairs.

Panel discussions:

After the sessions a panel discussion of 20 minutes is scheduled. The sessions chairs and the presenters are involved in a discussion related to the presented topics.

Social and cultural events:

See agenda.

Additional information:

Each doctoral student is asked to bring a small gift (3-5 EUR) for the first dinner and the get-together.



Agenda:

Day 1 – 28.08.2017:

Arrive in **Karlsruhe**, check-in and registration

18:30 – 19:30 Welcome Dinner

19:30 – 20:30 Get-Together

Day 2 – 29.08.2017:

08:30 – 08:50 Welcome Speech and Opening by KIT

08:50 – 09:05 Introduction of HIT

09:05 – 09:20 Introduction of IST

09:20 – 09:35 Introduction of Tongji

09:35 – 10:20 Group Photo & Coffee Break

10:20 – 10:40 Overview KIT international Affairs

10:40 – 12:20 Presentation Session 1

12:20 – 12:40 Panel Discussion 1

12:40 – 14:10 Lunch & Break

14:10 – 14:40 Keynote Speech 2, Prof. Wilhelm Stork, KIT

14:40 – 16:20 Presentation Session 2

16:20 – 16:40 Coffee Break

16:40 – 18:20 Presentation Session 3

18:20 – 18:40 Panel Discussion 2

19:30 Dinner

**Day 3 – 30.08.2017:**

09:00	–	09:20	Keynote Speech 3, Prof. Yurong He, HIT
09:20	–	11:00	Presentation Session 4
11:00	–	11:30	Coffee Break
11:30	–	11:50	Keynote Speech 4
11:50	–	13:10	Presentation Session 5
13:10	–	13:30	Panel Discussion 3
13:30	–	14:30	Lunch & Break
14:30	–	17:00	Visit KIT Research Facilities
18:00			Dinner

Day 4 – 31.08.2017:

08:00	–	10:00	Travel to Heidelberg
10:00	–	12:00	Visit Heidelberg City + Ship Tour on Neckar
12:00	–	14:00	Free Time in Heidelberg
14:00	–	15:30	Travel to Speyer
15:30	–	18:30	Visit Speyer City and Cathedral
20:00			Dinner



Day 5 – 01.09.2017:

09:00	–	09:20	Keynote Speech 5
09:20	–	11:00	Presentation Session 6
11:00	–	11:30	Coffee Break
11:30	–	13:10	Presentation Session 7
13:10	–	13:30	Panel Discussion 4
13:30	–	14:30	Lunch
14:30			Free Time in Karlsruhe
19:00			Closing Ceremony & Farewell Dinner

Day 6 – 02.09.2017:

Free time, Check-Out and Departure.



Session Information:

Presentation Session 1

10:40	–	11:00	Two-oscillating grid turbulence with viscoelastic fluids	Yue WANG	HIT
11:00	–	11:20	Intelligent Assisted Steering System with Optimum Energy Efficiency for Electric Vehicles	Philipp KAUTZMANN	KIT
11:20	–	11:40	Design and Construction of a Multifunctional Auxiliary System for Quadrotors	Haibo TU	Tongji
11:40	–	12:00	Urban Building Energy Modelling – Review of a new Paradigm	Francisco COSTA	IST
12:00	–	12:20	A New Method to Optimize the Building Control and Management Based on real-time Occupant data	Jiefan GU	Tongji

Presentation Session 2

14:30	–	14:50	Enhanced performance of templated CaO-based sorbent pellets for CO ₂ capture	Siyu WIE	HIT
14:50	–	15:10	TBA	Adili BATUER	Tongji
15:10	–	15:30	Effect of FeCl ₃ supported methods on pore-structure of Zhundong coal-based activated carbons	Lijie WANG	HIT
15:30	–	15:50	Gas interchangeability on stoves	Pengfei DUAN	Tongji
15:50	–	16:10	Industrial-scale investigations of anthracite combustion characteristics and NO _x emissions in a retrofitted 300 MWe down-fired utility boiler with swirl burners	Qingxiang WANG	HIT



