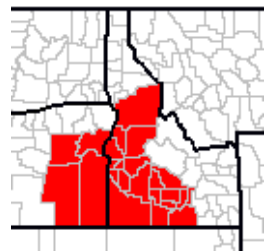




# IEEE Boise Section Newsletter January 2012



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## Upcoming Events

### Saturday, January 28<sup>th</sup> – Discover Engineering Day

Time: 9:00am – 4:00pm

Location: Boise State University

URL: <http://coen.boisestate.edu/DiscoverEngineering>

**Event description:** The 8th Annual Discover Engineering Day is coming. This is a day full of hands-on learning and fun for families. It is a free event provided annually by BSU's College of Engineering. You and your family can try many engineering related projects. Experience a portable planetarium, learn about an airplane to the moon, design a bridge, ride a Segway, build an edible aquifer, experience a wind tunnel, and learn about a group of BSU students who will fly in the famous "Vomet Comet" and experience microgravity while testing a science project they designed. Other activities include: Learn about Super Computing, Build a Bristle Bot, Build a NASA Heat Shield, Ride a Bicycle Generator, 15,000 Volt Demonstration, Robots in Action, and Tie Dye Chromatography. Barbara Morgan, Astronaut Educator, will make a presentation too.

### Thursday, February 9<sup>th</sup> – Boise Section hosts IEEE Guest Speaker George Plosker

Time: 7:00pm – 8:30pm

Location: Boise State University, Micron Engineering Center, Room 106

The Boise section is proud to host IEEE client services manager George Plosker. He will be presenting “**The IEEE: Yesterday and Today**”. This talk will cover the human side of the IEEE's 128 year history. IEEE founders, including Bell and Edison will be discussed, with a special emphasis on Guglielmo Marconi. This presentation with live demonstration will also cover the latest features and insider tips when searching IEEE Xplore. Plus, learn what IEEE Xplore can do that Google can't! Refreshments will be provided.

George is visiting Boise on February 9<sup>th</sup> and 10<sup>th</sup> and will be making presentations not only to our section but also to students at BSU and professionals at HP and Micron. Look to attend either the section event or one of the following events if you are a student at BSU or work at HP or Micron:

BSU ECE Senior Design class, Feb. 9, 10:30 AM: “Career, Content and Networking: Today's IEEE”

The IEEE is the world's largest technical membership association with over 400,000 members worldwide. Learn how the IEEE can contribute to your career and education. No longer just about Electrical Engineering, the IEEE has moved into a wide range of related technical disciplines. This talk explores how the IEEE furthers its members' careers via the provision of networking opportunities and on-going technical education. Specific resources available to the Boise State University community and to IEEE members will be described and demonstrated.

HP, Feb. 10, 10:00 AM, contact Chris Gunning ([cgunning@ieee.org](mailto:cgunning@ieee.org)) for details.

Micron, Feb. 10, 2:00 PM, Tech Connect event, Room 17-103ME/MW, contact Randy Wolff ([r.r.wolff@ieee.org](mailto:r.r.wolff@ieee.org)).

“Strategies for Using IEEE Xplore”

If you are an IEEE member, an engineer, or a researcher in technology, you know how knowledgeable research skills will contribute to you and your company's success.

This briefing will highlight best practices use of IEEE Xplore, a digital library providing full text access to more than three million IEEE documents. Learn about insider tips on constructing search strategies and how to stay current. See how use of IEEE Xplore can:

- Impact technical development and business results
- Promote collaboration and knowledge sharing
- Save time and improve productivity by not “reinventing the wheel”
- Shorten time to market
- Discovering competitors' research through author affiliation searches

The talk will cover the IEEE Xplore interface and how to take advantage of the latest value-added features.

