

Institute of Electronics and Electrical Engineering at the University of Scranton

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Abstract

The Institute of Electrical and Electronics Engineers (IEEE) is an international professional association for all things electronic engineering and electrical engineering. The mission of the IEEE is “advancing technology for the benefit of humanity”. At the University of Scranton, we help physics and engineering majors see the possibilities of where they could end up after college in their respective fields. Weekly seminars are tailored to present the business processes involved and innovative ideas developed by various researchers, companies, and industries. The club also serves as the social network through which our students and alumni can share their experiences and form a friendship that transcends many stages of life.

Weekly Seminars

- The University of Scranton’s IEEE Club is a student chapter of the Institute of Electrical and Electronics Engineers, which is globally recognized as the biggest technical professional association. The club aims to provide guidance to physics and engineering majors about the potential career prospects in their chosen fields after graduation.

WELCOME BACK – Summer Internships/Research Presentations 1
WELCOME BACK – Summer Internships/Research Presentations 2
NASA – from “Valley of Death” to the Moon
ELECTRONICS ON ANYTHING – How Thin Film Electronics Can Instrument the World

Cuong, Veronica, Francis, Robert, John, Joseph
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Niki Wekheiser, Dir/Technology, NASA Space TMD
Dr. Ioannis Kymissis, EE Dept/Chair, Columbia Univ.

MOLECULAR DYNAMICS – Atomistic Physics and Manufacturing
EMOTIONAL INTELLIGENCE & THE WORKSPACE
ENGINEERING & ENTREPRENEURSHIP – Journey of Fun

Dr. Mojib Saei, Physics/Eng. Dept., UoFS
Dr. Robert McKeage, Management/Marketing, UoFS
Ted Brunelle, President, Reaction Technologies, LLC

HIGH TECHNOLOGY IMPACTS – Measurements of the Ionosphere
50 YEARS OF MEDICINE – Bio-Medical Science/Innovations
LIFE AFTER COLLEGE – Career Path in Engineering

Bob McGwier, N4HY, Virginia Tech, Research Faculty @UoFS
Dr. Gino Mori, M.D., F.A.C.S.
Will Taylor, P/M/Market Op, Consolidated Edison/NY, Alumni/2005



- The seminars organized by the club focus on introducing the workings of various companies, and sometimes feature engaging speakers from exciting enterprises. Participants can gain valuable insights into internship options, learn about the nature of different businesses, and explore innovative and pragmatic concepts developed across diverse industries, along with understanding the technology and operations of these companies.

Student Activities Conference

- SAC is an annual event hosted by IEEE Lehigh Region. It provides a platform for students to come together, share ideas, and learn from one another. The conference includes workshops, panel discussions, social events, and keynote speakers on topics related to engineering, technology, and leadership.
- SAC is also an avenue where students can enter friendly competitions to build technical skills, enhance their teamwork, gain leadership experience, recognition, and achievement, boosting their confidence and motivation.



IEEE-HKN

- IEEE-Eta Kappa Nu (IEEE-HKN), the engineering honor society of IEEE, promotes excellence in the profession and in education with ideals of *Scholarship, Character, and Attitude*.
- The engineering society honors exceptional talent and hard work in the field of engineering, and facilitates connections between students with similar aspirations. This fosters the development of strong relationships, providing valuable support and guidance throughout students' personal and professional lives.
- Every year, our student members receive training in mock interviews from alumni and industry experts. This provides them with the opportunity to recognize their own strengths and weaknesses, develop self-confidence, and receive beneficial feedback.



Hayes Physics Competition

- The University of Scranton’s Department of Physics and Electrical Engineering organizes the annual Hayes Family Science Competition for high school physics and engineering Students. The event is attended by over 100 students from the area, who are tested on their knowledge of physics and engineering through a series of quizzes and hands-on challenges.
- The competition was aimed at encouraging students to develop their critical thinking and problem-solving skills while promoting STEM education in the community and inspiring the next generation of scientists and innovators.



References

- “IEEE Club.” *The University of Scranton*, 5 Mar. 2023, <https://www.scranton.edu/academics/cas/physics-engineering/ieee/ieee-club.shtml>.
- “Home.” *IEEE Eta Kappa Nu (IEEE-HKN)*, 24 Feb. 2023, <https://hkn.ieee.org/>.
- “Competition Tests Students’ Knowledge of Physics.” *Royal News*, <https://news.scranton.edu/articles/2022/04/news-hayes-comp-2022.shtml>.

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