International Union of Radio Science  
U.S. Commission B

Please reply to:
J. Volakis, Chair  Reyhan Baktur  phone: (435) 797-2955
J. Simpson, Vice-Chair  Dept. of ECE, Utah State Univ.  fax:  (435) 797-3054
R. Baktur, Secretary  EL 150, 4120 Old Main Hill  e-mail: reyhan.baktur@usu.edu
Logan UT 84322

MINUTES  Commission B Business meeting
2016 USNC-URSI
Puerto Rico
June 27, 2016

1. Meeting got delayed as the secretary forgot some forms.
2. Jamesina Simpson stepped in as secretary.
3. Chair called the meeting to order at 5:10.
4. Guests were introduced.
5. **Chair’s report.**
   (Presentation slides are attached at the end of the meeting minutes.)
6. Sign up sheet passed out by Jamesina
7. 5:22 Reyhan came back with the forms and took over the minutes.
8. Reyhan passed out the Boulder minutes and members’ list.
9. **URSI Awards:** By David Jackson
   (Presentation slides are attached at the end of the meeting minutes.)
   - David talked about the triennial URSI award nomination details and mentioned that Reyhan had already sent those out through email, and talked about the brief guidelines for it.
   - David talked about award selection process
11. **Technical Report:** By Bane Notaros
   (Presentation slides are attached at the end of the meeting minutes.)
   - Technical report – Statistics
• Compared statistics between 2016 and 2015

Giorgio Uslenghi asked question about consistency of data; question was answered and clarified.

• Statistics for 2016 APS, URSI to Boulder URSI.

• It was noted that Comm B papers prevail in the summer meeting. Bane provided an explanation for that.

• 2016 Special sessions: For joint special sessions, Bane commented that it is mainly APS rather than URSI special sessions for summer meeting; Xin Hao explained how URSI was involved.

• Boulder conference statistics were presented, including special sessions.

• Proposal for 2017 B-URSI Boulder Special sessions.

• Bane discussed URSI special sessions for Boulder meetings (one may refer to the Boulder meeting minutes). Pure URSI special sessions equivalent to Boulder special sessions. Detailed description is attached as in the technical report.

David thinks it is a great idea.

John asked if to make it suggestion or just do it.

Some members commented that we should just do it.

Garry Brown mentioned that there was a concern of having too many special sessions.

Bane clarified that those were for APS/URSI special sessions; our discussion is just for URSI. Some members commented that it is just for Boulder.

Mahta suggested calling it “invited sessions”. John said in URSI General Assemblies we already have “invited session”.

Giorgio suggested bringing it to the business meeting to Boulder.

12. Membership Committee Report

(Presentation slides are attached at the end of the meeting minutes.)

• Kathie Melde presented the committee report on behalf of Ed Rothwell

• Kathie read the membership guidelines

• Three candidates: Gokhan Mumcu, Niru Nahar, Deb Chatterjee

Ross Stone moved, Gary Brown seconded, Voted, all in favor.

All three were approved.

• David Jackson: (1) Commented that all nominations came from and were submitted through USNC website. (2) Suggested John to talk about the early career membership.
• John clarified about the early career membership, and David added more info. Ross Stone mentioned that it should be on the web too.

13. Old Business: None
14. New Business: None
15. Meeting was adjourned at 5: 57

Respectfully submitted by Reyhan Baktur, Secretary

**Guests attended**

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<tr>
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<td>Kezhong</td>
<td>Zhao</td>
<td>Anysis- Inc.</td>
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<td>Deb</td>
<td>Chatterjee</td>
<td>University of Missouri</td>
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<td>Graglia</td>
<td>Politecnico di Torino Italy</td>
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<td>Chen</td>
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<tr>
<td>George</td>
<td>Trichopoulos</td>
<td>Arizona State University</td>
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USNC-URSI Commission-B
Business Meeting

Monday, June 27, 2016
5:00 – 6:00 p.m.

