

# Nuclear & Plasma Sciences

S O C I E T Y N E W S

## CONFERENCES

### 17<sup>TH</sup> REAL TIME CONFERENCE

24–28 May 2010

Lisbon, Portugal

<http://rt2010.ipfn.ist.utl.pt>

**NOTE: Starting with this 2010 conference, Real Time switches to an  
EVEN-YEAR schedule**

The upcoming 17th IEEE Real Time Conference (RT-2010) will be held from 24 to 28 May 2010, in Lisbon, at the Congress Centre of the “Instituto Superior Técnico,” the largest Portuguese engineering school ([www.ist.utl.pt](http://www.ist.utl.pt)). RT-2010 is organized by “Instituto de Plasmas e Fusão Nuclear” (IPFN) ([www.ipfn.ist.utl.pt](http://www.ipfn.ist.utl.pt)) and “Laboratório de Instrumentação e Física Experimental de Partículas” (LIP) ([www.lip.pt](http://www.lip.pt)), two Associated Laboratories of the “Fundação para a Ciência e Tecnologia,” the funding research agency of the Portuguese Ministry of Science, Technology and Higher Education. The chair of the local organization committee is Professor Carlos Varandas from IPFN.

As with previous Real Time conferences, RT-2010 will be a multidisciplinary conference devoted to the latest developments in real time techniques in the fields of particle physics, plasma and nuclear fusion, nuclear physics and astrophysics, space science, accelerators, medical physics and other radiation instrumentation.



**Carlos Varandas**  
General Chairman



**Bruno Soares-  
Gonçalves**  
Treasurer

The conference philosophy is to have only plenary sessions to nurture the exchange of ideas and problems and cross-fertilization between researchers from various fields. Mini-orals will continue to be arranged for posters as in the past. All this taken together lays the ground work for an extremely stimulating environment, ample opportunity for discussions and fruitful exchanges particularly for young scientists and engineers.

The list of conference topics includes:

- Ultra Fast Analog and Timing Converters and Digitizers
- Front-end Signal Processing
- Reconfigurable Hardware
- Real Time System Architectures
- Trigger and Data Acquisition
- High Level Triggers
- Event Building and Fast Networks
- High Speed Synchronous Control
- Online Processing Farms
- Online Databases
- Control and Monitoring Systems
- Emerging Real Time Technologies
- New standards (ATCA)

The target audience consists primarily of experts from the fields of Particle Physics, Nuclear Physics and Astrophysics, Nuclear Fusion, Accelerators, Medical Physics, Space and General Radiation Instrumentation.

Submission of abstracts for oral presentations and posters will be open in due time on the Web site. The submission deadline of an abstract of about 2000 characters is March 1st, 2010.

In addition to the main event, we intend to organize some dedicated events such as real time exhibits,

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Publicity releases for forthcoming meetings, items of interest from local chapters, committee reports, announcements, awards, or other materials requiring society publicity or relevant to NPSS should be submitted to the Newsletter Editor by January 10, 2010 for publication in the March 2010 Newsletter.

### CONTRIBUTED ARTICLES

News articles are actively solicited, especially those related to important R&D activities, significant industrial applications, early reports on technical breakthroughs, accomplishments at the big laboratories and similar subjects.

The various Transactions, of course, deal with formal treatment in depth of technical subjects. News articles should have an element of general interest or contribute to a general understanding of technical problems or fields of technical interest or could be assessments of important ongoing technical endeavors.

Advice on possible authors or offers of such articles are invited by the editor.

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refresher courses, tutorials and topical workshops on hot subjects such as ATCA.

The one-day workshop on the Advanced Telecommunications Computing Architecture (ATCA) will continue to explore the merits of ATCA for use by the real-time science community. Particularly exciting will be the possibility to learn further about the recent progress achieved by the PICMG Technical Subcommittee, the xTCA for the Physics Coordinating Committee, in its work to develop ATCA standards for the physics community. The goal is to provide information that will assist attendees in making design decisions about utilizing ATCA hardware and associated software to achieve high availability in future large projects such as ITER.

Similar to the 2009 conference, RT-2010 will continue the tradition of presenting the Outstanding Student Awards. This distinction will honor the best student submission accepted for oral presentation and the best student submission accepted for a poster presentation. The award is based on the quality of

the work as described in the paper submitted and will certainly foster the participation of young researchers.

The conference center at Instituto Superior Técnico is located in the central area of Lisbon with widely available bus and underground line services, is within walking distance (5–10 minutes) from main city hotels and only 3 km from the international airport. The wonderful city of Lisbon will certainly provide an outstanding environment for fruitful discussions, real-time exchange of experiences and foster the knowledge transfer among different communities.

Further details about the conference are available on the conference web site at <http://rt2010.ipfn.ist.utl.pt>

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**Gaspar Barreira**  
*Vice Chair*

## 37<sup>TH</sup> INTERNATIONAL CONFERENCE ON PLASMA SCIENCE

**Marriott Waterside, Norfolk, VA, USA**  
**June 20 – 24, 2010**  
[www.eng.odu.edu/icops2010](http://www.eng.odu.edu/icops2010)

We wish to extend a cordial invitation to the 37th IEEE International Conference on Plasma Science (ICOPS) to be held in Norfolk, VA, USA, from June 20 to June 24, 2010 with a mini-course scheduled June 24 and 25. The conference venue is the Marriott Waterside hotel located in the center of downtown Norfolk. Norfolk is a city of some 238,832 residents and more than 100 diverse neighborhoods. It is the cultural, educational, business and medical center of Hampton Roads, hosts the world's largest naval base, the region's international airport and is one of the busiest international ports on the East Coast of the United States.

Plasma science covers a wide range of topics. ICOPS 2010 will offer a rich technical program that spans the many fundamental as well as applied aspects of the field. The topics are:

- Basic Processes in Fully and Partially Ionized Plasmas

- Microwave Generation and Plasma Interactions
- Charged Particle Beams and Sources
- High Energy Density Plasma Applications
- Industrial, Commercial and Medical Plasma Applications
- Plasma Diagnostics
- Pulsed Power and Other Plasma Applications

The conference program will include plenary, oral, and poster sessions. There will be four plenary talks presented by international leaders in the plasma physics community; one plenary presentation will be an address by the 2010 IEEE Plasma Science and Applications Award recipient. In addition, for this conference, we plan to have a special oral session on the emerging field of *Plasma Medicine*.

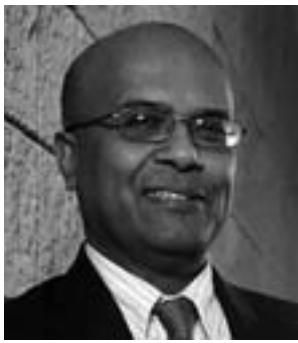
As part of ICOPS 2010, a 1.5-day mini-course on low-temperature plasma modeling and simulation will be offered on Thursday



**Mounir Laroussi**  
*General Chair*



**Christine Coverdale**  
*Technical Program Chair*



**Shirshak Dhali**  
*Treasurer*

afternoon, June 24th and Friday, June 25th. The minicourse will be held at the Marriott hotel. A group of international experts from academia and industry will provide a set of comprehensive lectures on modeling techniques for low-temperature plasmas and their applications. The mini-course organizer is Prof. Demetre Economou, University of Houston.

The deadline for abstract submission is January 15, 2010. Abstract submission is

done via the conference web site. Please go to the conference web site for information on registration, hotel reservation, travel, social events, etc...

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**Craig Woody**  
*NPSS President*

**A**s the year comes to a close, it's always good to reflect on what has happened during the year and where we have come as a Society. It was my first year as President, and I have to say, it's been an enlightening and very satisfying experience. We successfully completed our Society Review in February, and I can say we came through with flying colors. I think this is a testament to the hard work that our volunteers put in and how much pride we take in making our Society an example for others to follow. We've held many successful conferences this year, and numerous papers were published in our highly respected journals. Our own Hal Flescher won the prestigious IEEE Emberson Award, and Peter Clout was just recently elected as our new Division IV Director-elect. We formed a new Graduates of the Last Decade (GOLD) Committee, with Christoph Ilgner as its Chair. Our Women in Engineering (WIE) activities are expanding with more sessions at many of our conferences. We also completed our latest membership survey, which we did electronically for the first time, and received a record number of responses.

One truly notable accomplishment this year was that our membership has been growing by leaps and bounds. Between July 2008 and July 2009, our membership increased by 14.1%, the second largest increase of all Societies within IEEE. In fact, membership in IEEE has also nearly reached an all-time high in its 125 year history, now topping 367,000 members. We owe a great deal of our success in recruiting new

members to Uwe Bratzler, our NPSS Membership Chair, who was named the top membership recruiter in all of IEEE worldwide by IEEE's Membership and Geographical Activities Board. We should also thank Vern Price, who does a great deal of behind the scenes work for our membership, and to all the volunteers who helped staff the membership booths at many of our conferences for this outstanding effort. However, we want to encourage all of our new members, as well as our long-standing members, to please renew your membership in both IEEE and NPSS every year. The benefits of being a member are truly great, and we're constantly trying to improve them. It's great to belong to one of the best Societies within IEEE.

I reported in the last Newsletter that we recently formed a new NPSS Chapter in Seoul, Korea. I'm now happy to report that we have formed yet another new Chapter, this one in Toronto, Canada. The Chapter received its final approval on September 3, 2009, with Prof. Hossam Gabbar from the University of Ontario's Institute of Technology as its Chair. We welcome this new Chapter into our Society and hope that we can increase our activities and interests in NPSS in this new region. Please see Prof. Gabbar's article in this Newsletter for more information about our newest Chapter. This brings the total number of NPSS Chapters to 17, and we are hopefully still growing.

