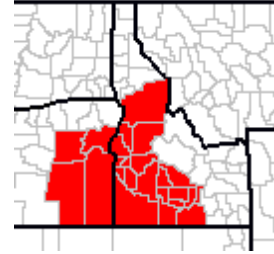# IEEE Boise Section
ieeeboise.org
Newsletter
February 2014

Section News

IEEE Boise Section Announces New Officers for 2014
by Kristen Hopper

Chair	Kristen Hopper	PACE Chair	Chris Gunning
Vice Chair	Sean Collison	Webpage Editor	Ross Butler
Secretary	Hao Chen	GoLD Chair	Sourabh Dhir
Treasurer	Stephen Schwarz	Newsletter Editor	Adrian Sitterle
Membership Development	Randy Wolff		

I am pleased to congratulate and welcome the 2014 Section officers and express my gratitude to the members and volunteers of the IEEE Boise Section for allowing me the opportunity to serve as your 2014 Section Chair. I would further like to sincerely thank Randy Wolff for dutifully serving as Section Chair for the past two years. I look forward to furthering his efforts this year.

I encourage all Section members to take full advantage of their IEEE membership. IEEE is the world's largest professional association for the advancement of technology. Involvement in our Section provides the opportunity to network with other technical professionals in the Treasure Valley and advance one's career and the profession. The Section contributes finances as well as volunteers to

various STEM activities in the Treasure Valley, strengthening the engineering pipeline within the region. The Section also supports initiatives to foster innovation and entrepreneurship in our local area.

It's never too late to volunteer! Even if not serving in a role as an officer of either the Section or one of our chapters, officers are always delighted to have a helping hand with the technical and professional activities organized through the year. Volunteering is an excellent way to understand an officer's role, should you be interested to become more involved. Feel free to contact the above-listed officers with any questions or interests you may have. We would be thrilled to hear from you.

Events

IEEE Boise Computer Society Presents SSDs
with Guest Speaker - Daniel Hubbard

Thursday, Feb 13, 2014, 7:00 PM
Boise State University, ENGR 103 Engineering bldg – adjacent to MEC –Micron Engineering Center
BSU Map: http://maps.boisestate.edu/?search=ENGR

Computing storage continues to evolve. For the longest time, Hard Disk Drives (HDDs) were the only option when purchasing a personal computer, laptop, etc. But over the last decade, solid-state drives (SSDs) have grown to become another (and sometimes the only) option when purchasing a new computing device. What are SSDs? How do they work? How are they different from traditional HDDs? What goes into designing and developing an SSD? Come find out as Daniel covers these topics and more in his presentation.

Daniel Hubbard (B.S., Electrical Engineering, University of Idaho, 2005) works as the SSD Systems Engineering Supervisor at Micron Technology's corporate headquarters in Boise, ID. Daniel has had an interest in working on embedded systems since his time at college. In his 8 years at Micron, he has had various positions working on embedded systems including Module Product Engineer, SSD Systems Engineer, SSD Systems Compatibility Supervisor, and SSD Systems Engineering Supervisor. The products Daniel has worked on include (but not limited to): DDR2/DDR3 DRAM Modules (UDIMM, RDIMM, Mini-DIMM, SODIMM, FBDIMM) and SSDs (C200, P200, C300, P300, C400, P400e, P400m, M500, etc).

Open to members and non-members at no cost.

IEEE Boise Computer Society: http://www.ewh.ieee.org/r6/boise/computer/
Please contact Richard Murphy (rcmurphy@micron.com) for additional information.

IEEE Boise Section Annual Banquet

Tuesday, February 18, 2014 – 5:30PM – 8:00PM
Angell's Bar & Grill, 999 W. Main St., Boise

You are invited to attend this year's IEEE Boise Section Annual Banquet in observance of Engineers Week. The banquet will be held Tuesday, Feb. 18, in a new venue and feature distinguished speaker Mr. David Manning, Idaho Power IT Enterprise Architect, who will discuss "Pragmatic Technical Debt Management". This annual event is a unique opportunity to network with other technology-minded

professionals and foster innovation within the Treasure Valley. IEEE Membership is not required to register, so encourage colleagues, friends and family to participate in this community happening.

