



ION Saint Louis



WINTER 2013

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Email: dinesh_h@hotmail.com

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Treasurer: Prakash Shahi

Email: Prakash.shahi@nidec-motor.com

Co-Treasurer: Bob Becnel, P.E

Email: bob@becnel.com

Secretary: Dr. Kyle Mitchell

Email: mitchekk@slu.edu

Section Site: <http://sites.ieee.org/stlouis/home/>

From the editor:

Dear St. Louis Section

I hope you enjoy this edition of St. Louis ION. As always, please keep sending in your articles of any planned and past events, yours and other IEEE colleagues achievements, and any other interesting bits of information for the next newsletter.

I would like to thank Bob Becnel for putting most of this news letter together.

Kyle Mitchell, Associate Professor, Saint Louis University



James V Leonard was recipient of the IEEE First 50 Years Member Award.

Leonard Receives Milestone Award

Holy Coincidence, Batman! 50 years of Boeing service and 50 years of IEEE membership occurring nearly simultaneously. (Does this mean Jim Leonard has 100 years of experience!) Jim Leonard received a notice from IEEE on 21 June 2012 that he had been a member of IEEE Creation on January 1, 1963, and a member continuously since then. With Jim's renewal for 2012, he has thus achieved the distinction of being a "Member 1st 50 Years of IEEE. IEEE was formed on January 1, 1963 through the merger of the American Institute of Electrical Engineers (AIEE) and the Institute of Radio Engineers (IRE). The AIEE was founded by Thomas Edison in 1884. Jim was a student member of IRE and retained his membership after graduation.

On September 4, 2012, Jim achieved 50 years of service with Boeing. He came to McDonnell Aircraft to work on the Gemini program, but was selected to work on small space projects instead. Jim currently serves as the Boeing Focal for IEEE and serves as the Industry Liaison for Region 5.

In addition to the acknowledgement received by IEEE, the Saint Louis Section presented its own special award to Jim at its Annual Awards Program on December 1, 2012. See article on Awards in this issue.

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 sec.stlouis@ieee.org.

Section Robotics Event – March 2

Once again, the Section will host a Robotics Competition among the Student Branches to determine who will represent the Section at the Region 5 Meeting in Denver this Spring. See article in this issue.

IEEE Robotics Competition - Announcement

- Date:** Saturday, March 2, 2013
- Location:** Electrical and Computer Engineering, Saint Louis University, McDonnell Douglas Hall – 3450 Lindell Boulevard, St. Louis
- Time:** Registration 12:30 and Contest 1:00-4:00 pm.
- Participants:** Open to all currently-enrolled undergraduates at one of the universities in the St. Louis Section of IEEE. Each school is allowed to bring one or more robots and as many support students as desired. Graduate students are welcome to attend the event, but should only participate as observers.
- Cost:** The competition is free to everyone! Out-state schools will be reimbursed for mileage.
- Prizes:** Each participating school will receive up to \$400 stipend for parts, with receipts. This stipend may be prorated if more than six schools participate. The winning school will receive reimbursement of travel, lodging (2 nights, 1 room) and registration costs for up to two students to attend the Region 5 Conference Represent the Section in the Region 5 Robotics Competition, with submitted receipts.
- Registration:** Teams must register by emailing mitchekk@slu.edu. The email should include an estimate of the number of students and robots that will attend. Registration must be received by February 22nd.
- Food:** Food throughout the competition will be provided.
- Judges:** Each participating school is invited to send one judge. The host school will provide one or two judges and the St. Louis IEEE Section will provide a judge.
- Information:** Dr. Kyle Mitchell, 314-977-8301 or mitchekk@slu.edu.

IEEE Robotics Competition – Rules and Guidelines

1. The host institution will provide access to equipment including, soldering stations, laboratory power supply, multimeter, function generator. There will network access and bench space available.
2. Teams are expected to bring any batteries, battery chargers, repair parts or other consumables required to make/keep their robots functioning.
3. The contest rules will follow the Region 5 student design robot contest. This year these rules can be found at:
<http://sites.ieee.org/r5annualmtg/competitions/robotics/>
<http://sites.ieee.org/r5annualmtg/documents/2012/09/2013-robotics-competition-rules.pdf>
4. Scoring:

Scoring is outlined in section 7 of the contest rules. In the advent no team in participation completes any of the required functions the judges will use an independent ranking to be determined at the event.
5. The contest coordinator will be arranged by the executive committee of the St. Louis Section of IEEE. Volunteers will be appreciated.
6. Each judge will certify the objectives reached and the travel times with disputes being handled by majority vote. Ties will be resolved by a majority vote of the judges.
7. Judges decisions will be by majority vote and will be final with regard to disputes, eligibility, team certification, tie results, and other contest conduct. In particular, cheating will not be tolerated and is grounds for immediate disqualification. Cheating includes remote control of the robot or other actions disallowed in the Region 5 rules.

Outgoing Chair's Column

2012 capped off on a high note on December 1 when over 75 members, guests, spouses and children signed up to take part in the Annual Winter Social and Award's Presentation. This year's Social was held in the historic Holmes Lounge on the Washington University campus.



Given the opportunity of emceeing this event for a second year in a row, I was humbled by the talent and cross section diversity of our members that took part in the event. We had members that drove in from all corners of the Section representing academics, industry, law, and utilities.

One of the many remarkable individuals I was able to meet was in fact, our newest member. Christopher Pitts, a new graduate and transfer from Alabama, appeared to have a great time and took the opportunity to explain to me how he was enjoying his new engineering career and the benefits he gained as a student member of IEEE in Birmingham. Mr. Pitts was able to meet the incoming Chair, Dinesh Hiripitiyage, and learn of the opportunities to get involved with the Section. Welcome to Missouri, Mr. Pitts.

More information on our Awards can be found in separate article found elsewhere in this issue.

After winning the Black Box Competition award for two (2) years running, Washington University was upset by St. Louis University. In a competitive and exciting competition, the Black Box was attended by 13 students representing three (3) student branches for a total of seven (7) teams. The competition took place this year at Washington University on November 3.

The student team of Jonathan Steenbergen and Princewill Okorie from St. Louis University won first place and was awarded a monetary award of \$300.

More information can be found in separate article found elsewhere in this issue.

I am grateful for Christine Grunbaum, P.E. for helping arrange our October program at Ameren. Ameren hosted our Section along with the St. Louis Chapter of Missouri Society of Professional Engineers on a VIP Tour of its Headquarter on October 24. The two (2) hour tour drew over 30 people who received a professionally guided tour given by Ameren engineers in the following departments: Emergency Operating Center, Transmission, Energy Learning Center and the Electric Vehicles.