## Wednesday, February 22<sup>nd</sup> – IEEE Boise Section Annual Banquet

Time:

- 5:30 pm – Doors open for reception (non-alcoholic cocktails and cheese/fruit hors d'oeuvres)
- 6:15 pm – Dinner served
- 7:00 pm – Presentation begins

Location: Boise State University, Student Union Center - Bishop Barnwell Room

Normal Registration Fee / Early Registration Fee:

- \$30 / \$25\* for IEEE members and their guest
- \$35 / \$30\* for non-members
- \$15 / \$10\* for IEEE student branch members

Registration and Payment URL: [https://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/10233](https://meetings.vtools.ieee.org/meeting_view/list_meeting/10233)

Early registration with reduced rate deadline is February 8<sup>th</sup>, 5:00pm. Normal registration will close February 14<sup>th</sup> at 5:00 pm. Registration will be limited to 64, due to available space, and payment is only accepted on-line through the registration link above. Buffet Menu: Sesame Chicken with Cumberland Sauce, Sliced Flank Steak with Savory Mushroom Demi-Glace, Tossed Salad with Two Dressings, Minted Fresh Fruit Salad, Wild Rice Pilaf, Roasted New Potatoes, Asparagus and Rolls with Butter.

### **Topic: “Nanoscale to Exascale: Enabling Future High Performance Computing”**

Recent advances in CPU and GPU architectures are enabling new levels of supercomputer performance. Once the clear leader in supercomputing capability, the top performance supercomputers no longer reside in the USA and innovation is fast-paced on a global basis. In his talk, Mr. Klein will explore the architectures of today's performance leading machines, with a look forward at the enabling technologies of future of high-performance computing.

**Guest Speaker:** Dean Klein

Dean Klein is Vice President of Memory System Development at Micron Technology. Mr. Klein joined Micron in January 1999, after having held several leadership positions at Micron Electronics, Inc., including Executive Vice President of Product Development and Chief Technical Officer. He also co-founded and served as President of PC Tech, Inc., previously a wholly-owned subsidiary of Micron Electronics, Inc., from its inception in 1984. Mr. Klein's current responsibilities as Vice President of Memory System Development focus on developing solid state drive technologies and capabilities.

Mr. Klein earned a Bachelor of Science degree in electrical engineering and a Master of Electrical Engineering from the University of Minnesota, and he holds over 220 patents in the areas of computer architecture and electrical engineering. He has a passion for math and science education and is a mentor to the FIRST Robotics team ([www.USFIRST.org](http://www.USFIRST.org)) in the Meridian, Idaho school district.

**Friday, April 20<sup>th</sup> – IEEE Workshop on Microelectronics and Electron Devices (WMED)**

Time: 8:00am – 6:00pm

Location: Jordon Ball Room, Student Union Building, Boise State University

URL: <http://www.ewh.ieee.org/r6/boise/wmed2012/WMED2012.html>

**WORKSHOP DESCRIPTION**

The **2012 IEEE Workshop on Microelectronics and Electron Devices**, to be held on April 20<sup>th</sup>, 2012 at the Boise State University Student Union Building provides a forum for reviewing and discussing all aspects of microelectronics including semiconductor processing, electrical characterization, advanced design techniques, and new device technologies. The workshop consists of invited talks, contributed papers, tutorials, as well as a poster session in the afternoon. With its growing attendance, regional impact, and history of premier invited speakers, this year's workshop is an excellent opportunity for students and professionals to share their work with technologists and engineers from all around the region. The keynote speech will be given by Prof. Rahul Sarpeshkar from MIT on the topic of bioelectronics. In the past, we have had the privilege of hosting several distinguished speakers like Dr. Han Stork (Texas Instruments), Dr. Al Fazio (Intel Corporation), and Prof. Mark Lundstrom (IEEE Fellow, Purdue University). IEEE-formatted manuscripts can be submitted to the WMED Publications Chair, Suraj Mathew ([sjmathew@micron.com](mailto:sjmathew@micron.com), +1 208-363-1633). The manuscript submission deadline is January 27<sup>th</sup>, 2012. For more information please visit the [WMED-2012](http://www.ewh.ieee.org/r6/boise/wmed2012/WMED2012.html) website.

The WMED–2012 will also have a High School program in conjunction with the main conference in order to support the effort of encouraging STEM education among High School Students in the Treasure Valley. WMED has adopted High School program for the last six years successfully. This year's High School program will be a half day event which will include the keynote talk and a panel discussion constituting of engineers from all age groups who will relate their experiences and take questions from the students about careers in engineering.

