

• Upcoming Events

◦ December ECN Meeting “Year-End Meet and Greet”

- Topic: Your Activities
- Thursday, December 1st, 11:45-

Entrepreneurs and Consultants Network



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- 1:00 PM
- Social/Professional Meeting
- Fee: Free
- Location: Sector67
2100 Winnebago Street
Madison, WI
- Pizza and Drinks (Free)
- Please Register at the IEEE-Madison [event page](#).
- Non-member guests are always welcome.

Talk: Meet other entrepreneurs and consultants in the Madison area. It is open to all - bring a friend or colleague. Be prepared to give a brief introduction to what you do (“Elevator Speech”). This is your opportunity to discuss your company, or your consulting expertise.

◦ December EMB-018 “Neuroengineering: Electronic Interfaces with the Brain”



- Speaker: Dr. Justin Williams, Chair Biomedical Engineering Department
- Topic: The Neural Interface Technology Research and Optimization (NITRO) Laboratory
- **Date/Time:** Friday, December 16th from 11:30 AM until 1:00 PM
- Professional Meeting Joint IEEE-Madison Section and Madison EMB18 Engineers in Biology and Medicine Chapter
- Fee: None
- Location: UW-Madison Engineering Centers Building, Room 1025
1550 Engineering Drive, Madison, WI 53706
- RSVP: Please Register at the IEEE Madison Section [event page](#).

Non-member guests are always welcome.

Talk: This talk outlines a wide array of approaches where building electronic devices for interfacing with nervous tissue can aid in the study, diagnosis and treatment of neurological disease. Applications will cover topics ranging from advanced prosthetic devices to building artificial neural circuits in a dish.

Bio: Justin Williams is currently the Vilas Distinguished Achievement Professor at the University of Wisconsin as well as the Chair of the Department of Biomedical Engineering. He received undergraduate degrees in Mechanical Engineering and Engineering Physics from South Dakota State University, Masters and PhD from Arizona State University in Bioengineering, and Postdoctoral Training at the University of Michigan in Neuroengineering. He has raised almost \$20Million in grant funding for his work and published more than 120 scientific papers. His work has garnered numerous awards, including the Coulter Foundation Young Investigator Award and Time Magazine's top ten inventions of 2009 and he has also been named a fellow of the American Institute of Medical and Biological Engineering.

◦ Section News

▪ **Upcoming Meetings**

December EMB018/Section Meeting: Justin Williams will give a talk that is at the state of the art in Biomedical Research. He is head of the Neural Interface Technology Research and Optimization (NITRO) Laboratory, part of the Department of Biomedical Engineering at the University of Wisconsin-Madison. The lab was created to develop new devices for recording from and stimulating neural tissue, design these devices to be both durable for long-term implantation and safe for use in humans and animals, and use these technologies in a variety of situations, from use in a basic physiology lab recording from single neurons, to clinical settings where people with motor disabilities might benefit from a brain-computer interface or other neural prosthetic communication device.

January Section Meeting: Is tentatively scheduled for Tuesday, January 17th and will be a talk by Bethanie Stadler who works on the integration of nanomagnetic and photonic materials with a variety of platforms to allow the development of practical devices and systems. This includes magnetic nanowires for magnetoelectronics (including hard drive heads), microfluidic flow sensors and actuators, acoustic/vibration sensor applications, and cellular biomarkers.

▪ **Vote: Madison Section Elections**

Madison Section Officer Nominations and Elections are nearly at hand. You will be receiving an e-mail ballot in December for Section Officer Elections. Chair, Vice Chair, Secretary, Treasurer and four Member-at-Large positions will be voted on. Please vote!

▪ **Volunteers Needed**

Micro Volunteers: Do you have some time to spare to help IEEE-Madison Section? Perhaps you have a meeting topic that you would like to see us host and could find a speaker. Maybe you have time to call a few members who might have forgotten to renew their membership.