I think we can all be satisfied that Ameren is doing everything possible to delivery energy to its consumers in the most efficient and effective manner given the regulations placed upon them. As a result of the tour, the Professional Engineers that attended received Professional Development Hours (PDH) to be put toward use in renewing their license.

I am delighted to announce that the Section now has a new Joint Chapter encompassing the Engineering in Medicine and Biology Society and Microwave Theory and Techniques Society and Photonics Society. As of October 26, 2012, the Joint Chapter will be an active group of members representing a diverse area of technology. Dr. Dennis Barbour of Washington University will Chair the group, but several others will play vital roles in the group.

Dr. Barry Spielman of Washington University was the catalyst behind the group and its formation. Dr. Gregory Triplett of the University of Missouri – Columbia, a leader in photonics research, also played an important part. The Section is appreciative for all of these outstanding scientists and engineers and look forward to supporting the new chapter.

Lastly, I want to thank the membership for their patience this year which was one of flux. After having to step in midway of 2012 to serve as Chair, I have become that more respectful for those that helped out this year. Moreover, I would strongly encourage members to step forward for a few hours in 2013 and help out Dinesh.

It is an attribute to the officers that served with me this past year that we had an opportunity to make several accomplishments, most of which came about in the last 6 months. Beginning on January 1, the Section will be led by the following Executive

Committee. I look forward to supporting them in much the same way they supported me this year.

Chair - Dinesh Hiripitiyage, dinesh_h@hotmail.com

Chair Elect - Dr. Paul Min, psm@seas.wustl.edu

Treasurer - Prakash Shahi, Prakash.Shahi@Nidec-Motor.com

Secretary - Kyle Mitchell, mitchekk@slu.edu

Past Chair - Bob Becnel, bob@becnel.com

Others that I wish to thank for their help this year include Dr. Mallik, Dr. Roobik, Christine Grunbaum, Jenny Kronick, Thane Somers, Andrew Wiens, Jonathan Steenbergen, Jim Leonard, Dr. Maciej Zawodniok, Anil Mehta, R5 Chair James Jeffries, Dr. Hardy Pottinger, and the IEEE staff. Thank you and Happy New Year!

P.S. If you would like to volunteer in some capacity, please drop a note to our Section's email alias at sec.stlouis@ieee.org.

Respectfully submitted,

Bob Becnel, P.E.

Acting Chair, Saint Louis Section

Email: bob@becnel.com

Saint Louis Section 2013 Meeting Schedule

All Dates Are ****Tentative****

January 7 (Monday), 6:00 PM
Section Planning Meeting – SLU

February 4 (Monday), 6:00 PM
Section Planning Meeting and Potential Joint Meeting with CS – SLU

March 2 (Saturday), 11:00 AM
Section Planning Meeting - SLU

March 2 (Saturday), Noon – 5:00 PM
Section Robotics Competition – SLU

April 2 (Tuesday), 6:00 PM
Section Planning Meeting and Potential Meeting with COMSOC – SLU

May 20 (Monday), 6:00 PM
Section Planning Meeting – SLU

August 28 (Wednesday), 4:00 PM
Section Planning Meeting – SLU

August 28 (Wednesday), 5:00 PM – 7:00 PM
Student Summer BBQ

September – Plant Tour

October 7 (Monday), 6:00 PM
Section Planning Meeting and Senior Member Drive - SLU

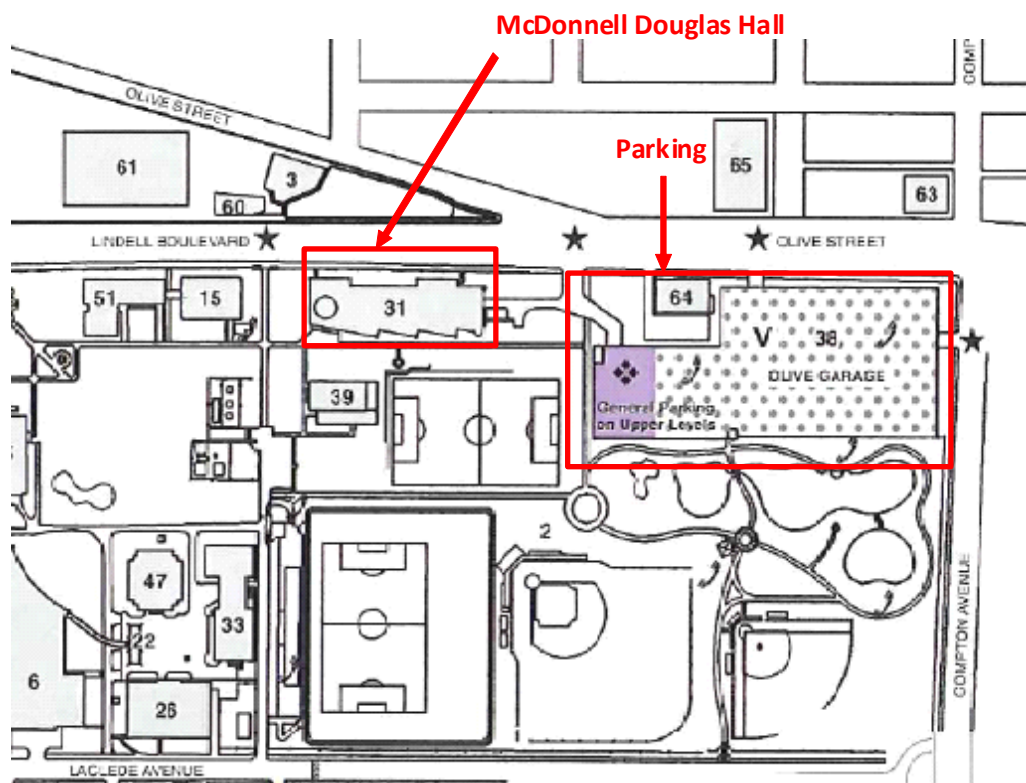
November 9 (Saturday), Noon – 5:00 PM
Section Planning Meeting and Black Box Competition - SLU

December 7 (Saturday), 6:00 PM – 10:00 PM
Winter Social – Engineers Club

Section Meeting Information and Map

Meetings are held at St. Louis University's Parks College which is McDonnell Douglas Hall on 3450 Lindell Blvd. Meetings begin at 6:00 PM. Parking is available in the garage next door in Olive Garage or you can park on the street. Parking meters are also available. Enter the building from the side that faces the soccer fields which is opposite of Lindell Blvd. Planning Meetings usually run 1 hour and the Membership Meeting begins at approximately 7:00 PM. Cost is always free along with pizza and soda. Members and guests are always welcome.

