



ION Saint Louis



WINTER 2010



Newest member of the 2010 Class of Fellows, James V. Leonard.

Leonard Elevated to IEEE Fellow

James V. Leonard is among the 2010 class of IEEE Fellows. The fellow grade is the highest membership category of IEEE. It is only given to those who have made extraordinary accomplishments within the IEEE fields of interest. No more than one-tenth of one percent of the IEEE memberships is awarded fellow grade in any given year. Mr. Leonard was cited for contributions to the integration of military avionics. He is employed as one of sixty Senior Technical Fellows at Boeing Integrated Defense Systems and has a long record of service to IEEE and the St. Louis Section. Among his many technical accomplishments are eleven U.S. patents, program leadership in weapons systems integration, and authorship or editorship of technical papers and books. He has devoted many years to the IEEE, serving in numerous volunteer positions including several IEEE Boards, the Aerospace and Electronics Systems Society, the IEEE-USA, Region 5, the local St. Louis Section, and IEEE technical conferences. The most notable positions are 2006-07 President of AESS, 2003 IEEE-USA President, and 1992-93 IEEE Region 5 Director. Locally, his work in promoting and organizing the IEEE Missouri Conference (MOCON) Workshop, in service as section chair (1980-91), and in support of student branches are particularly noteworthy. This latest honor follows recognition as Fellow of the Royal Aeronautical Society (FRAeS), Fellow of the St. Louis Academy of Science, 2005 Engineering of the Year for the St. Louis Chapter of the MSPE, Alumni Achievement Award recipient by the Miner Alumni Association of Missouri S&T, member of the Academy of Electrical and Computer Engineering at Missouri S&T, Outstanding Member Recipient of IEEE Region 5 (twice), and recipient of many other distinctions. He received his Bachelor of Electrical Engineering degree from the University of Akron in 1961; he received an MSEE (Power) from Washington University of St. Louis in 1966; and he received an MSEE (Digital) from the University of Missouri-Rolla (now Missouri S&T) in 1976 and a Professional Development degree from the University of Missouri-Rolla in 1984.

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Awards and Christmas Social Recap

The Christmas social and Award's Program was a great success. Jeff Feiereisen and the entire Washington University Student Branch performed a marvelous job of hosting the program this year. Over 100 members and non members attended this year's event at Washington University. Additionally, several dozens of canned-goods were collected for Operation Rescue.

Continued on page 4.

Important News from Heidi Anderson

Profile

Do you know what your IEEE profile is? This information is used for several IEEE purposes including at the Section level as in the recent Senior Member Upgrade Event to better match references and candidates, or to congratulate those who have recently joined or elevated to Senior or Life Member. Please take a moment to login and confirm or update your information including employer, postal code, and most importantly, your email or other preferred contact information.

Senior Member Upgrade Event

Thank you to the many who participated in this year's Senior Member Upgrade Event. We changed the process this year to better assist applicants and encourage networking between members. We hope that all who participated have experienced this benefit and will share that with others. Everyone nominated by the section in this new process was elevated to Senior Member. In addition, there were several applicants who initially participated in last year's event that were elevated at this latest review.

Please join us in congratulating the following new Senior Members who were honored at the recent Winter Social and presented with a Senior Member Pin on behalf of the St Louis Section.

Tom A Buhr, Jr., P.E. - Theodore T Freeman - Vincent Grelle - Xiao Han - Raymond Harbert John R Martin - James C Moore II - Dennis J Schamburg - D. Edwin Scherry, P.E. (Life Senior) - Sahra Sedigh

Our thanks to the following Senior Members who acted as references, in several cases getting to know someone new.

David Barnett - James Burnholdt - Badrul Chowdhury - Kelvin Erickson - Christine Grunbaum - Richard C Mayer Paul J Nauert - Mark J Nealon - David Rieken - Dinggang Shen (not StL Section) - Steve E Watkins - Donald Wunsch (Fellow)

If you are a Senior or Fellow Member, please consider acting as a reference in the next Section event which should start September 2010.

We are also in need of a Committee Assistant Coordinator for the 2010 event who will transition to Coordinator in 2011. (2yr commitment) If you are interested, please contact Heidi Anderson at heidi.e.anderson@ieee.org.

*At the next Section Planning Meeting in January and several others this year, Senior Member Pins will be available for \$18 to any current Senior Member. Please bring your 2010 IEEE card as proof of your membership level and active status.

Continued on next page.

Important News from Heidi Anderson, continued

"Member-Get-A-Member"

Do you know an engineer in an IEEE-designated field who is not yet a member? How many people do you work with or go to school with and don't know yet? Well, IEEE has put a price on networking! - \$15 per professional member (for any recruiter), \$2 per student member (for student recruiters only) up to a maximum of \$90 per recruiting member per year as an award which can be used toward IEEE dues, Society fees or the purchase of products and services.

All members receive four personalized referral cards each year in their membership acknowledgement materials and more can be printed from [ieee.org](http://www.ieee.org). Please ensure your email address and mailing address are updated in your online profile to get proper credit for yourself and for the St. Louis Section. This year's event runs through 15 August 2010 granting awards in October - just in time for membership renewal! Complete details are available at the following link: <http://www.ieee.org/web/membership/join/mgm.html>

NEEDED! 2010 Awards Coordinator -please contact Heidi Anderson at heidi.e.anderson@ieee.org

Community Outreach

In keeping with our mission to serve as a leading authority in IEEE-designated fields and to foster an interest in the engineering profession, we encourage you to share your time and talent in the area with pre-college schools and activities, universities, and non-profit organizations. Below are some upcoming events. If you have other ideas you wish to share with the Section, please consider attending the next Section Planning Meeting in January or contact Heidi Anderson at heidi.e.anderson@ieee.org.

National Engineers Week 14-20 February 2010 - See eweek.org for ideas and materials to celebrate engineers in our community, including logging your volunteer activity as part of the "Million Hours" campaign.