I also reported in the last Newsletter that IEEE Biometrics Council was publishing a new journal called the *Biometrics Compendium*, and that some of our TNS or TPS articles might be

appearing there. However, after some debate at our last AdCom meeting, we decided that NPSS would not participate in this journal. The reasoning was that our articles have more impact when they are published in their original journals, and that republishing the same information did not add significantly to their value. We also chose not to participate in the EMB Society's new journal called *Reviews of Biomedical Engineering*. This journal publishes review articles on topics in biomedical engineering, with which we do have involvement through our Nuclear and Medical Imaging Sciences Technical Committee. However, it was felt that we would prefer that authors publish their review papers in our own journals (either TNS or TMI) rather than in a new separate journal, and we would like to encourage our authors to do so.

Finally, as we close out the year, our economic situation may be looking a bit brighter after the difficult times we all experienced in 2008. Our Society had a net positive income last year, and our reserves are growing again. This is again largely due to our very popular and well-managed conferences, and to the efforts of so many volunteers who keep our Society running smoothly and efficiently. So, as we come to the end of another productive and successful year for NPSS, let me wish you all a wonderful and joyous holiday season, and all the best wishes for a happy and prosperous 2010.

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**Eye-opener**  
Love is blind, but  
marriage  
restores its sight.

**Georg Christoph  
Lichtenberg**

## SECRETARY'S REPORT

The IEEE NPSS Administrative Committee met on 25 July 2009 at the Québec Hilton, in Québec City following the NSREC meeting.

Our treasurer, Ed Lampo, reported that Tony Lavietes, our assistant treasurer, was preparing a conference-closing procedure with a check list to help facilitate timely conference closings. A budget submission process is also being developed. Despite all the economic turmoil of the last 18 months, and the need to lend IEEE money for its pension fund, NPSS is still solidly in the black. It has to do with well-run conferences, conservative financial planning, careful monitoring, and also excellent journals and conference records that maintain their popularity.

Craig Woody, NPSS President, noted that Harold Flescher was the recipient of the 2009 Emberson Award, one of IEEE's most prestigious Institute awards, and that the presentation ceremony was impressive. Bill Moses was asked to serve on the TAB Conference Committee that helps set oversight policy for our conferences. Our Five-year Society Review was highly successful, with only a quibble about strategic planning activities. We use our retreats for strategic planning, and Craig has asked Bob Reinovsky, NPSS Vice President/President-elect, to be our strategic planning liaison with IEEE. Our next retreat will be held in March 2010.

A hot topic at TAB just now is technically cosponsored conferences. IEEE has had an overwhelming request for technical cosponsorship of various conferences, according to John Vig's presentation at POCO (the Panel of Conference Organizers) this past summer. A memorandum of understanding between the IEEE entity and the conference is now mandatory, as is a statement of what the IEEE Operating Unit's precise involvement is to be. A conference is defined as any meeting with a budget greater than \$25,000. Publishing a proceedings or conference record also has financial implications. TAB has also approved two new journals, the *Biometrics Compendium* and *Reviews of Biomedical Engineering*. These may include articles from our fields of interest, but they may also be in conflict with TMI and with TNS.

Craig Woody also urged the Technical Committees to add tags to the new IEEE Technology Navigator which is a search tool under development that is expected to have impact on membership. Craig also reiterated that travel expenses will only be reimbursed by December 31 of the year in which they are incurred.

### TECHNICAL COMMITTEE REPORTS:

CANPS has reported on the successful RT-2009, the 16th of the conference series,



**Albe Larsen**  
IEEE NPSS Secretary  
and Newsletter Editor

## And they are all bad

The problem with financial markets is that once-in-a-lifetime events happen roughly every four years.

Al Kellett

held in Beijing. They are gearing up for the 17th conference in 2010 in Lisbon, Portugal. The conferences have been changed from odd to even years to minimize conflict with ICALEPCS.

The combined 2009 Fusion Engineering and ICOPS Conferences were held in San Diego in June and both were successful despite some papers being withdrawn because of the H1N1 virus threat. For the first time ever, papers from Fusion Engineering are being submitted to *IEEE Transactions on Plasma Science* for consideration for publication. It is expected that there will be a special issue of the journal related to fusion technology. Fusion and ICOPS will collocate again in 2011, in Chicago the week after the Pulsed Power conference is held in the same venue. The 2010 ICOPS will be held in Hampton Roads, VA, and the 2012 conference will be held in Edinburgh, Scotland in late May. In 2013 there will be another PPST conference to be held in San Francisco combining ICOPS, Pulsed Power and possibly Fusion.

The 17th Pulsed Power conference was held in Washington, DC and was a success, with attendance over 500, despite recurring visa problems for Russian attendees. Remember that visas need to be applied for early. Processing takes more time than one might like. Randy Curry, who was Program Chair this year under Frank Peterkin, will become General Chair in 2011, with Bryan Oliver as Program Chair. Selected papers will be submitted for consideration in a special issue of *IEEE Transactions on Plasma Science*.

The 2011 Particle Accelerator Conference will be held in New York City at the Marriott Marquis with Tom Roser of BNL as General Chair. The first US-held IPAC will be in New Orleans in 2012. The 2013 PAC will be on the west coast, and the 2015 PAC will be in Richmond, VA.

The 2009 Nuclear and Space Radiation Effects conference ended on July 24, the day before the AdCom meeting in Québec. Registration for the conference and short course combined was over 500. This is the second time that NSREC has been held in Canada, and attendance was higher than in 2001, and more exhibit booths were sold, although there were fewer exhibitors. There was a significant increase in the number of Canadian attendees, but the principal attendee groups were from the US and France. Advice from Mark Hopkins, the General Chair: if you are holding a conference

outside the US, be sure to keep careful watch on the currency exchange rates.

The 2009 Nuclear Science Symposium and Medical Imaging Conference will have been held in Orlando, Florida by the time this Newsletter is published. There will have been 8 days of short courses and conference papers, and over 1400 papers presented. There is also a Women in Engineering function, and the first-time presentation of the Valentin Jordanov travel grants.

## FUNCTIONAL AND APPOINTIVE COMMITTEE AND LIAISON REPORTS

The Conferences Committee, chaired by Bill Moses, has some money available for our conferences to work with IEEE Conference Services for planning, site selection and conference closing issues, on a trial basis.

There have been changes in some of the Award forms on line. If you are nominating candidates for either NPSS awards or for any of the prestigious IEEE awards, be sure to get the correct forms and work on them in a timely way. There is also a new Engineering in Biology and Medicine (EMBS) IEEE Medal for Innovations in Health Care Technology. The Curie Award, sponsored by NPSS, will seek its first nominations in 2010. There have also been some changes in the Fellow Candidate Evaluation committee. New members include Paul Chu from Hong Kong, Erik Heijne from CERN, and Jean-Luc Leray from CEA, France. The review process is now fully electronic. March 1, 2010 is the deadline for receipt of 2010 Fellow applications.

Membership in NPSS has increased over 14% since February, which is a very impressive gain.

We welcome new chapters in Seoul, Korea and in Toronto, Canada, bringing our chapters to two in Asia and seven each in Europe and North America, with one more North American chapter pending. Steve Gold, the Chapters chair, is developing a Chapters reporting form. A completed form is a prerequisite for all Chapter funding requests.

Sean Gillespie is now our Publications liaison at IEEE as Allison Larkin has moved into a position with more oversight responsibilities.

Our new brochures, prepared by the Communications Committee under Peter Clout, are now available and have been distributed. We now keep membership booths, prepared under Communications, in both Europe and the

US. Large posters proved very effective at the Real Time Conference in Beijing, were easy to transport and hang, and were inexpensive so could be left behind. Also, the web site has been redesigned and has a fresh new look.

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## TECHNICAL COMMITTEES

### COMPUTER APPLICATIONS IN NUCLEAR AND PLASMA SCIENCES

Following the very successful RT-2009 conference in Beijing last May, the CANPS committee has already been active in the preparation of RT-2010. This is one year ahead of our traditional every-other-year cycle. It was decided that starting from year 2010, the RT conferences would be organized in even numbered years, rather than in odd number years. This decision was taken in order to minimize the schedule conflicts with other competing conferences held during the same fiscal year.

So the next Real Time Conference will be in 2010, rather than 2011. It will be in Lisbon, Portugal, from May 24 to May 28. The chair of the conference is Carlos Varandas, from the Instituto de Plasmas e Fusão Nuclear (IPFN). The Conference is organized jointly by IPFN and the “Laboratório de Instrumentação e Partículas” (LIP). Both institutes are involved in the ITER international fusion reactor project that is now gaining momentum. This should bring a very interesting new field of applications to the conference program.

The format of the conference will be similar to the previous RT conferences: one day before

the conference there will be workshops and tutorials, followed by a week of plenary presentations. The all-plenary concept is well appreciated by the participants. They find that looking at how scientists from other fields of interest solve instrumentation problems similar to theirs is very profitable. The “mini-oral poster presentations” will also be part of the program as before. These are 3-minute oral presentations during which time the speaker has the opportunity to introduce the poster and convince the audience that this particular poster is something not to be missed!

Further details about the RT-2010 conference can be seen in the conference announcements section of this newsletter, and on the conference web site: <http://rt2010.ipfn.ist.utl.pt>

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**Jean-Pierre Martin**  
*Chair, CANPSTC*

### FUSION TECHNOLOGY COMMITTEE

The year 2009 was a successful one for the Fusion Technology Committee in many ways. The 2009 Symposium on Fusion Engineering (SOFE) was attended by over 250 registered participants. Joining with ICOPS in 2009 went very smoothly, and we believe enhanced the experience for attendees as well as strengthened the financial and administrative aspects of the combined meeting.