Note: We are planning to award PDH certificates in the near future for those that request it. PDH credits are required for Professional Engineering renewal requirements in the State of Missouri and Illinois. More information is to follow. We are looking for a P.E. willing to help administer this task. Direct questions to sec.stlouis@ieee.org.



CALL FOR 2013 OUTSTANDING AWARD NOMINATIONS

The Saint Louis Section is proud to announce its Call for Annual Outstanding Awards. This is a tradition where the best of the best are recognized for outstanding talent in their profession. Please consider this opportunity to appoint a fellow member of IEEE that is your colleague, friend, employer, customer or mentor that you feel is deserving of one of the following awards. All recipients will receive an engraved plaque, name printed in the ION and free invitation to the Winter Social

- **Outstanding Young Engineer** – 1-10 years since graduation
- **Outstanding Educator**
- **Outstanding Student Branch**
- **Outstanding Company** – at least one employee/executive is a Section member
- **Outstanding Student Member** – Student Member or Graduate Student Member
- **Outstanding Section Member** – greater than 10 years since graduation
- **Outstanding Branch Counselor**

Instructions: Send the information listed in the form below to sec.stlouis@ieee.org. The nominee cannot be a member of the Executive Committee nor have won the award in the past 5 years. All nominees must be active members in good standing in the Section. The nominee cannot be a member of the Executive Committee nor have won the award in the past 5 years. All nominees must be in good standing of the Section. **The deadline is August 15, 2013.**

Nomination Form

Award Category from List Above	
Nominee's Name (Individual or Company)	
*Nominee's IEEE Member #	
Email	

Submitted by	
Email	

*Name will be verified with SAMIEEE IEEE database to confirm active membership.

*If *Company Award* the member number not required, but you must include a Manager or Executive that can represent the company at the Award Ceremony.

CALL FOR 2013 SECTION OFFICER

The Saint Louis Section is proud to announce its Call for adding a new officer to the Executive Committee. In keeping with the tradition of alternating between the academia and the industry, St. Louis Section is seeking nominations, this year, from our members in the academia, for the position of 2013 Section Secretary. St. Louis Section Secretary is a progressive position that will move up annually in to the positions of Treasurer, Vice- Chair and, Chair respectively.

Please note that the strength of our Section as well as the entire IEEE organization depends upon its volunteers willing to sacrifice their time in order to carry out the organizations goals. The volunteers get a chance to work with people from one's field of academic and career interest to pursue the goals of promoting IEEE, as well as the St. Louis Section and its valued members.

Any interested current members from the academia are requested to submit a brief biography by **June 1st, 2013** to the Nominations Committee (sec.stlouis@ieee.org). Traditionally, the Past Chair would lead the search for a new officer and present a slate for the 2013 ballot. This year, Bob Becnel, will Chair the Nominations Committee.

Secretary Duties and Responsibilities: Principle responsibility of a Section Executive Committee member is to oversee the management of the Section, and in doing so, serve the best interest of the IEEE, its members and the public. As the Section Secretary, you are a key member of the Section Executive Committee.

Section Secretary acts as a gateway between Section members and IEEE, having a leadership role in bringing members' needs to the Executive Committee (ExCom). Part of the role involves having accountability and ownership reporting officer changes, acting as scribe at official meetings, distribute official announcements to members and submit reports to IEEE Member and Geographic Activities (MGA). Besides the duties of record-keeping for the Section, the St. Louis Section Secretary is also the newsletter editor and the webmaster.

The position of Secretary would begin January 1, 2014. The expected officer path for the Section, once elected would be Secretary, Treasurer, Chair-Elect, Chair and Past Chair.

New Joint Chapter – MTT-S, EMBS and PHO



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for Humanity*

22 October 2012

DENNIS BARBOUR
WASHINGTON UNIV
CAMPUS BOX 1097
1 BROOKINGS DR
SAINT LOUIS, MO 63130-4862

Dear Dennis Barbour:

Congratulations! On behalf of the IEEE Member and Geographic Activities Vice President, Howard E. Michel, and IEEE Technical Activities Vice President, Fred Mintzer, it is a pleasure to inform you that the requirements of the MGA Board Operations Manual have been met, and Microwave Theory and Techniques Society and Photonics Society have been added to IEEE Saint Louis Section Chapter, to form the IEEE Saint Louis Section Engineering in Medicine and Biology Society Microwave Theory and Techniques Society and Photonics Society Joint Society chaired by Dennis Barbour. The effective date of this chapter change was 5 October 2012.

We extend our best wishes for the successful operation of these chapters.

Sincerely,

Cecelia Jankowski
Managing Director
Member and Geographic Activities

cc: H. Michel – Member and Geographic Activities Vice President
F. Mintzer – Technical Activities Vice President
J. Jefferies – Region 5 Director
Z. Pei Liang – Engineering in Medicine & Biology Society President
G. Zahlmann – Engineering in Medicine & Biology Society V. P. - Member & Student Activities
M. Zequera Diaz – Engineering in Medicine & Biology Society Chapter Development
L. Wolf – Executive Director Engineering in Medicine & Biology Society
N. Kalias – Microwave Theory and Techniques Society President
K. Wu – Microwave Theory and Techniques Society Member Services Chair
R. Sparks – Microwave Theory and Techniques Society Administrator
M. Golio – Microwave Theory and Techniques Society MGA Administrator
H. Kuwahara – Photonics Society President
J. Kash – Photonics Society Vice-President of Membership & Regional Activities
B. Becnel – Saint Louis Section Chair
M. Ward-Callan – Technical Activities Managing Director

Cecelia Jankowski
Managing Director
Member and Geographic Activities
Phone +1 732 562 5504
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c.jankowski@ieee.org

PES Chapter News

IEEE-PES St Louis Chapter held a Distinguished Lecturer program for members on December 6, 2012 at Ameren's Power Operations Services building. The first speaker, Michael J. Bio, P.E. of Alstom Grid Power Electronics group of Philadelphia, PA, gave a presentation highlighting key sections of the IEEE Guide 1127 to be considered during the Design, Construction, and Operation of an Electrical Power Substation. He discussed the importance of public participation/education, site selection, and aesthetics to gaining public acceptance for a project. Examples of successfully implemented projects were shown.

The second speaker, LtCol Bruno R. Stopka, Operations Branch Chief with the 231st CEF, Missouri Air National Guard, St. Louis, MO, spoke about the role of Combat Engineers during Operation Iraqi Freedom. The primary focus of the presentation was the projects and work performed by Combat Engineers, comprised of engineers from all components of the U.S. Armed Forces. The successful integration of joint engineering and construction operations in the combat zone is a tribute to the training, hard work, leadership and professionalism demonstrated by the men and women serving.