Greater St. Louis Science Fair 04-08 May 2010 presented by The Academy of Science-St. Louis and sponsored by Pfizer-St. Louis and The Monsanto Fund

- College Students and Professionals are needed to judge entries. They ask each judge to commit to at least 10 entries which will take you 1-3 hours. When you register, you can specify K-5, 6-12, and specific fields i.e. 'Engineering' or 'Computer Science' . This year, all judging will take place on Wed, May 5th from 10:00am-08:30pm. For more information and to register as a judge, please go to <http://www.sciencefairstl.org/>

TryEngineering is an IEEE-sponsored resource for K-12 teachers, students, and parents. Explore <http://www.TryEngineering.org> for more information

Christmas Social and Award's Program continued

The *ION Saint Louis* is the official publication of the Saint Louis Section of IEEE. It is published approximately once per quarter by the Officers of the Section and distributed electronically via the Section Listserv and posted to the Section website.

Any member may submit IEEE-related information to appear in the publication to Bob Becnel at bob@becnel.com.



Even Santa visited the Christmas Social, which delighted all of the kids in the "Fun Room".



Section 2009 Chair, Tyria Riley, welcomed everyone to the Christmas Social.



Social Organizer and MC, Jeffrey Kevin Feiereisen.



Section 2009 Award's Chair, Heidi Anderson, MC'd the Award's Program.



Section Chair, Tyria Riley (right), reflects on her year as Chair.

Black Box Winners

This past November, Missouri School of Science & Technology (MST) hosted the Black Box competition. Teams from St. Louis University, University of Missouri, Washington University and MST all participated. Dr. Sarangapani of MST coordinated and hosted the event. It was well attended. Total of 11 teams (3 from SLU, 4 from Missouri S&T, two from Mizzou, and 2 from Wash University) attended the competition. Mallik, Keith Corzine, Kyle Mitchell and James Fonda judged the event.

First Place (MST) - \$500 (shared)

Lawrence Crossie & Mark Langle

Second Place (St. Louis University) - \$300 (shared)

Priyam Chakravarty and Angel Hernandez

Third Place (MST) - \$200 (shared)

J.D. French and Jie Zhao



Black Box Winners 2009 participants. Organizer, Dr. Sarangapani, is shown in back row on right.



Black Box Winners (left to right): 1st place, Mark Edward Langle and Lawrence Crosier; 3rd place, John D. French and Jie Zhao and Jie Zhao; and 2nd place, Angel Hernandez and Priyam Chakravarty.

Section Award Winners

The 2009 Saint Louis Section Awards were held in conjunction with the Christmas Social on December 5 at Washington University. The full list of winners are listed below

2. **Outstanding Educator / Researcher - Hiroaki Mukai**

IEEE Senior Member, Professor and Associate Chair, Department of Electrical & Systems Engineering, Washington University in St. Louis

other nominees: Ramesh K Agarwal - Badrul Chowdhury - Jim Fischer - Raj Jain

3. **Outstanding Student Member - Jeffrey Kevin Feiereisen**

IEEE Student Member, School of Engineering and Applied Science, Washington University in St. Louis

other nominees: Gladys Hounsinou - Matthew Milligan - Jeremiah O'Driscoll - David Pilla - Leo Saruwatari - Amod Walker & Ahmed Momoh

4. **Outstanding Student Branch - Washington University (IEEE@WashU)**

other nominees: Southern Illinois University-Carbondale - University of Missouri

5. **Outstanding Branch Counselor - Dan Lin**

IEEE Member, Assistant Professor, Department of Computer Science, Missouri University of Science and Technology

other nominees: Paul Min

6. **Outstanding Young Engineer - Pinaki Mitra**

IEEE Student Member, Ph.D. Candidate, Department of Electrical and Computer Engineering, Missouri University of Science and Technology

other nominees: Anil Mehta

7. **Outstanding Section Member - Steve E. Watkins**

IEEE Senior Member, Professor and Associate Chair for EE Undergraduate Studies, Department of Electrical and Computer Engineering, Missouri University of Science and Technology

other nominees: Paul Friemel - James Keller - Paul Nauert - Bruce Whiting

8. **Outstanding Company - Boeing-St Louis, St Louis, Missouri**

other nominees: Ameren, Energy Delivery Technical Services - Burns & McDonnell - Pauwels Transformer Plant

9. **Special / Honorary Member - Dr. Imre Gyuk**

Program Manger, Energy Storage Research, U.S. Department of Energy

other nominees: Kevin Anders

Section Award Winners



Elevated to Senior Member: Theodore Freeman.



Elevated to Senior Member: Raymond Harbert.



Outstanding Company: Boeing. Dr. Bornholdt accepted on behalf of Boeing.



Outstanding Educator / Researcher - Hiroaki Mukai.



Outstanding Student Member - Jeffrey Kevin Feiereisen



Outstanding Student Branch: Washington University.

Washington University Student Branch Awards

The 2009 Washington University Student Branch Awards were held in conjunction with the Christmas Social on December 5 at Washington University. The full list of winners are listed below.

IEEE@WashU Dance Floor Award for Distinguished Service

Aaron Mosher, Caroline Fernandez, David Lee, David Pilla, Jeremiah O'Driscoll, Jeremy Snyder, Nikolas Kesten, Thane Somers, William Donnelly

IEEE@WashU Paper Plates Award for Outstanding Leadership to officers were

1. Most Likely to Become a Mad Scientist Award, Aaron Mosher
2. The Phantom of the IEEE Award, Ari Kahn
3. Most Likely to Become President of the US, China, and IEEE at the Same Time Award, Caroline Fernandez
4. Most Likely to Finance his Life by Hacking into Corporate Sponsorship Competitions over 350,000 Times Award, David Pilla
5. The "Just One More Thing" Award, Jeffrey Feiereisen
6. The More of an Electrical Engineer than the IEEE@WashU Chair Award, Jeremiah O'Driscoll



Washington University student award winners, (l to r), Caroline Fernandez, Jeremiah O'Driscoll, David Pilla, Jeffrey Feiereisen (Chair), and Aaron Mosher. (Photo of Cedric Jo)



Washington University student, Caroline Fernandez proudly displays her new award. (Photo of Cedric Jo)

Who were your Heroes?



