

Report on the 2015 International Conference on Inertial Sensors and Systems

Prof. Dr.-Ing. habil. Gert F. Trommer,
Conference Chairman

For the 9th time the international conference “Inertial Sensors and Systems” took place in Karlsruhe, Germany, organized by the Institute of Systems Optimization (ITE) together with the German Institute of Navigation (DGON), cosponsored by the Royal Institute of Navigation (RIN) and by the IEEE Aerospace and Electronic Systems Society (AESS).

This year the Symposium Gyro Technology celebrated its 50th anniversary, which started in 1965 in Hamburg, first with focus on gyroscopes, later including all kinds of inertial sensors, and finally evolving to cover multisensor aided inertial navigation systems.

While in the beginning the symposium was a German conference, soon it became an international one with respect to speakers as well as attendees from western countries. Since 1993, due to the initiative of Prof. Sorg, Russian scientists have visited the conference. His opening to the East in the time of the Cold War was aimed at making a contribution to international understanding. Thus along with our celebration of this 50th anniversary, we proudly obtained an official congratulation document from Prof. Peshekhonov, Member of the Russian Academy of Sciences and conference chairman of the IEEE-AESS cosponsored sister con-

ference “International Conference on Integrated Navigation Systems,” Saint Petersburg.

This year’s conference focus again was twofold: first to offer high quality presentations, but most important to provide a neutral forum for the networking of sometimes competing representatives of industry, governmental institutions, and academia. A total of approximately 190 visitors from 21 nations with a perfect mix of 70% industry members and 30% attendees from research institutes and universities demonstrated the worldwide recognition of this conference.

We welcomed visitors from Austria, Canada, Egypt, France, Germany, India, Ireland, Israel, Italy, Latvia, Norway, P. R. of China, Russia, South Korea, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, and the USA.

At this symposium the latest state of inertial sensors and navigation systems was presented. Out of 36 submissions, 19 technical papers from 11 nations were presented, covering accelerometers, micro-electro-mechanical (MEMS) sensors, vibrating gyroscopes, fiber optic gyroscopes, inertial sensor fusion, inertial systems applications, and simulation and testing. As modern systems for navigation, localization, and guidance are increasingly aided by data from noninertial sensors, papers covering hybrid systems formed an important part of this conference. [Figure 3]

A guided tour through the City of Karlsruhe, celebrating its 300th anniversary, as well as the great dinner at the Ballroom of the Karlsruhe Institute of Technology, provided many opportunities for networking of the participants and deepening personal relationship. [Figure 4]

For the last time Dr. W. Auch served as a member of the program committee due to his retirement in the near future. For 28 years, he has been a constant factor with his permanent support of this event.

2015 DGON ISS

Inertial Sensors and Systems

co-sponsored by: Royal Institute of Navigation Science, Technology, Practice

ITE

IEEE

Symposium Gyro Technology

September 22-23

Scope

For the 50th time the German Institute of Navigation (DGON) and the Institute of Systems Optimization (ITE) invited scientists from all around the world to present the latest status of inertial sensors and integrated navigation systems as well as Gyro Technology. This included performance evaluations of new inertial components, the development of integrated systems for navigation, localization and guidance, test procedures as well as investigations on cost and marketing aspects. Furthermore advanced data fusion methods for inertial sensors, GNSS, visual, infrared, radar and other aiding sensors were in the focus of this conference.

Venue: Karlsruhe Institute of Technology • Tulla Hall • Karlsruhe • Germany

Chairs and Program Committee

Symposium Chair



G. Zwiebler
1965 - 1966



K. Magnus
1966 - 1971



H. Sorg
1972 - 2006



G. Trommer
since 2007

Program Committee Chair



M. Pütz
1972 - 1995



W. Bernard
1996 - 2014



S. Zimmermann
since 2015



Figure 3.

The latest state of inertial sensors and navigation systems was presented in technical papers from 11 nations.



Figure 5.

Dr. W. Auch accepts appreciation of his years as a member of the program committee upon his retirement.



Figure 4.

Attendees enjoy the many opportunities for networking provided and the forming or deepening of personal relationships.

We all appreciate his deep engagement and offer our sincere thanks. [Figure 5]

The members of the program committee came from the relevant German inertial sensors and systems companies as well as from universities: Dr. W. Auch, Sagem Navigation; Dr. E. von Hinüber, IMAR; Dr. W. Geiger, Robert Bosch GmbH; T. Löffler, Diehl BGT Defence; Dr. S. Zimmermann, Northrop Grumman Litef; and Prof. J. Wagner, University of Stuttgart.

The next conference "Inertial Sensors and Systems" will take place in Karlsruhe from 20 to 21 September 2016. Information as well as a photo gallery will be found at our website (iss.ite.kit.edu). ♦