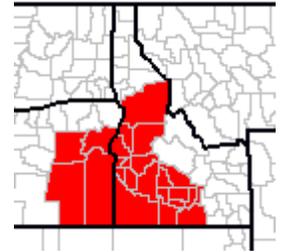




# IEEE Boise Section Newsletter July 2009



## Upcoming Events:

### **Wednesday, Aug 5<sup>th</sup> – IEEE Boise Career Builder Workshop**

Date/Time: August 5th, 7:00pm – 8:00pm  
Location: Hillcrest Branch of the Boise Library.  
Cost: No Charge.  
RSVP: [boiseieee@gmail.com](mailto:boiseieee@gmail.com)

### **Friday, September 18<sup>th</sup> – IEEE Boise Annual Picnic**

Date/Time: September 18<sup>th</sup>, 5:00pm – 9:00pm  
Location: Boise Municipal Park  
Cost: No Charge

### **Wednesday, October 28<sup>th</sup> – IEEE Boise Computer Society Annual Banquet**

Date/Time: October 28<sup>th</sup>, 7:00pm – 8:30pm  
Location: Boise State University  
Cost: To Be Announced

## Event Details:

### **IEEE Boise Career Builder Workshop**

#### WORKSHOP HIGHLIGHTS

- Resume review
- Networking Opportunities
- IEEE Career Resources
- Free Food

#### WORKSHOP DATE

Wednesday, August 5, 2009 7:00PM – 8:00PM

#### WORKSHOP LOCATION

Library! At Hillcrest. Limhi Conference Room.  
5246 W. Overland Road  
Boise, ID

*Located in the Hillcrest Shipping Center at Overland and Orchard.*

#### WORKSHOP DESCRIPTION

The career building workshop is to help improve a participant's resume, offer an opportunity to network among peers, and to present the career building resources available through the IEEE. Bring three copies of your resume to the event to have it reviewed.

Space is limited. Reserve your place by emailing to [boiseieee@gmail.com](mailto:boiseieee@gmail.com), and include the following in the email.

Subject: IEEE Boise Career Builder Workshop

Body: First Last Name.

For questions, contact [jrekiere@ieee.org](mailto:jrekiere@ieee.org).

**IEEE Boise Section Annual Picnic**

IEEE Boise Section Annual picnic to be held Friday September 18<sup>th</sup>, at Boise Municipal Park. Watch for future announcements.

**IEEE Boise Computer Society Annual Banquet**

The IEEE Boise Computer Society will hold its annual banquet on Wednesday October 28<sup>th</sup> at Boise State University. All are welcome to attend and join in an evening of food, networking and hearing a presentation from Dr. Mazin Yousif a specialist in grid and autonomic computing and platform design with multi-core processors. Save the date and look for a future announcement on how to reserve your place for the evening.

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**Note from the Editor:**

Welcome to the summer edition of the IEEE Boise Section newsletter. With summer here, I took a moment to relax and look back on what the section has done in the last three months. It was a busy spring for the Boise Section with its own activities and those of its chapters. There were enough activities for members to attend an event and an opportunity to network with other engineers at least once a month. In April there were two events. The first was the workshop on Microelectronic and Electronic devices sponsored by the Boise Electron Devices Society. They had a great turnout, see article later in this news letter. Also in April, Dr. Elisa Barney Smith from Boise State University gave a presentation on improving optical character recognition at a Boise Computer Society Technical session. Dr. Barney Smith gave a well prepared and informative presentation. In May, the section held a PACE event and invited Lynn Seibold from Micron to present the core aspects of leadership, a great presentation for aspiring managers and current managers. In June the Boise Computer Society seized an opportunity to have Alexey Piterkin speak about iPhone application development. The year's only half over and there are more activities planned, see the Upcoming Events section. And as always, thank you to the volunteers who put in the time to plan and carry out these activities. Have a great Fourth of July and an enjoyable summer.

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**Chapter & Branch News:****Volunteers Needed for Boise Power Engineering and Industry Applications Societies**

The Boise Joint Chapter of the Power Engineering and Industry Applications Societies is seeking chapter Officers and is on the brink of losing its status as a recognized chapter. In the past, this chapter has been one of the most active Boise IEEE groups. Let's keep this chapter going by volunteering to help organize at least two meetings per year. Jared Ellsworth is calling for volunteers who are interested in becoming chapter officers to help revitalize this important Boise chapter. Please contact Jared at [JaredEllsworth@idahopower.com](mailto:JaredEllsworth@idahopower.com), if interested.

