



ION Saint Louis

FALL 2009



Dr. Lin, Assistant Professor, at MST. Dr. Lin is spearheading a new Computer Society Student Branch at the University with Dr. Choi. (Photo from Dr. Lin's website)

Annual Black-Box Competition is Planned

Date: Saturday, November 14, 2009

Location: Electrical and Computer Engineering, Emerson Electric Hall – 301 W. 16th Street Rolla.

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. Up to four teams from each school are allowed. (If more teams register, the local IEEE Branch Counselor will certify the official teams.) The competition is not open to graduate students..

Cost: The competition is free to everyone!

Prizes: Traveling plaque will go to the winning school with the winners names engraved. Cash prizes for First (\$500), Second (\$300), and Third (\$200) place will be awarded.

Registration: Teams must register by emailing sarangap@mst.edu. The names of all team members must be included, along with what school the team is coming from. Registration must be received by November 7th.

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. Jag Sarangapani, 573-341-6775 or sarangap@mst.edu.

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Senior Member Upgrade Event

The St Louis Section Senior Member upgrade event is held each year to provide an opportunity for our members to be nominated by the Section, thereby requiring only two references. In some cases, one or both of those references are also provided by our Senior, Life, or Fellow Members. This year we'll be making some changes to improve the process overall. If you or someone you know is eligible for upgrade to Senior Member, please check your email in upcoming weeks for details on how to take advantage of this opportunity.

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.

Summer Social Program

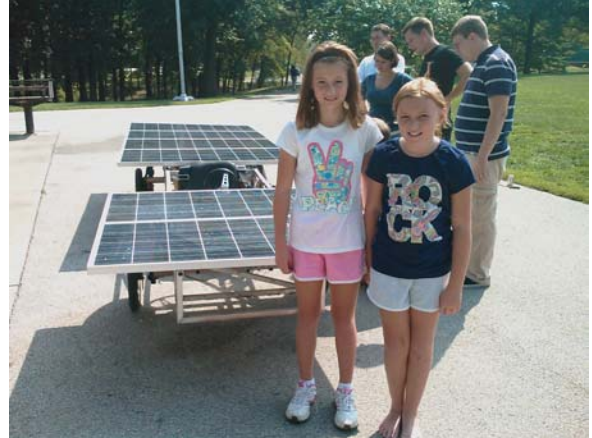
The summer social was a great success. Mr. Bob Lyons did yeoman's work in order to see that everyone attending had a great time. The event was held on September 12 at Endicott Park in St. Louis County and was free. Approximately 25, new and old members and their families attended the event.

The area was surrounded by park facilities, such as tennis, softball, and disc golf. Everyone enjoyed Bandanas BBQ and lots of treats. The SIUE solar car was one of the main attractions. The solar car team gave a demonstration and answered questions. Photos from Mr. Lyons are included below.



Summer Social Program

Continued from previous page.



COMSOC Happy Hour

Bar 101 in Soulard

Wednesday, November 11th, 530pm.

RSVP: Mr. Bob Lyons



Section Award Nominations

We are seeking nominations for IEEE St Louis Section award recipients. All awards will be presented at the Winter Social. If you would like to recognize someone, please provide the following by Nov 6th via email to heidi.e.anderson@ieee.org. Please include "IEEE STL Nominee" in the subject line. Your name and IEEE# for each award you are nominating someone...

Award Name: Outstanding Young Engineer, Outstanding Educator, Outstanding Student Branch, Outstanding Company, Outstanding Student Member, Outstanding Section Member, Outstanding Branch Counselor, Special Member.

Nominee's name; (IEEE# optional)

Name of school, company, or IEEE society with which the nominee is associated

Significant accomplishments - please be specific but not overly lengthy, examples: attracted new members; acquired patent or grant; led program or activity.

