Wednesday, 26 November 2014

9:30  **Conference Opening**  Vice Rector Adalbert Prechtl (TUW), Georg Gartner (ICA), Chris Rizos (IAG), Volker Schwieger (FIG), Jochen Schiewe (DGfK), Markus Jobst and Haosheng Huang

10:00  **KEYNOTE**  The Role of LBS and Visualization in Digital Mobility  Liqiu Meng

30 minutes coffee break

**Wayfinding and Navigation I**  
**Chair:** Martin Raubal

11:00  **Visualization and Communication of Indoor Routing Information**  Jukka M. Krisp, Mathias Jahnke, Hao Lyu and Florian Fackler

11:15  **Visualizing Distant Off-screen Landmarks on Mobile Devices to Support Spatial Orientation**  Rui Li, Amichi Korda, Maurin Radtke and Angela Schwering

11:30  **Using Split Screens to Combine Maps and Images for Pedestrian Navigation**  Dirk Wenig, Stefan Breiding, Nina Runge and Rainer Malaka

11:45  **Comparing Indoor and Outdoor Network Models for Automatically Calculating Turns**  Ann Vanclooster, Nico Van de Weghe, Veerle Fack and Philippe De Maeyer

12:00  **A Computational Method for Indoor Landmark Extraction**  Hao Lyu, Zhonghai Yu and Liqiu Meng

90 minutes lunch break

**Wayfinding and Navigation II**  
**Chair:** Karl Rehrl

13:45  **Is OSM Good Enough for Vehicle Routing? A Study Comparing Street Networks in Vienna**  Anita Graser, Markus Straub and Melitta Dragaschnig

14:00  **Calculating Route Probability from Uncertain Origins to a Destination**  Carolin von Groote-Bidlingmaier, David Jonietz and Sabine Timof

14:15  **Personalized Routing for Car Navigation Systems**  Jukka M. Krisp, Andreas Keler and Nicole Karrais

14:25  **Towards a Dedicated Data Model for Seamless Pedestrian Navigation**  Lucia Tyrallová, Carolin Kucharczyk, Lasse Scheele and Hartmut Asche

14:35  **Indoor Signposting and Wayfinding through an Adaptation of the Dutch Cyclist Junction Network System**  Antigoni Makri and Edward Verbree

14:45  **Context-aware Navigation Model Supporting Way-finding for Vision Impaired People in Indoor Environments**  Nimalika Fernando, David A. McMeekin and Iain Murray

35 minutes coffee break

**LBS Applications**  
**Chair:** Jukka M. Krisp

15:30  **A Space Time Alarm**  Adrian Corneliu Prelipcean, Falko Schmid and Takeshi Shirabe

15:45  **Linear Location-Based Services**  Peter Kiefer, Martin Raubal, Tabea Probst and Hansruedi Bär

15:55  **SmartLiving – LBS and Social Media for Comprehensive Democratic Positions in Urban Development**  Matthias Drilling, Stella Gatziu-Grivas, Timo Huber, Ruth Röhm, Hans-Jörg Stark, Holger Wache and Robert Wüest
Thursday, 27 November 2014

9:00  KEYNOTE  LBS and ITS: Some Challenges and Opportunities for the Fields of Precise Positioning and Geodesy  Chris Rizos

Positioning I

9:30  A New Method for Improving Wi-Fi Based In-door Positioning Accuracy  Yuntian Brian Bai, Suqin Wu, Guenther Retscher, Allison Kealy, Lucas Holden, Martin Tomko, Aekarin Borriak, Bin Hu, Mark Sanderson, Hong Ren Wu and Kefei Zhang

9:45  On The Feasibility of Using Two Mobile Phones and WLAN Signal to Detect Co-Location of Two Users for Epidemic Prediction  Khuong An Nguyen, Zhiyuan Luo and Chris Watkins

10:00  3D Indoor Location on Mobile Phones Using Embedded Sensors and Close-range Photogrammetry  Xiujuan Li, Yan Zhou and Hanjiang Xiong


Crowdsourcing and VGI

11:00  Digging into the History of VGI Datasets: Results from a Worldwide Study on OpenStreetMap Mapping Activity  Simon Gröchenig, Richard Brunauer and Karl Rehr

11:15  Using Location-Based Social Media for Ranking Individual Familiarity with Places: A Case Study with Foursquare Check-in Data  Wangshu Wang