Participants were treated to reception at Helen Fitzgerald's after the event.



Holiday Social and Awards Presentation 2012

Introduction

On Saturday, December 1, the Saint Louis Section held its annual Holiday Social and Awards Presentation. It has been customary over the past 4 years to hold the event on the campus of Washington University. This year, beautiful and historic Holmes Lounge was the location. Additionally, Dr. Paul Min and the Student Branch of Washington University lent its cooperation by hosting the event.

The event was a buffet dinner catered professionally by the campus caterer, Bon Appetit with two (2) available entrees of tilapia and chicken. There was no charge for the evening for the members as this is the major event of the year specifically for members and their families. Family members were invited as our guests to participate in the end of year festivities and cheer.

Once again our, the Section requested that attendees bring along canned goods for a special collection that was setup at the door. The canned goods go towards those in need at this time of year. Over 75 cans and other items were collected. The donation was dropped off by Bob Becnel on December 14 at Kuhlman Design Group which is serving as a collection point for the St. Louis Food Bank. The food drive is a metro-wide effort led by the St. Louis Chapter of the Missouri Society of Professional Engineers.

Special Thanks



The Saint Louis Section wishes to thank Paul Min and the Student Branch of Washington University for hosting this event. We would also like to express our special gratitude and appreciation to Jenny Kronick of Washington University for organizing this event. Jenny was pivotal in making sure the accommodations were perfect and kept everything within budget.

Dr. Paul Min (left) and Special Project Assignment Leader, Jennifer Kronick (right) take time for a photo.

Photo by Andrew Wiens.

Award Winners

The follow are recipients of the Annual Awards that were presented on December 1.



Outstanding Young Engineer

Abdiel Louis (right) receives award from Prakash Shahi.

Photo by Jenny Kronick and Andrew Wiens.



Outstanding Section Member

Dr. Hardy Pottinger (right) receives award from Bob Becnel.

Ph Photo by Jenny Kronick and Andrew Wiens.



Outstanding Educator

Dr. Arye Nehorai (right) receives award from Dr. Paul Min.

Photo by Jenny Kronick and Andrew Wiens.



Outstanding Student Branch

St. Louis University

Members of the Student Branch from SLU: Princewill Okorie (left), Ross Santee (center) and Jonathan Steenbergen (right).

Photo by Jenny Kronick and Andrew Wiens.



Outstanding Branch Counselor

Dr. Roobik Gharabagi (right) receives award from Dr. H. S. Mallik.

Photo by Jenny Kronick and Andrew Wiens.



Outstanding Company

The Boeing Company

Boeing employee Stephen Baldwin (right) receives award from Bob Becnel.

Photo by Jenny Kronick and Andrew Wiens.



Outstanding Student Member

Jonathan W. Steenbergen (right) receives award from SLU Counselor Dr. Roobik Gharabagi.

Photo by Jenny Kronick and Andrew Wiens.



Saint Louis Section Special Recognition

IEEE First 50 Years Member to be Presented to James V. Leonard at a later date.

Photo by Jenny Kronick and Andrew Wiens.

Photo Collage



The college did a wonderful job of decorating Holmes Lounge to put everyone in the spirit.

Photo by Jenny Kronick and Andrew Wiens.



Abdiel Louis (right) was so excited of his *Young Engineer Award* selection, that he invited his parents from out-of-town to enjoy the celebration.

Photo by Jenny Kronick and Andrew Wiens.



Current WU Student Branch Chair Andrew Wiens (left) enjoys a job well done in hosting the 2012 Social for the Saint Louis Section.

Black Box 2012 Report

Introduction

The Black Box is an annual competition among the student branches within the Saint Louis Section. The competition consists of students being given a “black box” of circuit components to evaluate and deduce using their engineering fortitude. The teams work as 1 or 2 members and given several hours to finish their work. Books are allowed and essential lab equipment is made available by the host school. The host school is selected based on the winning team the previous year. The host school is responsible for designing the circuit, making lab space available, setting the rules for the competition and providing food and refreshments for afternoon. This year, Washington University was the host school with Dr. Paul Min (Counselor) and Thane Somers (Project Leader) running the event. The event was held Saturday, November 3, 2012. Additionally, a traveling plaque is presented to the winning school for their display over the following year for “bragging rights”. The winning school has the team winner’s names engraved when they receive the award.

Section

The Section provides cash awards to the top 3 teams and funds all of the food and materials used in the black box. For schools travelling from out-state Missouri or Illinois, the Section has reimbursed for travel during economic periods where gasoline is expensive.

Judges

The judging team is based upon one faculty member or graduate of each participant school. Members of industry are asked to participate if available during the competition as well. The judging team consisted of the following 4 people:

1. Chung-Ping Hung
2. Dr. Maciej Zawodniok
3. Prakash Shahi
4. Abdiel Louis

Participants and Winners

Seven teams competed, (4) from St. Louis University, (2) from Washington University, (1) from Missouri University of Science & Technology. In all, 13 students participated.

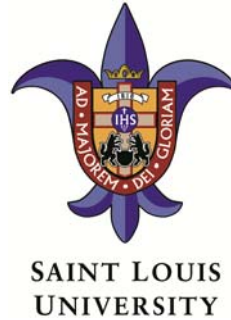
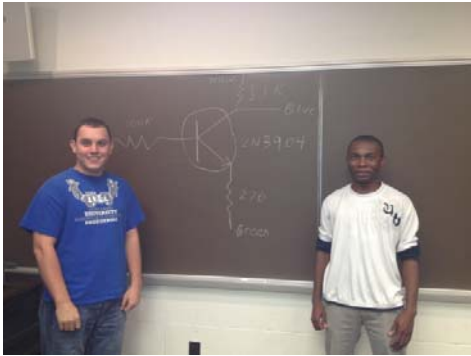
2012 Black Box Participants



Back row (left to right):
 Andrew Wiens (WU),
 Princewill Okorie (SLU),
 Johnny Steenbergen (SLU),
 Anthony Manno (SLU),
 Shawn Flicker (SLU),
 Chang He (SLU),
 Thao Thai (SLU).

Front row (left to right):
 Jeffrey Hsu (WU),
 Alex Gu (WU),
 Gauri Nijasure (SLU),
 Gayatri Nijasure (SLU),
 Chris Oleksiw (MS&T),
 Anthony DiGuida (MS&T).