Like me you chose to pursue a career in science and technology. Why? Did you have a relative, teacher or newsmaker that inspired you? You can witness kids getting excited about math and engineering at two events in the Saint Louis area early this year. These are sporting events of the mind where every kid can turn pro. Imagine a science fair combined with a sport championship and you have a start on what FIRST events are like. Imagine strategic alliances between teams, corporations and mentors. Imagine Gracious Professionalism where everyone helps each other and treats others with deference.

FIRST is hard to describe in part because it is both an adjective and acronym. The Saint Louis FIRST (For Inspiration and Recognition of Science and Technology) region is embarking on a new competition year. The dates for some of this year's events are:

- FLL at St Louis Community College Florissant Valley Campus – Sat Jan 9, 2009
- FRC at St Louis University Chaifetz Arena – Thurs thru Sat, Mar 18 thru 20, 2009

Join me at these events and see how we can get kids turned-on to math and science. It may not be magic but it is magical.

Rich Burkhart, Lead Robot Inspector, Saint Louis Regional

More information on the FIRST events in St Louis can be found on the St Louis FIRST website. Additional information on FIRST can be found on the FIRST National website.

About FIRST®

FIRST designs accessible, innovative programs to build self-confidence, knowledge, and life skills while motivating young people to pursue opportunities in science, technology, and engineering. With the support of many of the world's most well-known companies, the not-for-profit organization hosts the FIRST® Robotics Competition and FIRST® Tech Challenge for high-school students, FIRST® LEGO® League for children 9-14 years old, and Junior FIRST® LEGO® League for 6 to 9 year-olds.

FIRST and the FIRST logo are registered trademarks of the United States Foundation for Inspiration and Recognition of Science and Technology (US FIRST).

Report from Region 5 Director

Well, another year is drawing to a close. As incoming Region 5 Director for 2010-11, I have great expectations for the coming year. The Region 5 Executive Committee is thrilled to bring St. Louis Section's own Tyria Riley onto the Committee as your new North Area Chair! In this position, she will be the liaison between the North Area Sections (Kansas City, Oklahoma City, St. Louis, Tulsa, and Wichita) and the Region.

As Director, my hope is to engage more members in the IEEE and to help them find a place within the IEEE where their passions and talents match the needs of the organization. There are many things going on, from the local level to international programs. Nothing happens without volunteers. I encourage each and every one of you to resolve in 2010 to make the IEEE even better! Get involved in your Section activities, pre-college opportunities, and/or Society chapters. Take pride in participating in activities that interest you, expand your knowledge of the IEEE, gain valuable management and leadership skills, and connect with others in your profession. The networks you form are for a lifetime, and the value you add and receive are priceless. Make sure to communicate with Tyria on how the Region and the larger IEEE can assist you in the coming years.

This report is furnished by the Incoming Region 5 Director, Sandra ("Candy") Robinson, sandra.l.robinson@lmco.com.

2010 Region 5 Conference Update

The annual IEEE Region 5 Conference and Business Meeting will be held in Dallas/Fort Worth, Texas on April 16-17. The technical program is nearing completion and will be posted on the conference website. The business meeting will involve section representatives in planning regional activities. The conference banquet will feature awards for outstanding member, outstanding companies, outstanding sections, outstanding student branches, etc. Also, other student activities and competitions will be held. These events include the student leader training, the student papers competition, the robotics competition, the student ethics competition, and the circuit design competition. Details are posted at the conference website www.r5conferences.org.

This report is furnished by the North Area Chair, Dr. Steve Watkins.

