



# ION Saint Louis



SUMMER 2012

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

**From the editor:**

**Dear St. Louis Section**

I regret to inform you that our Chair for the year, Jessica DuMaine, has decided to move out of the Section area to pursue new opportunities. She announced her resignation to the Executive Committee in May. I would like to thank her, on behalf of the St. Louis Section, for her volunteerism and for playing an active role in the Section Executive Committee for a number of years. I wish her the best of luck in her future endeavors as she moves out to another Section of the IEEE.

As a result of Jessica's resignation, the Executive Committee requested Bob Becnel to take on the task of Section Chair for the rest of the year. Fortunately, Bob accepted the task and has already outlined a number of activities for the year. I would like to thank Bob for his dedication and hard work in keeping the Section going forward through this year.

I hope you enjoy this edition of St. Louis ION. As always, please keep sending me 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.

Prakash B Shahi, Engineering Manager, Nidec Motor Corporation

## Chair's Column

Saint Louis Section of IEEE  
Chair's Column, July 2012

It is with sincere regret that we are compelled to accept the resignation of and bid farewell to current Saint Louis Section Chair, Jessica du Maine. Jessica is beginning a new career that will take her to Washington, D.C. The Executive Committee accepted her resignation at its May Planning meeting. We all wish Jessica the best of luck in her new endeavors and dreams. With that action, the Executive Committee asked if I would fill in for the remaining part of the year. I'm happy to serve.



It is with every hope that those of us on the Executive Committee can resume 2012 without a hitch. Summer is always a down time for the Section due to members on vacation and students returning home, but the Executive Committee are planning the second half of 2012. I would like to restate those currently serving on the Executive Committee:

Chair (Acting) – Bob Becnel, [bob@becnel.com](mailto:bob@becnel.com)  
Vice Chair - Dinesh Hiripitiyage, [dinesh\\_h@hotmail.com](mailto:dinesh_h@hotmail.com)  
Treasurer – Dr. Paul Min, [psm@seas.wustl.edu](mailto:psm@seas.wustl.edu)  
Secretary - Prakash Shahi, [Prakash.Shahi@Nidec-Motor.com](mailto:Prakash.Shahi@Nidec-Motor.com)

Currently two areas that are receiving a lot of attention in the Section are the creation of two new Chapters: Robotics & Automation and the Microwave Theory and Techniques. It was the hard work and passion of a few members that led to a desire and interest to explore the process and begin seek out interest in the new Chapters.

A second area that the Section will begin to focus upon is seeking out the best nominees for our annual awards. The July issue of ION will feature a nomination form and we hope that you would consider your fellow member. The award categories include: Outstanding Young Engineer, Outstanding Educator, Outstanding Student Branch, Outstanding Company, Outstanding Student Member, Outstanding Section Member, and Outstanding Branch Counselor.

We have a busy second half of the year remaining and have already begun to plan several key events. As dates and times become available, they will be circulated on the Saint Louis Section mail distribution list.

The list of (tentative) events for 2012 is as follows:

September – Professional PDH Opportunity  
October – Senior Member Drive, Professional PDH Opportunity  
November – Student Black Box Competition  
December – Christmas Social and Awards

If you would to volunteer in some capacity, please drop a note to our Section's email alias at [sec.stlouis@ieee.org](mailto:sec.stlouis@ieee.org).

Respectfully submitted,

Bob Becnel, P.E.  
Chair, Saint Louis Section

## SECTION NEWS

### CALL FOR AWARD NOMINATIONS 2012 ANNUAL OUTSTANDING AWARDS

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 a free invitation to the Winter Social

#### Awards Categories:

**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:** Fill out the nomination form below and send to [sec.stlouis@ieee.org](mailto: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 St. Louis Section of the IEEE.

**The deadline is September 15, 2012.**

Award Category from List Above <b>REQUIRED</b>	
Nominee's Name (Individual or Company) <b>REQUIRED</b>	
*Nominee's IEEE Member # <b>REQUIRED</b>	
Phone	
Email <b>REQUIRED</b>	
Professional, Student and IEEE Significant Accomplishments/Contributions <b>REQUIRED</b>	Attach as PDF or DOC to the

Submitted by <b>REQUIRED</b>	
Phone	
Email <b>REQUIRED</b>	

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

\*For the *Outstanding Company Award* nominations the member numbers not required, but you must include the names of at least a Manager or an Executive that can represent the company at the Award Ceremony.

You can also download the nomination form from the Section website.