1st Place, Prize of \$500

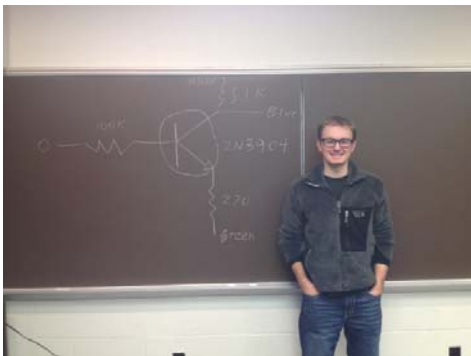


Jonathan Steenbergen (left)
 Princewill Okorie (right)

St. Louis University

Photos courtesy of Thane Somers.

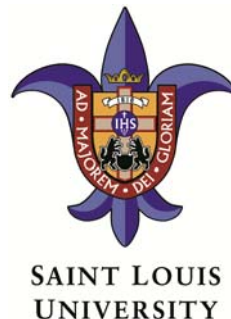
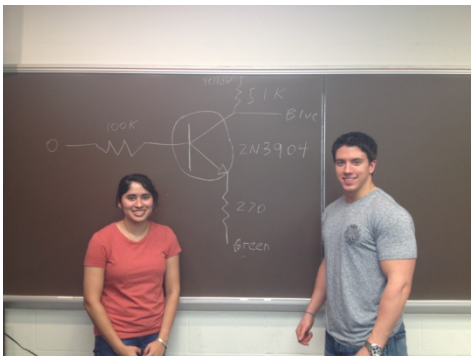
2nd Place, Prize of \$300



**Andrew Wiens
 Washington University

** 1st Place Winner in 2010

3rd Place, Prize of \$200



**Gauri Nijasure (left)
 **Anthony Manno (right)

St. Louis University

** 3rd Place Winners in 2011

IEEE Smart Grid Newsletter - November 2012

<http://smartgrid.ieee.org/>

EPRI Smart Grid Demonstrations: An Update

By Matt Wakefield

An assessment done four years into a seven-year program confirms the general effectiveness of demand-response, but identifies challenges with the business case for some technologies such as in-home displays. Conservation Voltage Reduction is proving to be an unanticipated cost-effective beneficial resource, while energy storage is found to be technically effective but still at the outer boundary of cost-effectiveness. With over two more years to go, the EPRI demonstration program will also assess virtual power plants and encourage more rapid smart grid standardization.

[Read more >>](#)

Impasse Over Cost Recovery Stymies Grid Modernization in Illinois

By David O'Brien

Traditional utility rate setting is arguably incompatible with innovation in electric power transmission and distribution. But there is a ready solution: performance-oriented ratemaking that supports innovation, measures operational results and rewards performance.

[Read more >>](#)

Cyber-Physical Security: A Whole New Ballgame

By Bruno Sinopoli

A grid that incorporates computing and communications intelligence unfortunately presents potential attackers with many new opportunities, requiring a holistic approach to security that takes both hardware infrastructure and software into account. Fortunately, researchers are addressing these new issues on a broad front.

[Read more >>](#)

A New Voice in the Smart Grid Dialogue: The Grid Itself

By Jay Giri

Let's hear what the Grid has to say about its own evolution, and the potential it sees locked away in all that data. The author puts on his sci-fi hat and imagines a conversation with the Grid about a specific technology – synchrophasors – and how they will change the way the Grid interacts with control room operators.

[Read more >>](#)

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.



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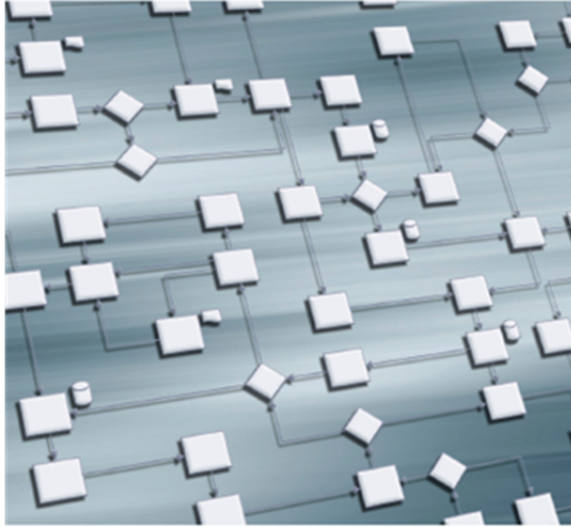
<http://eec.mst.edu/>


 Washington University in St. Louis

Engineering

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The Master of System Integration (MSI) degree through the Henry Edwin Sever Institute is designed for professionals who wish to increase their knowledge and skills related to the expanding field of multidisciplinary systems analysis and integration.

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>> Christine Merritt | cmerr@wustl.edu

>> Ann Rehme | arehm@wustl.edu

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- Systems Architecture II (System/Technical) – 1.5 units
- Fundamentals of Operations Research – 1.5 units
- Operations Analysis (Effectiveness, Engagement, Mission, Campaign Modeling, SoS Optimization) – 1.5 units
- Engineering Finance – 1.5 units
- Affordability Engineering (Finance, Ops Analysis, Analysis of Alternatives) – 1.5 units
- Capstone Project – 3 units

ELECTIVE COURSES

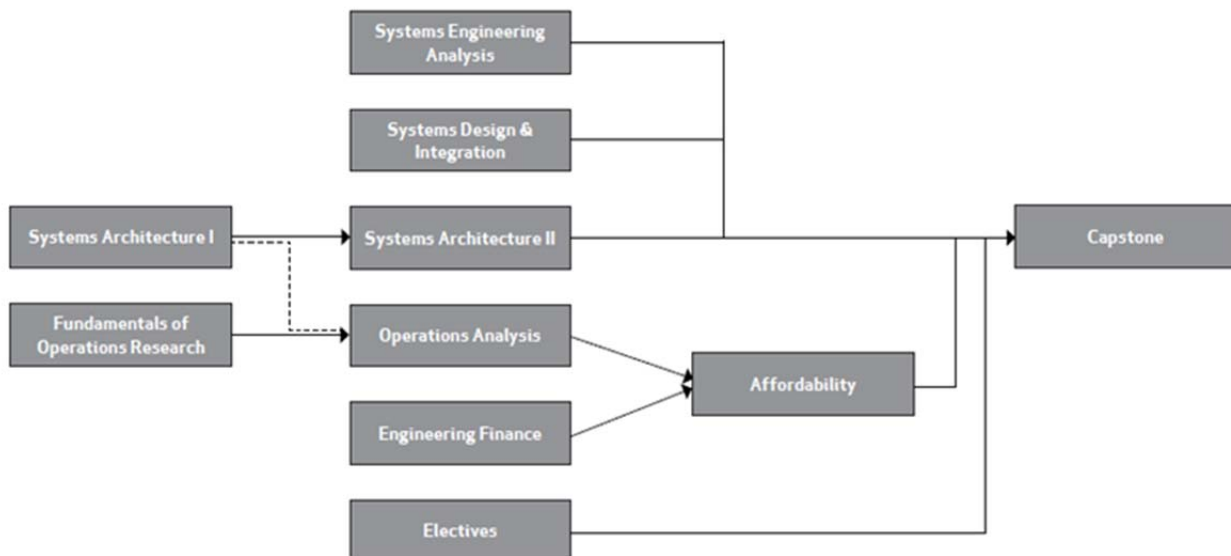
12 units

Students can choose from a broad range of School of Engineering & Applied Science courses that are relevant to their study of Systems Integration. Please contact an academic advisor to discuss elective options.