Location: Grand Caribbean Salon III
AGENDA
USNC Commission-B
Business Meeting

• Welcome to members and guests
• Approval of Boulder minutes from 2016 Boulder Meeting
  http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/e/pga_169826.pdf

CHAIR REPORT
  • Upcoming Meetings
  • URSI Triennial Awards

COMMITTEE REPORTS
• Technical Activities Report (Branislav Notaros)
• Membership Comt. (Ed Rothwell)
• Old business
• New business
• Adjourn
USNC-B Officers 2015-2017

Chair: John L. Volakis
Vice-Chair: Jamesina Simpson
Secretary: Reyhan Baktur
Chair, TAC: Branislav Notaros
Chair, Membership Committee: Edward Rothwell
Webmaster:
  Chelsea Bock, CBock@nas.edu at National Academies

Web Site
http://sites.nationalacademies.org/PGA/biso/URSI/PGA_080674
Website Information

National Academies web site is our official site:
http://sites.nationalacademies.org/PGA/biso/URSI/PGA_067360

Minutes from the Business Meetings (back to 1997) are there.

Other links:
USNC http://sites.nationalacademies.org/pga/biso/URSI/index.htm

USNC Officers 2015-2017

Chair: David Jackson
Past-Chair: Steven C. Reising
Secretary and Chair-Elect: Sembiam Rengarajan
Accounts Manager: Gary Brown
National Acad. BISO Director: Kathie Bailey
National Acad. Senior Program Officer: Ana M. Ferreras

Consult Web Site Below for updates:
http://sites.nationalacademies.org/PGA/biso/URSI/PGA_067360
MEMBERS at LARGE

Reyhan Baktur
Danilo Erricolo
Albin J. Gasiewski
W. Devereux (Dev) Palmer
Wayne Scales
Jamesina J. Simpson

A Member-at-Large is someone who does not represent one particular Commission, but rather represents the USNC-URSI as a whole.

These are voting positions.

Society Representatives

Randy Haupt (IEEE AP-S)
David Kunkee (IEEE GRS-S)
Robert E. Marshall (American Meteorological Society)
Steven C. Reising (IEEE MTT-S)
Fabiano S. Rodrigues (American Geophysical Union)
Other USNC-URSI Representatives

**Student Travel Program & Paper Competition:**

Erdem Topsakal  
Virginia Commonwealth University
International URSI-B Officers 2015-2017

Chair: Ari Sihvola (Finland)

Vice-Chair: Kazuya Kobayashi (Japan)
International URSI Officers 2015-2017

President: Paul Cannon (UK)
Past-President: Phil Wilkinson (Australia)

Vice Presidents:
Subra Ananthakrishnan (India)
Makato Ando (Japan)
Yahia Antar (Canada)
Umran Inan (USA)

Secretary-General: Paul Lagasse (Belgium)
Asst. Secretary-General (Publications): Ross Stone (USA)
Asst. Secretary-General (AT-RASC): George Uslenghi (USA)
Asst. Secretary-General (AP-RASC): Kazuya Kobyashi (Japan)
The next annual National Radio Science Meeting (NRSM) will be held from Wednesday, January 4 through Saturday, January 7 in Boulder, Colorado.

The meeting will offer Student Travel Grant awards to both graduate and undergraduate students, and will feature the 120 Ernest K. Smith Student Paper Competition. The first place winner will receive $1000, the second place winner will receive $750, and the third place winner will receive $500. The meeting website (http://www.nrsmboulder.org/) will be updated soon with more information.
Upcoming Meetings

See Site http://www.ursi.org/en/events.asp

- ICEAA-IEEE APWC, September 12-23, 2016 Cairns, Australia
- 2016 Metamaterials Conference, Greece 17-22 Sept 2016
- 2016 IEEE Phased Array Systems and Technology, Boston, MA, 18-21 Oct
- 2017 ICEAA-IEEE APWC, Verona, Italy, Sept 11-15, paper deadline March 10, 2017
- 2017 URSI General Assembly, August 19-26, 2017
- 2019 URSI Commission B EMTS, May 27 (short courses), May 28-31 (Technical sessions), San Diego, CA. Contact Sembiam Rengarajan
Two New URSI Triennial Meetings

- Since 2015, URSI is holding a scientific conference every year
- AT-RASC: 2015, 2018, 2021
- AP-RASC: 2016, 2019, 2022
- These two new conferences will be “URSI flagship” conferences
- URSI Board and Coordinating Committee meetings will be held at these meetings
- It is hoped that some Commissions who have their own triennial meetings will merge them into one or both of these two meetings
Upcoming Meetings: Joint Symposia

