2014 International Conference on Localization and GNSS

(ICL-GNSS 2014)

Helsinki, Finland
24-26 June 2014
International Conference on Localisation and GNSS

June 24-26, 2014 Helsinki

Tuesday June 24

Pre-Conference Event
9.30 Coffee
10.00 -11.30 European GNSS Agency Info Session

12-13 Registration
13:00 Opening Prof. Jari Nurmi, Dr Laura Ruotsalainen
13:15 Keynote 1 Security and privacy aspects in mobile positioning, Dr. Lauri Virola, HERE

14:00 Session 1 Applications and Services, Session Chair: Dr. Sarang Thombre

Validity Period of NeQuick (Galileo Version) Corrections: Trade-off Between Accuracy and Computational Load
Antonio Angrisano, Salvatore Gaglione, Ciro Gioia, Salvatore Troisi (Parthenope University of Naples, Italy)

P3: A Public Precise Positioning Service Based on a National GNSS Network
Martti Kirkko-Jaakkola, Jarno Saarimäki, Stefan Söderholm, Robert Guinness, Tuukka Mattila, Hannu Koivula, Sonja Nyberg, Laura Ruotsalainen, Heidi Kuusniemi (Finnish Geodetic Institute, Finland)

User Perception on Location Based Services: the more you know, the less you are willing to pay?
Tarek Muhammed Noor (Tampere University of Technology, Finland), Danai Skournetou (Bgator Ltd., Finland), Gonzalo Seco-Granados (Universitat Autonoma de Barcelona, Spain), Elena Simona Lohan (Tampere University of Technology, Finland)

15:00 Coffee break

15:30 Session 2 WLAN and Cellular-based Positioning, Session Chair: Dr. Liang Chen

The Effect of Coverage Gaps and Measurement Inaccuracies in Fingerprinting based Indoor Localization
Jukka Talvitie, Elena Simona Lohan, Markku Renfors (Tampere University of Technology, Finland)

Indoor Localization via WLAN Path-loss Models and Dempster-Shafer Combining
Parinaz Kasebzadeh (Tampere University of Technology, Finland), Gonzalo Seco Granados (Universitat Autonoma de Barcelona Bellaterra, Spain), Elena-Simona Lohan (Tampere University of Technology, Finland)

An Efficient Grid-based RF Fingerprint Positioning Algorithm for User Location Estimation in Heterogeneous Small Cell Networks
Riaz Uddin Mondal (University of Jyväskylä, Finland), Jussi Turkka (Magister Solutions Ltd., Finland), Tapani Ristaniemi (University of Jyväskylä, Finland)

Evaluating the Consistency of Estimation
Pavel Ivanov, Simo Ali-Löytty, Robert Piché (Tampere University of Technology, Finland)

17.00 Short break

17:30 Visit to FGI and welcome reception
Pizza and beer/wine/soft drinks at FGI
22:00 Return to Helsinki
Wednesday 25, June

8.30  Registration

9:00  **Keynote 2  GALILEO program status and applications of services, Dr. ing. Marco Lisi, European Space Agency**

9:45  Posters and coffee

10:45  **Sessions 3  GNSS Receivers, Session Chair: Dr. Andrei Octavian**

A Multi-State Notch Filter for GNSS Jamming Mitigation
Daniele Borio (EC Joint Research Centre, Italy)

Assistance Requirements Definition for GNSS Receivers in Hostile Environments
Nicola Linty, Luciano Musumeci, Fabio Dovis (Politecnico di Torino, Italy)

Single- and Multi-Correlator Sequential Tests for Signal Integrity in Multi-Antenna GNSS Receivers
Daniel Egea, Gonzalo Seco-Granados, José A. López-Salcedo (Universitat Autònoma de Barcelona (UAB), Spain)

Faster Than Real-Time GNSS Receiver Testing
Tommi Paakki, Jari Nurmi (Tampere University of Technology, Finland)

Area Estimation of Time-Domain GNSS Receivers
Ville Eerola, Jari Nurmi (Tampere University of Technology, Finland)

