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Cedar Rapids Section - Institute of Electrical and Electronic Engineers  
Serving Engineering Professionals in Eastern Iowa

Visit Our Web Site: <http://www.ieee-cr-section.org>

2014 January

It gives me great pleasure to announce the

Cedar Rapids Section officers for 2014:

- Chair: Gary Bishop
- Vice-Chair: Raman Aravamudhan
- Secretary: Ashley Hochstedler
- Treasurer: Robert Dawson

Please help me welcome Gary Bishop as the chair of our ExCom Committee. Gary served as our Vice-Chair last year and is ready to lead us into 2014.

Raman is a proud Member of the IEEE for about 21 years and Senior Member since 2002. He has served as the Chair of the Consultants' Network as well as the Programs committee for the Cedar Rapids Section. With about 28 years of experience in software /IT industry.

Ashley is a newer member to our ExCom Committee and has been serving as the assistance web master this past year. Ashley is currently employed by International Transmission Company Midwest and has a Bachelor of Science degree in Electric Engineering from the University of Iowa. Her current job title is Associate Engineer within the Substation Maintenance Group. Ashley is currently pursuing her PE License. Ashley is also a member of the Insulating Fluids Committee for Doble Engineering.

Bob continues in his role as Treasurer and mentor for all of us. His years of dedication and service to the Cedar Rapids Section are greatly appreciated.

## 17th Annual Cedar Rapids Professional Development Conference ProCon 2014



## Developing Professional Qualities & Skills!

with Leadership and Project Management  
Tracks

**Tuesday, May 6, 2014**  
Marriott Hotel and Conference Center  
1200 Collins Rd. NE, Cedar Rapids

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## **Boost Your EMC Knowledge & Career with EMC Society Local Chapter Participation & EMCS Membership**

I was an active member of the Chicago Chapter of the EMC Society for more than 10 years. During that time, I had the opportunity to see on a first-hand basis how effective such a chapter can be in promoting education, networking, and general career enhancement to those who took the time to attend the meetings, as well as to contribute to the program content. EMC engineers working in the Cedar Valley and surrounding areas could likewise benefit from the advantages offered by an active EMC Chapter.

The sooner the better. Although some universities and technical schools do offer either an EMC curriculum or some EMC-related courses, those sources can only get you so far. Getting practical, applied knowledge in the EMC field is, without doubt, the best way to fully learn, appreciate, and develop the skills necessary for a rewarding career in EMC.

The IEEE EMC Society web site provides a major starting point for learning more about the Society's publications, events, and learning opportunities. Go to: <http://www.ewh.ieee.org/soc/emcs/>. Then, plan to attend meetings of the local EMCS chapter to broaden your knowledge base. With more electronic systems coming along every week in ever increasing numbers, the importance of EMC skills and knowledge in designing products and solving EMI/EMC issues has never been stronger. The publications, lecturers, technical events, and resources of the EMC Society are all designed to fulfill the specific needs of EMC practitioner.

Some of the available resources are –

- Events and learning opportunities as listed on the EMCS web site
- The annual International EMC Symposium
- IEEE Transactions on Electromagnetic Compatibility
- IEEE EMC Society Newsletter
- Sponsorship of IEEE Standards Development via working groups

The EMCS resources, plus those of a local chapter, can be extremely useful to improve knowledge, encourage networking with peers, and develop specific areas of interest for those who choose to participate in a wide range of activities. For those EMC engineers working in the Cedar Valley area, it is possible to network and

even attend mini-EMC symposiums in Minneapolis and Chicago. Discussions and presentations in the local chapter can help newcomers to either EMC engineering or the area gain confidence in knowing the support they can get from fellow members. A local chapter is also eligible to request presentations from EMCS Distinguished Lecturers, a very valuable learning tool. The combination of EMCS membership, an active local chapter, and the annual International EMC Symposium is a winning deal for those who want to move forward with their skills, knowledge, and career.

