

CERGAL 2017 Programme

Wednesday, July 05, 2017



09:00 **Conference Registration**

10:00 **Conference Opening**

Prof. Dr.-Ing. Uwe PLANK-WIEDENBECK, Dr.-Ing. Frank ZIMMERMANN

10:10 **Key Note**

GNSS Reference Data

René ZANDBERGEN, ESA, Darmstadt

Session 1 – Airborne Systems

Chair: Frank ZIMMERMANN

10:30 **Study on Estimation of Ship Resistance Using 3D High Accurate Measuring of Speed over the Ground**

Yoshifumi ICHIKAWA, Marine Technical College, Ashiya-city, Japan

11:00 **Development of airborne performance models for new GNSS signals**

Mihaela-Simona CIRCIU, Michael FELUX, Markus RIPPL, Stefano CAIZZONE, Christoph ENNEKING, Boubeker BELABBAS, Michael MEURER**

German Aerospace Center (DLR), Oberpfaffenhofen, Germany

*: also Chair of Navigation, RWTH Aachen University, Germany

11:30 **High Precision Remote Determination of Trajectories of Non-Cooperative Aircraft**

Sébastien GUILLAUME, Alain GEIGER, ETH Zurich, Switzerland

12:00 **Lunch**

Session 2 – GNSS Performance Assessment

Chair: René ZANDBERGEN

13:00 **Performance Assessment of Automotive Localization Algorithms via Metrics on a Modular Level**

Björn REUPER, Matthias BECKER, Stefan LEINEN,

Technische Universität Darmstadt, Germany

13:30 **Certification Scheme for GNSS Based Location Systems Performance Considering Safety and Security Aspects**

Roland BAUERNFEIND, Monika STAPELFELD, NavCert GmbH, Braunschweig, Germany

14:00 **Coffee**

14:30 **European Space Operations Centre (ESOC) - Guided Tour**

Session 3 – Land and Maritime Application

Chair: Uwe *PLANK-WIEDENBECK*

- 15:30** **Implementation of New Test Automation Approaches for John Deere GNSS Receivers**
Marcus REUTEMANN, John Deere GmbH & Co. KG, Kaiserslautern
Shruti GOSAVI, Technische Universität Chemnitz, Germany
- 16:00** **International Standards on Unmanned Systems and GNSS
– Maritime Security Use**
Helen TUNG, University of Greenwich, UK
- 16:30** **Leo-Brandt-Award-Ceremony „DGON Master of Navigation 2017“**
Prof. Dr. Hermann Rohling, President of DGON
- 17:15** **End of Day 1**
- 19:00 - 21:30** **Symposium Dinner**

Thursday, July 06, 2017

Session 4 – Autonomous Driving

Chair: Uwe *PLANK-WIEDENBECK*

- 09:00** **The Future of Yesterday: Security Aspects of Automated and Autonomous Driving**
Johannes VOGEL, *Raimo HARDER*, *Uwe PLANK-WIEDENBECK*
Bauhaus-Universität Weimar
- 09:30** **Simulation of Connected and Autonomous Vehicles**
Jochen LOHMILLER, PTV AG, Karlsruhe
- 10:00** **Autonomous Driving and Urban Planning**
Stefanie BREMER, Universität Kassel
- 10:30** **Coffee**

Session 5 – GNSS Receiver Technology

Chair: Frank *ZIMMERMANN*

- 11:00** **Generic Service Infrastructure for GNSS-Receivers in a Cooperative Network**
Friederike SIEMER, *Sarah LEHNHAUSEN*, *Heiko MÜLLER*, *Stephan RECHER*
SCISYS Deutschland GmbH, Bochum
Dierk DOHMANN, *Michael BÖSINGER*, Vodafone GmbH, Düsseldorf, Germany

- 11:30** **Standardization of GNSS Threat reporting and Receiver testing through International Knowledge Exchange, Experimentation and Exploitation [STRIKE3]:
Draft Standards for Receiver Testing**
Michael PATTINSON, Mark DUMVILLE, Yeqiu YING, Dimitrios FRYGANIOTIS,
Nottingham Scientific Ltd
Zahidul BHUIYAN, Sarang THOMBRE, Finnish Geospatial Research Institute, Finland
Åsa WAERN, Patrik ELIARDSSON, Swedish Defence Research Agency (FOI)
Martin PÖLÖSKEY, Automotive & Rail Innovation Center (ARIC) of AGIT mbH
Steve HILL, Satellite Applications Catapult Limited, Oxford, UK
Venkatesh MANIKUNDALAM, GNSS Labs, Oxford, UK
Sanguk LEE, ETRI
Joaquin REYES GONZALEZ, European GNSS Agency (GSA)
- 12:00** **Receiver Quality Identification for Railway Safety-Related Applications**
Uwe BECKER, Arne GEFFERT, Joachim WAGNER, Andreas DODINOIU, TU Braunschweig
Debiao LU, Beijing Jiaotong University, China
- 12:30** **Lunch**
- [Session 6 - GNSS Timing and Sensor Fusion](#)
- Chair: Uwe PLANK-WIEDENBECK**
- 13:30** **Precise time – where does it come from**
Werner LANGE, Lange-Electronic GmbH
- 14:00** **Galileo-based Localization and Sensor Fusion Techniques
for Automated Chanting Applications**
René ZWEIGEL, Dirk ABEL, RWTH Aachen University, Germany
- 14:30** **Closing Remarks**
Prof. Dr.-Ing. Uwe PLANK-WIEDENBECK, Dr.-Ing. Frank ZIMMERMANN
- 14:45** **End of Symposium**