## Section Announcement

# 2013 IEEE St. Louis Section Officer: Section Secretary

In keeping with the tradition of alternating between the academia and the industry, the next Section Secretary, for the year 2013, will be from the academia. St. Louis Section Secretary is a progressive position that will move up annually in to the positions of Treasurer, Vice-Chair and, Chair respectively.

### Section Secretary Duties

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. A Section Secretary is a key member of the Section Executive Committee and as such, acts as a gateway between Section members and the IEEE.

**Please be on the lookout for ballots for the Section Secretary that will be sent out via email soon.**

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## Missouri University of Science and Technology (Formerly University of Missouri-Rolla) Engineering Education Center in St. Louis

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

## Section Announcement

# IEEE Senior Member Drive Coming in October

IEEE Senior Member is the highest grade for which the members can apply. Becoming a Senior Member is an excellent way to be recognized by your peers for your technical and professional excellence. Besides receiving a Senior Member Plaque from the IEEE, you can also ask a Letter of Recommendation be sent to your employer.



To be eligible for application, candidates must:

- be engineers, scientists, educators, technical executives, or originators in IEEE-designated fields;
- have experience reflecting professional maturity;
- have been in professional practice for at least ten years; show significant performance over a period of at least five of their years in professional practice.

**Please visit the Senior Member Grade page for more information:**

[http://www.ieee.org/membership\\_services/membership/senior/index.html](http://www.ieee.org/membership_services/membership/senior/index.html).

## **Section History: Early years of AIEE**

### ***By Dr. Hardy J Pottinger***

The first two articles of this series introduced our first chairman (ION Fall 2011) and the Early Years of IRE (ION Winter 2011). This time I'll say more about the 'other parent' of IEEE, namely the American Institute of Electrical Engineers. As more is learned about the early history of our section, I intend to publish that material here, as well as at the Global History Network site ([www.ieeeahn.org/wiki/index.php/IEEE\\_Saint\\_Louis\\_Section\\_History](http://www.ieeeahn.org/wiki/index.php/IEEE_Saint_Louis_Section_History)).

The IEEE Saint Louis Section began existence as a branch of the AIEE on 14 Jan 1903. Local organizations were called branches back then; the concept of section came later. Meetings mimicked the national meetings of AIEE held in New York and were intended to allow local members living at some distance from New York to participate in discussions of scholarly papers read at the national meetings. The first officers of the Saint Louis branch/section were Mr. Winder Elwel Goldsborough, Chairman, and Mr Gerard Swope, Secretary. There were 18 members of the AIEE in St. Louis in 1902 and 41 in 1903 after the branch was formed. Evidently the creation of a local entity was good for membership! The first meeting was held 16 May 1903 at the Engineer's Club in St. Louis at 8:30 pm. Mr Swope continued his role as section secretary for two years and was followed by Alexander S Langsdorf in 1906. Prof. Langsdorf's name may be familiar to some of you as he was a St. Louis native. He was also Professor of Electrical Engineering at Washington University in St. Louis where he had a long and distinguished career including Dean of Engineering for about 30 years. He died in 1973. The section has had a strong connection with Washington University from its inception which continues today. Mr Swope's name may also be familiar to some as he continued his leadership role, ultimately becoming President of General Electric Co for



about 20 years.

From the timeframe, it should come as no surprise that the creation of our section was closely associated with the Louisiana Exposition usually referred to as the Saint Louis World's Fair of 1904. In fact Mr Goldsborough was the Chief of the Department of Electricity at the Expo from 1902 to 1905. He was also a professor of Electrical Engineering at Purdue University where he was active in AIEE.

From its beginning, the Saint Louis Section has also had a close relationship with the local Engineer's Club and held most of its meetings at the club's Lindell Ave facility. The Engineer's Club was organized 2 Dec 1868 and is the 3<sup>rd</sup> oldest such organization in the nation. The club assumed a leadership role in the national Association of Engineering Societies in 1914.

The section secretary in 1911 was Mr. Roy Stuart Pattison of the Emerson Electric Manufacturing Co. The secretary handled section communication in the early days and thus was listed in national publications as THE contact person for the section rather than the chairman. Mr Pattison was a graduate of Cornell as were several of the early section members. This was probably due to Mr Goldsborough being a Cornell graduate and the fact that Cornell had an early degree program in Electrical Engineering.

