

Award Number: DE-SC0019761

Office of Science – Office of Fusion Energy Science

Title: Support for the 2019 IEEE Symposium on Fusion Engineering

Principal Investigator: Dr. David Donovan, University of Tennessee-Knoxville
In Collaboration with the IEEE SOFE 2019 Organizing Team

Final Technical Report

This award provided financial support to help cover program-related expenses for the 2019 IEEE Symposium on Fusion Engineering (SOFE-2019), which was held 2-6 June 2019 near Jacksonville, FL. The SOFE is a biennial conference that enables fusion engineers from around the world to report on their work and stay current with the latest developments in fusion R&D, both physics and engineering. The symposium was sponsored by the Nuclear and Plasma Sciences Society (NPSS) of the Institute of Electrical and Electronics Engineers (IEEE), an international professional society whose members today span a wide range of disciplines. The IEEE Fusion Technology Standing Committee (FTC), most of whose members are involved in DOE Fusion Energy Sciences (FES) sponsored work, were responsible for organizing the SOFE. The SOFE has been the leading conference of choice for U.S. fusion engineers since its founding in 1965. In recent years, attendance has been growing as the conference has attracted greater participation of fusion researchers from other countries, especially from Asia but also from Europe and from the international ITER project, both central team and domestic agencies. This trend benefits U.S. participants by providing a forum to learn about the world's most advanced fusion engineering activities and to strengthen collaborative ties with colleagues.

The University of Tennessee-Knoxville (UTK) and the PI of this proposal (David Donovan, UTK Professor, SOFE 2019 Local Organizing Committee) participated in the planning and implementation of the SOFE-2019 in direct coordination with the SOFE General Chair (Dennis Youchison) and the IEEE organizing team.

The conference was a great success with visitors from around the world, hundreds of technical presentations (technical posters, contributed talks, invited talks), and a special edition of IEEE Transaction in Plasma Science published containing 81 peer-reviewed journal articles [1].

This award did not directly sponsor any specific research or scientific products, so there are no specific journal articles, invention disclosures, or other products associated with this award to disclose.

The IEEE SOFE 2019 Organizing Team would like to acknowledge the Department of Energy Office of Fusion Energy Science for their partial sponsorship of the event with award number DE-SC0019761.

[1] G. H. H. Neilson, "Guest Editorial Special Issue on Selected Papers from the 28th IEEE Symposium on Fusion Engineering," in IEEE Transactions on Plasma Science, vol. 48, no. 6, pp. 1368-1368, June 2020, doi: 10.1109/TPS.2020.2998643.