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
- Webmaster: Josh Thomas
- Social Chair: Phil Hart
- T-shirt Chair: Jonathan Meyer
- Sophomore Rep - Kenneth Morris
- Freshman Rep - Eric Pyle

Events Scheduled for 2009-2010

Date	Event	Location	Note
10/6	General Meeting	Ketcham Aud	
10/30	Tiger Night of Fun	Hearnes Center	*Community Service
11/3	General Meeting	Ketcham Aud	VP election
11/12	Boeing Plant Tour	St. Louis, MO	
11/14	Black Box Competition	Rolla, MO	
12/1	General Meeting	Ketcham Aud	
1/26/2010	Officers Meeting	Heidelberg	
2/2	General Meeting	Ketcham Aud	
March TBA	Faraday Racer Competition	W1025	
3/2	General Meeting	Ketcham Aud	Officer Elections
3/9	Food Bank	Central MO Food Bank	*Community Service
4/6	General Meeting	Ketcham Aud	
4/26	IEEE/HKN Spring BBQ	Stephens Lake Park	
April TBA	Region 5 Conference	TBA	
5/7	Garmin Tour	Olathe, KS	



**12th International IEEE Conference on Intelligent
Transportation Systems (ITSC 09)
Dates: 4-7 October 2009
Marriott Union Station, St. Louis, Missouri USA.**

The Intelligent Transportation Systems Conference (ITSC 09) is the annual conference for the IEEE Intelligent Transportation Systems Society. It targets basic research and applications of leading advances in communications, computer, control, and electronics technologies related to Intelligent Transportation Systems (ITS). The conference invites submissions for research papers, special sessions, etc. and inquiries for exhibits, etc.

Program Deadlines

Special Session Proposal: 1 April 2009

Manuscript Submission: 1 May 2009

Final Paper Submission: 15 August 2009

For Conference Information and CFP
Website: campus.mst.edu/itsc2009
General Chair: Steve E. Watkins, MO S&T
steve.e.watkins@ieee.org

What Is the Intelligent Transportation Systems Society?

Intelligent Transportation Systems (ITS) are those utilizing synergistic technologies and systems engineering concepts to develop and improve transportation systems of all kinds.

The ITS Society advances the theoretical, experimental, and operational aspects of Electrical Engineering and Information Technologies as applied to ITS.

The Society is interested in theoretical, experimental and operational aspects of electrical and electronics engineering and information technologies as applied to ITS, defined as those systems utilizing synergistic technologies and systems engineering concepts to develop and improve transportation systems of all kinds.

Taken from <http://www.ewh.ieee.org/tc/its/>.



*ITSC 09 General Chair,
Former Board of
Governor of ITS and MST
Professor, Dr. Steve E.
Watkins. Photo from ITS
website.*

Boeing AUV Project to be Presented at the ITS Conference

The Autonomous Urban Vehicle (AUV) Project was initiated in September of 2007 using regulations contained in the Defense Advanced Research Projects Agency (DARPA) Urban Challenge as guidelines. The project has two goals: to provide engineers with opportunities to enhance their skills and to inspire the innovative minds of tomorrow through student outreach.

The AUV project is a Jeep with the ability to drive itself through a plotted course while avoiding obstacles in its path. A rich spectrum of technical challenges await engineers who choose to participate: Systems Engineering, Object Detection, Navigation, Guidance and Control, Mechanical and Electrical, Safety and Test.

The project is in its third and final phase of design – advanced navigation. Phase 1 was project planning, while Phase 2 was conversion of the vehicle into drive-by-wire and basic navigation.

Speaker's BIO

Jon Marble

Jon has worked in a variety of engineering disciplines over his 18-year career. He has spent the last five years at Boeing working in aircraft guidance, navigation and control. Prior to that, Jon spent several years at Volvo working on heavy-duty truck strength and fatigue design, at Hughes developing robotics for manufacturing and at the GM proving grounds testing new product. Jon has a Masters in systems engineering from Oakland University and a Bachelors in mechanical engineering from the University of Illinois.



SIU Edwardsville Student Branch

The first meeting of the year was held on Tuesday, September 15. The group will be touring the Shell Woodriver, IL refinery on Friday Sept. 25. The group also plans to have a fall picnic on Friday Oct 2.



Missouri S&T Student Branch



MST Student Branch Officers

(2009-2010)

- Counselor: Dr. Jag Sarangapani
❖ sarangap@mst.edu
- President: Fred Reineke
- Vice-President: Alok Eande
- Treasurer: Micah Weber
- Secretary: Jason Dickherber
- STUCO Rep: Edward Stephens

Electric Power Rolling Blackouts in South Africa: Lesson Learnt and the Way Forward

**Dr. Komla A Folly
University of Cape Town, South Africa**

**Date: September 28, 2009 at 2 pm
Refreshments at 1.45 pm**

Venue: 315 Butler-Carlton Hall, Missouri S&T

Co-sponsored

by



**Real-Time Power and Intelligent Systems Laboratory
Department of Electrical and Computer Engineering
Intelligent Systems Center
Missouri University of Science and Technology**

Electric Power Rolling Blackouts in South Africa: Lesson Learnt and the Way Forward

In the last few years, the South African economy has grown at a faster rate than expected. As a result, there has been a dramatic increase in load demand without a corresponding increase in the available power generation. It is now clear that the reliability and security of the South African electrical power systems are increasingly at risk. Reserve margins continued to be eroded and, from September 2007 until 2008 available generating capacity was not always sufficient to meet the power demand and rolling blackouts were experienced.

