

## 1<sup>st</sup> TUM Research Alumni Conference

### Living and Mobility in Smart Cities

August 28-29, 2017, TUM CREATE, Singapore

organized by Technische Universität München  
under the auspices of the sponsorship program “Research Alumni Meetings Abroad”  
administered by the Alexander von Humboldt Foundation  
and funded by the German Federal Ministry of Education and Research

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#### Context

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The meeting is a constituent part of the collaborative project “International Research Marketing” which is a joint initiative by the Alexander von Humboldt Foundation, the German Academic Exchange Service, the Deutsche Forschungsgemeinschaft and the Fraunhofer-Gesellschaft. All the activities within the project are part of the “Promote Innovation and Research in Germany” initiative under its brand “Research in Germany”. The initiative is funded by the German Federal Ministry of Education and Research.



# Program

## Monday, August 28

from

- 6:00 AM**      **Breakfast** (optional)
- 8:05 AM**      **Bus Shuttle to TUMCREATE**  
Meeting Point: Hotel Lobby beside Concierge
- 9:00 AM**      **Registration**
- 9:15 AM**      **Welcome Note**  
**Prof. Dr. Dr. h.c. mult. Wolfgang A. Herrmann**  
President, Technical University of Munich
- 9:30 AM**      **Opening Speech**  
**Mr. Knut Zuchan**  
Head of Science and Technology Department  
Embassy of the Federal Republic of Germany to Singapore
- 9:45 AM**      **Research Opportunities in Germany and the Role of Research Alumni**  
**Dr. Barbara Sheldon**  
Head of Strategic Planning, Alexander von Humboldt Foundation
- 10:00 AM**      **TUM Ambassadors' Talk** *Once a Guest, Forever a Friend*  
**Dr. Hannemor Keidel**  
Senior Vice President International Alliances and Alumni, Technical University of Munich  
**Prof. Dr. Sivaji Chakravorti**  
National Institute of Technology Calicut, TUM Ambassador 2013  
**Prof. Dr. Raman I. Sujith**  
Indian Institute of Technology Madras, TUM Ambassador 2014  
**Prof. Dr.-Ing. Mikio Horie**  
Tokyo Institute of Technology, TUM Ambassador 2015
- 10:15 AM**      **Photograph Session with TUM President**  
**Coffee Break**
- 10:30 AM**      *Singapore's Smart Nation Initiative*  
**Mr. Vance Ng**  
Deputy Head, Smart Nation Programme Office, Singapore

- 11:00 AM**      **Session I: Technology as Innovative Solutions**
- Solution of Temperature Conditioning in Smart Cities*  
**Prof. Dr. Vijay Jindal**, Honorary Professor, Bio and Nano Science, Panjab University
- Polymere-made Planar and Spatial Mechanisms for One-Room-Factory in Smart Cities*  
**Prof. Dr.-Ing. Mikio Horie**, Tokyo Institute of Technology
- Remote Monitoring of Power Equipment*  
**Prof. Dr. Sivaji Chakravorti**, Director, National Institute of Technology Calicut
- 12:00 PM**      **Networking Lunch**
- 1:00 PM**      **Session II: Innovations for a Seamless Public Transport Experience**
- Creating a Seamless Public Transport Experience for Rapid Growing Megacities*  
**Dr.-Ing. Andreas Rau**, Principal Investigator, TUMCREATE LTD
- Bettering the Spatial Planning of Public Electric Vehicle Charging Facilities: The Cases of Beijing and Hong Kong*  
**Dr. Sylvia Ying He**, Assistant Professor, Department of Geography and Resource Management, The Chinese University of Hong Kong
- Virtual Reality Environments as Scientific Tools for Presentation, Elaboration and Evaluation of Autonomous Vehicles for public transportation in Singapore*  
**Mr. Sebastian Stadler**, Research Associate, TUMCREATE LTD
- Bike Sharing System: Like a Rainbow over City Sky*  
**Prof. Dr.-Ing. Ying Zhang**, Professor, School of Transportation Engineering, Tongji University
- Mobility Analysis of Floating Car Data*  
**Dr.-Ing. Linfang Ding**, Researcher, Free University of Bozen
- Overview of TUMCREATE: Towards the Ultimate Public Transport System*  
**Prof. Dr.-Ing. habil. Alois Knoll**, Chair of Robotics and Embedded Systems, Department of Informatics, Technical University of Munich
- 3:15 PM**      **Coffee Break**
- 3:30 PM**      **Summary of Sessions I and II**  
**Prof. Dr.-Ing. habil. Alois Knoll**
- 3:45 PM**      **Visit to TUMCREATE**
- 5:15 PM**      **End of Conference Day 1**  
**Bus Shuttle** to Mercure Singapore Bugis Hotel
- 6:25 PM**      **Bus Shuttle** to Paulaner Braeuhaus Restaurant  
Meeting Point: Hotel Lobby beside Concierge
- 7:00 PM**      **President's Dinner**  
Paulaner Braeuhaus Restaurant
- Return to hotel independently**

## Tuesday, August 29

From

- 6:00 AM**      **Breakfast** (optional)
- 8:35 AM**      **Bus Shuttle to TUMCREATE**  
(Meeting Point: Hotel Lobby beside Concierge)
- 9:15 AM**      **Registration**
- 9:30 AM**      **Welcome & Introduction to Conference Day 2**  
**Prof. Dr.-Ing. habil. Alois Knoll**
- 9:45 AM**      **Session III: Smart Living**  
*Smarter Towns, Better Living*  
**Mr Heru Santoso Soedarsono**, Deputy Director, Infocomm and Intellectual Property Hub, Housing and Development Board, Singapore
- 10:15 AM**      **Coffee Break**
- 10:30 AM**      **Session III: Smart Living** (cont'd)  
*Smart and Universal Education Environment for Life-Long Learning*  
**Prof. Dr. Jiyou Jia**, Professor, Department of Educational Technology, School of Education, Peking University  
*The Changing Structure of Urban Public Health*  
**Prof. Dr. Meirong Su**, Professor, School of Environment and Civil Engineering, Dongguan University of Technology  
*Monitoring and Management of the Mobility and ADL for the Elderly*  
**Prof. Dr.-Ing. Houde Dai**, Professor, Quanzhou Institute of Equipment Manufacturing, Haixi Institutes, Chinese Academy of Science  
*3D/4D City Modeling in the Context of Virtual Singapore*  
**Prof. em. Dr. mult. Armin Gruen**, Information Architecture, Department of Architecture, ETH Zürich, Technical-Scientific Project Leader of "FCL-Virtual Singapore", Singapore-ETH Centre
- 11:45 AM**      **Summary of Conference**  
**Prof. Dr.-Ing. habil. Alois Knoll**
- 12:15 AM**      **Reimbursement of Travel Costs**  
**Networking Lunch**
- 1:45 PM**      **Bus Shuttle** to Land Transport Authority Singapore
- 2:30 PM**      **Visit to Land Transport Authority Singapore**
- 4:00 PM**      **End of Conference**  
Bus Shuttle to Mercure Singapore Bugis Hotel