Take advantage of early registration pricing, available now until 7 Feb 2014, and note that IEEE Senior Members receive an additional discount. Final registration ends 14 Feb 2014. Refer to this link for further information and registration:
https://meetings.vtools.ieee.org/meeting_view/list_meeting/22167.

Boise State University Student Branch to Host Student-Professional Awareness Conference

Friday, March 14, 2014
Student Union Building

The BSU student branch, in conjunction with the local chapter of Eta Kappa Nu, will be hosting its first Student-Professional Awareness Conference (S-PAC), an event aimed at demonstrating to students some of the non-technical skills needed for personal and professional development during an engineer's career. S-PAC topics can include innovation, integrity, communication, and leadership, among others.

Boise State University's first S-PAC event will be held on Friday, March 14, 2014 in the Student Union Building. Speakers for the event will be

- Marian Barchilon   Arizona State University High Performance Teams in the Workplace
- Jonathan Chew   Walt Disney Imagineering Innovation and Creativity
- Pat Sewall   Uceem founder and CEO Adventures in Serial Entrepreneurship
- Prateek Sarkar   Google Inc.   Google's Image Search

Lunch will be served in the middle of the day and time will be allocated between talks to allow for breaks and mingling.

Because this is the inaugural year of the event at BSU, seating is limited. The event is free for students. Professionals are invited to join us as well; however, we request that professionals make a donation at the door for lectures and pay $20 if you wish to join us for lunch (reservations required) to help us offset some of the costs.

See the student branch website http://coen.boisestate.edu/ieee/ or contact Blake Rapp <blakerapp@u.boisestate.edu> for more information.

IEEE Boise Technical Talk: Exploring Saturn with Shallow Probes
with Dr. David Atkinson

Wednesday April 2nd at 4:30pm
MEC 301, Boise State Campus

Dr. David Atkinson from the University of Idaho and JPL will be giving a talk to the Boise Section and the community about his research and development work on NASA's Saturn exploration missions. The talk is titled "Exploring Saturn with Shallow Probes." Dr. Atkinson was a Co-Investigator on the NASA/ESA Cassini/Huygens Doppler Wind Experiment that successfully measured the winds in the atmosphere of Titan (the largest moon of Saturn) in 2006, and was the Chair of the European Space Agency Huygens Probe Descent Trajectory Working Group. As the Lead of the Galileo Doppler Wind

Experiment, in 1995 Dr. Atkinson performed the first measurements of the deep atmospheric winds on Jupiter.

All are welcome.

IEEE Workshop on Microelectronics and Electron Devices
By Jaydeb Goswami

Friday, April 18th – 8:00AM – 6:00PM
Jordon Ball Room, Student Union Building, Boise State University
http://www.ewh.ieee.org/r6/boise/wmed2014/WMED2014.html

Advance Registration Deadline: April 4, 2014

The 2014 **IEEE Workshop on Microelectronics and Electron Devices (WMED)** will be held at Boise State University Student Union Building on 18th April, 2014. This international workshop is designed to provide a stage for discussion, review and deliberation on different aspects of silicon and non-silicon technologies that include device technology, future and current challenges in IC processing, advanced design techniques. The workshop is divided into different sections that include invited talks from university and industry, tutorials, contributed papers and poster session. This year's workshop is a perfect opportunity for students and professionals to share their ideas and technical know-how with technologists and engineers from all around this region. This year, WMED will host some of the distinguished professors and technologists who have spearheaded some of the most exciting technologies and ideas in their respective fields.

Speakers:
> **Luke Lee, UC Berkeley** – BioPOETS
> **Geoffrey Yeap, VP, Qualcomm** - Smart Mobile SoC
> **Tom Lee, Stanford** - Noise Effects in Amplifiers, Mixers and Oscillators (Tutorial)
> **Muhammad A. Alam, Purdue** - Semiconductor Device Reliability (Tutorial)
> **Mukta Farooq, IBM** - 3D Chip Stacking
> **Yuan Taur, UC San Diego** - CMOS Device Scaling: Past, Present, and Future
> **Brent Keeth, Micron** - Hybrid Memory Cube
> **Srinivas Aluru, Georgia Tech** - The Automata Processor for Bioinformatics

WMED–2014 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 area. WMED has adopted High School program for the last seven years successfully. This year's High School program will be a half day event which will include the keynote talk, hands-on activities, 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.