11:30  Citizens as Expert Sensors: One Step Up on the VGI Ladder  Farid Karimipour and Omid Azari

11:45  Urban Emotions – Geo-semantic Emotion Extraction from Technical Sensors, Human Sensors and Crowdsourced Data  Bernd Resch, Anja Summa, Günther Sagl, Peter Zeile and Jan-Philipp Exner

12:00  Collaboratively Collected Geodata to Support Routing Service for Disabled People  Federico Prandi, Marco Soave, Federico Devigili, Raffaele De Amicis and Alkis Astyakopoulos

12:10  A Localized Avalanche Risk Assessment Strategy Assisted by On-Site User-Generated Data  Peter Mastnak, Gregor Zahrer and Clemens Strauß

12:20  Crowdsourcing Energy Data for Participatory Renewable Energy Planning and Modelling  Günther Sagl, Bernd Resch, Anja Summa, Christoph Mayer, Sen Sun and Maria Minji Lee

Spatio-Temporal Data Processing and Analysis

13:45  Feature Selection in Conditional Random Fields for Map Matching of GPS Trajectory  Jian Yang and Liqiu Meng

14:00  Road Network Conflation: An Iterative Hierarchical Approach  Andreas Hackeloeer, Klaas Klasing, Jukka M. Krisp and Liqiu Meng
Analysing the Usage of Spatial Prepositions in Short Messages
André Dittrich, Daniela Richter and Christian Lucas

Towards Machine-based Matching of Addresses Expressed in Natural Languages
Farid Karimipour, Ali Javidaneh and Andrew Frank

Validating GPS Tracking Data with BT Scanning Registrations
Stefan Van der Spek, Nico Van de Weghe, Edward Verbree, Wilko Quak, Tijs Neutens and Mathias Versichele

Eurostat Feasibility Study: The Use of Mobile Positioning Data for Tourism Statistics
Margus Tiru, Rein Ahas and Janika Raun

Privacy Preserving Aggregation of Distributed Mobility Data Streams
Thomas Liebig

Spatial Mobility, Social Networks and Exposure to Risk
Rein Ahas, Janika Raun and Anniki Puura

Data Models for Moving Objects in Road Networks - Implementation and Experiences
Milos Vojinovic, Zeljko Cvijetinovic, Dragan Mihajlovic and Momir Mitrovic

30 minutes coffee break

Usability, Privacy, Social Aspects and LBS Development
16:00-17:25  Chair: Rein Ahas
Bridging the Gap between Field- and Lab-based User Studies for Location-Based Services
Ioannis Delikostidis, Holger Fritz, Thore Fechner and Christian Kray
Challenges of Location Based Services Market Analysis: Current Market Description
Anahid Basiri, Terry Moore, Chris Hill and Paul Bhatia
GIS Liability Issues - by Example of US and Polish State of Play
Marlena Jankowska
Providing Emancipation through Maps
Jakub Jaňura and Jana Stehlikova
Ethical and Political Responsibility in Location Based Services — The Need of Implementing Ethical Thinking in Our Research Field
Franz Obex and Guenther Retscher
Outdoor LBS – Relationship between Users, Providers, and Place
Hélène Draux, Søren Præstholm, Anton Stahl Olafsson, Niels Ejbye-Ernst, Lasse Møller-Jensen, Thomas Theis Nielsen and Carsten Nielsen
Development of Location API for Tracking Continuous Non-Response Calls
Soo-Jin Lee and Yang-Won Lee
All You Need Is Content — Create Sophisticated Mobile Location-Based Service Applications Without Programming
Martin Krammer, Thomas Bernoulli and Ulrich Walder

Conference Dinner
starts at 18:30
Esterhazykeller, Haarhof 1, 1010 Vienna. Please consult your dinner voucher for details.