- 2017, July 9-15, San Diego, CA, Chair: Daniel Sievenpiper
- 2018, July 14-21, Boston, MA,
- 2019, July 7-12, Atlanta, GA
- 2020 July 4-10, Montreal, Fairmont Queen Elizabeth Hotel
- 2021 Singapore
URSI Triennial Awards: David Jackson
Technical Activities Report: Branislav Notaros
URSI B Membership Nominations: Ed Rothwell
Chair Report

USNC Commission-B
Business Meeting

- Old Business?
- New Business?
- Adjourn
GASS: 2017 General Assembly and Scientific Symposium

- 2017 August 19-26, 2017, Palais des Congres, Montreal, Canada
  - Outstanding venue and hotels
  - Also, Special Celebration Events Planned due to
    - 375th anniversary of Montreal,
    - 150th anniversary of Canada
2019 URSI Commission B International Symposium on Electromagnetic Theory

Venue: San Diego, CA (Westin San Diego Hotel)
Dates: May 27-31, 2019
Sponsors: IEEE Antennas and Propagation Society
USNC-URSI (50-50 financial co-sponsors)

- Triennial symposium previously held in the US in 1977 at Stanford along with the IEEE AP Symposium
- Technical program will be managed by the International URSI Commission B
- Local Organizing Committee will manage all other aspects of the symposium
- MOU signed by Roberto Graglia (IEEE APS) and David Jackson (USNC-URSI)
- Hotel (Westin) and PCO contracts have been signed by George Uslenghi and going through the final IEEE approval process.
Call for Nominations

2017 URSI Awards

These awards will be presented at the 2017 GASS in Montreal.
URSI Awards

This is an important opportunity for the USNC, and especially for our distinguished U.S. colleagues who are active in URSI activities.

We one do this once every three years.

Please take the time to make nominations!

Note: Previous nominators from 2014 are welcome to submit nominations again, if the nominations were not successful last time.
URSI Senior Awards:

- Van der Pol Medal
- Dellinger Medal
- Appleton Prize
- Booker Gold Medal

URSI Junior Awards:

- Koga Gold Medal
- Santimay Basu Prize
Nomination Instructions

Your Commission Chair has distributed to you the following:

- The nomination form
- Guidelines for each of the awards
- A list of previous winners for each award

Send nomination forms (Word document) by email to both:

- David R. Jackson
  Chair, USNC-URSI
  Email: djackson@uh.edu

- Your USNC Commission Chair
Award Selection Process

- The nomination forms are collected and sent to the chair of the appropriate USNC-URSI awards committee (Senior Awards Committee or Junior Awards Committee).

- Each awards committee selects one nominee for each of the awards on behalf of USNC-URSI.

- The award nominations are sent to international URSI by the deadline of Aug. 15, 2016.

- The international URSI Awards Board makes the final selection based on all nominations received from URSI Member (national) Committees.

- International URSI will present the awards at the opening ceremony of the 2017 GASS in Montreal.
USNC-URSI Awards Committees

Senior Awards Committee
Chair: Umran Inan

Junior Awards Committee
Chair: Susan Hagness
Deadline for Nominations:

Wednesday, July 13, 2016
Appendix

A Brief Description is Given for Each Award
Balthasar van der Pol and John Howard Dellinger Gold Medals

The Balthasar van der Pol and the John Howard Dellinger Gold Medals honour the memory of two scientists who were closely associated with URSI for many years. The Medals are awarded to outstanding scientists whose achievements in any of the branches of science covered by the Commissions of URSI have been particularly valuable. The award is for career achievements of the candidate with evidence of significant contributions within the most recent six-year period.
Appleton Prize

The Appleton Prize is awarded for outstanding contributions to studies in ionospheric physics. The award is for career achievements of the candidate with evidence of significant contributions within the most recent six-year period.
Booker Gold Medal

The Booker Gold Medal honours the memory of Professor Henry G. Booker who served as URSI Vice President, 1969-1975, and Honorary President until his death in 1988. The Medal is awarded for outstanding contributions to telecommunications or a related discipline of direct interest to URSI. The award is for career achievements of the candidate with evidence of significant contributions within the most recent six-year period.
Issac Koga Gold Medal

The Issac Koga Gold Medal honours the memory of a scientist who was closely associated with URSI for many years. The Medal is awarded to a Young Scientist, of age not more than 35 on 30 September of the year preceding the General Assembly and Scientific Symposium of URSI, who has made an outstanding contribution to any of the branches of science covered by the Commissions of URSI. The award is for career achievements of the candidate with evidence of significant contributions within the most recent six-year period.
Sanitmay Basu Prize