We have continued the traditions of past SOFE symposia, and started at least one new one. The

Fusion Technology award and Best Student Paper award were presented at the banquet. This year the winners were Dr. A. René Raffray (UC San Diego) “For his internationally recognized expertise in fusion engineering and his outstanding contributions to fusion technology, especially in the area of high heat flux components for both magnetic and inertial fusion energy” and to Mai Ichinose (Kyoto University) for her paper “Preliminary Design of High Temperature Lithium-Lead Blanket with SiC Cooling Panel.” For the



**Mark Tillack**  
*Chair, Fusion TC*



**Lucas Tillack**

**Missed my chance – maybe! Equal opportunity means everyone will have a fair chance at becoming incompetent.**

*Laurence J.  
Peter*



**Charles C. Watson**  
*Chair, Nuclear Medical and Imaging Sciences*

first time ever, a special issue of the *Transactions on Plasma Science* will be produced in addition to the conference proceedings. The Guest Editors for this special issue, due for release in early 2010, are Profs. David Ruzic from the University of Illinois at Urbana-Champaign and Jean Paul Allain from Purdue University. The conference proceedings were sent on CD to all registered participants, and will be posted at IEEE Xplore in the near future.

In 2009, over 40% of the attendees of SOFE traveled from abroad. This number would have been even higher if not for concerns over the A(H1N1) flu virus that were high during the weeks preceding the conference. In response to the growing international interest in SOFE, for the first time we have added international members to the committee. Prof. Satoshi Konishi from Kyoto University and Dr. Hans-Stephan Bosch from the Max-Planck Institut für Plasmaphysik will serve as the first non-US members. We look forward to growing international participation in the organization of SOFE, and perhaps one day hosting the meeting outside of the United States.

Planning for the 2011 SOFE is already well underway. The general chair will be Charles Neumeyer from Princeton Plasma Physics Laboratory, and the technical program chair will be Brad Nelson from Oak Ridge National Labora-

tory. As in 2009, this symposium also will be combined with ICOPS. For more information, please visit their web site at <https://engineering.psu.edu/ICOPS2011/>

With the imminent construction and/or operation of major facilities such as NIF and ITER, and with growing public appreciation for the need for clean energy sources, I expect SOFE will remain healthy and perhaps grow into the future.

This year there have been some changes in the membership of the Fusion Technology Committee. New members include Brad Nelson from Oak Ridge National Laboratory and Dennis Youshison from Sandia National Laboratories. For more information on the members and operation of the FTC, please visit our web site at <http://aries.ucsd.edu/PUBLIC/NPSS-FT/>

After 4 years as chair of the Fusion Technology Committee, the time has come to pass on the baton. I am pleased to announce that Dennis Youshison of Sandia National Laboratories will replace me starting in January 2010. I wish Dennis the best of luck and look forward to serving IEEE in other capacities in the future.

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## **NUCLEAR AND MEDICAL IMAGING SCIENCES NEWS**

**T**his will be my last report to you as Chair of NMISTC since my term ends this month. We have accomplished a number of things during the past two years, including renaming the Young Investigator award in honor of Bruce Hasegawa, increasing the amounts of the Hasegawa and Hoffman awards, and revising our bylaws concerning the NSS/MIC Oversight Subcommittee. It has been an honor to serve on NMISC, and I hope I am leaving it at least as strong as I found it. Robert Miyaoka of the University of Washington will be taking over as Chair for the next two years. I wish Robert well and know he will do an excellent job.

NPSS AdCom approved the proposed changes to the NMISTC Bylaws, particularly Bylaw 3, at its July 2009 meeting, so they are now official. The revisions mainly concern the operation of the NSS/MIC Oversight Subcommit-

tee, which does the long-term planning and site selection for the NSS and MIC. This is a joint Subcommittee of the RISC and NMISC, and consequently the RITC and NMISTC Bylaws must be consistent with respect to its operation. The revision accomplishes this by eliminating the two-year term limit of the Chair. Our Constitution requires the new Bylaw be published to the NMISTC membership, so you will find it reproduced below.

As I write this, the 2009 NSS/MIC is only three weeks away, and arrangements are nearly complete. I know that the General Chair Richard Lanza as well as the MIC Program Chair Ramsey Badawi and Deputy Chair Craig Levin, and many others, have worked hard to make it highly successful, and I hope you found it so.

Knoxville, Tennessee, will host the 2010 NSS/MIC. Ron Keyser is the General Chair

and David Townsend will serve as the MIC Program Chair. The meeting will be held in the Knoxville Convention Center, with housing shared among several downtown hotels.

The 2011 NSS/MIC will be in Valencia, Spain. Valencia is Spain's third largest city, beautifully situated on the eastern Mediterranean coast, with many cultural and recreational attractions. The meeting space will be in the Valencia Conference Center and the neighboring Sorollo and Hilton Hotels. David Townsend will be the General Chair, and Alberto Del Guerra will be the MIC Program Chair.

The Disney Hotel in Anaheim, California will host the 2012 NSS/MIC meeting. Tom Lewellen will be General Chair of this meeting, and is currently putting together his organizing committee.

Planning for the 2013 meeting is underway. The NSS/MIC Oversight Subcommittee is currently reviewing three site location proposals: one for Beijing, China, one for

Seoul, Korea, and one for Cairns, Australia. The growing interest from our Asia-Pacific community in hosting the meeting is a strong motivating factor for holding the 2013 NSS/MIC in that region.

You can find more information on the NMIS Technical Committee and Council, including current Council membership, information on NMISTC-sponsored awards, and a copy of our constitution and bylaws, at our web site: <http://ewh.ieee.org/soc/nps/nmisc/>. Five new members are elected to NMISC each year, and we always welcome new candidates. If you are interested in standing for election, please contact George Kontaxakis, Secretary and Chair of the Nominations Sub-Committee, at [g.kontaxakis@ieee.org](mailto:g.kontaxakis@ieee.org).

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## Guess who spends the most

Three groups spend other people's money: children, thieves, politicians. All three need supervision.

Dick Armey

# CONSTITUTION AND BYLAWS OF THE NUCLEAR MEDICAL AND IMAGING SCIENCES TECHNICAL COMMITTEE OF THE IEEE NUCLEAR AND PLASMA SCIENCES SOCIETY

Approved by AdCom July 25, 2009

**NOTE: Objections to changes to these Bylaws must be received within 60 days of the cover date of this Newsletter and submitted in writing to the Society secretary**

## ARTICLE I – NAME AND OBJECT

**Section 1.** The organization shall be known as the Nuclear Medical and Imaging Sciences Technical Committee of the IEEE Nuclear and Plasma Sciences Society (NPSS), hereafter referred to as the Committee.

**Section 2.** The Committee shall strive for the advancement of theories and applications of Nuclear Medical and Imaging Sciences and of its allied arts and sciences and maintenance of high scientific and technical standards among its members.

**Section 3.** The Committee shall aid in promoting close cooperation and exchange of technical information among its members and to this end shall hold meetings for the presentation and discussion of original contributions, shall assist in the publication of the Transactions on Nuclear Science (TNS) and other IEEE publications that the committee shall deem appropriate, and shall otherwise provide for the needs of its members.

## ARTICLE II – FIELD OF INTEREST

**Section 1.** The field of interest of the Committee is Nuclear Medical and Imaging Sciences, and their related technologies and applications. It shall foster publication or other dissemination of

original contributions to the theories, experiments, educational methods and applications of Nuclear Medical and Imaging Sciences. Areas of technical activity will include, but not be limited to the following:

### Section 2.

- 1) Radiation sources (including synchrotron radiation)
- 2) Detectors used for imaging and radiotherapy
- 3) Radiation standards and radiation monitoring for biomedical instrumentation and personnel
- 4) Theory, physics and instrumentation of medical imaging modalities including, but not restricted to:
  - a) Planar Nuclear Medicine (NM)
  - b) Single Photon Emission Computed Tomography (SPECT)
  - c) Positron Emission Tomography (PET)
  - d) Magnetic Resonance Imaging (MRI)
  - e) Magnetic Resonance Spectroscopy (MRS)
  - f) Magnetic Resonance Angiography (MRA)
  - g) Functional MRI (fMRI)
  - h) X-ray Computed Tomography (CT)
  - i) Digital Radiography (DR)
  - j) Related imaging systems and devices

- 5) Modeling and simulation of imaging detectors, devices, systems, and processes
- 6) Image analysis techniques
- 7) Image reconstruction algorithms
- 8) Quantitative imaging methods

### **ARTICLE III – MEMBERSHIP**

**Section 1.** Members of the Committee are members of the IEEE NPSS having an interest in Nuclear Medical Imaging.

**Section 2.** Affiliates may participate in the activities of the Society as provided by the IEEE Bylaws and subject to the applicable IEEE rules and regulations and to any additional limitations imposed by the Society Bylaws.

### **ARTICLE IV – ADMINISTRATION**

**Section 1.** The Committee shall be managed by a Nuclear Medical and Imaging Sciences Council (NMISC) consisting of elected members-at-large, plus certain ex-officio members as specified herein and in the Bylaws. The number of elected members-at-large shall be 15 members.

**Section 2.** The terms of office of the elected members-at-large shall be three years. Members-at-large elected to a full term may not succeed themselves, and at least one year must elapse before an individual may be re-elected to the NMISC. Election of members-at-large shall be held annually to fill vacancies for the coming year. The terms of office of the ex-officio members shall be specified in the Bylaws.

#### **Section 3**

(a) The affairs of the Committee shall be managed by a Chairperson, as directed by the NMISC and in accordance with the powers and duties as defined thereunder and in the Bylaws. In the event of the Chairperson's absence or incapacity, his/her duties shall be performed by a Vice-Chairperson.

(b) The Chairperson shall appoint a Secretary for the NMISC. The Secretary need not be chosen from among the elected members at large.

#### **Section 4**

(a) On alternate years a Vice-Chairperson (who shall be the Chairperson elect) is elected by the voting members of the NMISC from the eligible members-at-large of the NMISC. The term of office for the Vice-Chairperson shall be two years as Vice-Chairperson, followed by two years as Chairperson, and two years as the Most Recent Past Chairperson.

(b) Only those members-at-large having one year or more of their term as elected member-at-large remaining shall be eligible for election as Vice-Chairperson. In the event that a Vice-Chairperson is elected to take office at the beginning of the second or third year of their term as member-at-large, said term shall automatically extend until he vacates the office of Most Recent Past Chairperson. During this extension, that individual shall be considered an ex officio member with voting rights. No individual may serve two successive terms as Vice-Chairperson or two successive terms as Chairperson.