Presentation Session 3

16:30	–	16:50	Automated road infrastructure monitoring using vehicle based sensors and machine learning	Johannes MASINO	KIT
16:50	–	17:10	Rotor Temperature Estimation for Motor Control	Ke LU	Tongji
17:10	–	17:30	A Misbehavior Detection Concept for Vehicular Ad-Hoc Networks	Florian SCHADE	KIT
17:30	–	17:50	Multi-objective optimization for sensor placement against suddenly released biochemical contaminant in air duct system	Lingjie ZENG	Tongji
17:50	–	18:10	Radiation control properties with nano-engineering metamaterials for solar energy harvesting and conversion	Qinghui PAN	HIT

Presentation Session 4

09:20	–	09:40	The control room habitability in nuclear power plant	Le CHANG	Tongji
09:40	–	10:00	Investigation on unsteady suction in compressor cascades	Hao XU	HIT
10:00	–	10:20	General Approach for Distributed Validation	Steven YAN	KIT
10:20	–	10:40	Distributed Validation Environment for Fuel Cell Vehicles	Qiwon XIAO	KIT
10:40	–	11:00	TBA	Yongbao CHEN	Tongji



Presentation Session 5

11:50	–	12:10	Demand energy models for developing countries to optimize energy planning policies	Felix DIAWUO	IST
12:10	–	12:30	DEM simulation and experimental investigation on wet particle flow behaviors in a fluidized bed	Tianqi TANG	HIT
12:30	–	12:50	TBA	Yuedong YAO	Tongji
12:50	–	13:10	Aerodynamic design and analysis of a two-stage high-load low-reaction transonic aspirated counter-rotating compressor	Shijun SUN	HIT

Presentation Session 6

09:20	–	09:40	An Integrated Approach Enabling Cross-Domain Simulation of Model-Based E/E-Architectures	Harald BUCHER	KIT
09:40	–	10:00	Smart Manufacturing	Shiqing WU	Tongji
10:00	–	10:20	Management and regulation of thermal energy transfer with transformation optics	Guoqiang XU	HIT
10:20	–	10:40	Power to Gas: Opportunities and Challenges	Guido LORENZI	IST
10:40	–	11:00	TBA	Yuzhe LIN	Tongji



Presentation Session 7

11:30	–	11:50	Study on direct construction of defects in carbon structure and SO ₂ selective reduction mechanism	Xinxin PI	HIT
11:50	–	12:10	Applications of Dynamic Partial Reconfiguration	Nadir KHAN	KIT / FZI
12:10	–	12:30	the application of robust optimization in stochastic line balancing problem	Jiahua ZHANG	Tongji
12:30	–	12:50	Road surface prediction from acoustical measurements in the tire cavity using machine learning	Julien PINAY	KIT
12:50	–	13:10	Polluted gas detection in exhaust of coal energy	Xue ZHOU	HIT



Travelling to and within Karlsruhe

1. Frankfurt to your hotel in Karlsruhe

When arriving at Frankfurt Airport (FRA), this is how to get to the hotel.

By Train

There is good train connection from Frankfurt Main airport to Karlsruhe.

Train Station in the airport: "Frankfurt(M) Flughafen Fernbf"

Central train station Karlsruhe: "Karlsruhe Hbf"

Direct ICE connections to Karlsruhe are available every 2 hours. Connections via Mannheim or Frankfurt Hauptbahnhof (Frankfurt central station) are available, too. The trip to Karlsruhe Hbf takes about 1 hour (direct or via Mannheim) or 1:40h (via Frankfurt central station). The fare is approx. 40 EUR.

Tickets and schedule information can be found at <https://www.bahn.com/en/>

By Intercity Bus

There are connections from Frankfurt/Main airport to the Karlsruhe train station, provided by FlixBus. The journey takes approx. 2 hours. Fare when booking online is about 10 EUR.

Tickets and further information can be found at <http://tiny.cc/sese-bus-fra-ka> .

At Frankfurt airport, the bus departs from outside Terminal 2 (relocated from Terminal 1, at the moment), see <http://tiny.cc/sese-flibus-fra> . At Karlsruhe, the bus arrives south of the central train station, see <http://tiny.cc/sese-flibus-ka> . Trams for travelling to the hotel depart north of the train station.

