For more information on NPSS awards, please visit: www.ieee.org/npss

1. **Merit Award**

Description: To recognize outstanding technical contributions to the fields of Nuclear and Plasma Sciences.

Prize: $5,000, Plaque, and Certificate

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society.

Eligibility: Any individual who has made technical contributions to the fields of Nuclear and Plasma Sciences.

Basis for Judging: Selection criteria, in order of importance are: 1) importance of individual technical contributions; 2) importance of technical contributions made by teams led by the candidate; 3) quality and significance of publications and patents; 4) years of technical distinction; 5) leadership and service within the fields of nuclear and plasma sciences and related disciplines.

Presentation: One award presented annually at an NPSS sponsored meeting chosen by the Awardee.

2. **Richard F. Shea Distinguished Member Award**

Description: To recognize outstanding contributions through leadership and service to the NPSS and to the fields of Nuclear and Plasma Sciences.

Prize: $5,000, Plaque, and Certificate

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society.

Eligibility: Any member of the IEEE and NPSS who has contributed to the fields of nuclear and plasma sciences through leadership and service.

Basis for Judging: Selection criteria are: leadership roles and leadership quality; innovative and important contributions to Society activities; service and dedication to the NPSS; technical achievements.

Presentation: One award presented annually at an NPSS sponsored meeting chosen by the Awardee.

3. **Radiation Effects Award**

Description: To recognize members of the Radiation Effects Technical Community who have demonstrated outstanding and innovative technical contributions or leadership.

Prize: $3,000 and Plaque

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society's Nuclear and Space Radiation Effects Conference Budget.

Basis for Judging: Technical contributions with major impact may include: benchmark work that initiated a major research and development activity; a major body of work that provided a solution to a widely recognized problem in radiation effects. Leadership may include: initiation or development of innovative approaches for promoting cooperation and exchange of technical information among members; outstanding leadership in support of the professional development of members of the Radiation Effects Community.

Presentation: At Nuclear and Space Radiation Effects Conference.

4. **Particle Accelerator Science and Technology Award**

Description: To recognize outstanding contributions to the development of Particle Accelerator Technology.

Prize: $3,000 and Plaque

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society's Particle Accelerator Conference Budget.

Presentation: At Particle Accelerator Conference.

5. **Computer Applications in Nuclear and Plasma Sciences Award**

Description: To recognize individuals who have made an outstanding achievement in the application of computers in nuclear and plasma sciences. The research fields of nuclear and plasma physics have especially been enhanced by computers.

Prize: $2000 and a plaque.

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society's Real-Time Conference budget.

Eligibility: Any person, regardless of nationality, is eligible for the award, with the exception that no member of the CANPS Technical Committee can be considered. Nonmembers of IEEE or NPSS are also eligible.

Basis for Judging: Evidence of outstanding professional contributions to the profession of utilizing computers in nuclear and/or plasma sciences research. Supporting information can include significant technical contributions, publications and patents, and contributions to the NPSS and its associated fields.

Presentation: At the Real-Time Conference which is held approx. every two years in the spring or early summer.

6. **Plasma Science and Applications Award** (first presented in 1988, established in 1993)

Description: To recognize outstanding contributions to the field of Plasma Science in research or new applications.

Prize: $3,000, Plaque, and invitation to deliver an address to the Conference on Plasma Science in the year of the award and to submit the text of his talk for inclusion as an invited paper in the *Transactions on Plasma Science*.

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society's International Conference on Plasma Sciences.

Eligibility: Open to all, excluding current members of the Executive Committee of PSAC.

Basis for Judging: Primary consideration will be given to the impact of the research or new application. Other factors can include, for example, research contributions over a career and the influence on plasma science through teaching. The nominee is not required to be a member of the NPSS or IEEE but, where candidates have otherwise equal qualifications, preference shall be given to the candidate who is a member of the IEEE.

Presentation: At the Conference on Plasma Science.

7. **Early Achievement Award** (established in 1993)

Description: To recognize outstanding contributions to any of the fields making up Nuclear and Plasma Sciences, within the first ten (10) years of an individual's career.

Prize: $3,000, Plaque, and Certificate

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society.

Eligibility: Member of the IEEE NPSS who at the time of the nomination is within the first ten (10) years of his or her career within the field of interest of NPSS.