Make plans to join the EMC Society, join and participate in the new local chapter, and watch the EMCS web site for more details on upcoming events.

IEEE CR Section EMC Society Chair  
Dale Svetanoff - Sr. EMC Engineer  
E-N-A Systems, LLC

### **Introducing the Cedar Rapids Chapter of the Power and Energy Society Matt Bonneau, Chapter Co-Chair**

The Cedar Rapids Section has a chapter of the IEEE Power and Energy Society, which has grown to 40 members since being started over a year ago.

The IEEE Power and Energy Society (PES) is one of more than 40 technical societies in the IEEE, with a mission "To be the leading provider of scientific and engineering information on electric power and energy for the betterment of society, and the preferred professional development source for our members."

The Cedar Rapids chapter has had tours and presentations at Schneider Electric and Alliant Energy, and the next event is a tour of the new Cedar Rapids Public Library and will be on Thursday, November 14 at 5pm. Details can be found on the Cedar Rapids IEEE Section website ([www.ieee-cr-section.org](http://www.ieee-cr-section.org)). Membership is open to any IEEE member, and dues are \$35 per year. For more information about the Cedar Rapids PES and its activities, please contact Chapter Co-Chair Matt Bonneau at [m.bonneau@ieee.org](mailto:m.bonneau@ieee.org). More information about the IEEE PES is available at [www.ieee-pes.org](http://www.ieee-pes.org), including conference information, member benefits, and technical committees.

## Meet the ProCon Speakers



**Jo Miller** is the creator of the Women's Leadership Coaching™ system. Used successfully by thousands of emerging leaders worldwide, the system identifies the key steps to take to advance into positions of leadership and influence.

A leading authority on leadership, Jo is sought-after, dynamic, and engaging speaker, delivering more than 60 speaking presentations annually to audiences of up to 1,200. She has traveled widely in Europe, North America, Asia Pacific, and the Middle East to deliver keynotes and teach workshops for conferences, professional associations, and Fortune 1000 corporate employee initiatives.

Jo has been developing and implementing coaching programs for emerging leaders since 1998. She was named one of Silicon Valley's "Women of Influence" in 2008 and serves on the board of advisors for Global Tech Women.

Her topics:

### **Become a Person of Influence**

The people who break through into senior leadership positions get there by mastering the art of influence. Explore ways to gain a voice and a seat at the table in your company. Understand the mechanisms of power within your organization and identify six sources of influence you may not be fully utilizing.

### **Build Your Brand as an Emerging Leader**

Are you the best-kept secret in your organization? What does it take to be recognized as an emerging leader? Uncover the three essential elements of an effective personal brand and the five key steps to increasing visibility. Learn how to attract high-profile projects and solidify your reputation as a leader.



**Don Bramlett** received a B.S. in Electrical Engineering and a MBA, in 1973 and 1981 respectively, both from the University of Detroit. He is a licensed Professional Engineer in the state of Michigan.

Don has spent his entire 40 year professional engineering career in the energy industry, both in the natural gas industry with Michigan Consolidated Gas and Michigan Wisconsin Pipeline Company, and then in the nuclear power and fossil power generation segments of the electric utility industry with Detroit Electric.

Don is presently a Senior Project Engineer in Fossil Power Generation with the Detroit Electric Company, a major subsidiary of DTE Energy. Don is a Senior member of IEEE, and has been an IEEE member for 40 years.

His topic: The **Leadership Skills Workshop** is intended to help participants develop and improve interpersonal, group, team and leadership skills. The workshop is targeted to those in management or leadership roles in business, industry, academia or volunteer organizations. However, anyone interested in further developing these skills in dealing with people and working within any type of organization will benefit from the workshop. The format for the workshop includes the presentation of the core material and interactive participation; using exercises, case studies and open discussion. Topics include: Leadership, Interpersonal Communications, Conflict Management, and Problem Solving & Decision Making.