Invaluable Learning

The courses are taught by academic and industry leaders who actively create opportunities to engage the students in critical thinking and collaboration. The evening format attracts professionals of all backgrounds and experience levels to the classroom to allow for an optimal learning environment. Students draw from not only personal experiences, but also from those of the instructor and classmates to develop a deeper, more applicable understanding of course content.

General Sequence of Courses



FREE COMSOC E-MAIL ALIAS FOR COMMUNICATIONS SOCIETY MEMBERS

Any member can now have a *comsoc.org* e-mail address. Your *comsoc.org* address is an alias that forwards e-mail to your real address. It is valid as long as you are a CS member. If you change employers or Internet providers, simply change the forwarding address for your *comsoc.org* address, and all mail sent to your *comsoc.org* alias will be forwarded to your new address.

This alias service is available only to current Communication Society members who have registered for a [IEEE Web Account](#) . If you do not yet have an IEEE Web Account, register for one before signing up for your e-mail alias.

[E-mail alias setup](#) (user name and password required)

[E-mail alias changes](#) (user name and password required)

[E-mail alias deletion](#) (user name and password required)

[E-mail alias lookup](#) (user name and password required)

The UCE (Unsolicited Commercial Email) Filter Service provides spam filtering capabilities for IEEE Communication Society email aliases.

[IEEE Communications Society UCE Filtering Service](#) (user name and password required)

[IEEE UCE/Spam Filtering Service to Change from "Opt-In" to "Opt-Out" - Read More](#)

The Communication Society's email alias service is a private benefit for its individual members; @comsoc.org aliases may not be established for commercial or other organizational purposes. The Communication Society reserves the right to discontinue any alias which, in its sole opinion, is inconsistent with this policy intent or with the appropriate image of a society of professionals.

You must use an SSL-compliant browser, such as Netscape Navigator or Microsoft Internet Explorer, to register for a IEEE Web Account, create a new e-mail alias, or modify an existing alias.



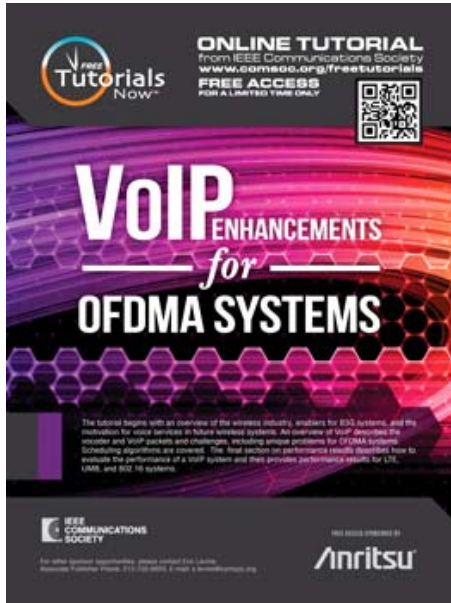
Each month, IEEE Communications provides a selection of FREE tutorials, thanks to our corporate sponsors. Their support enables us to provide these tutorials to you at no charge. A valuable opportunity for you to benefit from the expertise of presenters at IEEE Communications events.

IEEE Communications Society's Enhanced Conference Tutorial Program presents a collection of recent tutorials given at Communications Society sponsored conferences and from additional presenters. Each tutorial reviews current communications topics in network management and computer and wireless communications. Available tutorials, which are 2.5 to 5 hours in length contains the original visuals and voice-over by the presenter.

Please see below for a listing and links to **this month's FREE tutorials from IEEE Communications Society.**

***Complimentary access to the sponsored FREE Tutorials listed below is offered for a limited time. FREE Tutorials are available for online viewing only.**

AVAILABLE NOW:



[Networking Challenges for Future Services](#)
Free access compliments of: Anritsu



[Towards 4G: Technical Overview of LTE and LTE-Advanced](#)
Free access compliments of: CRC Press



[Cloud Management](#)
Free access compliments of: Syngress

IEEE Region 5 North Area Newsletter

February 2, 2012

Introduction

Greetings! For those of you who don't know me yet, my name is George Dean and I am the IEEE Region 5 North Area Chair. The North Area of Region 5 is composed of those IEEE Sections in Kansas, Oklahoma, and Missouri. A large part my function is to assist you by making sure that you get information you need and provide help with any problems you or your members may be having. The Area Chairs have usually been IEEE volunteers for some time and held a variety of positions, so we have a fair knowledge of the organization. If you have a question or problem and we don't know the answer, we usually know where to go to find the information. So please, do not hesitate to contact me if you think there is anything I can do to help you, your Section, or your members.

This occasional newsletter is provided to update you with what I believe is important information for you and your Section. I try to keep this brief and to the point, so please look it over when you receive them. If you are not the appropriate person to get this, please let me know. If someone else in the Section should also be getting this, let me know that and I'll add him or her to the mailing list. And if you're no longer an appropriate recipient of this and I'm cluttering your inbox with unwanted mail, please let me know and I'll remove your e-mail address. But there are a lot of exciting and interesting things happening this year in Region 5, so I hope you'll find this useful.

Region 5 Awards

Each year Region 5 presents Awards to IEEE Sections, Student Branches, individuals and companies in several categories. IEEE functions as well as it does because of the dedicated efforts of a large number of volunteers, and usually their only reward is occasional recognition of their efforts. There are awards in 11 categories. If your Section is doing well due to the efforts of the Officers and volunteers, submit them for an award. If you have an outstanding member who has done a great job for IEEE or its members, nominate them. If a Student Branch in your Section has been doing a great job, or a company has provided outstanding support to your Section, IEEE, or its members, nominate them. The process is not difficult and sometimes there are only one or two nominations in a category, or none. Any IEEE member can submit a nomination; endorsements by other members are often helpful, but it is not intended to be a difficult or lengthy process. You probably received an e-mail with information on

nominations from Region 5 Awards Chair Ruby Mehrubeoglu. For your convenience, it is repeated here:

Call for Nominations

IEEE Region 5 is accepting nominations for the following awards.