Basis for Judging: Three (3) letters of recommendation, publications and/or reports, patents, etc. which demonstrate outstanding contributions early in the nominee's career.

Presentation: At any major NPSS sponsored conference chosen by the Awardee.

8. **Graduate Scholarship Award**

Description: To recognize contributions to the fields of Nuclear and Plasma Sciences.

Prize: $1,500, Certificate, and one-year paid membership in the NPSS.

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society.

Eligibility: Any graduate student in the fields of Nuclear and Plasma Sciences.

Basis for Judging: Evidence of scholarship such as academic record, reports, presentations, publications, research plans, related projects and related work experience. Participation in IEEE activities through presentations, publications, student Chapter involvement, etc., will also be considered.

Presentation: Up to four (4) awards presented annually. Check and certificates sent to nominator to be presented at a special occasion at the winner's institution.

9. **The Edward J. Hoffman Medical Imaging Scientist Award** (established in 1995)

Description: To recognize outstanding technical contributions to the field of medical imaging science.

Prize: $3,000, Plaque and Certificate

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society's Medical Imaging Conference budget.

Eligibility: Any individual who has made outstanding technical contributions to the field of medical imaging science.

Basis for Judging: Primary consideration will be given to the impact and innovativeness of the research. Other factors can include, for example, research contributions over a career and the influence on Medical Imaging Science through education. The nominee is not required to be a member of the NPSS or IEEE but, where candidates have otherwise equal qualifications, preference shall be given to the candidate who is a member of the IEEE.

Presentation: Presented annually at the NPSS Medical Imaging Conference, which takes place in October/November of each year. The activities to obtain nominations, selection, etc. of the Technical Committee/Awards Committee will be initiated at least 8 months before that Conference.

10. **Bruce H. Hasegawa Young Investigator Medical Imaging Science Award** (established in 1995)

Description: To recognize young investigators in the medical imaging science community who have made significant and/or innovative technical contributions.

Prize: $1,500, Plaque and Certificate

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society's Medical Imaging Conference budget.

Eligibility: Graduate students, or other individuals, whose highest degree was awarded within six years prior to the date of nomination.

Basis for Judging: Exceptional contributions to the field of Medical Imaging Science, demonstrated technical merit, proficiency, career intentions and worthiness of the candidate.

Presentation: Presented annually at the NPSS Medical Imaging Conference, which takes place in October/November of each year. The activities to obtain nominations, selection, etc. of the Technical Committee/Awards Committee will be initiated at least 8 months before that Conference.

11. **Paul Phelps Continuing Education Grant**

Description: To promote continuing education and encourage membership in NPSS.

Prize: Maximum of $8,000/year for all recipients, mostly for tuition in NPSS Sponsored Short Courses but in selected cases, also for partial travel expenses to NPSS short Courses.

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society.

Eligibility: Outstanding Student Members of NPSS and unemployed Members of NPSS who need assistance in changing career direction.

Basis for Judging: Exceptional promise as a Graduate Student in any of the fields of the NPSS, exceptionally good work in those fields for currently unemployed NPSS members and an expectation that attendance to one or more of the Short Courses will result in improved possibility of obtaining a job in the NPSS fields.

Presentation: Presented each year at the NPS sponsored conference in which the Short Courses are given. The awards will be handled prior to the dates of the Conference, so that award recipients can apply the corresponding funds towards covering tuition and/or traveling costs to the Short Courses.

12. **Erwin Marx Award** (established in 1997)

Description: To recognize outstanding technical achievements in pulsed power engineering, science and technology by an individual over an extended period of time.

Prize: $3,000 and Plaque

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society's International Pulsed Power Conference budget.

Eligibility: Individuals who have made outstanding technical contributions to pulsed power technology for at least ten years.

Basis for Judging: 1. Importance of technical contributions to pulsed power research or development over at least a ten year period. (50 points); 2. Importance of technical contributions made by teams led by the candidate. (20 points); 3. Quality and significance of publications and patents (20 points); 4. Years of technical distinction (10 points). The award is in consideration for outstanding technical accomplishments. The nominee is not required to be a member of the NPSS or IEEE but, where candidates have otherwise equal qualifications, preference shall be given to the candidate who is a member of the IEEE.