(c) In the event that neither the Chairperson or the Vice-Chairperson is able to take office as prescribed in the Bylaws, or if both are incapacitated or if both offices become vacant, the NMISC shall promptly elect an Acting Chairperson from among the members-at-large to assume the duties of Chairperson until either a Chairperson or Vice-Chairperson takes office or resumes their duties.

(d) The Vice-Chairperson will, except under circumstances deemed unusual by a majority of the voting members of NMISC, become the sole nominee for the succeeding Chairperson election.

**Section 5.** The Chairperson shall be an ex-officio member of all sub-committees of the NMISC.

**Section 6.** The Chairperson, as soon as expedient after their election, shall appoint the Chairpersons of the sub-committees provided for in the Bylaws.

### **ARTICLE V – NOMINATIONS AND ELECTION OF NMISC MEMBERS-AT-LARGE**

**Section 1.** Nominating procedures shall be as prescribed in the Bylaws and shall include provision for nomination by NMISTC members.

**Section 2.** Election of the members-at-large of the NMISC shall be as prescribed in the Bylaws.

**Section 3.** If a member of the NMISC does not complete their term, the NMISC Chairperson shall appoint a replacement to fill the unexpired portion of the term. When an NMISC member is appointed for a partial term, that person is eligible to run for the next full-term election to the same position.

### **ARTICLE VI – MEETINGS**

**Section 1.** The Committee may hold meetings, conferences, symposia or conventions either alone or in cooperation with other organizations subject to applicable IEEE and NPSS rules and regulations.

**Section 2.** Eight voting members of the NMISC shall constitute a quorum. No member shall have more than one vote by reason of multiple offices or Committee responsibilities.

**Section 3.** A majority of the legal votes cast by those members of the NMISC attending a meeting shall be necessary for the conduct of its business except as otherwise provided in this constitution.

**Section 4.** Business of the NMISC may be handled by any written means which includes (but is not limited to) correspondence, fax or e-mail if, in the opinion of the Chairperson, matters requiring prompt action can be adequately handled in that manner. A majority of the voting members of NMISC is required to take action in such a case. Such actions are to be promptly confirmed in writing by the Chairperson to NMISC.

**Section 5.** The NMISC shall meet as required to conduct business and in accordance with the Bylaws.

### **ARTICLE VII – AMENDMENTS**

**Section 1.** Amendments to this Constitution may be initiated by petition submitted by a two-thirds vote of the NMISC, such petition being submitted to the Ad Com of the NPSS for approval. After such approval, the proposed amendment shall be publicized in the IEEE TNS or Medical Imaging (TMI), and/or the NPSS Newsletter, with notice that it goes into effect unless 20 Committee members object within 90 days of the date of mailing of the notice. If such objections are received, a copy of the proposed amendment shall be mailed with a ballot to all members of the Committee at least 30 days before the date set for the return of the ballots; the ballots shall carry a statement of the deadline for their return to the IEEE office. When a mail vote of the entire Committee membership is made necessary, approval of the amendment by at least two-thirds of the ballots returned shall be necessary for its enactment.

**Section 2.** As an alternative to the procedure outlined in Section 1 above, 10 members of the Committee may submit a petition to the Ad Com of the NPSS. If approved by the NPSS Ad Com and after notification of the NMISC, the proposed amendment shall be submitted to the membership by mail ballot as described above.

**Section 3.** Committee Bylaws, and amendments thereto, may be adopted by two-thirds vote of the NMISC, provided that notice of the proposed Bylaw or amendment has been sent to each member of the NMISC at least a week prior to such meeting. Alternatively, a Committee Bylaw or amendment may be adopted by a two-thirds mail vote of the members of the NMISC, provided a 30-day period is provided for such responses. In either event, the proposed Bylaw or amendment shall be publicized in the NPSS TNS or TMI, and/or the NPSS Newsletter. No Bylaw or amendment shall take effect until it has been approved by the Ad Com of the NPSS.

## ARTICLE VIII – REVISION

**Section 1.** The Chairperson of the NMISC shall appoint a five-person sub-committee no later than January 1, 2007, and every five years hence to evaluate the effectiveness of this Constitution and Bylaws, to study the rules of governance required by the activities of the Committee at that time, and to consider writing a new Constitution and Bylaws appropriate to the existing and anticipated needs of the NMISC.

## BYLAWS

**1. NMISC:** Article IV of the Constitution provides that the NMISC shall consist of a number of elected members-at-large plus certain ex-officio members. The ex-officio members of the NMISC shall be (unless they are already elected members-at-large), the Chairpersons of the Functional Sub-Committees, the Chairperson of the Radiation Instrumentation Technical Committee, the Secretary, the Editors and Associate Editors of the IEEE TNS and other publications as deemed appropriate by the NMISC and such other ex-officio members as are provided for in the Constitution and Bylaws of the NPSS.

1.1 The voting members of the NMISC shall be the elected members-at-large, the Chairperson, Vice-Chairperson, and Most Recent Past Chairperson.

1.2 The NMISC shall meet at least once per year, upon dates determined by the Chairperson at least three weeks in advance of the meeting. Additional meetings may be called at the discretion of the chairperson or upon request of at least eight voting members of the NMISC with at least three weeks notice.

1.3 The last regularly scheduled meeting in the calendar year shall be considered the Annual Meeting of the NMISC.

1.4 The Annual Meeting of the NMISC will be open to all Committee members.

**2. Nomination and Election of NMISC Members:** Articles IV & V of the Constitution specify the number of NMISC members-at-large, as well as the term length and restrictions. One third of the NMISC members-at-large posts are to be filled each year by election of the general membership of the Committee.

2.1 The Chairperson of the NMISC is responsible for ensuring that at least one nomination is made for each vacant post. Nominations may be made by any member of the NMISC or any member in good standing of the Committee. Self nominations are allowed.

2.2 The Individual making a nomination must determine in advance that the nominee is willing to serve if elected.

2.3 If there are more nominations than posts to be filled, those nominees receiving the highest number of votes will be elected to the vacant posts.

2.4 The Chairperson of the NMISC shall assure, before April 1, that a call for nominations is conveyed to the whole membership. Additional nominations may be submitted to the nominating committee by July 1 by members of the Committee or by members of the NMISC. Such nominations must include an expression by the nominee of willingness to serve if elected.

2.5 All nominees must be either members in any grade of IEEE and of the Nuclear Medical and Imaging Science Technical Committee or must have submitted applications for membership at the time the nominations are forwarded to IEEE Headquarters.

2.6 The Secretary shall annually arrange for the distribution to the members of the Committee on or about July 31, a ballot to elect the candidates to fill vacancies on the NMISC. The ballot shall be accompanied by a short biographical sketch of each nominee with an indication of their Nuclear Medical and Imaging Science activities and former or present IEEE activities.

2.7 Sixty days after distribution of the ballots, the IEEE Headquarters shall count and tabulate the votes received and report the results to the NMISC.

2.8 The NMISC shall submit to the Secretary of the NPSS Ad Com the names of the candidates with the largest number of votes to fill the designated vacancies.

**3. Functional Committees:** The Chairperson of the Committee, in concurrence with the NMISC, shall appoint the Chairpersons of the following Functional Sub-Committees:

- A Fellows and Awards Sub-Committee.
- Other Sub-Committees as shall be required for the operation of the Committee.

3.1 The term of office of a Chairperson of a Functional Sub-Committee shall be one year, but a Functional Sub-Committee Chairperson may be re-appointed to the same position.

3.2 The Chairpersons of Functional Sub-Committees must be members of the NMISC.

3.3 The membership of the Functional Sub-Committees shall be appointed by the Chairperson of that Functional Sub-Committee. The membership and activities of the Functional Sub-Committees should be publicized to the membership of the Committee via the NPSS Newsletter, and suggestions for Sub-Committee membership should be invited from Committee members.

3.4 Each of the Functional Sub-Committees shall submit a written report of its activities to the NMISC prior to or at the Annual Meeting.

3.5 The Nuclear Science Symposium and Medical Imaging Conference Oversight Subcommittee shall be a Joint Subcommittee of the RISC and NMISC. Its Chairperson shall be appointed by a Joint Executive Subcommittee of the RISC and NMISC consisting of the current Chairpersons, the Most Recent Past Chairpersons, and Vice Chairpersons of the RISC and NMISC. The Chairperson of the Oversight Subcommittee must be a member of either the RITC or the NMISTC. The Chairperson of the Oversight Subcommittee shall appoint the committee's membership, subject to the approval of the Joint Executive Subcommittee. The charge of the Oversight Subcommittee shall be to provide for the continuation and long term planning of the NSS/MIC conference, including the selection of the sites and General Chairpersons of future conferences. The General Chair of a given year's conference shall, in consultation with the Oversight Subcommittee, the RISC and the NMISC, also select the NSS Program Chair and MIC Program Chair for that year's conference. The term of office of the Chairperson of the Oversight Subcommittee shall be one year, but the Chairperson may be re-appointed to the same position.

**4. Ballots:** All ballots, whether for purposes of election or changes in the Constitution, shall be issued to the voting members by the Secretary pursuant to action by the NMISC. No ballot shall be counted unless unambiguously marked by a qualified voter to indicate their choice, and sent in a sealed envelope bearing the voter's name on or before the specified deadline date. This specified deadline date shall be at least thirty days subsequent to the date of the mailing of the ballots. The distribution and counting of the ballots shall be entrusted to IEEE Headquarters. The IEEE Headquarters will report the results of the election to the Secretary of NMISC, in turn, shall report the results to the NMISC.

**5. Beginning of Terms of Office:** All terms of office of elected Members-at-Large of the NMISC shall begin January 1 of the year immediately following their election.