In January 2008, there were almost daily rolling blackouts for two weeks leading to a Government declaration of a national power emergency on the 25th of January 2008. This had a severe impact on production levels in all sectors of the economy and dented the image of Eskom and South Africa.

At present, Eskom relies heavily on its coal-fired power stations to produce electricity. Although South Africa's coal is abundant and cheap, relying solely on coal as the main energy source is not sustainable in the long term. Eskom is facing increasing challenges in managing and improving the reliability and security of the electric distribution system.

South Africa has to focus on energy efficiency and demand side management over the next five years to create the necessary power system buffers in the short term. The emergency has initiated a national debate on what type of growth should occur in the country taking into account the commitment to climate change targets as announced by Government. The road to recovery has already resulted in good results in terms of improved plant performance, energy savings, organisational and societal resilience. However it is the beginning of a long road.

This presentation will highlight the causes of South Africa's rolling blackouts and the impact on the South African economy. It will elaborate on the lessons learnt from this experience and the measures that have been taken by Eskom and the South African government to ensure a secure and reliable electricity supply in the future.

Biography:

Dr. Komla A Folly received the Bachelor degree in Electrical Engineering in 1989 from Tsinghua University, Beijing-China. He obtained a Master's degree in Electrical Engineering from the same University in 1993. He received a Ph.D. degree in Electrical Engineering from Hiroshima University, Higashi-Hiroshima, Japan in 1997. From 1997 to 2000, Dr. Folly worked with the Central Research Institute of Electric Power Industry (CRIEPI), Tokyo-Japan. Since 2000, he is with the Department of Electrical Engineering at the University of Cape Town as an Associate Professor. He is currently a Fulbright Visiting Professor at the Missouri University of Science and Technology, Rolla, MO. USA.

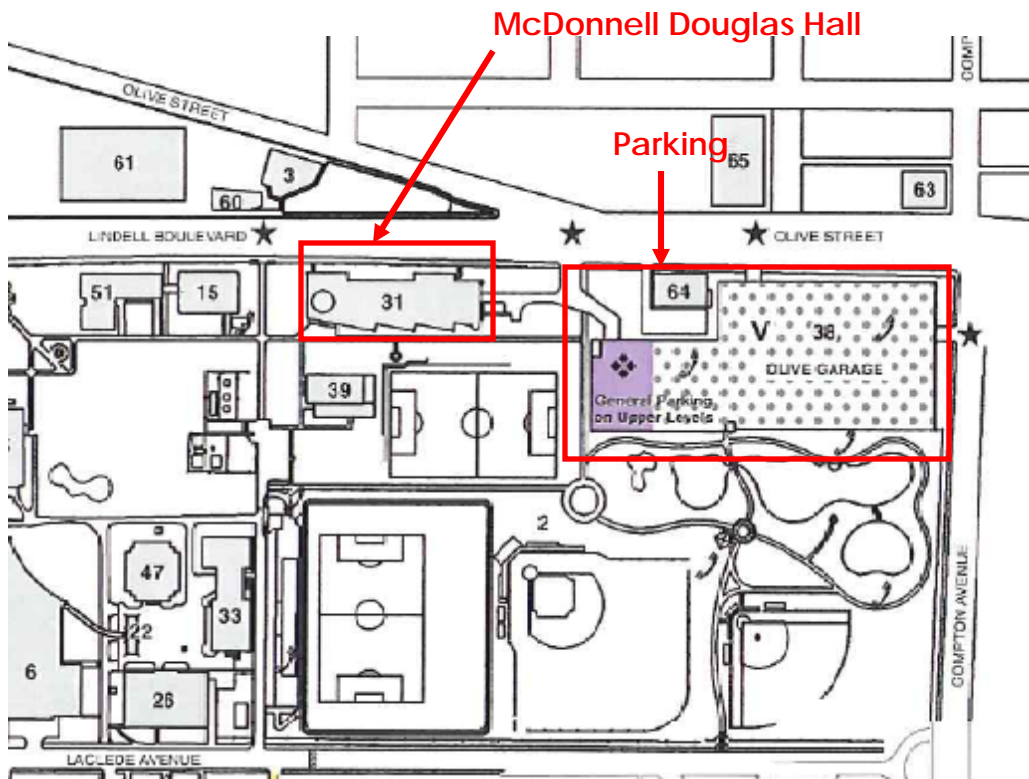
Dr. Folly research interests are in power system stability, control and optimization. He has done pioneering work in the development of robust control and computational intelligence based controllers for application in electric power systems over the past sixteen years. Recently, he has been working in the area of renewable energy, in particular the integration of wind energy into the grid and the effect of wind generators on the stability of the power systems.

