



Royal Institute of Navigation



Faculty of Maritime Studies,
University of Rijeka, Croatia



12th ANNUAL RIN BAŠKA GNSS CONFERENCE

Baška, Krk Island, Croatia,
6 - 9 May, 2018

Under the High Auspices of
The European Academy of Sciences and Arts



Technical co-sponsor

Media coverage

Beihang
University,
Beijing, China

Department for
Mathematics,
Faculty of
Science,
University of
Zagreb, Croatia

Faculty of
Engineering,
University of
Rijeka, Croatia

Coordinates



Welcome to 12th Annual Baška GNSS Conference!

The Royal Institute of Navigation, London, UK, Faculty of Maritime Studies, University of Rijeka, Croatia, and Faculty of Transport and Traffic Sciences, University of Zagreb, Croatia have a privilege in welcoming you to the **12th Annual RIN Baška GNSS Conference** to be held on **6 – 9 May, 2018** in **Baška, Krk Island, Croatia**.

The conference is organised under the High Auspices of The European Academy of Sciences and Arts, Salzburg, Austria, and technically co-sponsored by Beihang University of Aeronautics and Astronautics, Beijing, China, Department for Mathematics, Faculty of Science, University of Zagreb, Croatia, and Faculty of Engineering, University of Rijeka, Croatia.

Media coverage is provided by Coordinates Magazine (Delhi, India).

This traditional and unique event aims to gather worldwide experts in satellite navigation and related disciplines, and focuses on GNSS resilience and GNSS applications development. The unique environment of Baška, its natural resources, and rich history and culture, combined with traditional hospitality, will again create an inspiring atmosphere for ideas and knowledge exchange, well known to those who attended the previous conferences in the series.

A list of subjects are to be addressed during 12th Annual Baška GNSS Conference comprises, but does not limit to:

- core satellite navigation systems developments and modernisation,
- satellite-based augmentation systems (SBAS),
- GNSS SDR signal processing and navigation methods, techniques, and algorithms,
- navigation of autonomous flying and road vehicles, surface and underwater vessels, and robots,
- methods and techniques for anomaly detection in GNSS performance and operation (space weather/ionospheric effects, jamming, spoofing, meaconing),
- data mining of massive GNSS-generated data sets (AIS records, ADS-B records, telecommunications network activity records etc.)
- cyberattack prevention, GNSS cryptography and signal authentication,
- GNSS data crowdsourcing,
- congestion in navigation,
- GNSS applications for air, marine, land, autonomous robot and personal navigation, Location-Based Services, Intelligent Transport Systems, and

- Search and Rescue (SaR) operations,
- GNSS alternatives, augmentations and assistance,
 - legal issues in GNSS utilisation and autonomous navigation,
 - Special session on Intelligent Decision Support Systems in Maritime Navigation

Interested parties are kindly invited to submit the extended abstracts (300 - 500 words) of the proposed papers to **Ms Mia Filić, MSc (Comp Sci et Math) MRIN** (e-mail: filicmia@gmail.com), Conference Programme Chair and Conference Proceedings Editor, no **later than 15th March, 2018**. Submitted papers will be considered for presentation by the International Reviewing Committee, with the acceptance reports to be distributed to authors before **31 March, 2018**. Following the peer-review process, the accepted paper will be published in a conference proceedings, to be cited to in respectable international scientific databases.

In addition, the conference participants are kindly invited to **register their participation with the Royal Institute of Navigation** by contacting **Ms Louisa Chanter** (e-mail: events@rin.org.uk), RIN Conference Manager.

The **GBP 80** (RIN members) /**GBP 100** (non-members) conference fee applies. **The exhibition area will be arranged and provided to interested parties at no additional costs.**

The latest developments in regard to the forthcoming conference can be followed at the RIN web-site: <http://www.rin.org.uk>.

We are looking forward for the privilege to welcome you to Baška.