**North East Region Meeting of Section Chairs held at Boise State University**

On April 25<sup>th</sup>, Dr. Elisa Barney Smith, the North East Region 6 representative, lead a meeting of the North East Region Chairs at Boise State University. This meeting included the chairs from Eastern Idaho, Montana and Utah, and also representation from Alaska. At this meeting the chairs meet to address the issues of each section and review the common goals. They look for ways to attract more active members, high quality speakers and how to best meet local member needs. The current economic conditions as they are these days were also a concern on how it has affected members. The meeting also gives the chairs an opportunity to share how they have been able to address these needs. We can expect to hear more in the future on how the Boise section will respond to its members needs. In addition to looking out for our members, there's a need at the region level for a PACE representative from our region. If you are interested in volunteering for this position, contact Dr. Elisa Barney Smith, [EBarneySmith@boisestate.edu](mailto:EBarneySmith@boisestate.edu)

**Workshop on Microelectronics and Electronic Devices Held on April 3<sup>rd</sup>, 2009**

By Shyam Surthi, 2009 IEEE/WMED General Chair

The Seventh Annual IEEE Workshop on Microelectronics and Electron Devices (WMED) provided a forum for 180+ attendees to review and discuss all aspects of microelectronics, including processing, electrical characterization, design, and new device technologies. The 2009 IEEE WMED website can provide further details about the workshop through the uploaded presentation copies and photographs of the speakers and attendees: <http://www.ewh.ieee.org/r6/boise/wmed2009/WMED2009.html>.

This workshop included four invited talks, eighteen contributed papers, two popular tutorials, and six student posters. Over thirty IEEE members were in the audience throughout the day. Several talks and posters presented "work-in-progress" research.

The invited speakers included the Keynote Speaker Dr. Vijay Kapur, President and CEO, International Solar Electric Technology whose talk was titled “Commercialization of ‘Ink Based’ and Low Cost CIGS Solar Cells/Modules,” Dr. Jeffrey Welsch, Director, SRC Nanoelectronics Research Initiative speaking on “The Semiconductor Industry’s Nanoelectronics Research Initiative: Motivation and Challenges,” Dr. Daniel C. Edelstein, IBM Fellow and Manager, IBM T.J. Watson Research Center speaking on “Integration/Reliability Issues for Cu/Low-k BEOL Interconnects,” and Dr. Veena Misra, Professor, North Carolina State University who spoke on “Application of High-k Dielectrics in Memory, Power and Emerging Technologies.”

The invited tutorials were presented by Dr. Mark Lundstrom (one of IEEE Electron Devices Society’s Distinguished Lecturers) whose talk was entitled “Device Physics of the Nanoscale MOSFET: An Introduction to Electronics from the Bottom Up” and by Dr. Eric Vogel, University of Texas at Dallas whose talk was entitled “Electrical Characterization of Advanced MOS Devices.”

The 2009 IEEE/WMED Management Team was pleased to announce the Best Paper Award Winner for the paper entitled “Design of a Novel Capacitorless DRAM Cell with Enhanced Retention Performance,” by Peng-Fei Wang, Yi Gong, Shi-Jin Ding, David Wei Zhang, and Shi-Li Zhang, Oriental Semiconductor Co., Ltd, Suzhou, China; Fudan University, Shanghai, China; and MAP, KTH, Stockholm, Sweden. The Best Paper Award Winner for the poster entitled “A New Printable Approach to Nano-Ionic Non Volatile Memory,” Manasseh Obi and Maria Mitkova, Boise State University, Boise, ID.

The 2009 IEEE/WMED Management Team was able to award a new Survey/Feedback Lucky Draw and Student Travel Awards. The Winner of the Survey/Feedback Lucky Draw was David Smith, Boise State University, Boise, ID. The Student Travel Award Winners were (1) Saumitra Mehrotra, Purdue University, “Surface and Orientation Dependence on Performance of Trigated Silicon Nanowire pMOSFETs,” (2) Fan Nelson, University of Idaho, “A Single-Slope Look-Ahead Ramp (SSLAR) ADC for Column Parallel CMOS Image Sensors,” and Saurabh Mandhanya, Washington State University, “A 5 GHz Digitally Controlled Synthesizer in 90 nm CMOS.”