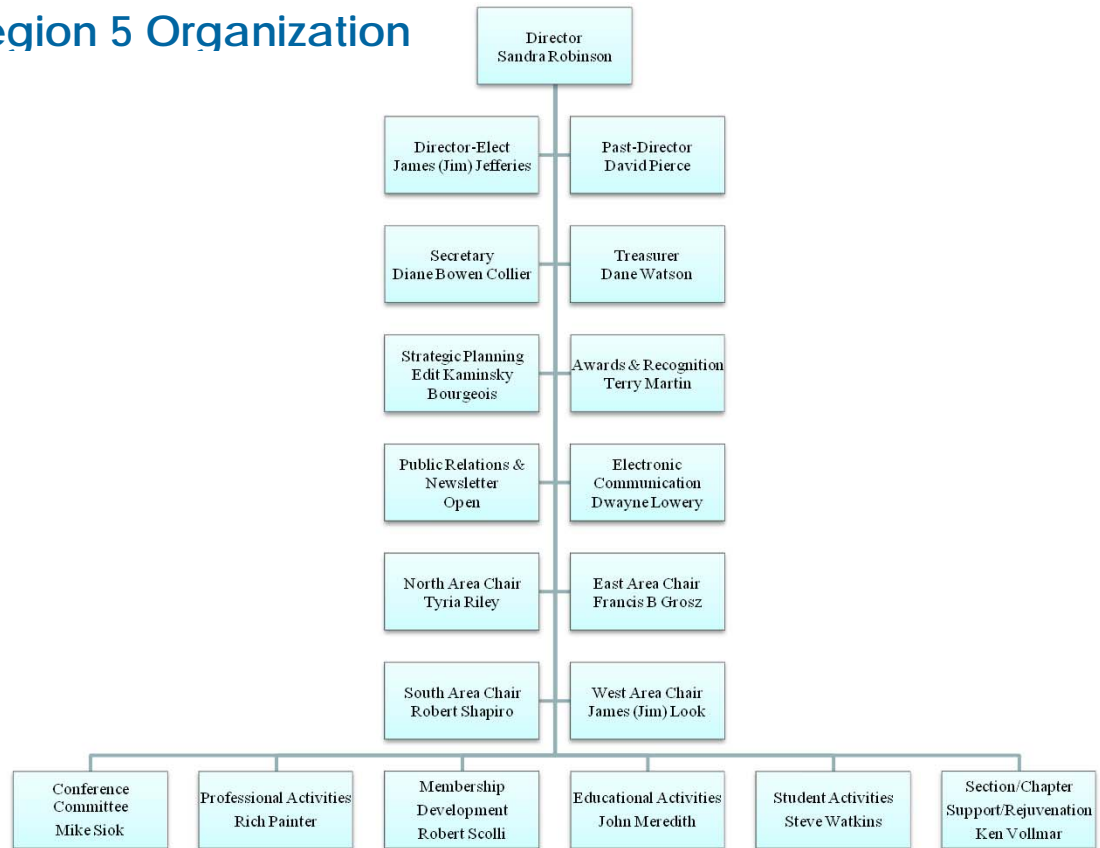


Incoming - North Area Chair for Region 5, Tyria Riley.



North Area Chair for Region 5, Dr. Steve Watkins of the Missouri School of Science & Technology (MST).

2010 Region 5 Organization



Education Society and SIUC Joint Presentation

IEEE Education Society Chapter of the St. Louis Section joint talks with SIUC Student Branch of the IEEE and the SIUIS4 student and professional conference

Thursday October 30, 5-6PM, SIUC, EGR A 111

Dewayne Hendricks presents "**Challenges and opportunities for innovators of the future**"

Saturday October 31, 10-11AM, SIUC, EGR A 111

Rich Goldman presents "**Industry Academia alliance: Incubation for Innovations**"

Dewayne Hendricks is CEO, of the Dandin Group, Inc., based in Fremont, California, USA.

Rich Goldman is vice president of Corporate Marketing and Strategic Alliances for Synopsys and CEO of Synopsys Armenia presents.

See the SIUIS4 website <http://innovativesystems.siu.edu/> for free registration for the entire conference.

SIUE Student Branch Tours Oil Refinery

On September 25 we toured the 138kV project at ConocoPhillips - Wood River Refinery. This project is installing a more efficient power system. We were given a presentation showing a comparison of the old system and the new system. We were then taken to the project site to see the components that have already been installed. The presentation and tour were conducted by Jonathan Moore

In the picture below (L to R) Ashley Green, Jessica Patrick, Alex Wiegmann, Matthew CLark, Jennifer Melton, Luk Barnet, Thomas Schoelzel, Brck Gale, Jonathon Moore, Ryan Paulsmeyer, Kevin Holtgrave, Raquel Schroeder, Nick Raycraft, Thomas Sitze, Dave Britt

In the background of the picture there is a crane - this is the world's third largest crane, before this year it was the world's largest. A special foundation was built to set it the crane upon. The counterweights, alone, for the crane are 5.5 million pounds. It will be used to lift the existing system out and then place the new system in place. The process to remove the system will take 16 hours just to lift and remove, then another 16 hours to lift and place the new one.

This report is furnished by the North Area Chair, Dr. George Engel and Jennifer Melton.



Mizzou Student Branch 2009-2010



Jesse Hall in the Fall. (Photo from Missouri.edu website)



Branch Counselor for Mizzou, Dr. Kevin Kovaleski. (Photo from MU College of Engineering website).

Officers (2009-2010)

- Counselor: Dr. Scott Kovaleski
❖ kovaleskis@missouri.edu
- Chair: Joe Scaduto
❖ ldtwbd@mizzou.edu
- Vice-Chair: Daniel Nabelek
- Treasurer: Scott Gayou
- Secretary: Michael Stegeman
- Activities Chair: Chris Kokoska
- Publicity Chair: Brad Nullmeyer
- Web Page Chair: Josh Thomas
- Social Chair: Phil Hart
- T-shirt Chair: Jonathan Meyer

Events Scheduled for 2009-2010

Date	Event	Location	Note
2/2	General Meeting	Ketcham Aud	
2/12	Community Service at Food Shelter	TBD	
3/2	General Meeting	Ketcham Aud	Officer Elections
4/6	General Meeting	Ketcham Aud	
4/9	Spring Picnics	TBD	
4/16	Region 5 Conference	TBA	

David Gitz is Selected to Serve on Section Executive Committee

David Gitz is the newest member of the Saint Louis Section's Executive Committee. Gitz will serve as Secretary for the 2010 year, Treasurer for the 2011 year and will be the Chair for the Section in 2013. Gitz will begin serving on January 1. In keeping with the tradition of alternating selection of Secretary-Elect from academia and industry, Gitz hails from industry.

David Gitz is a Computer Engineer at Scott Air Force Base near St. Louis Missouri, specializing in Airborne Networks and Communications. He is a recent graduate from Southern Illinois University - Carbondale. David has worked in the fields of Robotics and Communications for over 5 years and advises local robot competition teams, and has been involved with IEEE for the last 3 years.

As Secretary, Gitz will be responsibilities will include being the official scribe of Planning Meetings, Newsletter Editor and Webmaster.

Missouri University Of Science & Technology (MS&T) Presents Leonard With 2009 Alumni Achievement Award

On October 24, 2009, The MS&T Alumni Association presented Jim Leonard with The Alumni Achievement Award. Jim received an MSEE from MS&T in 1976, A Professional Development Degree in 1984 and an Honorary Professional Degree in Computer Science in 1997. Jim was one of three alumni receiving the award. The other two were Steven L. Parks (EMgt '82) from AmerenUE and Steve Wunning (MetE '73) from Caterpillar.

The event known as Legends Banquet, Miners of the Round Table, was held as part of Homecoming 2009. Many other events were held at MS&T during the weekend including an informal dinner Friday night at Castleman Hall and a football game on Saturday afternoon. The MS&T Miners defeated the St. Francis' Cougars 39-37, capping a great afternoon where the Homecoming King and Queen were crowned.