International Programme and Organising Committee

International Programme and Organising Committee

John Pottle, FRIN, Director,
The Royal Institute of Navigation, London, UK, Conference Chair

Serdjo Kos, FRIN, Faculty of Maritime Studies, University of Rijeka, Croatia, Conference Co-chair
Jasna Prpić-Oršić, Faculty of Engineering, University of Rijeka, Croatia, Conference Co-chair
Hrvoje Gold, Faculty of Transportation and Traffic Sciences, University of Zagreb, Croatia,
Conference Co-chair

Tomislav Kos, FRIN, Faculty of Electrical Engineering and Computing, University of Zagreb, Croatia,
Conference Co-chair

Mia Filić, MRIN, satellite navigation, SDR and deep networks specialist, Sesvete, Zagreb, Croatia,
Conference Programme Chair

James B Taylor, FRIN, President, The Royal Institute of Navigation, London, UK

Jeffrey M Auerbach, US State Department, Washington, DC, USA

David Brčić, Faculty of Maritime Studies, University of Rijeka, Croatia

Ljiljana R Cander, Rutherford Appleton Laboratory, Chilton, UK

Olja Čokorilo, Faculty of Transport and Traffic Engineering, University of Belgrade, Serbia

Jordi Corbera, Institut Cartogràfic i Geològic de Catalunya, Barcelona, Spain

Giovanni E Corazza, University of Bologna, Italy

Robert Crane, National Coordination Office for Space-Based PNT, Washington, DC, USA

Franc Dimc, Faculty of Maritime Studies and Transport, University of Ljubljana, Portorož, Slovenia

Sharafat Gadimova, UN Office of Outer Space Affairs, Vienna, Austria

Tihana Galinac Grbac, Faculty of Engineering, University of Rijeka, Croatia

Luka Grubišić, Faculty of Science, University of Zagreb, Croatia

Josip Josipović, CROCONTROL, Zagreb, Croatia

Oliver Jukić, College for Management in Tourism and Informatics, Virovitica, Croatia

Siniša Krajnović, LM Ericsson, Stockholm, Sweden

Bal Krishna, Coordinates Journal, Delhi, India

Marta Krywanis-Brzostowska, European GNSS Agency, Prague, Czech Republic

David Last, FRIN, Consultant Engineer and Expert Witness, Conwy, UK

Kristijan Lenac, MRIN, Faculty of Engineering, University of Rijeka, Croatia

Anastasia Lyubimova, GLONASS/GNSS Forum Association, Moscow, Russia

Roger A McKinley, Consultant, Leatherhad, UK

Tomislav Josip Mlinarić, Faculty of Transport and Traffic Sciences, University of Zagreb, Croatia

Terry Moore, FRIN, University of Nottingham, UK

Washington Y Ochieng, FRIN, Imperial College, London, UK

Ivan Rumora, Croatian Navy, Pula, Croatia

Laura Ruotsalainen, Finnish Geodetic Institute, Masala, Finland

Nenad Sikirica, Polytechnic Hrvatsko Zagorje Krapina, Krapina, Croatia

Enik Shytermeja, Ecole Nationale de l'Aviation Civile, Toulouse, France

Grigory Stupak, Russian Space Systems, Moscow, Russia

Marko Ševrović, FRIN, Faculty of Transport and Traffic Sciences, University of Zagreb, Croatia

Marko Valčić, Faculty of Maritime Studies, University of Rijeka, Croatia

Josip Vuković, Faculty of Electrical Engineering and Computing, University of Zagreb, Croatia

Adam Weintrit, FRIN, Faculty of Navigation, Gdynia Maritime University, Gdynia, Poland

Jingnong Weng, Beihang University of Aeronautics and Astronautics, Beijing, China

Local organising committee (logistics)

Assist Prof David Brčić, MRIN, Faculty of Maritime Studies, University of Rijeka, Croatia, Chair

Luca Maras, Valamar Hotels & Resorts, Poreč, Croatia

Tomislav Josip Mlinarić, Faculty of Transport and Traffic Sciences, University of Zagreb, Croatia

Majda Šale, Krk Island Tourist Office, Krk, Croatia

Marija Šimić Hlača, Faculty of Maritime Studies, University of Rijeka, Croatia

Ivana Kovačić, Baška Tourist Office, Baška, Croatia