

Commision D Report on Business Meetings

Business Meeting Mon Aug 21, 2017, 5:40pm-19:00pm (Attendees 10) and Business Meeting Wed Aug 23, 2017, 5:40pm-19:00pm (Attendees 9)

1. Results of Election of Vice Chair (VC)

Past Chair, Dr. Gunter Steinmeyer introduced the VC candidates, Dr. Mark Bieler, National Metrology Institute, Germany, and Prof. Naoki Shinohara, Kyoto Univ. Japan. Prof. Itoh agreed to act as secretary for the election of new VC and ECR. The candidates presented themselves and their vision for Comm. D and addressed questions from the audience. Two Country reps were present in the meeting (FR and US). The candidates exited the room for the voting process. Prof. Naoki Shinohara was elected VC with votes 5-3. Dr. Bieler accepted to join the Advisory Board.

2. Results of Election of Early Career Representative

ECR Arnaud Vena confirmed to Chair Gunter Steinmeyer that he would like to serve as ECR in the next trienium. Past Chair, Dr. Gunter Steinmeyer introduced the two new ECR candidates Dr. Hossein Asghari, Loyola Marymount Univ. US and Dr. Liping Shi, Leibniz Univ. Hannover, Germany. Dr. Asghari was elected ECR with votes 5-3.

3. Appointment of Associate Editor for *Radio Science Bulletin*

Newly elected Vice-Chair Prof. Shinohara agreed to act as AE for Radio Science Bulletin.

4. Updates/Status of Working Groups

Prof. Tedjini outlined the activities and progress of the working group on RFID Technologies and highlighted the commitment of the Working Group to contribute to the program of upcoming conferences. New Vice Chair Naoki Shinohara agreed to form a new Working Group related to Wireless Power Transfer.

5. Updates to Terms of Reference of Commission

Commission D agreed to modify the updated ToR version by changing entry 3 to :

3. Nanomaterials, nanotechnologies and nanoelectronics.

The evolution of topics of Commission D was highlighted, placing emphasis on topics uniting electronics and photonics communities, such as clock generation and metrology (jointly with Commission A)

6. Meetings proposed to be supported in the coming triennium

The members agreed to discuss on a case by case basis the Committee support to conferences other than AT-RASC 2018, AP-RASC 2019 and GASS 2020.

7. Report and comments on the scientific program of the Commission for the current GASS

Comm D sessions in GASS 2014 and GASS 2017 were reviewed, placing emphasis to the need to attract more people and maintain balance between electronics and photonics.

Measures to strengthen photonics participation were highlighted by Past Chair Gunter Steinmeyer. He suggested the possibility to introduce 1-day registration and fee waivers for session conveners. Attendees agreed to the need to introduce incentives for conveners and facilitate audience participation (1-day registration).

8. Proposed sessions for the next GASS

All present members of the Committee kindly agreed to provide special session proposals and suggestions related to their field of expertise for AT-RASC and GASS. The topics of spintronics and cryogenic circuits were suggested for future special session organization. Ideas to celebrate 100 years of URSI in 2019 were discussed: Prof. Itoh suggested the topic of guided waves and periodic structures from microwaves to optical frequencies. The periodic structure is a common technology for optics, THz, metasurface, metamaterials with applications to laser, leaky wave antennas, THz sources and detectors, plasmonics, etc., and presents an excellent topic of convergence of microwaves and photonics within Commission D. Members agreed to suggest potential speakers related to the topic.

9. Proposed sessions for the AT-RASC

D.1 Metamaterials for Applications from microwaves to optical waves

D.2 Microwave Photonics

D.3 Additive manufacturing for microwave, millimeter wave and THz electronics

D.4 Optical wireless communication

D.5 Ultrafast optics

- D.6 Optical signal processing
- D.7 Micro/nanodevices, memristive devices and systems, including RFMEMS and NEMS
- D.8 Plasmonics
- D.9 Devices and systems for backscatter communication and sensing
- D.10 Electronics and photonics for 5G wireless systems
- D.11 Energy harvesting and wireless power transmission
- D.12 Wireless identification and sensing from radio to optical waves
- D.13 THz and millimeter wave electronics for sensing, imaging and communication
- D.14 Other
- D.15 Special sessions
- S-D1 – Microwave photonics Organizers: S. Lemey, B. Kuyken, H. Rogier
- S-D2 – Highly linear and efficient wireless transmitters for new radio 5G
Organizers: P. Gilibert, G. Montoro
- S-D3 – Advances in radiative and non-radiative wireless power transfer
Organizers: A. Costanzo, P. Mitcheson
- S-D4 – Wireless Power Transfer and Energy Harvesting. Organizers: N. Shinohara and A. Georgiadis
- S-D5 – Plasmonics, Organizers: J.S. Gomez Diaz
- S-D6 – Advances in ultrafast pulse characterization techniques: towards an optical oscilloscope
Organizer: G. Steinmeyer
- S-D7 – Wireless monitoring of agriculture and food products Organizer: S. Tedjini
- S-D8 – Printed electronics and novel materials for wireless devices and systems
Organizer: A. Vena
- S-D9 – Wireless wearable devices for identification and sensing
Organizers: H. Rogier, S. Tedjini
- S-D10 – Satellite on the move Organizer: C. Mateo-Segura
- S-D11 – THz devices and systems Organizers: M.Jarrahi, M. Bieler
- S-D12 – Nonlinear nanophotonics L. Shi
- S-D13 – Photonic signal processing, real-time instruments and biomedical imaging
Organizer: M. H. Ashgari
- S-DA – GHz and THz metrology Organizer: M. Bieler
- S-DB – Advances in leaky wave antenna technologies Organizers: J. Tornero, G. Goussetis

10. Other business

Prof. Itoh suggested to provide a certificate of appreciation to outgoing ECRs. Members agreed to carefully promote new membership in the future. Prof. Itoh noted the necessity to publicise the new Membership and Fellow Program and advantages. Prof. Popovic emphasized the need to provide feedback to the authors in the case of submissions which are not accepted.

The committee Technical Advisory Board has been introduced with members:

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