Presentation: Biennially, with presentation in odd numbered years at the IEEE International Pulsed Power Conference Awards Banquet.

13. **Peter Haas Pulsed Power Award** (established in 1997)

Description: To recognize individuals whose efforts, over an extended period, have greatly benefited the pulsed power field through the development of important applications or areas of activity including research, education, and information exchange.

Prize: $3,000 and Plaque

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society's International Pulsed Power Conference budget.

Eligibility: Any individual who has demonstrated sustained contributions to developing, managing or influencing programs, education or information exchange that has lead to important advances in the field of pulsed power.

Basis for Judging: 1. Importance of contributions to pulsed power through developing, managing or influencing programs, education, or information exchange (40 points); 2. Demonstrated leadership and service to the field of pulsed power (30 points); 3. Importance of the technical contributions to pulsed power research or development (20 points); 4. Years of service advancing or enlarging the field of pulsed power (10 points). The award will consider the total benefit conferred on pulsed power by the individual. The nominee is not required to be a member of the NPSS or IEEE, but where candidates have otherwise equal qualifications, preference shall be given to the candidate who is a member of the IEEE.

Presentation: Biennially, with presentation in odd numbered years at the IEEE International Pulsed Power Conference Awards Banquet.

14. **Arthur H. Guenther Pulsed Power Student Award** (established in 1997)

Description: To recognize outstanding contributions as a student in pulsed power engineering, science or technology.

Prize: $1,000 and Certificate

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society's International Pulsed Power Conference budget.

Eligibility: Any full time undergraduate or graduate university student in pulsed power engineering or science. The nominee must be a student when nominated.

Basis for Judging: 1. Quality of research contributions (40 points); 2. Quality of educational accomplishments (30 points); 3. Quality and significance of publications and patents (20 points).

Presentation: Awarded annually, with presentation at the biennial IEEE International Pulsed Power Conference Awards Banquet.

15. **Fusion Technology Award** (established in 1989; revised 2012)

Description: To recognize outstanding contributions to research and development in the field of Fusion Technology. Two awards are presented at each biennial Symposium on Fusion Engineering (SOFE), one for each calendar year of the two year cycle with the first year corresponding to the year between SOFE conferences and the second year corresponding to the year of the SOFE conference at which the presentation is made.

Prize: $3,000 and a plaque. Each award recipient will have SOFE conference registration fees waived for the conference year in which the award is presented and will be reimbursed reasonable travel expenses for conference attendance upon presentation of a travel report, not to exceed $1,500.

Funding: Funded by the SOFE conference at which the presentations are made.

Eligibility: Any person, regardless of nationality or Society affiliation, is eligible for the award, with the exception that no current member of the IEEE/NPSS Standing Committee on Fusion Technology may be considered.

Basis for Judging: The recipient shall be selected for one of two categories as determined by the IEEE/NPSS Standing Committee on Fusion Technology that year: (a) outstanding and innovative technical contributions which are widely recognized and have a major impact in the Fusion Technology Community; or (b) outstanding and innovative technical leadership in or service to the Fusion Technology Community. The nominee is not required to be a member of IEEE or NPSS but, where candidates have otherwise equal qualifications, preference shall be given to the candidate who is a member of IEEE.

Presentation: By the Chairperson of the IEEE/NPSS Standing Committee on Fusion Technology or his/her representative, on behalf of the NPSS, during the Symposium on Fusion Engineering.

16. **Radiation Instrumentation Outstanding Achievement Award** (established in 2001)

Description: To recognize outstanding contributions to the fields of radiation instrumentation and measurement techniques for ionizing radiation.

Prize: $3,000, plaque and certificate

Funding: Funded by the budget of the IEEE/NPSS Nuclear Science Symposium

Eligibility: Any individual who has made outstanding technical contributions to the field of radiation instrumentation.

Basis for Judging: The principal criteria will be the originality and impact of the contributions to the field. Other factors can include the cumulative research contributions over a career and the influence on the field through education. The schedule to submit nominations, selection of awardees, and other aspects of the award shall be the responsibility of the Awards Committee of the Radiation Instrumentation Technical Committee.

Presentation: Presented annually at the IEEE/NPSS Nuclear Science Symposium.