**6. Election of the Vice-Chairperson of NMISC:** The Vice-Chairperson of NMISC shall be nominated and elected from among the eligible members-at-large of the NMISC. A minimum of one month before the annual meeting of the NMISC, the NMISC Secretary will notify all current NMISC members of the upcoming election and solicit nominations (self-nominations are allowed). The nominations will be closed two weeks before the annual meeting of the NMISC, and the Chairperson of the NMISC is responsible for ensuring that at least one nomination for Vice-Chairperson is received by this time. The Secretary of NMISC shall announce to all voting NMISC members-at-large the identities of the candidates at least one week before the annual meeting, and also inform them of the procedure for casting a ballot if they are unable to attend the NMISC annual meeting. The vote will occur during the annual meeting of the NMISC. If there is only one candidate, then that candidate will be elected at the Annual Meeting by those NMISC members in attendance. If there is more than one candidate, a secret

ballot will be taken during the annual meeting and the Chairperson shall designate tellers to immediately count the ballots. Voting NMISC members-at-large who are not attending the annual meeting of the NMISC may submit a ballot by notifying the NMISC Secretary of their choice. The results of the vote shall be announced and the nominee receiving a majority of votes cast shall be declared elected. In the event that no candidate receives a majority of votes cast, runoff elections shall be conducted by secret ballot at the Annual meeting of NMISC among the candidates receiving the two highest number of votes until one candidate receives a majority of the votes cast. For these runoff elections, only those NMISC members in attendance may cast a vote.

**7. Records:** The secretary shall maintain a permanent record of all non-routine motions passed by the NMISC, written minutes of the Annual Meeting of the NMISC, a roster of all NMISC members, and a membership roster of all NMISC sub-committees. The secretary must provide a tabulation of the most recent five years of motions and a copy of the NMISC constitution and bylaws to each newly elected member-at-large to the NMISC.

**8. Alternates:**

**8.1 Members-at-Large:** An elected Member-at-Large may designate any member in good standing of the NMISC to represent the Member-at-Large at the NMISC meeting. The representative shall have the privilege of the floor, but may not vote on any matters coming before the NMISC.

**8.2 AdCom Representation:** If the NMISC Chairperson is unable to represent the NMISC at the NPSS AdCom, the Chairperson may designate the Vice-Chairperson or the Most Recent Past Chairperson as his/her alternate. This alternate has the privilege of the floor and may vote on all matters coming before AdCom.

## NUCLEAR AND SPACE RADIATION EFFECTS NEWS Annual report from the Radiation Effects Committee – July 2009



**Daniel Fleetwood**  
*Chair, Radiation  
Effects Steering Group*

Dan Fleetwood serves as Chairman of the Radiation Effects Steering Group, which oversees the NSREC Conference.

The IEEE Radiation Effects Committee (REC) held its annual Open Meeting on July 23, 2009, at the Québec City Convention Center, Québec City, Québec, Canada, during the 2009 IEEE Nuclear and Space Radiation Effects Conference (NSREC). The meeting included reports from the chairmen of the 2008 through 2010 NSRECs.

An election was held during the Open Meeting for Junior Member-at-Large to the Radiation Effects Steering Group (RESG). The RESG welcomes Pascale Gouker, MIT Lincoln Lab, as its newly elected Junior Member-at-Large. Pascale joins Philippe Paillet, CEA, and Mike Xapsos,

NASA-GSFC, who are serving as Senior-Member-at-Large and Member-at-Large, respectively.

During the Open Meeting, Dan mentioned the General Chairs of the upcoming NSRECs: Joe Benedetto of Radiation Assured Devices, Kay Chesnut-Jobe, Boeing, Ken LaBel, NASA-GSFC, and Jeff Black, Vanderbilt University are the General Chairs of the 2010-2013 NSRECs, respectively.

Paul Dodd, Sandia National Labs, 2008 Conference General Chairman, recognized each member of his conference committee with an award plaque. Paul and his team organized an outstanding NSREC in Tucson, Arizona.

Mark Hopkins, Conference General Chair, summarized some statistics from the 2009 conference. A total of 504 people attended the

technical sessions, the short course, or both. In addition, we registered 58 for the exhibits, for a grand total of 562 attendees. The technical sessions were very strong, with 131 papers presented during the four-day conference (47 oral presentations, 54 posters, 30 data workshop) and six presentations during the short course.

Joe Benedetto, 2010 Conference General Chairman, announced that the Nuclear and Space Radiation Effects Conference will be held on July 19–23, 2010, at the Sheraton Denver Downtown, Denver, Colorado. The Technical Program Chairman will be Jeff Black, Vanderbilt University; Ron Lacoe from The Aerospace Corporation is organizing the tutorial Short Course. Once again, NSREC 2010 is planning a Poster Session (chaired by

Veronique Ferlet-Cravois, ESA), a Radiation Effects Data Workshop (chaired by Leif Scheick, JPL) and an Industrial Exhibit (chaired by Kirby Kruckmeyer, National Semiconductor). Hugh Barnaby, Arizona State University, is handling local arrangements and assembling the social program.

For the most current information on the Nuclear and Space Radiation Effects Conference, including information on paper submission, please visit [www.nsrec.com](http://www.nsrec.com).

*Dan Fleetwood, Chair of the Radiation Effects Steering Group, can be reached at Vanderbilt University, Department of Electrical Engineering and Computer Science, P.O. Box 92, Station B, Nashville, TN 37325; Phone +1 615 322 2771; Fax: +1 215 343 6702; E-mail: Dan.Fleetwood@vanderbilt.edu.*



**Teresa Farris**  
*Vice Chairperson,  
Publicity*

## FUNCTIONAL COMMITTEES

### AWARDS COMMITTEE NPSS Society Awards Nominations are Due January 31, 2010

January 31, which is the submission deadline for the NPSS Society level awards, is almost upon us. This is an excellent opportunity to recognize the contributions of a mentor, a colleague, or a student by nominating them for one of these prestigious awards—surely you know somebody who deserves one! These NPSS Society level awards are given annually and all NPSS members are eligible for them. The awards are the Merit Award (\$5000), which is for scientific and technical achievement; the Early Achievement Award (\$3000), which is for scientific and technical achievement within the first decade of the career; the Richard F. Shea Award (\$5000), which is for service to the NPSS, and four Graduate Scholarship Awards (\$750 each).

Nominations for all of these are due on January 31, and the decisions will be announced in March. This is the second year that the nominations have been due this early in the year. This allows the awards committee to make their selections in time to present the awards during the appropriate 2010 NPSS conference.

There are also a larger number of Technical Committee Awards given each year. Nominations for these are generally due later in the year (typically in the spring), and the next Newsletter article will feature them.

*More information on these and other relevant Awards, including submission information and tips for writing a successful award nomination, is available at <http://ewh.ieee.org/soc/nps/awards.htm>.*



**Bill Moses**  
*Chair, Awards  
Committee*

**Damn the torpedoes**  
**In the snail-mail age people who couldn't read or write, didn't. In the e-mail age they don't allow such details to stand in their way.**

*George Jonas*

## IEEE CURIE AWARD

### Nominations are Due January 31, 2010

The IEEE recently approved the *IEEE Marie Skłodowska-Curie Award*, which is an annual IEEE Technical Field Award (TFA) that recognizes outstanding contributions to the field of Nuclear and Plasma Sciences and Engineering. This is one of the highest awards in the IEEE hierarchy, and the recipient will receive a US\$10,000 honorarium, a bronze medal, and a certificate. In the event that a team or multiple recipients are selected, each recipient will receive a bronze medal and a certificate, but the honorarium will be divided equally. The "Curie Award" is an IEEE award, i.e., an Institute level award, and so is not restricted to NPSS members.

The areas of technology that would be eligible for recognition of this award are those associated with nuclear and plasma sciences and engineering. This covers a fairly broad scope of activities, but the unifying themes are ionizing radiation and ionized gases, especially their behavior, measurement and effects. Specific areas



include, but are not limited to, radiation instrumentation, radiation effects, nuclear medical imaging, plasma science, pulsed power, particle accelerators, controlled nuclear fusion and computer applications.

Given the prestige associated with an award of this level, competition is likely to be strong, but there are obviously many people within the NPSS who are well qualified and would be excellent candidates. Please think about enabling a colleague or a mentor to receive the recognition that they deserve by nominating them for this major award.

Nominations are due January 31. Information and a nomination form can be found at: <http://www.ieee.org/portal/pages/about/awards/sums/curietfa.html>.

*Bill Moses, chair of the NPSS Awards Committee, can be reached at the Lawrence Berkeley National Laboratory, MS 55-121, One Cyclotron Road, Berkeley, CA 94720; Phone: +1 510 486 4432; Fax: +1 510 486 4768; E-mail: [wwmoses@lbl.gov](mailto:wwmoses@lbl.gov).*

## SOCIETY AWARDS

### RADIATION EFFECTS

#### Nick van Vronno receives the 2009 NSREC Radiation Effects Award



**Nick van Vronno**  
Director

**M**r. van Vronno received his Bachelor of Science degree in electrical engineering from the University of Florida in 1966. He joined Harris Semiconductor as a reliability engineer, device engineer and supervisor and in 1982 was promoted to Director, Analog Product Development. In 1994, Mr. van Vronno was promoted to Senior Scientist, with responsibilities in radiation effects in electronics, technology development and advanced projects. In the 1996-1997 timeframe, he led the development of an innovative direct fingerprint sensor using RF field technology. This project culminated in the successful spinoff of Authentec, Incorporated from Harris Semiconductor. Mr. Van Vronno retired from Intersil Corporation as an Intersil Fellow.

Mr. van Vronno has participated in a wide range of professional activities including IEEE and in-

ternational conference functions. He has been an active participant in the IEEE Nuclear and Space Radiation Effects Conference (NSREC), serving as Poster Session Chair (1988), Guest Editor (1990, 1991, and 1992), Session Chair (1993), Awards Chair (1994), Short Course speaker (1995), Short Course Chair (1997), Local Arrangements Chair (2006), and Technical Program Chairman (2008). He served on the Radiation Effects Steering Group as Member at Large (1998-2001), and Vice Chair for Publications (2001-2004). He has also served as a reviewer and session chairman for the European Conference on Radiation and its Effects on Components and Systems (RADECS) and the Hardened Electronics and Radiation Technology (HEART) conference and will be Chairman, Data Workshop for RADECS-2010. Mr. van Vronno holds 16 United

States patents in the areas of silicon processing, optics, packaging and biometric sensing. He has over thirty publications and conference presentations and is a Senior Member of IEEE.