Mr. Jim Leonard, P.E., is pictured with the Alumni Achievement Award.

Professional Engineer (PE) Refresher Course

Deadline: February 17.
 Contact: Mr. Scott Louis Becker at (314) 554-2242.

Professional Engineer Refresher Course

These review courses are geared toward helping participants pass the Professional Engineer (P.E.) license exam. Spring classes will be held in the fields of Civil, Mechanical, and Electrical engineering.

Course fee includes a three-ring binder, lecture notes, certificate of completion, and CEU's.

Participants should purchase course reference materials *prior* to the first class. Discounted reference material can be obtained by going to the following website:

http://ppi2pass.com/ppi/PPIShop.asp_8X330



2010 Spring Schedule

Classes are scheduled to meet the following seven Saturday mornings from 8:00 a.m. – noon:

- Feb. 20
- Feb. 27
- Mar. 6
- Mar. 13
- Mar. 20
- Mar. 27
- Apr. 10

(There will be no class on April 3rd)

Report to Room 216 of the Humanities Building (HUM) on the campus of St. Charles Community College. Park in the Yellow Lot.

Registration Fee

- MSPE & SAME Members\$450
- ASCE, ASME, ASHRAE, & IEEE.....\$500
- Non-Members\$550

Proceeds of the course go toward the MSPE Scholarship Fund.

DEADLINE:
February 17, 2010

Register by mail, fax, or phone
 (See back of this panel for details.)

Course content inquiries should be directed to

Louis Becker, P.E.

(314) 554-2242 or
lbecker@ameren.com

HOW TO LOCATE THE COLLEGE & CAMPUS BUILDINGS

HOME OF
ST. CHARLES
COMMUNITY COLLEGE

1. College Center
2. Campus Services
3. Child Development Center
4. Fine Arts Building
5. Humanities Building
6. Technology Building
7. Learning Resource Center – Library
8. Student Center
9. Administration Building
10. Social Sciences Building
11. Cafe/Bookstore
12. Visual Arts Building



Electronics Engineer ****Classified****

Hunter Engineering Company is a world leader in automotive service equipment, offering state-of-the-art wheel alignment systems, wheel balancers, lift racks and more. Hunter equipment is approved and used by vehicle manufacturers, automobile and truck dealers, tire dealers and automotive service facilities around the world. We are currently in need of a talented and experienced Electronics Engineer.

Minimum Requirements:

Bachelor of Science in Electrical Engineering.

Minimum of 8 years experience designing and developing advanced microprocessor-based embedded systems from inception to production.

Experience developing systems in C, C++, and assembler using a Windows-based development environment.

Advanced knowledge of sensing technologies, analog electronics, image processing, and machine vision is preferred.

Position Summary:

Hunter's Electronics Engineers are integral members of the Research and Development design team, where ingenuity and creativity are encouraged and recognized. The Research and Development Department drives Hunter Engineering, and is held in highest regard within the company. The Electronics Engineers' advanced designs have kept Hunter at the forefront of the industry.

Duties and Responsibilities:

Perform new product research and conceptual design.

Design microprocessor-based digital and analog circuits, along with the corresponding firmware.

Develop new product software.

Perform system tests to validate product specifications.

Contact:

Patrick Hutsler

Recruiter, Human Resources

Hunter Engineering Company

11250 Hunter Drive, Bridgeton, MO 63044

Tel: (314) 731-3020 ext. 286

Fax: (314) 731-1550

<http://www.hunter.com>

2010 Spring Missouri Conference (MOCON) Workshop

23rd ANNUAL MOCON (Tentative)

WEDNESDAY, 17 MARCH 2010

1. Electrical OverCurrent Protection by Mr. Paul Friemel, PE (Bussmann)

FRIDAY, 19 MARCH 2010

2. Adaptive Control Theory (1/2 day) by Dr. Kevin Wise (UMSL)
3. Advanced Electrical OverCurrent Protection by Mr. Paul Friemel, PE(Bussmann)
4. Basic Control Theory by Karl Spuhl (UMSL)

WEDNESDAY, 24 March 2010

5. High Frequency Circuit Design by Dr. Jim Hahn (UMSL)
6. Grounding and Shielding-Day 1 by Dr. Tom Van Doren (UMSL)

THURSDAY, 25 March 2010

7. Arc Flash Analysis (1/2 Day) by Mr. Edwin Scherry, PE (UMSL)
8. Signal Integrity by Dr. Jim Hahn (UMSL)
9. Grounding and Shielding-Day 2 by Dr. Tom Van Doren (UMSL)

FRIDAY, 26 March 2010

10. Circuit Board Layout to Reduce EMI by Dr. Tom Van Doren (UMSL)
11. Intro to TCP/IP Networking & Appl (1/2 Day) by Mr. Ken Owens (Savvis Com)
12. Advanced Network Implementations (1/2 Day) by Mr. Ken Owens (Savvis Com)
13. Digital Signal Processing by Dr. Jim Hahn (UMSL)

UMSL = Univ. of MO at St. Louis Campus

Bussmann = Bussmann HQ, STL County

Savvis Com = Savvis Communications, 1 Savvis Parkway, Town & Country, MO 63017

SEE WEBSITE FOR DETAILS! <http://www.moconstl.com>

FOR COPIES OF THE APPLICATION, CONTACT MR. BOB MENZEL (314) 545-6712.

Q&A with NCEES Director of Examinations Tim Miller

Today's Engineer sat down for a Q&A with the NCEES Director of Examination Services Tim Miller, P.E. Mr. Miller is responsible for preparing and scoring the Fundamentals of Engineering (FE) and Principles and Practice (PE) examinations used by U.S. licensing boards to license professional engineers. NCEES members include all of the U.S. licensing boards.