12:30  Lunch

14:00  **Session 4  MULTI-POS, Session Chair: Dr. Olivier Julien**

MULTI-POS – Multi-technology Positioning Professionals Training Network
Jari Nurmi, Francescantonio Della Rosa, Elena-Simona Lohan (Tampere University of Technology, Finland)

Overview of Positioning Technologies from Fitness-to-Purpose Point of View
Ana Basiri (The University of Nottingham, United Kingdom), Pedro Figueiredo Silva (Tampere University of Technology, Finland), Elena Simona Lohan (Tampere University of Technology, Finland), Pekka Peltola (The University of Nottingham, United Kingdom), Chris Hill (The University of Nottingham, United Kingdom), Terry Moore (The University of Nottingham, United Kingdom)

Proposed Architecture for Integrity Monitoring of a GNSS/MEMS System with a Fisheye Camera in Urban Environment
Enik Shytermeja, Axel Garcia-Pena, Olivier Julien (École Nationale de l’Aviation Civile (ENAC), France)

Design of OFDM Sequences for Joint Communications and Positioning Based on the Asymptotic Expected CRB
Arash Shahmansoori, Rafael Montalban, José A. López-Salcedo, Gonzalo Seco-Granados (Universitat Autònoma de Barcelona (UAB), Spain)

15:30  Coffee break
16:00  Session 5  Advanced GNSS Processing, Session Chair: Prof. Fabio Dovis

Precise Carrier Phase-based Point Positioning of Boat-mounted Terrestrial Remote Sensing Platform
Andrei Octavian (Chulalongkorn University, Thailand), Antero Kukko (Finnish Geodetic Institute, Finland), Hari Kaartinen (Finnish Geodetic Institute, Finland), Chalermchon Satirapod (Chulalongkorn University, Thailand)

Application of Hill-Clohessey-Wiltshire Equation in GNSS Orbit Prediction
Xiaolong Zhang, Robert Piche (Tampere University of Technology, Finland)

Asynchronous Pseudolite and GNSS Hybrid Positioning
Ciro Gioia, Daniele Borio (EC Joint Research Centre, Italy)

17:00  Break

18:40  Ferry to fortress island Suomenlinna

19:00 – 22:00 Banquet in Walhalla restaurant
22:30  Ferry to the city

Thursday June 26

9:00  Keynote 3  Pedestrian navigation solutions, Dr. Valerie Renaudin, IFSTTAR

9:45  Posters and coffee

10:45  Session 6  Signals of Opportunity, Session Chair: Dr. Daniele Borio

Performance Improvement of Connectivity-Based Localization Using Iterative Learning
Nyein Aye Maung Maung, Makoto Kawai (Ritsumeikan University, Japan)

WLAN and RFID Propagation Channels for Hybrid Indoor Positioning
Elena Simona Lohan, Karoliina Koski, Jukka Talvitie, Leena Ukkonen (Tampere University of Technology, Finland)

Estimation of Heading Misalignment between a Pedestrian and a Wearable Device
Abdelrahman Saad Ali, Jacques Georgy, D. Bruce Wright (Trusted Positioning Inc., Canada)

Context-aware Peer-to-Peer and Cooperative Positioning
Fabio Dovis, Carla-Fabiana Chiasserini, Luciano Musumeci, Carlo Borgiattino (Politecnico di Torino, Italy)

Delay Estimation for DVB-T Signals in Adverse Multipath Scenarios
Liang Chen (Finnish Geodetic Institute, Finland), Elena Simona Lohan (Tampere University of Technology, Finland), Olivier Julien (Ecole Nationale de l’Aviation Civile, France), Paul Thevenon (Ecole Nationale de l’Aviation Civile, France), Christophe Macabiau (Ecole Nationale de l’Aviation Civile, France), Laura Ruotsalainen (Finnish Geodetic Institute, Finland), Heidi Kuusniemi (Finnish Geodetic Institute, Finland)

12:30  Lunch
14:00        Key Note 4  GNSS: Present Challenges, Potential Solutions and Future Opportunities, Prof. Vidal Ashkenazi, Nottingham Scientific Ltd.

14:45        Awards and Closing, Prof Jari Nurmi, Dr. Laura Ruotsalainen

15:15        Break

16:00        City tour

18:00 – 20:00  Farewell supper in brewery restaurant Bryggeri