Section officers in 1913 included secretary Allen McRae Harrelson, Chief Engineer - Emerson Electric Manufacturing Co. Mr Harrelson stayed active in AIEE and held officer positions in the section for a number of years. Starting in 1914 AIEE began reporting the names of section chairmen. Officers that year included Francis James Bullivant, chairman, and Allen Harrelson, secretary. Mr Bullivant was appointed chief engineer of the Valley Electric Company of St. Louis. He was born in St. Catharines, Ontario, Canada Dec 25, 1882. He graduated from Missouri University with a degree of BSEE in 1907. Immediately after graduation he became connected with the engineering

department of the Wagner Electric Manufacturing Company, specializing in electrical design and industrial application of motors. The country was rapidly switching from steam power to electricity in this period of time so Mr Bullivant's occupation was typical of the membership.

Officers in 1916 included Walter O. Pennell, Acting Chief Engineer - S.W.Bell Telephone System, Chairman, and George McD Johns, secretary. Officers in 1917 were Allen Harrelson, Chairman, and H. L. Hope, Secretary. A meeting was held 28 Feb 1917 at the Engineer's Club addressed by Mr Harold B Shaw on "Rates for Electricity Supply" with 117 in attendance. Large numbers at meetings during this period was typical as listening to technical papers and discussing them with others was a major source of continuing education.

Uncovering our history is a work in progress. One way to help would be to visit the GHN Region 5 site at <http://tiny.cc/qeqvew> and check out the links there that pertain to the St. Louis Section. Ted Bickart, the Region 5 Historian, reported at the April 2012 Region 5 meeting in Tulsa that the IEEE History Center has prepared 'stubs' for all the student branches in IEEE. These are essentially outlines that provide a starting point for writing the history of your own local entity. If you have comments or questions or would like to contribute in any way, please contact me at [h.pottinger@ieee.org](mailto:h.pottinger@ieee.org).



**25th Annual MOCON: 2012 FALL MISSOURI CONFERENCE WORK-SHOP**

**WEDNESDAY, 24 OCTOBER 2012**

- 1. Electrical Over Current Protection by Mr. Paul Friemel, PE (Bussmann)

**Thursday, 25 OCTOBER 2012**

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

**Friday, 26 OCTOBER 2012**

- 5. National Electrical Code 2011 Update by Michael W. Smith (UMSL)

UMSL = Univ. of MO at St. Louis Campus

Bussmann = Bussmann HQ, STL County

SEE WEBSITE FOR MAPS! [www.moconstl.com](http://www.moconstl.com)

Advanced registration for the 2012 FALL Missouri Conference (MoCon) Workshop is now open. Advanced registration fees are \$550.00 for a full day tutorial and \$275 for a 1/2 day tutorial. Advanced registration will close on Friday, OCTOBER 12, 2012. After that, the fees will be \$600 for a full day tutorial and the fees for a 1/2 day tutorial will be \$300.00. IEEE Student Members and Retirees pay 25% Fees. Non-IEEE Students pay 50% Fees. You may use this form to register or you may register online at the MoCon Workshop web site: [www.moconstl.com](http://www.moconstl.com). Classes start at 8:30 am and end at 5:30 pm. Lunch is provided 12:30-1:30 pm. Lunch is also provided for those taking two 1/2 day tutorials on the same day. IEEE Members receive a 20% discount. **PDHs and CEUs awarded.**

Name \_\_\_\_\_ Tutorial # \_\_\_\_\_ Amt En-closed\$ \_\_\_\_\_

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Zip \_\_\_\_\_

Email address \_\_\_\_\_ Tel No. \_\_\_\_\_ IEEE Member # \_\_\_\_\_

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## IEEE Member Benefits: Free eBook



### Free IEEE-USA eBook Offered as Special Benefit to IEEE Members

As a special benefit of IEEE membership, for the month of June IEEE-USA is offering a free eBook, *Launching Your Career: Book 1 - How to Find Your Perfect Job*.

*Launching Your Career: Book 1 - How to Find Your Perfect Job* will help you define your personal, long-term career goals, and provides a practical roadmap to assist you in finding your ideal job. This eBook provides tools and assessments to enable you to evaluate your personal-ity and aspirations, find a great company to work for, choose the best position for you, and build your network. The eBook will also help you choose your path wisely and carefully, and get you started on the path to personal and professional fulfillment.

*Launching Your Career: Book 1 - How to Find Your Perfect Job* [can be downloaded for FREE](#) through 30 June 2012. Non-member price is US\$5.99.

In July the IEEE-USA free eBook will be *Personal Positioning for Engineers*. Information on how to download this eBook will be available in the July Benefits Bulletin.

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