Middle School Adult Mentors Needed: Would you like the opportunity to give a young person a glimpse of real science research? You might help them see that a career in science is a possibility for their future. You can give them an understanding of what scientists do, how they think and why science is important in their daily lives. Anyone with an interest in science can be a mentor! ARMS (Adult Role Models in Science) matches trained science volunteers with middle school students interested in research for the Madison Middle School Science Symposium. The volunteer mentors meet with students at their schools for one hour each week for several months, working on a real research project. Meetings are usually on the same day each week between 3 and 5 pm, but there may be other options of times and locations. Some meetings can be via phone or Skype.

Students present their research at a city-wide symposium on the UW-Madison campus each spring. See: Madison Middle School Science Symposium ([See Here](#)). Volunteer Mentors must fill out a Mentor Survey form, a Volunteer Disclosure Form, and participate in a Training Session. Please contact Dolly Ledin with questions: daledin@wisc.edu or to volunteer.

◦ **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: Sector67, 2100 Winnebago Street (East Side of Madison)
- Parking: Park in lot or on Winnebago Street.
- Process: Members are encouraged to make introductions, describe endeavors, and make request for: contacts in target companies, needs, resources.
- Contact: For assistance, call Tim Chapman 2 0 6 - 2 5 7 0

◦ **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

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IEEE.ORG.

◦ 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 2016 Officers and Board Members are Charles Gervasi - Chair, Matthew Bartlett - Vice Chair, Tom Kaminski - Treasurer, Steve Schultheis - Secretary, Timothy Chapman - Webmaster, Tom Kaminski - ECN Chair, Dennis Bahr - Engineering in Medicine and Biology Chapter Chair, Ann E. Thompson - Educational Activities Chair, Charles Cowie - Life Member Affinity Group Chair, Chuck Kime - Life Member Affinity Group Vice Chair, Scott Olsen - Membership Development Chair, Members at Large: Mitch Bradt, Clark Johnson, Craig Heilman, Dennis Bahr, Sandy Rotter.

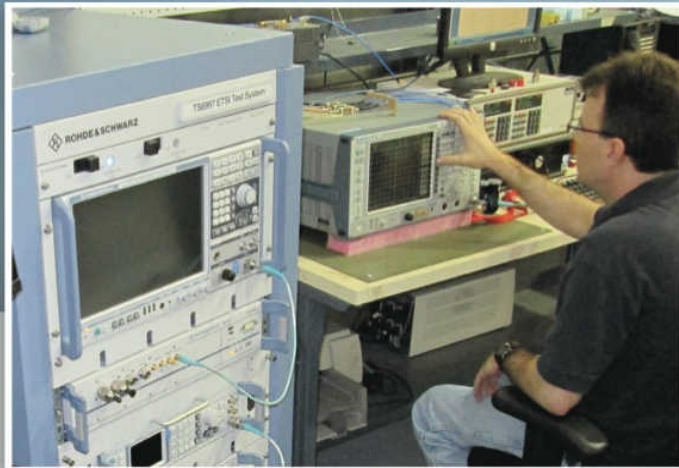
◦ Job Openings

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. Here is a sampling of the new job listings:

- Electronics Engineer, Four Lakes Technology - Madison
- Optical Design Engineer, Electronic Theater Controls, Middleton

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Visit

The Madison Science Museum focuses on Wisconsin's unique history and continuous success as an innovative center of science, engineering, and biotechnology. The museum is located at 211 N. Carroll St. on the 6th floor, and shares its space with the downtown Madison College.
Come and explore our exhibits!

Admission is free. Donations are gladly accepted.

Parking is available across the street from the museum at the Carroll Street Capitol Parking Garage, 214 N. Carroll Street, Madison WI

Our regular hours are Wednesday & Friday 12pm-5pm, Thursday 2pm-7pm, and Saturday 9am-3pm. We are closed Sunday-Tuesday.

Volunteer

Welcome Desk – Docents – Event Planning
Development – Fundraising – Outreach
Communications – Marketing – Membership
Exhibit and Graphic Design – Exhibit Fabrication
Collections Management

Donate

Please help us to sustain your Madison Science Museum and develop new exhibits. The museum is seeking both financial and in-kind donations including possible exhibit items and documents. Contact the museum for details.

The Madison Science Museum is a non-profit, tax-exempt, 501(c)(3) organization and a member of the Wisconsin Federation of Museums.

o Contact Us

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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