Below is a question specifically related to the newly proposed Software Engineering PE exam:

Q: How will the newly approved software engineering PE examination affect the current electrical and computer engineering examinations and when will it be available?

Once the new Software Engineering PE exam comes to fruition, candidates can choose to take it (assuming it's offered in their state). The main difference will be that because it will be designated as a Group II exam, it will be offered once a year, whereas the existing Electrical and Computer Engineering exams (Group I exams) are offered twice a year.

NCEES is working with IEEE-USA to produce the Software Engineering exam, and will be sharing the costs. Once we start the job analysis part of the process (determining what needs to be tested), it will take approximately two-and-a-half to three years before the exam will be made available to the licensing boards. It will be up to each licensing board to determine if it will offer the exam and license software engineers.

Q: We understand that the NCEES is looking for problem item writers for the Electrical & Computer PE exam and the new Software Engineering PE exam. What is the process for applying to be considered for this work?

For information about becoming an exam volunteer, visit the volunteer portal on <http://www.ncees.org>. On that page is a link for a volunteer interest form. Fill out the form and submit it. Someone from NCEES will then contact you.

Partial article by Abby Vogel. Reprinted with permission from IEEE-USA Today's Engineer (Nov. 2009). Copyright IEEE 2009.



Director of Exam Development at NCEES, Mr. Tim Miller, P.E. (Photo Courtesy of IEEE)

Saint Louis Section AESS Chapter

On 18 November, Jim Leonard picked up AESS Distinguished Lecturer Dr. Larry Chasteen at the STL Airport and they drove on down to Rolla after a leisurely lunch at Lewis & Clark's restaurant on the Missouri river in St. Charles, MO. Larry and Jim met with Dr. Steve Watkins and two MS&T IEEE Student Members for dinner at Zeno's. They then attended the MS&T IEEE Student Branch Meeting in the ECE Building.

Jim Leonard provided an overview of the past UAV project and asked for volunteers to continue the effort. The UAV vehicle is in the ECE lab. Several met with Jim and Steve after the meeting expressing interest in making the UAV a senior Capstone Project. Jim will follow-up with this and the MIZ-ZOU interaction. Dr. Larry Chasteen then made his presentation on Ground Based Missile Defense-Update. There were 18 Members and student members in attendance. Jim provided pizza afterwards. Copies of AESS SYSTEMS Magazine "Tutorials IV" were distributed.

After spending the night at the Rolla Holiday Inn, Jim drove Larry back to St. Louis on 19 November, where they were met by Bob Becnel, St. Louis section treasurer. Bob drove Larry down to St. Louis University and Dr. Chasteen delivered his lecture on "Ground Based Missile Defense-Update" to an audience of 43 attendees including 20 IEEE Student Branch members, 20 aero majors and 3 Members. Copies of AESS SYSTEMS Magazine "Tutorials IV" were distributed.

Bob then returned Larry to Boeing Bldg 100. Once there Jim Leonard provided a briefing on the AESS UAV student project and Larry delivered his lecture "Ground Based Missile Defense-Update". Because some of the Boeing employees (who are also IEEE Members) were familiar with this topic, there was lots of additional discussion during the mixer which followed in the Boeing Prologue Room. Again, copies of the AESS SYSTEMS Magazine "Tutorials IV" were passed out.

Reported provided by Mr. Jim Leonard.



Larry Chasteen, Ph, Distinguished Lecturer at Dr. Mallik's class at St. Louis University.

AESS Student Activities – Region 5

Jim Leonard, acting in the status of Region 5 Industry Relations Committee Chair and at the direction of David Pierce, IEEE Region 5 Director, met with Jim Isaak, incoming president of the Computer Society, at the CS/IEEE-USA office in Washington, DC on 19 October, 2009. The topic of discussion was Software Certification. Dave's direction was "Come up with a plan to present to the Lockheeds and Boeings of Industry (starting in Region 5) to get Software certification going. Look at using it in Universities as a stepping stone to industry.

The Certification Committee of the Computer Society (CS) is part of the CS Professional Activities Board of the CS. The Certification Committee plans, directs, and administers the certification programs offered by the IEEE Computer Society. There are two certifications at the present time: Certified Software Development Professional (CSDP) and Certified Software Development Associate (CSDA). The CSDA could be utilized in Universities.

Both exams were developed in conformance to ISO/IEC 17024, the international requirements for bodies certifying persons. This means that the development of the exam and education materials is strictly separated: In the Computer Society, the Educational Activities Board is responsible for certification training programs.

As mentioned above, the CSDA could be utilized as a capstone/exit exam. It could also be used to provide insight on professionalism in term of the roles of certification and licensing. Jim Leonard will be taking some of these concepts to the Missouri University of Science and technology (MS&T) and will meet with Dr. Ann Miller who is on campus and draw on the experience of Rose-Hulman, where this is already being done. Also considered is to provide presentations via chapters and student branch chapters.

On 24, 25 October, Jim Leonard visited the MS&T campus to meet with local students and discuss AESS upcoming activities. The goal here is to maintain communications with the students so that our AESS Student Branch Chapter remains vibrant and we get a group of students interested in continuing the UAV project. Our second place winning team has graduated. Dave Erdos and his brother Abe are both attending Technion Univ. in Israel. Dave has written two articles regarding the project and they will be appearing in Systems magazine.

Jim did interview one MS&T student who is a senior in Electrical and Computer Engineering (ECE). He said that he did know Dr. Miller. Also he had taken two courses in the Dept of Computer Science. I asked him if he had heard of the CSDA Certification.

He said he had heard of it, but was not pursuing it. He also noted that it might be a good resume item. I have been in touch with Dr. Ali Hurson, Chair of the Computer Science Dept. We have IEEE student members in CS at MS&T. Dr. Hurson has assigned Prof Thomas Weigert (our chair professor in software engineering) to follow up on the CSDA certification.