By MiniCar Shuttle Service

There is an airport shuttle service in Karlsruhe called MiniCar, see <http://tiny.cc/sese-minicar>. The fare from Frankfurt airport is about 200 EUR.

It picks you up at the terminal and can take you directly to the city center in Karlsruhe. Reservations can be done via phone or email. Just name them the date, airport, flight number and the number of passengers.

- Phone: +49 721 56 50 514
- Email: info@minicar-karlsruhe.de

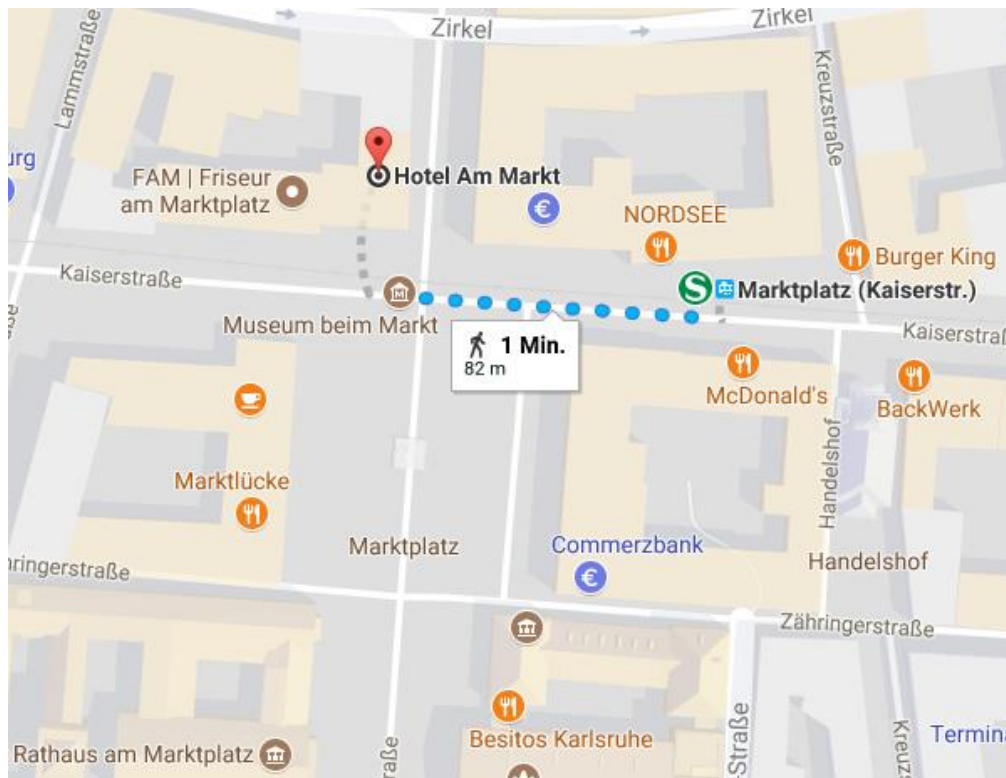


Karlsruhe Central Station to Hotel am Markt

The hotel “Hotel am Markt” is directly at the market square in the city center.

The following tramlines will take you from the central station to the market square (tram station “Marktplatz”): S1, S11 direction Hochstetten/Neureut.

Information on trams and buses in Karlsruhe: <http://en.kvv.de/>



2. In Karlsruhe

Trams and Buses

While the city center can be explored on foot, there also is a good tram network. The network plan is attached. Buses can be used, too, but are rarely needed when travelling in Karlsruhe.

Information on trams and buses in Karlsruhe: <http://en.kvv.de/>

Taxis

Taxis can be called at

- +49 721 160 200 (Taxi-Ruf Karlsruhe)
- +49 721 94 41 44 (Taxi-Funk-Zentrale Karlsruhe)



KIT Campus

The presentations will be at the Audimax at KIT Campus Süd. The Audimax can be reached by foot from the hotel or by tram (1, 4, S2, S5, S51, S52, tram station “Durlacher Tor / KIT Campus Süd”).

Tram Map Karlsruhe