His citation reads: For contributions to the design, development, and manufacture of radiation-hardened integrated circuits that have been used in critical space and defense systems.

## PHELPS AWARDS

### Phelps Grant awarded to student members from Radiation Effects community

The 2009 Paul Phelps Continuing Education Grant was awarded to two student members from the radiation effects community. At the opening of the NSREC technical sessions (July 2009), Tim Oldham, Chairman of the Radiation Effects Steering Group, presented both students with the grant. The grant included tuition for the 2009 NSREC Short Course and a check for \$500.

The purpose of the Phelps' Grant is to promote continuing education and encourage membership in the Nuclear and Plasma Sciences Society (NPSS).

The basis for judging is exceptional promise as a graduate student working in the fields of the NPSS, "exceptionally good work" in those fields, and an expectation that attendance at an NPSS-sponsored short course will result in an improved possibility of obtaining a job within the radiation effects community.

On behalf of the NPSS, we are proud to announce that the two recipients for the 2009 Paul Phelps Continuing Education Grant are Marta Bagatin, University of Padova and Michael McLain, Arizona State University.

Marta Bagatin received the Laurea degree (*cum laude*) in Electronic Engineering from the University of Padova, Italy, in 2006. Since January, 2007, she is following the Ph.D. School in Information Science and Technology at the Department of Information Engineering, University of Padova. Her research interests concern radiation

and reliability effects on electronic devices, especially on volatile and nonvolatile semiconductor memories. In particular, she is studying radiation effects, both TID and SEE, on Flash memories, analyzing the susceptibility of all the functional blocks in the device. Besides, concerning SRAM, she's interested in how aspects like temperature and aging can affect the soft error sensitivity of the memory cell, through radiation tests, analytical modeling, and simulations.

The results of her work were recognized with the Outstanding Student Paper Award at NSREC 2008 and the Best Student Presentation Award at RADECS 2008.

Michael McLain graduated with a B.S. degree in Electrical Engineering and a minor in Mathematics from the University of Arizona in 2004 and with an M.S. degree in Electrical Engineering from Arizona State University in 2006. He is currently pursuing a Ph.D. in Electrical Engineering at Arizona State University under the guidance of Dr. Hugh Barnaby. His research interests include semiconductor device physics, hostile environment effects (i.e. radiation and extreme temperature) on electronics, and radiation-aware compact modeling. Michael has authored/co-authored over ten refereed conference and journal papers. He is also a member of the Tau Beta Pi and Eta Kappa Nu engineering honor societies, and is a former recipient of the ARCS scholar award and Fulton Fellowship.

## IEEE FELLOW NOMINATIONS ARE DUE BY MARCH 1, 2010

I encourage you to nominate a deserving colleague for IEEE Fellow and begin the job of preparing the application and lining up references now. It's not too early. Each year, deserving nominations just make the deadline, while others fall short by only a few days. Nominating forms, detailed instructions, and frequently asked questions can be found at the IEEE Fellow Program Web Site at [www.ieee.org/fellows](http://www.ieee.org/fellows).

To be nominated, the nominee must meet the following three basic qualifications: hold IEEE Life Senior Member or IEEE Senior Member grade at the time the nomination is submitted; be a member in good standing (that is, dues must be current); and must have completed five years of service in any grade of IEEE membership. Note and this is very important – IEEE affiliate membership within an IEEE society does not qualify! I'm often shocked



**Marta Bagatin**



**Michael McLain**



**Peter Winokur**  
*Chair, Fellow  
Evaluation Committee*

to learn that folks who have made significant contributions to our Society aren't even Senior Members. It only takes a few minutes to prepare an application to be a Senior Member and it is web based.

A nomination must be supported by at least five, but no more than eight references from active IEEE Fellows or IEEE Life Fellows. References will be accepted if a reference is an IEEE Life Senior Member or IEEE Senior Member from Region 9 in good standing and the nominee they are serving as a reference for resides in Region 9. The biggest stumbling point for nominations is getting five references. If possible, nominators should list eight references. That way, if one or two references can't meet the deadline, the nomination still has the required five references. A list of IEEE Fellows can be found at the IEEE Fellow Program Web Site. NPSS has elevated many fellows over the years, so it shouldn't be difficult to identify a strong list of references. I suggest that nominators contact the Chairs of NPSS's Technical Committees for assistance. They can be found on the NPSS website at <http://www.ewh.ieee.org/soc/nps/adcomOfficers.html>.

The Fellow process at IEEE is now fully electronic. For the last five years, The Electronic Fellow Nomination Process (EFNP) has been available to nominators, references, and endorsers. In 2009, the IEEE NPSS Fellow Evaluation Committee (FEC) will receive all nominations referred to NPSS in electronic format. The NPSS FEC will review, score, and rank these nominations online. This will clearly expedite the committee's work. The NPSS FEC expects access to nominations by April 15 and must provide its feedback to IEEE by June 15.

The IEEE Board of Directors recently approved changes to the process for nominating and elevating IEEE members to Fellow Grade. *The goal of these changes is to increase the number of nominations received for members from industry and to make the process more receptive to nominations received for application engineers or engineering practitioners who have made contributions of unusual distinction to the profession.* Specifically the changes established a

new nomination category for individual contributions, "Application Engineer/Practitioner." This category recognizes significant contributions in "product development, advancement in system, application or operation, project management or construction activity, process development, manufacturing innovation, codes or standards development, or other application of technology." In the last two years, NPSS has successfully elevated several members in this category.

Also, the existing designation; "Engineer/Scientist" was changed to, "Research Engineer/Scientist." The other existing categories, "Educator" and "Technical Leader" remain the same. So, the IEEE now recognizes contributions in four distinct categories.

This year the NPSS FEC added three members from the international community. They are Professor Paul Chu from the City University of Hong Kong, Erik Heijne from CERN in Switzerland, and Jean-Luc Leray from CEA in France. Welcome aboard! We have also added Dr. Jane Lehr from Sandia National Laboratories. Rounding out the team is Ron Huesman, Stan Schriber, Jim Schwank, and Peter Turchi. We wish to thank Victor Granatstein for his many outstanding years of service to the NPSS FEC.

On behalf of the NPSS Fellows Evaluation Committee, I urge you to consider making an IEEE Fellow nomination next year. March 1, 2010 will be here sooner than you think. Being elevated an IEEE Fellow is a very special and noteworthy milestone in anyone's career.

As always, this is an extremely competitive process – only 0.1% of the total voting IEEE membership can be elevated to the grade of Fellow each year. It's always challenging to review these nominations. I hope you can make our job even more difficult by increasing the number of nominations in 2010.

*Peter S. Winokur, Chair, NPSS Fellow Evaluation Committee, can be reached at the Defense Nuclear Facilities Safety Board, Washington, DC; Phone: +1 202 694-7090; E-mail: p.winokur@ieee.org.*

## CHAPTERS

### FORMATION OF A NEW NPSS CHAPTER IN SEOUL, KOREA

**A** new NPSS Chapter in Seoul, Korea (NPSS Seoul Chapter) was officially approved on June 8, 2009 as a result of the long-standing efforts of Korean NPSS members to

establish a regional organization to promote academic exchange among members working in various areas of nuclear and plasma sciences. At its inaugural meeting held on July 3rd, Hee-Joung



**Hee-Joung Kim**  
*Chair, Seoul Chapter*

Kim (Yonsei Univ.) and Gyuseong Cho (KAIST) were elected as the founding Chair and Vice-Chair of the new chapter, respectively. Chapter members have joined from every region of Korea, even though the headquarters of the Chapter is located in Seoul.

One of the main purposes of the Chapter is to promote both national and international scientific activities in the fields of NPSS through the technical and financial sponsorship and endorsement of academic meetings held in Korea. For example, the Chapter will host annual joint symposia with the Korean Council of Nuclear Medicine Imaging and Instrumentation, which will be particularly useful for facilitating cooperation among members working in the fields of radiation detection, high energy physics and medical imaging. The next symposium will be held at the Samsung Medical Center, Seoul in January 2010, and will be hosted by Yong Choi (Sungkyunkwan Univ.).

Our Chapter is also currently making a bid to host the 2013 IEEE Nuclear Science Symposium and Medical Imaging Conference, which would be the first time this conference would be held in an Asian country. At the 2008 NSS/MIC meeting last October, before the Chapter was officially formed, a group from Korea submitted a proposal to the NSS/MIC Joint Oversight Committee proposing to host the 2013 NSS/MIC meeting in Seoul. This past August, several members of the Joint Oversight Subcommittee led by its Chair, Tom Lewellen, along with NPSS President Craig Woody, visited Korea to inspect the proposed venue, including the COEX Convention Center (the largest in Korea located on the biggest under-

ground shopping mall in Asia), as well as the infrastructure of Seoul to host this very important conference of the NPSS. If it is finally decided to hold the 2013 NSS/MIC conference in Korea, our Chapter members are willing to devote themselves to making this conference a great success based on their experience with previous successful meetings in Korea, including the World Congress on Medical Physics and Biomedical Engineering (WCMP-BE, 2006), the Congress of World Federation of Nuclear Medicine and Biology (WFNMB, 2006), and the International Conference on Inorganic Scintillators and their Application (SCINT, 2009). The Seoul Metropolitan Government and several central governmental organizations, including the Ministry of Culture, Sports and Tourism, as well as a number of leading universities, have also pledged their full support.

Finally, the active participation and contributions from our Korean members, as well as the strong support from NPSS, are anticipated for the great success of this newly established, but very promising Chapter. The other executive board members are:

Jae Sung Lee (General Secretary, Seoul National Univ.)

Kisung Lee (Financial Secretary, Korea Univ.)