We had AESS Distinguished Lecturer, Dr. Larry Chasteen, speak at MS&T on 18 November 2009. I helped to advertise this on campus. He spoke to the MS&T IEEE Student branch Chapter on the topic of Ground based Missile Defense Radar. On the following day, through the help of Bob Becnel and Dr. Mallik, Chasteen spoke to engineering students at St. Louis University.

On November 12, 2009, a group of IEEE student members from the University of Missouri at Columbia toured the St. Louis Boeing facility.

Report by Jim Leonard.

Call for Articles for IEEE Potentials Magazine

Articles of interest to the EE/CE/CS Undergraduate /Graduate community are of interest for publication in the IEEE Potentials magazine. This magazine goes to all student members of the IEEE (US/Canada - about 40,000) and some regular and international members by subscription. The articles should be less than 3000 words and in magazine style rather than journal/transaction. See information at <http://www.ieee.org/potentials/>, or contact Dr. George W. Zobrist at zobrist@mst.edu. The magazine is published 6 times / year and requires 3-4 months lead time for review and editing. Send all articles to zobrist@mst.edu.

Washington University Student Branch

The Washington University Students have an exciting schedule planned for this year. For those interested, contact Jeff Feiereisen (Chair) or visit the website at <http://ieee.wustl.edu>.

IEEE Homework Social – Jan 26

IEEE Kick Off Meeting – Jan 28

Field Trip to Local Plant – Jan 29

IEEE/ASME Built-A-Catapult Competition – Feb 20

IEEE Social – Mar 4

IEEE Networking Dinner – Mar 11

IEEE Officer's Retreat – Mar 12

IEEE Meeting and Elections – Mar 18

Officers (2009-2010)

- Counselor: Dr. Paul Min
❖ psm@wustl.edu
- Chair: Jeffrey Feiereisen
❖ jf12@wustl.edu
- Vice-Chair: David Pilla
- Treasurer: Jeremiah O'Driscoll
- Secretary: Ari Kahn
- Projects Manager: Aaron Mosher
- Events Manager: Caroline Fernandez

Interested in a Life Members Affinity Group for St. Louis?

Mr. Bob Spiegel has agreed to spearhead and lead a Life Members Affinity Group in the Saint Louis Section. Part of the process is to have a certain number of existing Life Members to endorse the idea. More information on the Life Member Affinity Group at <http://www.ieee.org/portal/pages/committee/lmc/lmchapters.html>. Please drop a note to Bob at rspiegel@ieee.org.

Power & Energy Society Chapter 2010 Planning

PES 2010 Officers

Chair-Leon White

Vice Chair-Jim Jontry

Treasurer-Joe Wokurka

Secretary-Joe DeGreeff

Planned Event: March 11, 2010; tour of Turner Electric Co

June, 2010; lecture

August, 2010; tour

November, 2010; lecture

Ann Lazarski

2009 Chair, IEEE-PES, St. Louis Chapter

Ann Lazarski

Career Engineer, Ameren Services



Photos of Aug 5 Taum Sauk Tour. (Photos from PES St. Louis Chapter website).

Congratulations – Elevated Senior Member

Congratulations to the following Elevated Senior Member in our Section for October, and November.

Thomas Buhr	James Moore
Theodore Freeman	Steven Pekarek
Vincent Grelle	Dennis Schamburg
Xiao Han	Dale Scherry
Raymond Harbert	Sahra Sedigh
John R Martin	

If interested in becoming a Senior Member or nominating an individual, you can visit the IEEE Senior Member Website at <http://www.ieee.org/web/membership/senior-members/index.html>.

Benefits of Senior Membership

- ❖ **Recognition:** The professional recognition of your peers for technical and professional excellence.
- ❖ **Senior Member Plaque:** Since January 1999, all newly elevated Senior Members have received an engraved Senior Member plaque to be proudly displayed for colleagues, clients and employers to see. The plaque, an attractive fine wood with bronze engraving, is sent within six to eight weeks after elevation.
- ❖ **US\$25 Coupon:** IEEE will recognize all newly elevated Senior Members with a coupon worth up to US\$25. This coupon can be used to join one new IEEE Society. The coupon expires on 31 December of the year in which it is received.
- ❖ **Letter of Commendation:** A letter of commendation will be sent to your employer on the achievement of Senior member grade (upon the request of the newly elected Senior Member).
- ❖ **Announcements:** Announcement of elevation can be made in Section/Society and/or local newsletters, newspapers and notices.
- ❖ **Leadership Eligibility:** Senior Members are eligible to hold executive IEEE volunteer positions.
- ❖ **Ability to Refer Other Candidates:** Senior Members can serve as a reference for other applicants for Senior Membership.
- ❖ **Review Panel:** Senior Members are invited to be on the panel to review Senior Member applications.

New IEEE Members

Congratulations to the following new Saint Louis Section members for October, November, and December (through December 19, 2009).