17. **Radiation Instrumentation Early Career Award** (established in 2001)

Description: To recognize an individual, early in their career, who has made significant and/or innovative technical contributions to the fields of radiation instrumentation and measurement techniques for ionizing radiation.

Prize: $1,500, Plaque and Certificate.

Funding: Funded by the budget of the IEEE/NPSS Nuclear Science Symposium

Eligibility: Graduate students, or other individuals whose highest degree was awarded within ten years of the date of nomination.

Basis for Judging: Exceptional contributions to the field of Radiation Instrumentation, demonstrated technical merit, proficiency, career intentions and worthiness of the candidate. The schedule to submit nominations, selection of awardees, and other aspects of the award shall be the responsibility of the Awards Committee of the Radiation Instrumentation Technical Committee.

Presentation: Presented annually at the IEEE/NPSS Nuclear Science Symposium.

18. **NPSS Student Paper Awards** (established in 2005)

Description: For outstanding student poster or oral papers as desired by each of the technical committees of NPSS that organizes a conference. The purpose of these awards is to encourage both outstanding student contributions and greater student participation as principal or sole authors of papers as well as to acknowledge the importance of student contributions to the fields embraced by the NPSS umbrella. These conferences include the Real Time Conference; the International Conference on Plasma Sciences; the Radiation Effects Conference; the Pulsed Power Conference; the Medical Imaging Conference; the Particle Accelerator Conference; the Symposium on Fusion Engineering; and the Nuclear Science Symposium as well as any other conferences that may in the future come under IEEE NPSS sponsorship.

Prize: The two best papers (two awards) will receive cash awards of $500 each and a Certificate. The two runners-up will receive a certificate only.

Funding: Funded by each conference's budget, as determined by each of the individual conferences sponsored by IEEE NPSS.

Eligibility: Any student who is the principal or sole author/researcher and the presenter or either a poster or oral paper at an IEEE Nuclear and Plasma Sciences Society conference that has chosen to provide outstanding student awards and who has been identified as an eligible student author will be eligible. If there is a tie, preference will be given 1) to IEEE NPSS members; 2) to IEEE members; 3) to non-IEEE members.

Basis for Judging: All candidates for selection must have identified themselves either at the time of abstract submittal or no later than registration. The on-site awards committee will rank the papers for technical content and originality first. Other criteria such as graphic display and clarity of data presentation may be considered.

Presentation: When possible, awards will be presented at the closeout session of the conference. If this is not possible, the recipients will be notified by mail or e-mail.

19. **IEEE Igor Alexeff Outstanding Student in Plasma Science Award** (established in 2008) (renamed 2013 - formerly *IEEE Outstanding Student in Plasma Science Award*)

Description: To recognize outstanding contributions to the field of plasma science and technology.

Prize: $1,000 and Certificate.

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society's Plasma Science and Applications Committee.

Eligibility: Any full time undergraduate or graduate university student in plasma science. The nominee must be a student when nominated.

Basis for Judging: Nominees will be judged according to their contributions to plasma science. The judgment will be based on quality of research contributions, quality of educational accomplishments, and quality and significance of publications and patents.

Presentation: This award will be presented annually at the IEEE International Conference on Plasma Science.

20. **IEEE Particle Accelerator Science and Technology Doctoral Student Award** (established in 2008)

Description: To recognize significant and innovative technical contributions to the field of particle accelerator science and technology as demonstrated in a student's doctoral thesis.

Prize: $2,000 and Plaque.

Funding: Funded by the IEEE Nuclear and Plasma Sciences Society's Particle Accelerator Conference (PAC) budget.

Eligibility: Nominations can be submitted only by IEEE members. Nominees must pass their thesis defense not more than 24 months before the nomination deadline from any university world-wide. An individual should be nominated once; however, an unsuccessful candidate will be carried over for one PAC cycle.

Basis for Judging: Nominees will be judged according to their contributions to particle accelerator science and technology as demonstrated by the technical merit and creativity of their research. Priority will be given to nominees whose research has been published in peer-reviewed journals, especially if the nominee is the first author.

Presentation: This award is given in the same year as the Particle Accelerator Conference. The recipient will be invited to present the work as an invited talk in an appropriate session of the meeting.