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## **3D Printing. It's Really Real!**

**Feb 20, 2014 @ 5:30**

What will you print? Clothes? Tools? Toys? 3D printing has come to life right before our eyes. One day, in the not so distant future, I believe most every home will have a printing system comparable to that sci-fi replicator we are all familiar with from Star Trek. Though that time is yet to come, we are well on the way..

In this presentation, I will start with a brief explanation of 3D Printing technology today, with my personal outlook on the future of this tech as well. From there, we will demonstrate 3D printing in action. We will also have a handful of 3D printed items for you to see, touch, and feel.

The goal is to help with understanding, and in turn bring 3D printing to the public.

For more information and to register please visit [https://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/19201](https://meetings.vtools.ieee.org/meeting_view/list_meeting/19201) to ensure adequate refreshments and seating.

## **LabVIEW Workshop at Kirkwood Community College**

On August 24, 2013, the Cedar Rapids section of the IEEE hosted a workshop titled "Learn LabVIEW in 6 Hours". The workshop was taught by Chad Erickson, National Instruments Field Engineer for Iowa and Nebraska. The workshop was taught at Kirkwood Community College in one of the Electronics Engineering Technology classrooms in the Department of Industrial Technologies. National Instruments supplied the hardware for the workshop. Sixteen people participated in the workshop. This was the 4th year that the Cedar Rapids IEEE section has offered this workshop in August. The cost for the workshop was \$20 for IEEE members, \$50 for non IEEE members, and \$10 for students. The workshop included breakfast, lunch, and snacks. The surveys from the attendees were highly positive and much was learned by all who participated.

NI supplied our LabVIEW and Data Acquisition Hands On kit, which included NI CompactDAQ Demo Boxes and laptops with LabVIEW installed.

Contact Chad Erickson - NI District Sales Manager - 319-360-1302 for more information

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## **Communications Society Chair Charles Lloyd Holecek (Lloyd)**

Lloyd is presently retired from the Advance Technology Center of Rockwell Collins in Cedar Rapids, Iowa. He worked for both Rockwell International and Collins Radio Company in Cedar Rapids..

Lloyd Graduated from the South Dakota School of Mines and Technology with a Bachelor of Science Degree in Electrical Engineering in 1960. He obtained the Master of Science Degree in Electrical Engineering from Iowa State University in 1971 while working for Collins Radio Company. Lloyd holds three patents in electronic communications. He did laser research at McDonnell Douglas in St. Louis Missouri.

Lloyd was a student member of the IRE (Institute of Radio Engineers) while at the School of Mines in Rapid City, South Dakota and a regular member of the IRE in the early 1960s. (The

IRE merged into the IEEE in 1963.). He has attended many IEEE and ProCon conferences and meetings over the years and joined IEEE in 2013.

Lloyd is a licensed Professional Engineer (PE) in the state of Iowa and past member of the City of Marion Wiring Board. Lloyd holds a private pilot's license and is an Amateur Radio operator.

Lloyd can be contacted at C.L.HOLECEK@IEEE.ORG. Lloyd seeks your communications related program ideas and welcomes interest in planning local events, seminars, and lectures for the IEEE Communications Society Chapter.

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## **IEEE MTT-S Chapter in Cedar Rapids Section**

**By Dr. C.G. Xie**

The IEEE Microwave Theory and Techniques Society (MTT-S) has more than 11,000 members and 150 chapters worldwide. Our Society promotes the advancement of microwave theory and its applications, including RF, microwave, millimeter-wave, and terahertz technologies. There are six MTT\_S chapters in the Region 4. Our local chapter is one of the smallest MTT-S chapters in the Central Iowa Region 4. Many of the members in our local Cedar Rapids chapter are employed by world-class high tech organizations, like Rockwell Collins, Honeywell, RFMD, Skyworks, and institutes such as the University of Iowa and the University of Northern Iowa. The establishment of the local chapter is to provide a great opportunity for networking, career development, and professional education. We are fortunate to have returning speaker, Mr. David Cripe, a Principal Electrical Engineer from Rockwell Collins, Inc., during our next MTT-S local chapter meeting. His talk title is "Efficient, Broadband Outphasing Modulation for Class-E Power Amplifiers", including the latest results of outphasing power amplifiers he developed and optimized. The meeting will be held in the newly built Cedar Rapids Downtown Library. IEEE Cedar Rapids Section  
John Mackumal, faculty at Hawkeye Community College