**IMPORTANT WORKSHOP DATES**

January 27, 2012–Manuscript Submission Deadline

April 02, 2012–Deadline for Advance Registration

April 20, 2012–Workshop

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**Announcements****Section Awards and Call for Nominations**

The IEEE has many awards available to recognize the talents and efforts of its members and people sharing our goals. The section annually solicits nominations for some of these awards and awards them to our members. These section winners are then forwarded to a similar awards competition in the Area. Winners from the Area compete for awards in the Region.

The 2011 Boise Section awards went to:

**Outstanding Engineer Award – [Perry Lea](#)**

**Outstanding Leadership and Professional Service Award – [Steve Groothuis](#)  
Outstanding Corporate Service to Engineering Community Award – [Micron Foundation](#)**

We are pleased to announce that the Micron Foundation won both the Area and the Region 6 Outstanding Corporate Service to Engineering Community awards. The awards will be presented at the Boise Section Engineer's Week banquet.

There are many awards available through IEEE at the Region and USA levels. The Boise section plans to nominate candidates for several awards at our next OpComm meeting in March. Please consider submitting nominations for the following award categories:

**Outstanding Engineer Award**

Award is designed to recognize IEEE members of Region 6 who through their technical abilities have made outstanding contributions to their profession. It recognizes the development of new technical concepts, significant patents, development of new devices, development of applications, new designs, significant cost reductions using known techniques, etc.

**Outstanding Leadership and Professional Service Award**

Award is designed to recognize IEEE members of Region 6 who through their professional and technical abilities have made outstanding and noteworthy contributions to the Institute, their communities, fellow professionals and fellow man. The award is not designed to recognize a single achievement, but rather collective contributions complemented by singular works exemplifying the objectives and attributes of IEEE.

**Outstanding Corporate Service to Engineering Community Award**

Organizational awards are provided to those companies, or divisions of a company that encourage volunteerism through its practices. In particular, the atmosphere created by the company to facilitate the IEEE volunteer(s) to do his or her job, or supporting the volunteers by permitting free or discounted use of company resources.

**Distinguished Public Service Award**

To honor individuals not currently in the practice of engineering for contributions to furthering the professional goals of IEEE. These goals may be furthered by such means as promulgating laws or regulations benefiting the profession; influencing industrial environments to foster professionalism; creating curricula or publications designed to enhance professionalism; and other similar activities. Evidence of contributions shall include but not be limited to promulgation of laws benefiting the profession; promulgation of regulations benefiting the profession; creating an internal industrial environment to foster professionalism; and establishment of curricula and/or publications designed to enhance professionalism

**Outstanding Young Professional Award**

To recognize significant specific contributions, achievements and individual and organizational efforts in the development and implementation of professional activities for young professionals of less than 35 years of age. Selection shall be based on the dedication, effort and quality of an accomplishment achieved on individual effort in the development and implementation of professional activities.

**Meritorious Achievement Award in Continuing Education**

To honor IEEE members for dedicated contributions to the design, delivery and support of continuing education courses and programs in the field of interest to IEEE members.

**Major Educational Innovation Award**

To honor IEEE members who have distinguished themselves for outstanding educational innovation in a field of interest of the IEEE.

**Pre-University Educator Award**

To honor IEEE members and current pre-University classroom teachers who have inspired an appreciation and understanding of Mathematics, Science and Technology and the engineering process in students, and who have encouraged students to pursue technical careers.

Please contact Randy Wolff ([r.r.wolff@ieee.org](mailto:r.r.wolff@ieee.org)) with your nominations.

**IEEE Boise Section Working with Makers United to Plan Maker Faire**

By Randy Wolff

Members of Makers United met with the IEEE Boise Section officers at our OpComm meeting in December. They introduced us to the Maker Faire, an event that brings together the Do-It-yourself crowd and fits nicely into the IEEE Boise Section ethos. Our section plans to be a major sponsor of the event, and I hope you are as excited as I am about the possibilities this brings to our community to connect engineers with the rest of the DIY'ers. Our section will have a booth at the event, and I encourage our members to think about how they might contribute including hauling their favorite tinkering projects out of the garage and sharing their genius with the community. The cost of individual booth space will be discounted for IEEE Boise members as will admission for members and their families. Look for more information on IEEE's involvement in future newsletters and emails. Read on for an in-depth description of the event from Jenny Kniss, one of the event organizers.

