

# The IEEE Nuclear and Plasma Science Society is there...

## Investigating the fundamental nature of matter

The community of physicists and engineers represented by the Particle Accelerator Conference and the NPSS Particle Accelerator Science and Technology Committee provide the beams of particles that the nuclear and high-energy physics experimenters need for their research. Attendees of the Nuclear Science Symposium, organized by the NPSS Radiation Instrumentation Committee, develop the detectors that are used to detect and characterize the particles resulting from the interactions, providing data for nuclear and high-energy physicists to analyze.

## Probing the universe and exploiting space

The extreme reliability required of electronics in a high radiation environment is the reason for the Nuclear and Space Radiation Effects Conference organized by the NPSS Radiation Effects Committee and the European Conference on Radiation and its Effects on Components and Systems. In addition, the Nuclear Science Symposium has astrophysics detector sessions.

## Developing energy sources and the efficient use of energy

No one can question the importance of a reliable and low-cost energy supply. The Symposium on Fusion Engineering and the NPSS Fusion Technology Committee are devoted to the development of Fusion Power. The International Conference on Plasma Science and the NPSS Plasma Science and Applications Committee are devoted to all aspects of plasmas including efficient lighting, material processing and many other application. Power sources for many applications, including particle accelerators, fusion, plasma, and hydrodynamic systems are the focus of the Pulsed Power Conference and the NPSS Pulsed Power Science and Technology Committee.

## Health care

The Medical Imaging Conference, organized by the NPSS Nuclear Medical and Imaging Sciences Committee, provides a forum for the presentation of new concepts and developments in nuclear medical imaging technology. This has significantly enhanced medical diagnosis. The technology has evolved into health care systems using positron emission tomography (PET), single photon emission computed tomography (SPECT), X-ray computed tomography (CT), mammography, and digital radiography

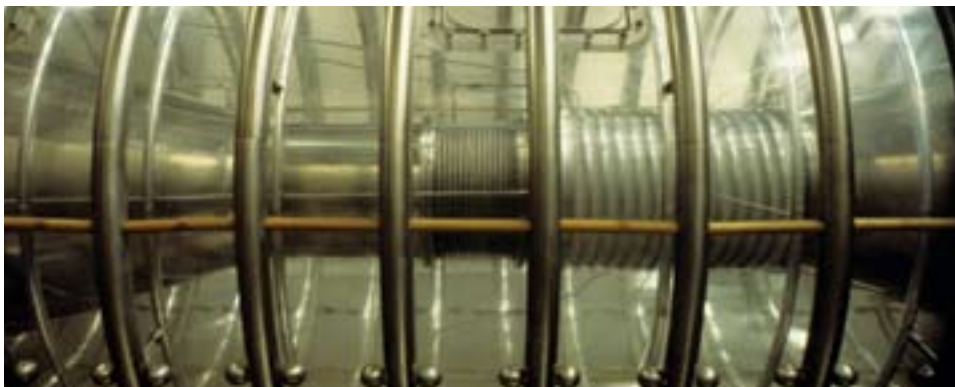
systems, all of which are based on radiation detection systems developed by the community of the NPSS Medical Imaging Conference. Cancer treatment with particle beams requires particle accelerators developed by the Particle Accelerator Conference community. The International Conference on Plasma Science also has sessions on medical and biological applications.

## Data handling and semiconductor development

New technologies in all these areas need the highest performance data capture and processing involving electronics and specialized computer hardware and software. The Real-Time Conference organized by the NPSS Computer Applications in Nuclear and Plasma Science Committee covers all these aspects as does the International Conference on Accelerator and Large Experimental Physics Control Systems. Plasmas are used in semiconductor processing and the work of the community of researchers represented by the Nuclear and Space Radiation Effects Conference add to the reliability of semiconductors for everyone; for example, by greatly reducing semiconductor memory errors.

## Join Us!

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



# IEEE and NPSS are International Organizations



## IEEE is

- The most prolific technical publisher worldwide.
- The largest technical/scientific professional organization.
- International with activities in all regions of the world and offices in US, Asia and Europe.
- The organizer of the greatest number of technical meetings with the highest aggregate attendance.
- The professional organization with the broadest technical scope, encompassing 39 Technical Societies.

## NPSS

- Is the IEEE Technical Society that covers the fields of Fusion Technology, Nuclear Medical and Imaging Sciences, Particle Accelerator Science and Technology, Pulsed Power Systems, Radiation Effects, Radiation Instrumentation, Plasma Science and Applications, and Computer Applications in Nuclear and Plasma Sciences.
- Organizes and supports many symposia, conferences and workshops each year.
- Publishes four Transactions (two in collaboration with other societies).
- Publishes a Newsletter that reaches all members three times a year.
- Presents awards each year to recognize major contributors to the field.
- Develops and maintains relevant IEEE standards.

## Benefits of joining

- Be a member of and help build an international technical community.
- Develop professional contacts and gain recognition.
- Access to publications through IEEE Xplore™ on-line.
- Keep informed via the NPSS Newsletter, worth more than the dues by itself!
- Support the growth of the profession.
- Get involved in the affairs of NPSS and help direct and further promote our profession.
- Make invaluable contacts.

The NPSS is pleased to announce a new membership benefit for 2007—complimentary electronic access to both the **IEEE Transactions on Nuclear Science (TNS)** and the **IEEE Transactions on Plasma Science (TPS)**.

The augmented member benefits for 2007 are:

- Free Electronic access to TNS and TPS.
- At-cost subscriptions to paper copies of TNS and/or TPS.
- Free copies of the NPSS Newsletter.
- Low cost subscriptions to either electronic or paper versions of the IEEE Transactions on Medical Imaging (TMI).
- Low cost subscriptions to either electronic or paper versions of the IEEE Sensors Journal.
- Discounted registration fees for all IEEE conferences.

## Why publish in NPSS journals?

- Reach — IEEE Journals are highly valued by technical librarians and available on the web.
- Quality — IEEE Journals are recognized for their high quality through peer review and professional editing.
- Speed of publication.

## Why attend NPSS meetings?

- Get current technical information.
- Meet and discuss current technical issues with other leaders in the field.
- Make invaluable contacts.

## Why attend local meetings?

- Meet and discuss current local technical issues.
- Keep current on a broad range of technical fields.
- Make local contacts and build the local community.

## Form a chapter!

For information on forming your own chapter visit [www.ieee-npss.org](http://www.ieee-npss.org) and [www.ieee.org](http://www.ieee.org).

## Volunteer!

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