## **Trip report to the IEEE-USA Annual meeting in Portland Oregon Aug. 1-3, 2013, by Gary D. Bishop, Vice Chair of the Cedar Rapids Section**

I attended this meeting, which consists of several activities:

1. Training and presentation sessions on professional development.
2. Hands-on sessions and workshops for producing a representative training conference.
3. Speakers on important subjects related to the IEEE
4. Guest speakers on topics related to the IEEE and its members. Gordon Day, 2012 IEEE President, was the keynote speaker for Friday's lunch. Friday group supper for Region 4 was at a local restaurant, permitting a great networking opportunity for everyone in a casual setting. Saturday evening's banquet was the Awards Ceremony. Sunday's breakfast had a rather profane whurley from Chaotic Moon Labs
5. Important announcements and training opportunities, also mentioning that Providence Rhode Island will be the venue of next year's IEEE-USA meeting.

For two days prior to this annual meeting, the Oregon Section presented SusTech, a seminar and series of presentations on Technologies for Sustainability. I did not attend this presentation, but it looked like it was very pertinent and interesting. Also, there was a debate for IEEE and IEEE-USA presidential candidates that I didn't arrive on time to attend.

Between sessions and during breaks, approximately 20 tables were staffed with people to disseminate information about the corporate sponsors, other IEEE sections and entities, and various services available to IEEE members. I discovered the person responsible for administering the IEEE-sponsored coverage from Marsh Insurance who lives 4 houses down from my house in Clive, Iowa where my RAGBRAI team was hosted this summer. I had to go all the way to Portland to meet her.

The video prepared by the Cedar Rapids Section was played prominently. Unfortunately, we didn't win the video competition for which it was created; that honor was won by the Southeast Michigan Section.

There were several simultaneous tracks that were being presented:

- Sustaining the Profession
- Sustaining the Professional
- Sustaining Innovation.

I jumped around between them depending upon the topic. Here is a list of sessions I attended:

Sustaining the Profession: Students and Public Outreach, Building Tomorrow's Leaders via Professional Awareness Activities, and The Communication Connection

Sustaining the Professional: Protecting Your Assets, Professional Activities for Member Engagement, vTools for Member Engagement, IEEE honor society for students, IEEE-HKN: Recognizing Excellence and Building Leadership Skills, A Novel Approach to Engaging IEEE members in Community Activity , Managing Your Career as a Business, Engaging with IEEE Societies, K-12 Science Technology, Engineering and Math, and Leadership and Leadership Development

I also attended the Region 4 Breakout Session, discussing items of interest to Region 4.

The contents of the SusTech 2013 were made available on a USB flash drive given to each participant. This is especially convenient for later review and searching for keywords or presenters. If anyone wants to review or benefit from the presentations, I will gladly make the USB flash drive available.

Portland was a great place to have a conference: There is no sales tax in Oregon, the light rail TMAX system runs conveniently from the airport to the corner of the conference hotel; there is no need to rent a car in only attending the conference. There are many great attractions nearby for visiting. Portland is a very bicycle friendly community.



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**Include your full name, old and new address.**

**Upcoming Events**

- Feb 10, 2014 ExCom Meeting
- Feb 19, 2014 40<sup>th</sup> Annaul Career Guidance Conference for High School students
- Feb 17, 2014 Engineering Week
- Feb 20, 2014 3D Printing . It's Really Real!
- March 10, 2014 ExCom Meeting
- April 14, 2014 ExCom Meeting
- May 6, 2014 ProCon Conference

Also check the Website for Upcoming Events. Guests are always welcome.



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