## Boise Maker Faire is coming!

By Jenny Kniss

For those of you not yet initiated into the world of the "Do It Yourself" culture champions at MAKE Magazine, you are in for a treat.

A Boise State University student group called Makers United has been working with Maker Faire (an association with O'Reilly Publishers and MAKE Magazine) coordinators to host Boise's first official Maker Faire, Boise Mini Maker Faire, in September of this year.

The mission of Maker Faire events is to inspire, inform, connect and entertain thousands of Makers and aspiring Makers of all ages and backgrounds through the public gathering of tech enthusiasts, crafters, educators, tinkers, hobbyists, science clubs, students, authors and commercial exhibitors. The inaugural Maker Faire was held in San Mateo, CA and just celebrated its sixth annual Bay Area event with some 100,000 people in attendance. As Maker Faire continues to grow in popularity and relevance, it expanded to Detroit and New York City in 2010. Community-driven, independently produced Mini Maker Faire events inspired by Maker Faire are now being produced around the United States and the world, including Boise Maker Faire. Maker Faire is supported by MAKE Magazine and O'Reilly Media, the premier information source for leading-edge computer technologies.

**MAKE** is the first magazine devoted entirely to Do-It-Yourself (DIY) technology projects. MAKE unites, inspires, informs, and entertains a growing community of resourceful people who undertake amazing projects in their backyards, basements, and garages. MAKE celebrates your right to tweak, hack, and bend any technology to your will. MAKE is published quarterly by Maker Media, the division of O'Reilly Media, Inc., that also produces the wildly popular **Make: Online** ([www.makezine.com](http://www.makezine.com)), **CRAFT** ([www.craftzine.com](http://www.craftzine.com)), the **Maker Shed** online store for DIY kits, books, and more ([www.makershed.com](http://www.makershed.com)), and the world's biggest DIY festival, **Maker Faire** ([www.makerfaire.com](http://www.makerfaire.com)).

Boise's Mini Maker Faire is a family friendly, interactive, innovative, professional, punk rock, engaging - and above all FUN - event. As the partnership with IEEE develops, Makers United will work with IEEE to showcase the engineering side of the Boise maker culture, including students and professionals.

Just one of many ideas is brewing in the spirit of Maker Faire in which IEEE can choose to partake in:

Makers United has created an entire section devoted to a story told by one of the Boise Mini Maker Faire's marketing team whose youngest of two children spent time in the hospital for an unusually dangerous case of asthma. Her oldest brought her a crayon drawing of what he referred to as a "De-Uckier Machine". In the style of a young Dr. Seuss, the drawing featured a machine with squiggly arms pulling dirty 'uckies' out of the air at one end and clean air out the other for his little sister. It was a first leap into innovation that (with a humidifier/air purifier, a few artistic notes, and engineering skill) could have been created to fulfill a contribution a young creative mind wanted but did not yet have the tools. "Not yet" being the operative words.



Makers United quickly realized an addition to the faire would be the creation of five to ten tripartas: a child and his/her drawing, an engineer, and a fine artist to create a real-life interpretation of the creative innovation these youth put down on paper. The finished work, complete with the name given by the youngsters and the original drawing (along with the artist and engineers' drawings/plans), would be proudly displayed at the faire as an example of youthful, creative, technical and artistic maker collaboration.

## 2012 Outreach Coordination Opportunities for IEEE

Lynn Olsen, Recruiting Coordinator in the College of Engineering, BSU, attended IEEE Boise Section meeting on January 12, 2012. She talked about various outreach activities that IEEE members would be interested to participate in coming months. Since 2004, Lynn has volunteered on the Idaho National Engineers Week Future City Steering Committee, promoting engineering to 6th-8th grade students and serving the last three years as the Idaho Regional Coordinator.