The Santimay Basu Prize honours the memory of a scientist who was closely associated with URSI for many years. The Prize is awarded to a young scientist, not more than 35 years old on 30 September of the year preceding the General Assembly and Scientific Symposium of URSI, who has made an outstanding contribution to research that furthers the understanding of radio-wave propagation in random media and its application for the benefit of society. The award will take into account the excellence of the research, the merit of the candidate in achieving his or her results, and the efforts required to accomplish the research.
URSI Commission-B
Special Sessions & Stats

27 June 2016
Fajardo, Puerto Rico

Branislav M. Notaros
Colorado State University

**Papers submitted, accepted, rejected, and withdrawn**

*(Breakdown: AP, URSI, URSI from US authors, URSI from non-US authors)*

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2015 IEEE AP-S Int. Symposium & North American URSI Mtg., Vancouver, BC, Canada

**Papers submitted, accepted, rejected, and withdrawn**

*(Breakdown: AP, URSI, URSI from US authors, URSI from Canadian authors)*

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## 2016 IEEE AP-S International Symposium & USNC-URSI Meeting, Fajardo, Puerto Rico

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## 2015 IEEE AP-S Int. Symposium & North American URSI Mtg., Vancouver, BC, Canada

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2016 IEEE AP-S/URSI Puerto Rico

URSI B Sessions – UB (27 sessions, 195 papers)

MO-UB.1A: Metamaterials: Theoretical Studies and Novel Designs
MO-UB.2A: Antenna Arrays I
MO-UB.1P: Antenna Arrays II
MO-UB.2P: Wideband and Multiband Antennas
TU-UB.1A: Integral-Equation Basis Functions and Singularity Treatments
TU-UB.2A: Imaging and Inverse Scattering: From Extremely Low Frequencies to Near Infrared
TU-UB.1P: Wireless Communications, Sensors and RFIDs
TU-UB.2P: Frequency Selective Surfaces II
TU-UB.3P: Nanoscale Electromagnetics
TU-UB.4P: Multiphysics and Multiscale Methods and Computations
TUP-UB.1P: Propagation Phenomena and Effects
TUP-UB.2P: Active and Passive Antenna Matching
TUP-UB.3P: Antenna Theory and Design
WE-UB.2A: Fast Direct and Iterative Integral-Equation Solvers
WE-UB.3A: Millimeter and THz Antennas
WE-UB.4A: Preconditioners and Acceleration Techniques
WE-UB.5A: Reconfigurable Antennas and STAR Systems
WE-UB.1A: Theory, Applications and Phenomena of Complex Media
WE-UB.5A: Time-Domain IE and PDE Methods
WE-UB.1P: Scattering and Diffraction
TH-UB.1A: Emerging Metasurfaces
TH-UB.2A: Novel Integral-Equation and MoM Formulations
TH-UB.1P: Metasurfaces: Analysis and Design
TH-UB.3P: Domain-Decomposition and Discontinuous-Galerkin Methods
TH-UB.5P: Advances in FDTD Modeling and Applications
TH-UB.2P: Analysis and Design of Novel Metamaterial-Based Circuits
TH-UB.4P: Numerical Modeling of Reflector Antennas and Reflectarrays
MO-SP.1A: Antenna Design/Analysis based on Stored Energy and Characteristic Modes
MO-SP.2A: Directive Antennas at THz and Optical Frequencies
MO-SP.1P: Multiscale Multiphysics Computational Techniques and Applications
MO-SP.2P: Terahertz Antennas, Interconnects and Systems
TU-SP.1A: More than Wearables - Progress on Skin Antennas and Sensors
TU-SP.2A: 3D Printed Antennas
TU-SP.1P: The History of AP-S: Significant Achievements in Antenna Design, Analysis & Education
TU-SP.2P: 4D Arrays as Enabling Technology for Future Wireless Systems
WE-SP.1A: Advances in Non-Diffractive Waves
WE-SP.2A: Electromagnetics, RF and Microwaves in Medicine and Biology
WE-SP.2P: Memorial Session for Prof. Paul E. Mayes
WE-SP.1P: Computational Imaging at Microwave, MMW and THz Frequencies
TH-SP.1A: Grand Challenges in Computational Electromagnetics for the Next Decade
TH-SP.2A: Industrial Applications of Metamaterials
TH-SP.1P: Novel Paradigms, Challenges and Perspectives in Wave Scattering and Propagation
TH-SP.2P: CubeSat and Small Satellite Antennas