The success of this regional IEEE workshop can be attributed to the hard work and determination of volunteers in the Treasure Valley. The IEEE Boise Electron Devices Society Chapter officers and members believe in the WMED concept and felt that this particular workshop would provide a forum for well-known speakers, microelectronic technologists, and future engineers involved in the semiconductor industry to discuss research, explore new techniques, and to network with local and remote colleagues. We had a continuation of our annual High School Program which brings in key engineers, university students, and experts to discuss items of interest to college-bound students. This year’s talks and panel discussion challenged these students to give serious thought to a career in engineering or science.

The goal of the 2009 IEEE WMED was to provide a set of high quality professional speakers to discuss pertinent issues and concepts within today’s semiconductor industry. Judging by the attendee feedback, we are proud to say that the intended goal was met and exceeded.

This workshop is receiving technical co-sponsorship support from the IEEE Electron Devices Society. We would also like to thank the other financial sponsors including Boise State University’s College of Engineering, Micron Foundation, IEEE Boise Section, and IEEE Boise Electron Devices Society Chapter.



**Figure 1. Dr. Shyam Surthi (2009 IEEE/WMED General Chair)**



**Figure 2. Technical Presentations Throughout the Workshop**



**Figure 3. WMED Provides Unique Networking Opportunities**

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## News & 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 OPCOM, 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 OPCOM meetings and give us input. If you are interested in being a company liaison, please contact Mark Bussert ([mbussert@ieee.org](mailto:mbussert@ieee.org)).

### **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 ([mbussert@ieee.org](mailto:mbussert@ieee.org)) so we can add you to our electronic mailing list (we get address corrections only once a month from the IEEE). Plans often come about for events between newsletters. To assure that you get timely information about IEEE Boise events, please make sure we have your correct email address in our address database.

### **How can the Boise Section better meet your needs?**

The Boise Section officers would like to make the best use of our dues to meet the needs of the engineers in the Boise section. The section currently provides for or partly subsidizes speakers, banquets and picnics through the use of your annual dues. If you have ideas on how to best meet the needs of the sections engineers, contact one of the officers.

### **Volunteering – IEEE Members Get Involved**

Getting Started:

- Contact your local IEEE section and chapters
- Learn about the IEEE Educational Activities Board
- Get Involved with the IEEE Standards Association
- Participate in a technical society or technical council
- Get involved with the IEEE Technical Activities Board
- Shape and promote USA technology policy and professional activities through IEEE-USA
- Organize an IEEE Conference

See *How to Volunteer* at [www.ieee.org/web/volunteers/home/index.html](http://www.ieee.org/web/volunteers/home/index.html)

**Your 2009 Officers:**

IEEE Boise Section:

Chair: Mark Bussert  
[mbussert@ieee.org](mailto:mbussert@ieee.org)

Vice-Chair: Dr. Elisa Barney Smith  
[EBarneySmith@boisestate.edu](mailto:EBarneySmith@boisestate.edu)

Secretary: Chris Gunning  
[cgunning@ieee.org](mailto:cgunning@ieee.org)

Treasurer: Randy Wolff  
[rrwolff@micron.com](mailto:rrwolff@micron.com)

Membership: Dr. Nader Rafla  
[nrafla@boisestate.edu](mailto:nrafla@boisestate.edu)

GOLD Chair: Greg Gatlin  
[ggatlin@micron.com](mailto:ggatlin@micron.com)

PACE: Dorian Kiri  
[dkiri@micron.com](mailto:dkiri@micron.com)

Web Page: Kevin Turner  
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[jrekiere@ieee.org](mailto:jrekiere@ieee.org)

Boise EDS Chapter:

Chair: Steve Groothuis  
[skgroothuis@ieee.org](mailto:skgroothuis@ieee.org)

Boise PE&IA Chapter:

Acting Chair: Jared Ellsworth  
[JaredEllsworth@idahopower.com](mailto:JaredEllsworth@idahopower.com)

Boise Computer Society Chapter:

Chair: Chris Gunning  
[cgunning@ieee.org](mailto:cgunning@ieee.org)

Student Branch at Boise State University:

Chair: Cameron Stewart  
[ieee@boisestate.edu](mailto:ieee@boisestate.edu)



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<http://ieeeboise.org/>