- #001 Outstanding Large Section (>500 members)
- #002 Outstanding Small Section (≤500 members)
- #003 Outstanding Member
- #004 Outstanding Educator
- #005 Outstanding Large Student Branch (>50 members)
- #006 Outstanding Small Student Branch (≤50 members)
- #007 Outstanding Student
- #008 Outstanding Student Branch Counselor
- #009 Outstanding Large Company (>500 employees)
- #010 Outstanding Small Company (≤500 employees)
- #012 Outstanding GOLD Member
- #013 Outstanding Individual Achievement Award (up to 5 awards)

A short description of each award and nomination forms can be obtained from the Region 5 Website (<http://www.ieeer5.org/awards>)

Please send nominations to the Region 5 Awards & Recognition Committee Chair, “Ruby” Mehrubeoglu, ruby.mehrubeoglu@ieee.org, with the following subject: “nomination for IEEE R5 Outstanding [Award Type]”

The deadline for nominations is February 18, 2013.

Please address any question to the R5 Awards & Recognition Committee Chair:

Ruby Mehrubeoglu

361-815-8416

ruby.mehrubeoglu@ieee.org

If anyone knows of deserving candidates or entities, please take the time to nominate them. It is the best way to show our appreciation for their efforts.

Upcoming Conferences

This is the time of year when most Sections are planning their activities and developing their budgets. There are a couple of conference events that you should consider in relation to this.

The first is the Annual Region 5 Conference/Business Meeting. This year's meeting will be held April 6-7 in Denver, Colorado. This is an important meeting and your Section should plan to send at least one delegate, and if possible additional representatives. Region 5 will pay the expenses for one delegate from each Section; additional representatives will be funded by the Section. This is the annual meeting of the Region 5 Committee and each Section has a vote on the Committee. In order that the Committee is able to transact its business, a quorum is necessary, so please plan to send the delegate. In addition, a lot of information useful to the Section and volunteer training is available. Officers and staff from IEEE Headquarters attend, as do candidates for higher IEEE offices, so it is a chance to meet and get to know Region, Institute officers, and volunteers. The Region 5 Student Conference is also held at the same time, with student activities including the Student Paper Contest, the Design and Ethics Contests, and the popular Robotics contest. The Region and Student Contest Awards are presented at the banquet Saturday evening.

This is always an outstanding event and Region 5 tries to make sure that it is a very worthwhile event for the Section attendees. The Region support means that sending a delegate will cost the Section nothing. Please factor this event into your planning and make plans now to send at least one person from your Section to the meeting. Complete details may be found on the Web site at: <http://sites.ieee.org/r5annualmtg/>

Please also encourage and support your Student Branches in attending as well. And finally, please note that the annual IEEE Green Technologies Conference will be held in the same location April 4-5, immediately preceding the Business meeting. If anyone in your Section is involved in Green Technologies, please let them know about this conference. However, Region support is not available for attending the Green Tech conference. Complete details are at: <http://sites.ieee.org/greentech2013/>

Finally, you should also begin preliminary planning for the annual IEEE-USA Conference, this year being held in Portland, OR from August 1st to 4th. In the past, the Region has provided partial support for Sections to send representatives to this important meeting, although these details are not firm as of yet. This is an outstanding conference focusing on professional activities and with a great deal of leadership training for volunteers and information on what is happening in government and industry that affects our profession. I would urge your Section to plan to send a member or two if at all possible.

There are not a lot of additional details available as of yet, but keep checking the IEEE-USA Web site (<http://www.ieeeusa.org>) for them as they become available.

Call for Nominations for Region 5 Director-Elect

Every two years, each IEEE Region elects a member who serves a two-year term as Director-Elect and two more years as Region Director. In Region 5, the nominees rotate from Area to Area. This year, two or three candidates from the East Area of Region 5 will be chosen and presented as candidates in September as part of the IEEE Institute-level election. During the two years as Director-Elect the person selected will become familiar with the position of Director and usually serves on one or more IEEE committees as well as assisting the Region Director with Region activities. During the term as Region Director, in addition they serve as a voting member of the IEEE Board of Directors and direct activities in Region 5. You have probably already received a Call for Nominations for this office. Complete details are included in that Call. If you need further information, it is available here:

http://www.ieee.org/documents/position_region_delegate_director.pdf

Conclusion

I apologize for the length of this newsletter, but there is a lot to communicate at the start of a program year. The most important thing, though, is that I am here as a resource for you and your members. If there is anything I can do to help, please do not hesitate to contact me g.dean@ieee.org. I hope to meet all of you at the Region Conference in Denver in April 6, 2013.

Best wishes for a good IEEE-Section year.

George Dean

IEEE-Region 5

North Area Chairman

2013 Spring Missouri Conference (MOCON) Workshop

26th ANNUAL MOCON (Tentative)

WEDNESDAY, 27 MARCH 2013

1. Electrical OverCurrent Protection by Mr. Paul Friemel, PE (Bussmann)
2. Systems Engineering Workshop by Lou Pape & Dale Waldo (UMSL)

THURSDAY, 28 MARCH 2013

3. Blue Tooth Fundamentals (1/2 Day) by Bill K. Drake (UMSL)
4. Arc Flash Analysis (1/2 Day) by Mr. Edwin Scherry (UMSL)
5. Advanced Electrical OverCurrent Protection by Mr. Paul Friemel, PE (Bussmann)

FRIDAY, 29 MARCH 2013

6. National Electrical Code 2013 Update by Michael W. Smith, PE (UMSL)

WEDNESDAY, 27 MARCH – THURSDAY, 28 MARCH 2013 (2 DAY TUTORIAL)

7. Grounding & Shielding of Electronic Systems by Dr. Tom Van Doren (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 REGISTRATION DETAILS! <http://www.moconstl.com>

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

Congratulations – 2012 Elevated Senior Member

Kristen Donnell (Rolla)	John Sturm
Mohammad Ghasr (Rolla)	Gregory Triplett
Jeffrey Burnworth	Ning Weng
Brahmananda Reddy	Mark Anastasio
Dunren Che	Stephen Baldwin
David Levine	Syed Barizuddin
Shelton Caruthers	Viktor Gruev
Harsha (Dinesh) Hiripitiyage	

If interested in becoming a Senior Member or nominating an individual, you can visit the IEEE Senior Member Website at

http://www.ieee.org/membership_services/membership/senior/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.

