

• Upcoming Events

◦ November Section Meeting: "IoT: Privacy and Security"



- Thursday, November 8th, 5:30-6:45 PM
Joint Meeting with UW Student IEEE and Society of Women Engineers
- Speaker: Dr. L. Jean Camp, University of Indiana
- Location:
UW-Madison Engineering Hall
Room: 1610 Engineering Hall
1415 Engineering Drive
Madison, Wisconsin 53711
- Please Register at the IEEE-Madison [event page](#).

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Talk:

We are entering an Internet of Things (IoT) era. It is widely recognized that computer security and privacy for an IoT ecosystem is fundamentally important and challenging. It is important because security and privacy lapses in IoT devices can cause financial, social, and physical harms to people and their environments. It is challenging because of the technical properties of IoT devices and because of the complex issues that arise when designing technologies for diverse stakeholders.

Any significant advance in the state of the art in security and privacy for an IoT ecosystem will require a large, interdisciplinary effort that takes into account not only the technical side, but considers how groups of stakeholders interact with the technology. Making such advances is the goal of our proposal. The talk propose a holistic approach to IoT security and privacy, blending research in human-computer interaction, computer security, cryptography, and ubiquitous computing. We envision our work providing a strong and broad foundation for improving the security and privacy of future IoT systems; we will work with key stakeholders throughout the project to ensure our work has the greatest possible breadth, depth, and impact.

The talk focus is primarily be on IoT devices in the home. This environment is one of the most complex environments in which to consider IoT security and privacy, due in part to the diversity of stakeholders involved, their complex social relationships, and the diversity of computer security and privacy expertise within and between homes.

The talk considers IoT security and privacy along multiple axes: stakeholders involved (e.g. device owner, family members, friends, hired help), the lifecycle of IoT devices (development, installation, use, and abandonment), the potential harms to stakeholders (e.g., physical harms to people or property, privacy exposures from IoT sensor data, or the adversarial use of IoT devices as stepping stones to compromise other computers), ease of use of security solutions, mental models of different stakeholders, security and privacy risks that might arise both during normal use (e.g., because of poor configuration options) and risks that might arise as a result of adversarial action (e.g., adversary compromising a back-end database or a device in the home).

Bio:

L. Jean Camp is a Professor at the School of Informatics and Computing at Indiana University. She is a Fellow of the Institute of Electrical and Electronic Engineers. She is a Fellow of the American Association for the Advancement of Science. She joined Indiana after eight years at Harvard's Kennedy School where her courses were also listed in Harvard Law, Harvard Business, and the Engineering Systems Division of MIT. She spent the year after earning her doctorate from Carnegie Mellon as a Senior Member of the Technical Staff at Sandia National Laboratories. She began her career as an engineer at Catawba Nuclear Station with a MSEE at University of North Carolina at Charlotte. Her research focuses on the intersection of human and technical trust, leveraging economic models and human-centered design to create safe, secure systems. Her early contributions in the interdisciplines of economics of security, user-centered security, risk communication, and online trust underlie her applied research in the domains of IoT, authentication, secure networking, ecrime, ethics in computer science, and a few works on applied cryptography.

Note:

This is a joint meeting with the UW-Madison IEEE Student Branch and the UW-Madison Society of Women Engineers.

◦ Section News

- **Madison Section Officer Nominations Open:** ; Greetings! The fall is upon us, which means that elections are coming up. Not just the fall mid-terms, but for the officers of IEEE-Madison. Our officer positions include Chair, Vice Chair, Treasurer, Secretary, and Members At Large. Our officers run the local Section, manage its finances, schedule its meetings, and manage communications with membership. Being an officer of an IEEE section has, to me, been a very good experience. I have learned a lot, and have developed a great deal of respect for the organization. I believe that my fellow officers, both past and present will agree. One of my duties as Vice Chair is to organize elections and form/lead an officer nominating committee. Therefore, my ask this month is for a few volunteers for the Officer Nomination Committee. We will be tasked with finding folks to run for these positions. This will not be a heavy time commitment, but our duty is important. Please reach out to me if you would like to be on this committee, run for office, or volunteer your time in any other way. Or if you have any questions, please reach out to me. I can be reached by email at tothnj@gmail.com.