raed abdulatif althomali	Ibou Fall	Jennifer Lee Melton	Mike Sinden
Patrick Ashby	Caroline Fernandez	Jeffrey Douglas Meyer	Atmika Singh
Bryan Keith Ashley	Sam Fok	Andrew Meyer	Curtis Smith
Scott Ballah	VAMSI MOHAN GADDIPATI	Nickolas Miano	Mazen Soufi
Jonathan Roger Bass	Amit Gandhi	Aaron Alexander Mosher	Chris Steineman
Paul Becker	Alex J Gawrys	Robert Murray	Patrick Eugene Stull
Mesay A Belayneh	David Paul Gitz	Andrea Orlando	Theresa Stumpf
Andrew Berman	Xuan Gong	Jeff J Ouhl	Hongtao Sun
Mats Bernesjo	Douglas Gray	Ashok kumar Palaniswamy	Phillip Ray Tarpley
Royce Bohnert	Steven Grott	Paul Edward Pancoast II	Trent Jacob Todd
Jonathan D Bridges	Nathaniel Grove	Andrew Parcels	Nishant Uniyal
Alexander R Burge	Clinton James Guenther	Neil Patel	anh vu vu
Ritam Chakrovorty	Shawn Hayden	Sohail Patel	John ray Walker Jr.
Pete Nichloas Chulick	Michael D Heald	Dexter Clay Patton	Nathan White
Christopher Crance	Jane Fitzgerald Hylton	Thanh Phan	Matthew Joseph Wilson
Christopher Payne Daigle	Kedar Madhav Karmarkar	Derek Provance	Justin Allen Wright
Leonard Bennard Daniels	Amardeep Kaur	Resha Puri	Wei Wu
Luke Ashton Davis	Ketki M Khambete	Steve Ries	Timothy York
Jeffrey Joseph Davis	Thomas Bradley Kohler	Swagoto Roy	
Harshil A Desai	Shimin Lee	Antonio James Sabatini	
Ryan Anthony Dickherber	LEONG LEE	Leo Saruwatari	
Sean D Dingman	Yu Liu	Kyle Richard Schaefer	
Justin Doerner	Pratik Rajesh Maheshwari	Nicholas Schlag	
Dennis Dreyer	Kangombe Joseph Makasa	Benjamin Shannon	
Ben V Edwards	Karch Kiraly McCoy	Jessie Showers	
Richard Enk	Kyle Thomas McLaren	Evan Shuvo	

Section Membership Numbers

Membership Category	Total (Nov 2009)
Member (M)	1210
Life Member (LM)	128
Senior Member (SM)	194
Life Senior Member (LS)	64
Fellow Member (F)	20
Life Fellow Member (LF)	19
Student Member (StM)	236
Grad Student Member (GSM)	204
Associate Member (SM)	73
Honorary Member (H) or Other	0
Total for Saint Louis Section	2158

School	Total (12/19/2009)
University of Missouri	94
Missouri Univ of Science & Technology	99
Southern Illinois Univ – Carbondale	43
Southern Illinois Univ – Edwardsville	41
St. Louis University	28
Washington University	23
St. Louis Community College	3

Active Society	Saint Louis Section Total (12/19/2009)
Aerospace and Electronic Systems Society (AESS)	63
Communications Society (COMSOC)	140
Computational Intelligence Society (CIS)	61
Computer Society (CS)	368
Education Society (ES)	27
Engineering in Medicine and Biology Society (EMBS)	74
Industry Applications Society (IAS)	92
Power & Engineering Society (PES)	266
Graduates of the Last Decade (GOLD)	224
Women in Engineering (WIE)	43
Rolla Subsection (Nov 2009)	196

Saint Louis Section History

Organization	Type	Date of Creation
Saint Louis Section	Section	January 14, 1903
AESS Chapter	Chapter	January 14, 1994
CS Chapter	Chapter	March 18, 1967
CIS Chapter (Columbia)	Chapter	July 25, 2006
COMSOC Chapter	Chapter	October 7, 1969
EMBS Chapter	Chapter	December 27, 1999
IAS Chapter	Chapter	May 25, 1965
PES Chapter	Chapter	August 26, 1964
CIS Chapter	Chapter	May 7, 2004
ES Chapter	Chapter	May 9, 2005
GOLD	Affinity	March 30, 2000
WIE	Affinity	March 10, 2005
University of Missouri	Student Branch	April 6, 1949
Missouri University School of Science & Technology	Student Branch	June 18, 1964
St. Louis University	Student Branch	September 23, 1986
Southern Illinois University - Edwardsville	Student Branch	June 20, 1973
Southern Illinois University - Carbondale	Student Branch	August 29, 1978
Washington University	Student Branch	February 3, 1954
Missouri University of Science & Technology (AESS Chapter)	Student Branch Chapter	June 1, 1998
Missouri University of Science & Technology (PES Chapter)	Student Branch Chapter	August 8, 1995
St. Louis Community College – Florissant Valley	Student Branch	June 25, 2008

2010 Chapter Contacts

Aerospace and Electronic Systems Society (AESS)	robert.k.menzel@boeing.com
Communications Society (COMSC)	ken.owens@ieee.org
Computer Society (CS)	jdumaine@stlcc.edu
Engineering in Medicine and Biology (EMBS)	barnettd@slu.edu
Industry Applications Society (IAS)	ganeshv@mst.edu
Power and Energy Society (PES)	alazarski@ameren.com
Computational Intelligence Society (CIS)	ganeshv@mst.edu
Computational Intelligence Society (Columbia)	desouzag@missouri.edu
Education Society Chapter	fran@engr.siu.edu
Rolla Subsection	waleed@mst.edu

JANUARY 2010						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

2010 Affinity Group Contacts

Graduates of the Last Decade (GOLD)	anil@siu.edu
Women In Engineering (WIE)	j.k.stroble@ieee.org

FEBRUARY 2010						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

2010 Student Branch Contacts

Florissant Valley (St. Louis Community College)	jdumaine@stlcc.edu
Missouri University of Science and Technology (UMR)	sarangap@mst.edu
University of Missouri - Columbia	kovaleskis@missouri.edu
Washington University	psm@wustl.edu
Saint Louis University - Parks College	gharabr@slu.edu
Southern Illinois University - Carbondale	fran@engr.siu.edu
Southern Illinois University – Edwardsville	gengel@siue.edu

MARCH 2010						
S	M	T	W	T	F	S
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7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Winter 2010 Upcoming Events

January Planning Meeting	January
First Lego League at Flo-Valley	January 9
February Planning Meeting	February
Deadline for PE Refresher Course	February 17
Engineers Week	Feb 14-20
March Planning Meeting	March
Tour of Turner Electric Co by PES	March 11
Spring MoCON Workshop	Mar 17, 19, 24-26
First Robotic Competition at St. Louis University	Mar 18-20
Region 5 Conference	April 16-17
Greater St. Louis Science Fair	May 4-8
Black Box Competition	November

Website

<http://ewh.ieee.org/r5/stlouis/>

Officers

sec.stlouis@ieee.org