Yong Hyun Chung (Scientific Secretary, Yonsei Univ.)

Hong Joo Kim (Auditor, Kyungpook National Univ.)

*Hee-Joung Kim, Chair of the NPSS Seoul Chapter, can be reached at the Department of Radiological Science, Yonsei University, Korea; E-mail: hjk1@yonsei.ac.kr.*



**Gyuseong Cho**  
Vice-Chair, Seoul  
Chapter

**Bound to be disappointed**  
The object of my wishes is not to live better, but to keep from dying.

*Denis Diderot*

## NUCLEAR & PLASMA SCIENCES SOCIETY (NPSS) CHAPTER IEEE TORONTO SECTION

IEEE NPSS is pleased to announce the launch of a new NPSS Chapter in Toronto, Ontario, Canada, where Dr. Hossam A. Gabbar has been appointed as (founding) chair. The NPSS chapter has the following organization:

### ORGANIZATION

*Chair:* Prof. Hossam A. Gabbar, UOIT

*Vice-Chair:* Francis Dawson, UofT

*Treasurer:* David Bot, Bot Engineering Ltd.

### WORKGROUP LEADERS

*Nuclear Science:* Open

*Plasma Power Supplies:* Francis Dawson, UofT

*Radiation:* Anthony Waker, UOIT

*Medical Imaging & Particle Accelerator:* Sylvain Houle, UofT

*Control & Safety:* Hossam A.Gabbar, UOIT

### MESSAGE FROM THE CHAIR

With the increasing interest in nuclear power and nuclear applications in social, medical,



**Hossam A. Gabbar**  
Chair, Toronto Section

**Constant product**  
**I prefer a short life with width to a narrow one with length.**

**Avicenna**



**Peter Clout**  
*Communications Committee Chair, Div. IV Director-elect*

and security, this NPSS Chapter will play a vital role to provide a healthy and dynamic forum for exchanging scientific and technological ideas that integrate all views of researchers, professionals, and students towards innovative design and applications in Ontario and Canada. This NPSS Chapter will be integrated with worldwide NPSS chapters to provide rich and informative channels in this field. We are welcoming new members from professionals, academia, and students to enrich our growing group within the IEEE Toronto

Section. For more information about NPSS, please visit the web site: <http://ewh.ieee.org/soc/nps/index.htm>.

*Hossam A.Gabbar, Chair of NPSS Chapter, IEEE Toronto Section, can be reached at Director of Energy Safety & Control Lab, Faculty of Energy Systems and Nuclear Science, University of Ontario Institute of Technology, UOIT, 2000 Simcoe Street North Oshawa, ON L1H 7K4; Phone: +1 905 721 8668, ext. 3757; Cell: +1 647 500 8574; Fax: +1 905 721 3046; E-mail: hossam.gabbar@uoit.ca.*

## COMMUNICATIONS

**R**unning excellent meetings is not the complete job. The meetings and the community they support are missing something if everyone is not aware of all the opportunities to meet and interact. Publicity ensures that the greatest benefit is derived from all the opportunities that we create.

The communications committee provides some of the tools to help all the NPSS volunteers to better serve their communities. In April over two tons of brochures and leaflets were delivered to my office for distribution to meetings this year and next. This year we have shipped materials to eleven conferences and the booth to most of them – happily we

can relax a little next year as we have fewer meetings! Scott Fisher in my office has to be thanked for doing the brunt of the shipping. In addition we arrange for IEEE corporate information to be sent to conferences directly from IEEE and any member can request this material by going to <http://ewh.ieee.org/forms/md/supplies.php> - however, a web account is required.

In addition to shipping to conferences, brochures are mailed to NPSS members and IEEE members with an interest profile overlay in time to arrive for the membership renewal cycle. These mailings included a letter from our President, Craig Woody.

### New NPSS Web Site Up

*The old NPSS web site design has been in use for 8 years and so a new design was commissioned and has now been implemented. Please, if you have not already done so, take a look at our society's new web site at [www.ieee-npss.org](http://www.ieee-npss.org).*

*The NPSS web site is the place to go for current information on NPSS conferences, awards, technical committees, publications and general administration information. We hope that you like the new site and we are always ready to receive updates and comments on the information it contains as well as information for new pages. The site is for members and non-members alike and is the most public face of the NPSS to which anyone looking for information will come.*

*Dick Kouzes, Web Master and Peter Clout, Communications Chair*

The images of the new NPSS posters are on the web site so that you can, if you wish, download them and print them locally.

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tion it contains as well as information for new pages. The site is for members and nonmembers alike and is the most public face of the NPSS to which anyone looking for information will come.

If you can use brochures, leaflets, posters or other informational material at your meetings, place of work or other events, please contact me in time for us to ship what you need to you.

*Peter Clout, chair of the Communications Committee, can be reached at Vista Control Systems, Trinity Square, Los Alamos, NM, Phone: +1 505 662 2484; Fax: +1 662 3956; E-mail: clout@vista-control.com*

## Dangerous desire

If you ask me, the thing that disqualifies a person from office is that he or she wants it.

George Jonas

## FIRST RECEPTION HELD FOR GOLD MEMBERS Nuclear Science Symposium and Medical Imaging Conference Orlando, Florida

Over the last couple of months, the Nuclear and Plasma Sciences Society, (NPSS) has started activities in the framework of the special IEEE program for Graduates of the Last Decade (GOLD). At the Nuclear Science Symposium and Medical Imaging Conference, which was held in Orlando, Florida, at the end of October, a special reception was held for these members of NPSS. Attendance was free, but restricted to GOLD members and, in order to extend a special welcome to them and allow for networking right away, to conference attendees that had joined IEEE and/or the Nuclear and Plasma Sciences Society at this meeting.

The large ballroom, where the reception took place, was arranged in a way that established a comfortable, casual atmosphere from the very beginning, encouraging personal contact among the attendees. As they entered the ballroom, everybody was welcomed by the GOLD committee chair and invited to take some refreshments. Five speakers who have well-established bright careers in academia, government research labs and industry were invited to give brief summaries of what they have done to get where they are today. When the first speaker, William Moses from Lawrence Berkeley National Lab, started to talk, all attendees intuitively formed a loose circle around the small table where the refreshments were served. This part was intended

to be really short, 30 minutes for the five speeches altogether, since emphasis was intended to be on peer group discussions and contact-making between GOLD members and the leading professionals who were invited, including several IEEE fellows. In this sense, "individual career advice in a casual atmosphere" could be put as the Leitmotiv over the event, which was attended by about 50 people.

Quite a range of successful career planning activities were covered by the following speakers who came from various institutions, such as Brookhaven National Lab where Craig Woody, NPSS president and second speaker at the GOLD reception, works. Ingrid Gregor from Deutsches Elektronen-Synchrotron (DESY) and Hartmut Hillemanns, who now works in the knowledge and technology transfer group of the European Organization for Nuclear Research (CERN), after having gained experience in industry, gave further examples of what a successful career in engineering or science might look like.

When the reception closed after some two hours, Wei Hu, a Ph.D. student at the School of Medicine of Sun Kyun Kwan University, Korea, said: "I really enjoyed the short talks given by professionals. The talk I liked most was the one given by Charles Watson from Siemens Medical Solutions. He is working in a field I have always been excited about, and



**Christoph Ilgner**  
*GOLD Chair*

**That's the law**  
**Rules are like**  
**vestal virgins;**  
**unless they are**  
**violated, there**  
**can be no issue.**

*Johann Georg  
Hamann*



**Uwe Bratzler**  
*General Chair*



**Vernon Price**



**Scott Fisher**

where I would like to work after having completed my Ph.D. Dr. Watson could give me some valuable hints on how to get closer to my goal; he now is my first personal contact to that company."

Wei Hu could not have summarized better what the GOLD reception was about. Given its substantial success, similar events will be organized at future conferences held under the aus-

pices of the Nuclear and Plasma Sciences Society, with the overall goal being the benefit to our young GOLD members.

*Christoph Ilgner, GOLD committee chair, can be reached at Technische Universität Dortmund, Experimentelle Physik 5, 44221 Dortmund, Germany; Phone:+41-22-76-72969; Fax: +41-22-76-79080; E-mail:Christoph.Ilgner@cern.ch.*

## **MEMBERSHIP DEVELOPMENT: WELCOME NEW MEMBERS!**

### **Nuclear Science Symposium and Medical Imaging Conference Orlando, Florida**

Welcome to our IEEE NPS Society! There are many activities in which you might participate, or about which you might like to obtain more information. Please feel free and be encouraged to contact any of us, at any time, for that! Once again: Welcome, and we look forward to working together with you to serve our worldwide science and engineering community in the fields covered by NPSS. Your feedback as new members is very much appreciated by us in helping us to best include you!

#### **MEMBERSHIP DEVELOPMENT WEBSITE**

A new website has been set up for both the Membership Development (MD) committee and recruiters and for all new NPSS members:

<http://www.ieee-npss.org>

- “Joining NPSS”
- “Recruitment/New NPSS Members”

Please visit it frequently and, new members especially: be encouraged to also use it as a means of getting in touch with “your” recruiter, and with all of us at any time you wish, for any information you may need or feedback you would like to share with us. Especially, if you would like to get more involved in our Society’s activities such as, for example, with conference organizing, preparation or promotion, helping with Membership Development or in any other activities in which you see Society members engaged that might also appeal to you, contact us.