Friday, 28 November 2014
9:00 KEYNOTE Abstraction as Key Element of Map Application and Services
Jürgen Döllner

Visualization and Navigation
9:30 Animated Cartographic Visualisation of Networks on Mobile Devices
Andreas Gollenstede and Manfred Weisensee
Cartographic Symbols for 3D Visualization in Facility Management Domain
Lukas Herman, Jan Russnak, Zdenek Stachon and David Mikstein
Too Simple Maps
Karel Jedlicka and Otakar Cerba
Research on Holographic Location Map Cartographic Model
Fenli Jia, Guangxia Wang, Jiangpeng Tian and Guomin Song
Visual Demand for Maps at Different Scales of In-Route Guidance and Navigation System
Ana Paula Marques Ramos, Edmur Azevedo Pugliesi, Mônica Modesta Santos Decanini and Vilma Mayumi Tachibana
A Framework for Navigating with Map Signboards on Smartphones Using Basic and Advanced Image Geocoding Methods
Ruochen Si, Masatoshi Arikawa and Min Lu

30 minutes coffee break
**Service-Oriented Mapping**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>11:00</td>
<td>Depending on the Others: Producing and Using Geospatial Information in Service-Oriented Architectures</td>
<td>Markus Jobst</td>
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<tr>
<td>11:15</td>
<td>A Web, Mobile, 3D GIS as a Platform for Service Oriented Mapping</td>
<td>Paul Hardy, David Watkins and Gerhard Trichtl</td>
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<tr>
<td>11:30</td>
<td>Depiction of Multivariate Data Through Flow Maps</td>
<td>Alberto DeBiasi</td>
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<td>11:45</td>
<td>Characterizing Potential User Groups for Versioned Geodata</td>
<td>Anita Locher</td>
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<td>12:00</td>
<td>Distributed Geo-processing of Streaming Data for a 3D Context Aware Visualisation Solution of a Wildfire Scenario</td>
<td>Lauren Hankel, Graeme McFerren and Serena Coetzee</td>
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**Positioning II**

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<tbody>
<tr>
<td>13:30</td>
<td>Range Domain IMM Filtering with Additional Signal Attenuation Error Mitigation of Individual Channels for WLAN RSSI-based Position-Tracking</td>
<td>Seong Yun Cho</td>
</tr>
<tr>
<td>13:45</td>
<td>A Proposal for Obtaining 3D Tracks based on Multiple Non-Geodesic GNSS</td>
<td>Manuel A. Ureña-Camara, Francisco Javier Ariza-López and Antonio Tomás Mozas-Calvache</td>
</tr>
<tr>
<td>13:55</td>
<td>High Accuracy Indoor Positioning: Multipath Mitigation Via Locata’s Beam-Forming Antenna Technology</td>
<td>Chris Rizos, Allison Kealy, Suelynn Choy, Yanming Feng, Nunzio Gambale and Dave Small</td>
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<tr>
<td>14:05</td>
<td>The Effects of Hardware and Software-based Signal Distortion in Multi-platform Indoor Positioning Systems</td>
<td>Alberto Debiasi</td>
</tr>
<tr>
<td>14:15</td>
<td>RFID Based 3D Indoor Navigation System Integrated With Smart Phones</td>
<td>Yasin Ortakci, Emrullah Demiral and Ismail Rakip Karas</td>
</tr>
<tr>
<td>14:25</td>
<td>Study and Simulations of an Angle of Arrival Localization System for Indoor Multipath Environments</td>
<td>Stijn Wielandt, Jean-Pierre Goemaere, Bart Nauwelaers and Lieven De Strycker</td>
</tr>
<tr>
<td>14:35</td>
<td>Application Method for Streetview Database as Auxiliary Data to Estimate Mobile Device User’s Location</td>
<td>Hyungwoo Kim and Yang-Won Lee</td>
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<tr>
<td>14:45</td>
<td>Deterministic Indoor Detection from Dispersions of GPS Satellites on the Celestial Sphere</td>
<td>Hosik Cho, Jeongjin Song, Hyuncheol Park and Cheolju Hwang</td>
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**Lunch Suggestions**

Lunch is not included. There are many food options in walking distance. Here are some recommendations. Find more suggestions on [bit.ly/11zx4n9](http://bit.ly/11zx4n9)

1. Naschmarkt (international market), Wienzeile
2. Coffee & Bread (modern), Operngasse 24
3. Der Mann (bakery)
4. TU Mensa, Wiedner Hauptstraße 8-10, 1st floor
5. Korfu (Greek), Wiedner Hauptstr. 4
6. Nelson’s (bagels, burger)
7. Billa (supermarket)
8. Point of Sale (modern), Schleifmühlgasse 12
9. blueorange (bagels), Margaretenstrasse 9
10. feinessen (modern), Wiedner Hauptstraße 19
11. Wiaz’haus (Austrian), Gußhausstraße 24
12. Salon Wichtig (curry), Karlgasse 2