### **Event Schedule:**

#### **January**

- 28, 9am-4pm, **Discover Engineering Day** at Boise State – Families and all ages ([coen.boisestate.edu/DiscoverEngineering](http://coen.boisestate.edu/DiscoverEngineering))

#### **February**

- February 19-25, **National Engineers Week**, ([eweek.org](http://eweek.org))
- 23 –ISPE Engineering Week Luncheon ([idahospespe.org/calendar.htm](http://idahospespe.org/calendar.htm))
- 23 - Introduce a Girl to Engineering Day ([eweek.org/site/News/Eweek/girlsday.shtml](http://eweek.org/site/News/Eweek/girlsday.shtml))

#### **March**

- March 15-18, **Society of Hispanic Professional Engineers Regional Leadership Development Conference**, ([onshpe.shpe.org/pages/rldc/](http://onshpe.shpe.org/pages/rldc/)) & Diana Ornelas @ [dianaornelas@u.boisestate.edu](mailto:dianaornelas@u.boisestate.edu)

#### **April**

- April 14, **e-Day**, free one day camp hosted by the Society of Hispanic Professional Engineers student chapter ([coen.boisestate.edu/k-12/summer-programs/](http://coen.boisestate.edu/k-12/summer-programs/))

#### **June**

- June 3-5, **e-Camp**, Grades 8-9 - Overnight camp for students currently in 8th and 9th grades. Application deadline May 1st.
- June 8-9, **e-Girls**, Grades 9-11 - Free overnight program for girls currently in 9th, 10th and 11th grade. Application deadline is May 1st, limited enrollment ([coen.boisestate.edu/k-12/summer-programs/](http://coen.boisestate.edu/k-12/summer-programs/))
- June 20-22, **ISPE 2012 Annual Meeting**, Continuing Education Opportunities for Engineers ([idahospespe.org/calendar.htm](http://idahospespe.org/calendar.htm))

#### **Anytime**

- **Industry Panels** - Present to Boise State Engineering Students on “Collaboration for Real – Life Education” – Share experiences, work based learning, best practices, challenges, advice, benefits of internships, etc.
- **Speed/Mock Interviews** – Practice interviews of Boise State Engineering Students as they are looking for summer jobs and internships

#### **Female Engineers**

- **Boise State Alumni** – Coordinate with Lynn Olson Recruitment Coordinator on Outreach Efforts to Prospective/Applied Female Engineering Students ([lynnolson1@boisestate.edu](mailto:lynnolson1@boisestate.edu))
- **Women In Technical Careers** –([students.micron.com/women\\_home.html](http://students.micron.com/women_home.html)) Cathy Ammirati [cammirati@micron.com](mailto:cammirati@micron.com), 1/24 – Hillside Jr High, 2/2 – Eagle High School, 3/1 – Capital High

#### **Future Event**

- **SMART Competition** - ([www.smartcompetition.org](http://www.smartcompetition.org)) New educational program introduces the smart grid, sustainable technology, renewable energy and intelligent environmental design as the framework for a high school student design competition. Students participating in the SMART Competition program will gain and demonstrate life skills and a better

understanding of the smart grid, localized power generation, green building design, the environment, community, livability and sustainability related issues.

## Ham Radio Classes

Author/Contact: Aaron Rynearson ([aaronr@hp.com](mailto:aaronr@hp.com))

The HP Boise Amateur Radio Club (HPBARC) will be holding a free course where you can learn everything you need to earn your Technician FCC Amateur Radio License. The Technician license is your gateway to the world-wide excitement of Amateur Radio ..... and now you do NOT need to learn Morse code!

The course is four sessions, February 25-26 and March 3-4, Noon to 5pm each day.

FCC License Examinations will be offered March 4 following the course. All sessions will be held on the HP Boise Campus. Registration is required.

There is no fee for the class, but you will need to purchase a study guide/book (\$12-\$30) and pay the \$15 FCC Exam Fee for your license exam on Sunday. Register here: <http://creator.zoho.com/hpbarc/register>. For more information, contact: [HamClass@hp.com](mailto:HamClass@hp.com)

This class is not restricted to HP employees; friends and family are more than welcome. Feel free to pass this message along to anyone who may be interested.