#### **CHANGES IN THE MEMBERSHIP DEVELOPMENT WORK**

During 2009, Membership Development (MD), consisting of the MD Committee and an international team of recruiters, was enlarged to include people from several IEEE regions. Excellent results have resulted from this change. The Committee now consists of the following members (in alphabetical order):

#### **MEMBERSHIP DEVELOPMENT COMMITTEE**

Uwe Bratzler (MD Chair)  
Peter Clout and Scott Fisher (Officers – MD Materials and Shipments)  
Christoph Ilgner (Immediate past MD Chair)  
Vernon Price (Officer – MD Contact to IEEE HQ and to NPSS Treasurer)

#### **INTERNATIONAL TEAM OF RECRUITERS (2009, IN ALPHABETICAL ORDER):**

Uwe Bratzler (Germany, CERN and Tokyo, Japan)  
Dennis Brown (USA)  
Filimon Roukoutakis (CERN and Athens, Greece)  
Christoph Ilgner (CERN and Dortmund, Germany)  
Dan Jobe (USA)  
Albe Larsen (USA)  
Patrick Le Dû (France)  
Jean-Luc Leray (France)



**PAC09 - New Recruits**



**SOFÉ and ICOPS Chairs and Recruiting Team**

Vernon Price (USA)  
Forest White (USA)  
Jie Wu (Germany and China)

#### COMMITTEE FUNCTION

The purpose of the MD team (committee and recruiters) is to provide a service in recruiting new members to the Nuclear and Plasma Sciences Society and the IEEE. By design, the venues for this recruitment effort are at the conferences and symposia organized or technically co-sponsored by NPSS.

Foremost in carrying out this assignment, is the help provided by the NPSS Communication Committee chaired by Peter Clout. Some

years ago that committee created a portable booth for use at the conferences held in the US and Canada, and a separate portable booth for use in Region 8. Peter Clout's team, including Scott Fisher, arranges for shipment of the booth for arrival at the conference venue a few days prior to the start. A collection of updated brochures arrives with the booth along with other materials such as spare copies of journals, NPSS newsletters, etc., to attract interested conference attendees. Furthermore, NPSS-branded IEEE membership forms are provided for use by membership candidates. Also supplied are special tags that can be attached to the recruit's name badge, advertising their new membership

**And they don't even rhyme**  
In science, you want to say something nobody knew before, in words that everyone can understand.  
In poetry, you are bound to say something that everybody already knows in words that nobody can understand.

*Paul Dirac*

**Ephemera**  
**...scandal had  
 the same shelf  
 life as fresh fish:  
 by the third day  
 both were  
 worthless; one  
 because it had  
 begun to stink,  
 the other  
 because it no  
 longer did.**

*Donna Leon*

to others in the conference. Peter also supplies the booth with a flash drive containing a succinct PowerPoint message advertising the IEEE and NPSS. This message is offered to the conference organizing staff to show between sessions, alerting attendees to the membership possibilities.

At the beginning of the year, Vernon Price applies to IEEE Headquarters for ‘campaign codes’ to be assigned to those recruited at each of the scheduled conferences. These codes (one per conference) permit regular recruits (nonstudent recruits) to have an introductory prepaid society (i.e., NPSS) added to the membership application.

The next issue is the prior assignment of people to man the operation once a conference is underway and to set the booth up ready to respond to those who desire to join. This year, several new people have been involved in this activity. The table shows how these assignments have been made this year.

Subsequent to each of the above conferences, the application forms are forwarded to Vernon Price for quality control, completion of the payment side of the form, tabulating the results and then requesting IEEE to accept the forms with their campaign codes for admission into IEEE. In parallel, Ed Lampo, the NPSS treasurer is notified of the event and he then proceeds to authorize payments required for the applications. When done, each applicant receives not only a package with an IEEE ID card but also a welcoming letter from Craig Woody the NPSS president.

This year, we had Membership Recruitment Booths at eight conferences, resulting in an all-time record of about 600 new NPSS members. The total membership increase from 2008 to 2009 is over 14%, the second-highest of all IEEE Societies this year. However, much more

Recruiter(s)	New Members Recruited
Particle Accelerator Conference	Vancouver Canada
Uwe Bratzler, Jie Wu	249 Recruits
Real-time Conference	Beijing China
Albe Larsen	42 Recruits
International Conference on Plasma Science	San Diego, California
Dan Jobe, F. Roukoutakis	78 Recruits
Symposium on Fusion Engineering	San Diego, California
Dan Jobe, F. Roukoutakis	43 Recruits
Pulsed Power Conference	Washington, D.C.
Dan Jobe, Forest White	106 Recruits
Advancements in Nuclear Instrument Measurement Methods and Applications	Marseille, France
Christoph Ilgner, Patrick Le Du	16 Recruits
Nuclear and Space Radiation Conference	Quebec City, Canada
Dennis Brown	26 Recruits
RADECS	Bruges, Belgium
Jean-Luc Leray	Results pending
Nuclear Science Symposium/Medical Imaging Conference	Orlando, Florida
Uwe Bratzler and Vernon Price	~200 recruits

important than ‘our own successes’ are the new NPSS members, our new colleagues, whom we cordially welcome to our Society.

*With our very best regards, and best wishes for 2010, Uwe Bratzler, Uwe.Bratzler@cern.ch, Peter Clout, clout@vista-control.com, and Vernon Price, V.Price@IEEE.org*

# JOIN the Nuclear & Plasma Sciences Society

*People working together utilizing science,  
expanding the industry, furthering careers*



## ADVANTAGES OF MEMBERSHIP

### STAY ABREAST OF THE LEADING EDGE DEVELOPMENTS IN YOUR FIELD

- IEEE Publications at significantly reduced member rates
  - IEEE Transactions on Plasma Science–TPS*
  - IEEE Transactions on Nuclear Science–TNS*
  - IEEE Transactions on Medical Imaging–TMI*
  - IEEE Sensors Journal SJ*
- NPSS conferences and professional development courses
- NPSS and IEEE local meetings
- NPSS Newsletter
- Free Internet access to TPS, TNS and NPSS Conference Proceedings
- NPSS technical committee or conference committee volunteer opportunities
- Discounted conference and short course fees
- Special student rates for undergraduate and graduate students

## TECHNICAL COMMITTEES

Computer Applications in Nuclear and Plasma Science  
Fusion Technology  
Nuclear Instruments and Detectors  
Nuclear Medical and Imaging Sciences  
Particle Accelerator Science and Technology  
Plasma Science and Applications  
Pulsed Power Science and Technology  
Radiation Effects  
Radiation Instrumentation

## CONFERENCES

### ANNUAL

Nuclear and Space Radiation Effects Conference–NSREC  
International Conference on Plasma Science–ICOPS  
Nuclear Science Symposium–NSS  
Medical Imaging Conference–MIC

### BIENNIAL

European Conference on Radiation and its Effects on Components and Systems–RADECS  
Pulsed Power Conference–PPC  
Particle Accelerator Conference–PAC  
Real Time Conference–RTC  
Symposium on Fusion Engineering–SFE  
International Conference on Accelerator and Large Experimental Physics Control Systems–ICALEPCS  
International Conference on High Power Particle Beams–BEAMS  
Megagauss Conference

[www.ieee-npss.org](http://www.ieee-npss.org)

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**2009 Nuclear and Plasma Sciences Society**

**Administrative Committee**

President	Craig Woody
Vice President	Robert E. Reinovsky
Secretary	Alberta M. Dawson Larsen
Treasurer	Edward J. Lampo
Most Recent Past President	Jane M. Lehr
Division IV Director	Roger W. Sudbury

**Elected Administrative Committee Members**

Terms ending 2009: Daniel M. Fleetwood (RE), Anthony Peratt (PSA), Robert E. Reinovsky (PPST), Stefan Ritt (CANPS), Craig L. Woody (RI).

Terms ending 2010: Sandra Biedron (PAST), Eric Frey (NMIS), James Schwank (RE), Rick Van Berg (RI)

Terms ending 2011: David Abe (PSA), Janet L. Barth (RE), Dillon McDaniel (PPST), Hutch Neilson (FE)

Terms Ending 2012: Steven H. Gold (PSAC), Jean-Luc Leray (Transnational), Tom K. Lewellen (NMIS)

**Technical Committee Chairs**

Computer Applications in Nuclear and Plasma Science (CANPS); Jean-Pierre Martin; Radiation Instrumentation (RI); Chuck Melcher; Fusion Technology (FT); Mark Tillack; Nuclear Medical and Imaging Sciences (NMIS); Charles C. Watson; Particle Accelerator Science and Technology (PAST); Stan Schriber; Plasma Science and Applications (PSA); John W. Luginsland; Pulsed Power Science and Technology (PPST); Edl Schamiloglu; Radiation Effects (RE); Timothy R. Oldham.

**Functional Committee Chairs**

Awards: William W. Moses; Chapters and Local Activities Chair; Distinguished Lecturers Coordinator: Steven H. Gold; Communications: Peter N. Clout; Fellow Candidate Evaluation: Peter S. Winokur; Finance: Harold Flescher; Conference Policy: William W. Moses; Membership: Uwe Bratzler; Nominations: Jane M. Lehr; Publications: Paul V. Dressendorfer; Standards: Ronald M. Keyser; Transnational: Jean-Luc Leray; GOLD Members: Christoph Ilgner.

**Publications**

Publications Committee Chair: Paul V. Dressendorfer; Editor, IEEE Transactions on Nuclear Science: Paul V. Dressendorfer; Editor, IEEE Transactions on Plasma Science: Steven J. Gitomer; Editor, IEEE Transactions on Medical Imaging: Milan Sonka; Senior Editors, Transactions on Nuclear Science: Zane Bell, Christoph Ilgner, Joel Karp, Sascha Schmeling, Jim Schwank, Richard Williams; Editor, Newsletter: Albe Dawson Larsen; Editor Emeritus: W. Kenneth Dawson.

**Liaison Representatives on other IEEE Committees**

Coalition for Plasma Science: Gerald L. Rogoff; Energy Policy: Charles Neumeyer; R&D Policy: Sandra G. Biedron; RADECS Liaisons: Harold Flescher and Ronald Schrimpf; Sensors Council: Anthony D. Lavietes; Social Implications of Technology: Raymond S. Larsen; Standards: Michael Unterweger; TMI: A. Bertrand Brill and Ronald J. Jaszcak. Medical: A. Bertrand Brill, International Conferences: Patrick Le Dù; IEEE Women In Science: Allan H. Johnston; IEEE Humanitarian Challenge: Raymond S. Larsen.