Section Membership Numbers

Membership Category	Total (Jan 2013)
Member (M)	1211
Life Member (LM)	148
Senior Member (SM)	188
Life Senior Member (LS)	69
Fellow Member (F)	20
Life Fellow Member (LF)	19
Student Member (StM)	193
Grad Student Member (GSM)	196
Associate Member (AM)	55
Honorary Member (H) or Other	0
Total for Saint Louis Section	2099

School	Total (2/3/2013)
University of Missouri	65
MS&T	86
MS&T (CS)	32
Southern Illinois Univ – Carbondale	48
Southern Illinois Univ – Edwardsville	31
St. Louis University - Parks	25
Washington University	52
St. Louis Community College	5

Active Society	Saint Louis Section Total (2/3/2013)
Aerospace and Electronic Systems Society (AESS) - MEMAES010	33
Communications Society (COMSOC) – MEMCOM019	142
Computational Intelligence Society (CIS) – MEMCIS011	62
Computer Society (CS) - MEMC016	343
Education Society (ES) – MEME025	22
Engineering in Medicine and Biology Society (EMBS) – MEMEMB018	62
Photonics Society (PHO) – MEMPHO036	18
Microwave Theory and Techniques Society (MTT-S) – MEMMTT017	16
Industrial Applications Society (IAS) - MEMIA034	80
Power & Energy Society (PES) – MEMPE031	301
Rolla Subsection (Jan 2013)	185

2013 Spring Semester Student Branch Information

1 - Missouri Univ of Science & Tech (AES,C-016,PES) - STB01181

Chair: Krystal Marie Thomason, fk6@mst.edu

Counselor: Dr. Zawodniok, mjzx9c@mst.edu

Branch Email: ieeesb@mst.edu

Website: <http://web.mst.edu/~ieeesb/index.html>

2 - Missouri University of Science & Technology CS SB - STB05001

Chair: Lokesh Krishna Ravichandran, lrwy5@mst.edu

Counselor: Dr. Lin, lindan@mst.edu

Branch Email: ieee-cssb@mst.edu

Website: <http://ieeecs.mst.edu/>

3 - Parks College Of St Louis Univ (C-016) - STB01731

Chair: Jonathan Steenbergen, jsteenb2@slu.edu

Counselor: Dr. Roobik, gharabr@slu.edu

Branch Email: ieeeparks@gmail.com

Website: <https://groups.sluconnection.com/organization/IEEESLU>

4 - Southern Illinois Univ - Edwardsville - STB05781

Chair: Samuel Keith Dunham, dunham.samuel@gmail.com

Counselor: Dr. Engel, gengel@siue.edu

Branch Email: ieee.siue@gmail.com

Website: <http://www.ee.siue.edu/~ieee>

5 - Missouri Univ Of-Columbia (C-016) - STB01171

Chair: Julie Anne Whitney, jawr4d@mail.missouri.edu

Counselor: Dr. Kovalski, kovaleskis@missouri.edu

Branch Email: muieee@missouri.edu

Website: <http://ieee.students.missouri.edu/>

6 - Southern Illinois University - Carbondale - STB98591

Chair: Adam Patrick Pellizzaro, ace589@siu.edu

Counselor: Dr. Weng, nweng@siu.edu

Branch Email: None

Website: None

7 - Washington Univ (C-016, PE-031) - STB02231

Chair: Andrew Wiens, adwiens@gmail.com

Counselor: Dr. Min, psm@wustl.edu

Branch Email: chair@ieee.wustl.edu

Website: <http://ieee.wustl.edu>

8 - St Louis Community College - STB28624

Chair: Vacant

Counselor: Vacant

Branch Email: None

Website: None

Saint Louis Section History

Organization	Type	Date of Creation
Saint Louis Section	Section	Jan 14, 1903
AESS Chapter	Chapter	Jan 14, 1994
CS Chapter	Chapter	Mar 18, 1967
CIS Chapter (Columbia)	Chapter	Jul 25, 2006
COMSOC Chapter	Chapter	Oct 7, 1969
EMBS Chapter (Dissolved)	Chapter	Dec 27, 1999
Joint Chapter (MTT-S/EMBS/PHO)	Joint Chapter	Oct 22, 2012
IAS Chapter	Chapter	May 25, 1965
PES Chapter	Chapter	Aug 26, 1964
CIS Chapter	Chapter	May 7, 2004
ES Chapter	Chapter	May 9, 2005
GOLD (Dissolved)	Affinity	Mar 30, 2000
WIE (Dissolved)	Affinity	Mar 10, 2005
University of Missouri	Student Branch	Apr 6, 1949
MO University S&T	Student Branch	Jun 18, 1964
MO University S&T (CS)	Student Branch	Nov 23, 2009
St. Louis University	Student Branch	Sep 23, 1986
Southern Illinois University - Edwardsville	Student Branch	Jun 20, 1973
Southern Illinois University - Carbondale	Student Branch	Aug 29, 1978
Washington University	Student Branch	Feb 3, 1954
MO University of S&T (AESS Chapter)	Student Branch Chapter	Jun 1, 1998
MO University of S&T (PES Chapter)	Student Branch Chapter	Aug 8, 1995
St. Louis Community College – Florissant Valley	Student Branch	Jun 25, 2008

2013 Chapter Contacts

Aerospace and Electronic Systems Society (AESS)	Zobrist@mst.edu
Communications Society (COMSC)	ken.owens@ieee.org
Computer Society (CS)	ray.harbert@gmail.com
Joint Chapter (MTT/EMBS/PHO)	dbarbour@biomed.wustl.edu
Industry Applications Society (IAS)	kimballjw@mst.edu
Power and Energy Society (PES)	cdgrunbaum@ameren.com
Computational Intelligence Society (CIS)	cornss@mst.edu
Computational Intelligence Society (Columbia)	desouzag@missouri.edu
Education Society Chapter	fran@engr.siu.edu
Rolla Subsection	mjzx9c@mst.edu

JANUARY 2013						
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		

2013 Student Branch Contacts

Florissant Valley (St. Louis Community College)	VACANT
MO University of Science and Technology	mjzx9c@mst.edu
MO University of Science and Technology (CS)	lindan@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	nweng@siu.edu

FEBRUARY 2013						
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2013 Upcoming Events

January Planning Meeting	January 7
February Planning Meeting	February 4
March Planning Meeting	March 2
Section Robotics Competition	March 2
April Planning Meeting	April 2
May Planning Meeting	May 20
August Planning Meeting	August 28
Summer Social	August 28
September Plant Tour	September
October Planning Meeting/Senior Member Drive	October 7
November Planning Meeting/Black Box	November 9
Winter Social	December 7

MARCH 2013						
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24	25	26	27	28	29	30
31						

Website

<http://sites.ieee.org/stlouis/>

Officers

sec.stlouis@ieee.org