21. **IEEE Charles K. Birdsall Award for Contributions to Computational Nuclear and Plasma Sciences** (established in 2013)

Description: To recognize outstanding contributions in computational nuclear and plasma science, with preference given to areas within the broadest scope of plasma physics encompassing the interaction of charged particles and electromagnetic fields.

Prize: $2,000 and Plaque. Multiple recipients not allowed.

Funding: The Award Fund will reside in the IEEE Foundation and is intended to provide long-term support via a $30,000 one-time contribution from Ginger Birdsall to the IEEE Foundation, and matched by a one-time contribution of $20,000 from NPSS. Multiple recipients are not allowed. Should the cumulative fund balance grow or decrease significantly, the NPSS may revisit the award amount and/or additional funding.

Eligibility: All members in good standing of the IEEE NPSS are eligible.

Basis for Judging: Judging based on outstanding contributions to computational nuclear and plasma science, with preference given to areas within the broadest scope of plasma physics encompassing the interaction of charged particles and electromagnetic fields. The NPSS Awards Committee will vote on nominees based on the nomination materials submitted.

Presentation: Presentation of the Award will occur at an IEEE NPSS conference specified by the recipient.

22. **IEEE Ronald J. Jaszczak Graduate Award** (established in 2013)

Description: To recognize and enable an outstanding graduate student enrolled in an accredited Ph.D. curriculum, Post-doctoral Fellow or Ph.D. level Research Associate in the field of nuclear and medical imaging sciences to advance his/her research activities.

Prize: The intent of the Award fund is to provide support for three (3) consecutive years to one individual recipient for expenses as follows:

- Up to a maximum of U.S. $5,000 per year for three (3) consecutive years. The prize may be used to support:
  - attendance at appropriate scientific workshops;
  - visit appropriate colleague research laboratories;
  - travel to make presentations during the annual IEEE NPSS Medical Imaging Conference (MIC) or IEEE Nuclear Science Symposium (NSS);
  - annual IEEE and NPSS membership fees;
  - purchase of appropriate specialized research publications, software or hardware when traditional institutional or grant support is unavailable.
- Renewal of the Award for awardees for years two and three shall be conditional upon the demonstration of appropriate yearly progress as determined by the NPSS Selection Committee, NPSS Awards Committee and NPSS AdCom.

At the time of the initial award period, a plaque designating the individual as the recipient of the IEEE Ronald J. Jaszczak Award.

Funding: The award will be administered by the IEEE Foundation and funded by a one-time contribution of $50,000 from Ronald Jaszczak and matched by a one-time contribution of $50,000 from NPSS. The award fund will be meant to provide long-term support for the award.

Eligibility: Award nominee must:

- Be a U.S. Citizen
- Be 29 years of age or younger at the date that the application form is submitted
- Be a second year graduate student that has completed at least one year of graduate studies at an accredited U.S. university and is working to obtain a Ph.D. degree or
- Be a Post-doctoral Fellow or Ph.D. level Research Associate at an accredited U.S. University
- Be actively engaged in Engineering or Physics research related to the field of Nuclear and Medical Imaging Sciences
- Not be a “distant-learning” or “on-line” Ph.D. degree student, Post-doctoral Fellow or Ph.D.

level Research Associate

Consideration shall be given to NPSS members and student members. Preference will be given to nominees of Western Slavic heritage that use the Latin alphabet, for example, Polish-American, Czech-American, Croatian - American, Slovak-American, Slovenian-American.

No relatives of current members of the IEEE Board of Directors, the IEEE NPSS Administrative Committee (AdCom) or IEEE staff may be nominees or nominate or endorse nominees for this Award.

The donor and his family may not be nominees, nominate or endorse nominees for this Award.

Basis for Judging:

- Demonstrated contribution to the field of nuclear and medical imaging sciences via quality of scientific publications, proposed innovative nuclear medical imaging approaches (including hardware or software technologies), patents and/or high-quality recognition of the nominee's scientific and engineering skills by her or his colleagues;
- Potential leadership skills;
- Potential to serve as role model for other Ph.D. level graduate students, or Post-doctoral Fellows or Ph.D. level Research Associates.

Presentation: October-November (initial recipient-award year or following year only): Assuming that recipient will attend NSS/MIC meetings; presentation to recipient of the Award and Plaque will be made at those meetings.

If recipient will not plan to attend these meetings, then there will not be a formal presentation.