Thank you very much!
Nate Toth
Vice Chair, IEEE Madison

- **Joint Power and Energy Society/Industry Application Society Chapter formed:** The IEEE-Madison Section has

formed of a joint PES/IAS Chapter. Discussions are underway for the kickoff meeting. If you are interested in volunteering for the society, please contact Tom Kaminski via e-mail (tjkaminski-at-ieee.org) or call him at 608-217-3327. We will need officers and committee members to manage and plan the Chapter events. Also, if your company is interested in sponsoring events, or if you have specific topics that you would like to see the Chapter discuss, send a note to Tom at the previous address.

◦ Upcoming Meetings

- **Follow us on Facebook:** <https://www.facebook.com/IEEEMadison>
- **November IEEE-Madison Section Meeting:** On November 8th, Professor L. Jean Camp from the School of Informatics and Computing at Indiana University will be giving a talk on the security of Internet-of-Things (IoT). Professor Camp is a Fellow of the Institute of Electrical and Electronic Engineers and a Fellow of the American Association for the Advancement of Science. Her research focuses on the intersection of human and technical trust, leveraging economic models and human-centered design to create safe, secure systems. A venue for this talk is in the large Engineering Hall Lecture room (1610 EH) at the University of Wisconsin-Madison. There will be a reception after the talk for volunteers and student leaders from the IEEE Student Branch and the Society of Women Engineers.

◦ Regular Meetings

▪ Section Meetings

The third Thursday of January through May, and September through December is reserved for a meeting to provide recent research, developments, trends and/or innovations in one of our membership's technical areas.

▪ Life Member Affinity Group

The first Thursday of January, March, May, September and November is reserved for a meeting on a topic selected from a broad range including such areas as technology, science, history, culture and leisure.

▪ IEEE-MSN-ECN Networking Meetings

- Purpose: Presentations, Discussions, networking
- Date: First Thursday of even-numbered months
- Time: 11:45 AM to 1:00 PM
- Location: Varies
- Process: Members are encouraged to make introductions, describe endeavors, and make request for: contacts in target companies, needs, resources.

◦ Membership Upgrades

Those interested in upgrading their IEEE membership level should send their resumes or other information showing five years of significant performance in an IEEE-designated field to Charles J Gervasi via email at [cj\(at\)cgervasi.com](mailto:cj(at)cgervasi.com). Madison Section Board will attempt to find Senior IEEE members knowledgeable in the applicant's area of practice who may be able to provide references. You are invited to attend the informal networking portion of the monthly Section meetings (starting at 11:30am) to meet the Section Board members and discuss intentions.

◦ About IEEE



The Institute of Electrical and Electronics Engineers or IEEE (read Eye-Triple-E) is an international non-profit, professional organization dedicated to advancing technology innovation and excellence for the betterment of humanity. IEEE and its members inspire a global community through IEEE's highly cited publications, conferences, technology standards, and professional and educational activities. It has the most members of any technical professional organization in the world, with more than 300,000 members in around 150 countries. The IEEE consists of 38 societies, organized around specialized technical fields, with more than 300 local organizations that hold regular meetings. Discover what IEEE Member Discounts can offer you. The Member Discounts portfolio consists of insurance products and programs for the home, office and travel, all at excellent

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◦ Madison IEEE Section

The IEEE-Madison Section of the IEEE is a section in Region 4 of the IEEE-USA organized to serve IEEE members in the Madison, WI area with over 600 members. The 2017 Officers and Board Members are Tom Kaminski - Chair, Nate Toth - Vice Chair, Charles Gervasi - Treasurer, Steve Schultheis - Secretary, Nate Toth - Webmaster, Tom Kaminski - ECN Chair, Dennis Bahr - Engineering in Medicine and Biology Chapter Chair, Chuck Cowie - Life Member Affinity Group Chair, San Rotter - Life Member Affinity Group Vice Chair, Scott Olsen - Membership Development Chair, Members at Large: Clark Johnson, Craig Heilman, Dennis Bahr, Sandy Rotter.

◦ Job Openings

Check out WIEES.com for electrical engineering jobs in Madison and the surrounding region. This site is maintained as a service for electrical engineers. Jobs are displayed starting with the most recent postings first. You can filter results by location and job type. If you are hiring an electrical engineer in our area, for full-time or contract work, you can post the job in the *Contact Us* section on the WIEES.com site.

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The IEEE-Madison Section has a number of volunteer positions open if you are interested in helping out. Please direct any questions or comments to Tom Kaminski (Newsletter Editor) via email to [tjkaminski\(at\)ieee.org](mailto:tjkaminski(at)ieee.org).

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