Community Information

About Kickstand
http://www.kickstand.org/

Kickstand is a Boise organization whose mission is to connect, inspire, and support all entrepreneurs. Kickstand members connect with each other on the second Thursday of each month. Special guest speakers are invited to inspire all of us. Kickstand Board members and Organization members are there to support each other, help with business issues, offer resources available in the Boise Area and help you grow your business.

The IEEE Boise Section is sponsoring free admission (covering the $10 fee) for our members. If you are entrepreneurial and are looking for help with bringing your business idea to fruition, consider attending the next Kickstand meeting. You must bring your IEEE membership card and present it at check-in to receive the free admission.

STEM & SMART Initiative
by Mike Andrews

Registration for the SMART Competition closes February 3rd.

The SMART Competition (http://www.smartcompetition.org) was developed for high school students to provide an academic, career and technology focus in STEM and CTE fields.

The SMART Competition is a high school team-based educational program that provides a practical investigation of the smart grid, the use of sustainable materials in the redesign of a gymnasium on a virtual high school campus and power generation using renewable technology. The intelligent design problem uses a campus as a virtual modeling platform.

The Competition Program Activities and Deliverables combine the use of the Bentley software tools, the technical support infrastructure and the academic relevance as essential components to student engagement. The tools and program expectations provide the students with a real-world experience. In addition to the theoretical and practical environment the students will become immersed in, the program has a strong career and hands-on technical element. The software tools give the students the capability to work for engineering and design firms while in school or immediately following graduation. In addition to Bentley Microstation platform, the primary tools the students will use in the competition are AECOsim Building Designer and AECOsim Energy Simulator.

SMART is entering its fourth year. Last year we engaged students from around the world…from China, across North America, through Europe to Turkey.

Boys Scouts Badge Pow-Wow
Are you a former Boy Scout? Do you have a child in Boy Scouts? The Boise Section is eager to host a Boy Scouts Badge Pow-Wow. Our friends in the Utah section have run these twice and both were very successful. We have held a planning teleconference with the Utah Section and are eager to move forward but need more volunteers to make this happen. Merit badges we are considering to offer include:

- Computers
- Electricity
- Electronics
- Engineering
- Radio
- Robotics
- Inventing
- Geocaching
- Metal Work
- Programming

We will select a subset based on volunteer interest. Participating scouts will be charged a nominal fee to cover expenses. Requirements to be a BSA merit badge counselor are: 1. Willing to work with youth, 2. Register with BSA and take the Youth Protection Training available online at <https://myscouting.scouting.org> Please contact ieee.boise.chair@gmail.com if interested.

Girl Scouts Technology Event
We aren't leaving out the Girl Scouts. This summer we have been invited to participate in a one day technology event for the Girl Scouts in Boise. Details are still being worked out. If you are interested, please contact Elisa Barney Smith, EBarneySmith@boisestate.edu.

SIGHT—Special Interest Group on Humanitarian Technology

Are you interested in using your engineering skills to help others? IEEE has had the tag line "Advancing Technology for Humanity" for several years. This past fall the Boise Section formed a SIGHT group. The group's next meeting will be Thursday Feb 6th from 6-7pm at 4859 Bradley Street, Garden City. Contact Kip Sikes <kipsikes@cableone.net> for more information.

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 ieee.boise.chair@gmail.com.

Your 2014 Officers

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Boise Computer Society Chapter Chair	Visvanathan Shekar	visvanathan.shekar@hp.com
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Vice President	Brian Dambi	
Secretary	Janos Cserna	
Treasurer	Ali Ibrahim	
Region 6 Northeast Area Chair	Dan Christenson	Dan.Christenson@us.af.mil

You make a difference when you join the IEEE.