For Reference:
- 2012 APS/URSI Chicago, IL: 13 APS/URSI Joint Special Sessions
- 2013 APS/URSI Orlando, FL: 10 APS/URSI Joint Special Sessions
- 2014 APS/URSI Memphis, TN: 16 APS/URSI Joint Special Sessions
- 2015 APS/URSI Vancouver, Canada: 19 APS/URSI Joint Special Sessions
- 2016 APS/URSI Puerto Rico: 16 APS/URSI Joint Special Sessions
2016 National Radio Science Meeting – Boulder
Conference Statistics

Total number of pre-registrants: 339. Final total number of registrants: 396; (early 162/late 63, students early 148/late student 19, complimentary 4)

Total abstracts and summaries submitted: 389 (342 abstracts, 47 summaries)

Total abstracts and summaries accepted: 375

Number of sessions: 49

Total number of Student Travel Grant Award applications: 122

Technical Sessions:

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<td>1. B1: Numerical Methods</td>
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<td>2. B3: Complex Media, Propagation and Metasurfaces</td>
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<td>4. B6: Finite Arrays and Antenna Measurements</td>
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<td>5. B7: Printed Antennas and Arrays</td>
<td>5</td>
<td>Edward Kuester, University of Colorado Boulder; Ozlem Kilic, The Catholic University of America</td>
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<td>6. B8: Scattering</td>
<td>12</td>
<td>Piergiorgio Uslenghi, University of Illinois at Chicago; Danilo Erricolo, University of Illinois at Chicago</td>
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<td>8. B15: Antenna Design and Measurements</td>
<td>10</td>
<td>Dejan Filipovic, University of Colorado Boulder; Sembiam Rengarajan, California State University Northridge</td>
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<td>9. B17: Antenna Arrays</td>
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<td>Nader Behdad, University of Wisconsin; Amir Zaghloul, U.S. Army Research Lab</td>
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<tr>
<td>Special Session Title</td>
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<tr>
<td>1. Terahertz Antennas and Applications</td>
<td>7</td>
<td>Kubilay Sertel, Ohio State, &amp; Hao Xin, Univ. of Arizona</td>
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<td>2. Wearable Antennas and Electronics</td>
<td>5</td>
<td>Manos Tentzeris, Georgia Tech, &amp; Asimina Kiourti, Ohio State</td>
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<td>3. Uncertainty Quantification in CEM and EDA</td>
<td>3</td>
<td>Jamesina Simpson, Univ. of Utah, &amp; Sourajeet Roy, Colorado State</td>
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<td>4. Reconfigurable Antennas and Circuits</td>
<td>5</td>
<td>Christos Christodoulou, U. of New Mexico, &amp; Xun Gong, U. of C. Florida</td>
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<td>5. 3D Printed Antennas</td>
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<td>Jacob Adams, North Carolina State, &amp; Hao Xin, Univ. of Arizona</td>
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<tr>
<td>6. Advances in CEM and Emerging Applications</td>
<td>10</td>
<td>Branislav Notaros, Colorado State, &amp; Yahya Rahmat-Samii, UCLA</td>
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<td>7. Emerging Applications of Phased Arrays</td>
<td>5</td>
<td>Karl Warnick &amp; Brian Jeffs, BYU</td>
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<td>8. Antennas for Small Satellites</td>
<td>5</td>
<td>Reyhan Baktur, Utah State, &amp; David Jackson, Univ. of Houston</td>
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<td>9. Energy Harvesting Rectennas and Back-Ends B/D</td>
<td>6</td>
<td>Zoya Popovic, Univ. of Colorado, &amp; John Volakis, Ohio State</td>
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<td>Special Session</td>
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<tr>
<td>Advanced Theory &amp; Applications of Metamaterials</td>
<td>Filippo Capolino, UC Irvine, &amp; Ashwin Iyer, Univ. of Alberta</td>
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<tr>
<td>Antennas/RF for Medical Imaging and Sensing</td>
<td>Majid Manteghi, Virginia Tech, &amp; Erdem Topsakal, Virginia Commonwealth Univ.</td>
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<tr>
<td>Advanced Modeling of EM Propagation</td>
<td>Jamesina Simpson, Univ. of Utah &amp; Robert Marshall, Univ. of Colorado Boulder</td>
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suggestion for listing URSI special sessions as “special sessions” on the book

only for pure USNC-URSI NRSM Special Sessions at Boulder meetings and equivalent North American meetings (replacing Boulder) (and not for APS Special Sessions, usually referred to as "APS/URSI Special Sessions"

Or "Convened Sessions" as EuCAP does.