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## Section News

### The Boise Chapter of the IEEE Computer Society announces new officers for 2012

By Joe Rekiere

**Chair** – Joe Rekiere  
**Treasurer** – Visvanathan Shekar  
**Secretary** – Chris Gunning  
**BSU Liason** – Nader Rafla  
**Publicity / Webmaster** – Jim Krahn  
**Speaker Chair** - Open  
**Vice Chair** - Open

As the 2012 chair, I would like to extend my welcome to the members and volunteers of the Boise Chapter of the IEEE Computer Society, and thank you for your confidence in my leading you this year. I look forward to building upon the momentum of Denise Korman and thank her for her leadership these last two years.

This year, I would like to see our members to get more than just a membership in 2012. I encourage you to take advantage of what the IEEE Computer Society has to offer, and use this year to excel your career and build relationships with local professionals. I invite you to consider developing your leadership and networking skills and volunteer to help with one of the activities throughout the year. Perhaps you could help organize a technical session, the fall banquet or a social gathering. Or fill one of the vacant officer positions. I welcome your input and look forward to meeting with you and working with our volunteers.

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## Notes:

## Company Liaisons

Do you work at a company that employs engineers within our section? We invite each company to have one 'Company Liaison' to join our section's operational committee. The main responsibility of these people is to provide a point of contact to send information from the section Operations Committee to members working at these companies and to return information as to how the needs of their engineers can be met by the section. Company Liaisons are included in email discussions from the OPCOMM, and are encouraged to help advertise section events to members and non-members at their place of employment beyond the section newsletters. They are invited along with all the section members to attend OPCOMM meetings and give us input. If you are interested in being a company liaison, please contact Randy Wolff ([rrwolff@micron.com](mailto:rrwolff@micron.com)).

## Do We Have Your Correct E-mail?

If you haven't been receiving the newsletter or event notices electronically, check what we have for your email address on your mailing label. Please notify both the IEEE ([address-changes@ieee.org](mailto:address-changes@ieee.org) or <http://services1.ieee.org/membersvc/coa/intro.htm>) and the Boise Section Chair Randy Wolff ([rrwolff@micron.com](mailto:rrwolff@micron.com)) so we can add you to our electronic mailing list (we get address corrections only once a month from the IEEE). To assure that you get timely information about IEEE Boise events, please make sure we have your correct email address in our address database.

## Your 2012 Officers:

### IEEE Boise Section:

Chair: Randy Wolff

[rrwolff@micron.com](mailto:rrwolff@micron.com)

Vice-Chair: Jaydip Guha

[guhajaydip@yahoo.com](mailto:guhajaydip@yahoo.com)

Secretary: Kristen Hopper

[kmmcnair@ieee.org](mailto:kmmcnair@ieee.org)

Treasurer: Sean Collison

[scollison@gmail.com](mailto:scollison@gmail.com)

Membership: Duane Goodner

[duane\\_goodner@gmail.com](mailto:duane_goodner@gmail.com)

GOLD Chair: TBD

PACE: Manjunath Bhuyar

[manjunath.bhuyar@ieee.org](mailto:manjunath.bhuyar@ieee.org)

Web Page: Kevin Turner

[kevin@kmtturner.com](mailto:kevin@kmtturner.com)

Newsletter Editor: Jaydeb Goswami

[jgoswami@micron.com](mailto:jgoswami@micron.com)

### Boise EDS Chapter:

Chair: Shyam Surthi

[ssurthi@micron.com](mailto:ssurthi@micron.com)

### Boise PE&IA Chapter:

Chair: Mark Bussert

[mbussert@ieee.org](mailto:mbussert@ieee.org)

### Boise Computer Society Chapter:

Chair: Joe Rekiere

[jrekiere@ieee.org](mailto:jrekiere@ieee.org)

### Student Branch at Boise State University:

President: Jason Archer

Vice President: Daniel Steik

Secretary: Kyle Straub

Treasurer: Nick Luong

[ieee.bsu.officers@gmail.com](mailto:ieee.bsu.officers@gmail.com)

### Region 6 Northeast Area Chair:

Elisa Barney Smith

[EBarneySmith@boisestate.edu](mailto:EBarneySmith@boisestate.edu)





You make a difference when you join the IEEE.

<http://ieeoboise.org/>