Also, suggestion: specifying "Session Organizers: Names" below the title of the session.
USNC/URSI Commission B Membership Committee

Ed Rothwell (Chair) – Michigan State University
George Hanson – University of Wisconsin-Milwaukee
Kathleen Melde – University of Arizona
Don Wilton – University of Houston
Membership Guidelines

Required qualifications:
- technical competence
  - evidence: nominee’s publications
- interest in the activities of URSI
  - evidence: nominee’s participation in URSI symposia

Minimum publication/presentation numbers:
- Associate Member
  - minimum of 2-3 publications
  - two URSI presentations (at least one in Commission B)
- Full Member
  - minimum of 5-6 publications
  - three URSI presentations (at least two in Commission B)
Commission B Nominees

For Full Membership:

- **Gokhan Mumcu**
  - 4202 E. Fowler Ave ENB 118, University of South Florida, Tampa, FL 33620
  - mumcu@usf.edu  (813) 974-8178
  - sponsor: John Volakis

- **Niru Nahar**
  - 1330 Kinnear Road, The Ohio State University, Columbus Ohio 43212
  - Nahar.2@osu.edu  (614) 292-1588
  - sponsor: John Volakis

- **Deb Chatterjee**
  - 5110 Rockhill Road, UMKC, Kansas City, MO 64110
  - chatd@umkc.edu  (816)235-1276
  - sponsor: Sembiam Rengarajan
Gokhan Mumcu

Ph.D., 2008, The Ohio State University

Professional experience
- 2015-present: Associate Professor, University of South Florida
- 2009-2015: Assistant Professor, University of South Florida
- 2008-2009: Post-Doc, ElectroScience Laboratory, OSU

Research areas
- Microfluidics for beam-scanning mm-wave antenna arrays and frequency-agile RF filters
- Conformal, miniature, and multi-function antennas
- Compact antenna arrays for anti-jamming

Qualifications summary (Full Member)
- Journal pubs: 27 (IEEE AP, MTT, AWPL, etc)
- URSI presentations: 12 Commission B
- Participation in URSI:
  - AP/URSI 2004-2013 (9 times), Boulder URSI 2008, 2016, URSI EMT 2013
Niru Nahar

Ph.D., 2008, The Ohio State University

Professional experience
- 2010-present: Research Scientist, Operations Manager, ElectroScience Laboratory, OSU
- 2009-2011: Post-Doc, ElectroScience Laboratory, OSU
- 2008: Research Consultant, Vision Research Lab, Pacific University

Research areas
- THz sensing, imaging, filters and spectroscopy, metamaterial
- Reconfigurable phased antenna arrays
- free-space optics, fiber optics, optical true time-delay and wideband beam steering

Qualifications summary (Full Member)
- Journal pubs: 19 (IEEE, IET, MOTL, APL, Applied Optics, etc.)
- URSI presentations: 19 URSI or joint AP/URSI (5+ Commission B)
- Participation in URSI:
  - AP/URSI 2005, 2009-2014
Deb Chatterjee

Ph.D., 1998, University of Kansas

Professional experience
- 2005-present: Associate Professor, University of Missouri Kansas City
- 1999-2005: Assistant Professor, University of Missouri Kansas City
- 1998-1999: Post Doctoral Research Engineer, University of Kansas

Research areas
- High-frequency asymptotic techniques, microwave imaging
- Multilayer Green's functions
- Ultrawideband microstrip patch antennas and arrays

Qualifications summary (Full Member)
- Journal pubs: 9 (IEEE, ACES)
- URSI presentations: 9 URSI B (EMTS and General Assembly)
- Participation in URSI:
Recommendations

The Committee unanimously recommends

- Election to full member for Gokhan Mumcu
- Election to full member for Niru Nahar
- Election to full member for Deb Chatterjee