Dr. Folly scientific contributions have led to collaborative research with a number of research groups in various countries. He is a member of the advisory board for the International Journal of Innovations in Energy Systems (IJESP). Dr. Folly is a Member of the IEEE, IEE of Japan and the SAIEE.

Section Meeting Information and Map for 2009

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 patrolled until 7 PM and take 2 quarters for 1 hour. 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.



OCTOBER 29TH TO 31ST, 2009

SIUIS⁴

SOUTHERN ILLINOIS UNIVERSITY INNOVATIVE SYSTEMS

SOUTHERN ILLINOIS'S PREMIUM

CONFERENCE ON INNOVATION AND TECHNOLOGY

What is SIUIS ?

SIUIS is a on-going program in Southern Illinois University Carbondale to encourage and drive innovative ideas in students and members of SIU community. SIUIS has a annual technology conference which gives networking opportunities to students and professional in the region. SIUIS conference focuses on hosting discussions on start-of-the-art technology driven by nationally recognized speakers, student research symposium, cutting edge engineering projects and career counseling to students. SIUIS also focuses on bringing collaborative research to the region and also focuses on developing opportunities for professionals, students and the community. For more information on the conference visit our website at <http://innovativesystems.siu.edu>

Activities in SIUIS⁴ :

- > Technical Presentations
- > Panel Discussions
- > Paper Symposium
- > Competitions
- > Research Project Showcase
- > Networking Socials
- > Tutorials
- > Workshops



Southern
Illinois University
Carbondale



IEEE

SIUIS

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>.

Presidents Roundtable Dinner and Discussion - Oct 6

Electrical and Systems Engineering Networking Dinner - Oct 8

Trip to Boeing - Oct 9

Build-a-Catapult - Oct 30

Alumni Advising Panel - Nov 12

Distinguished Guest Lecturer - Nov 19

Christmas Social - Dec 5

Officers (2009-2010)

- Counselor: Dr. Paul Min
❖ psm@wustl.edu
- Chair: Jeffrey Feiereisen
❖ f12@wustl.edu
- Vice-Chair: David Pilla
- Treasurer: Jeremiah O'Driscoll
- Secretary: Ari Kahn
- Projects Manager: Nicholas Hansing

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.

Distinguished Lecturer at MST AESS Student Branch – Nov 18

IEEE Aerospace & Electronic Systems Society

“NATIONAL MISSILE DEFENSE”, by Larry Chasteen, PhD

Distinguished Lecturer of the AESS

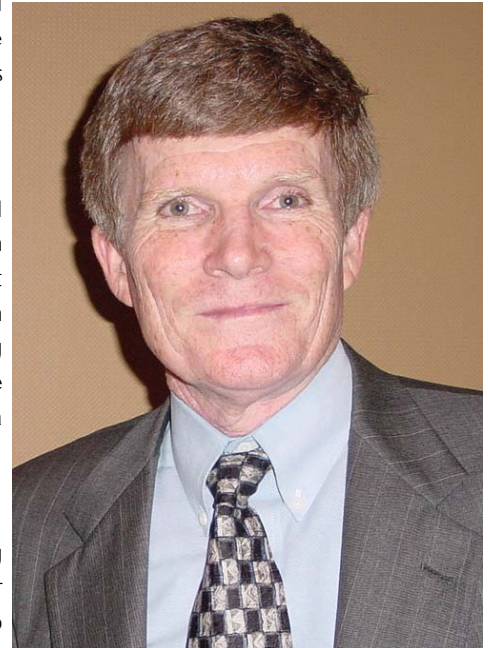
The Bush Administration made major changes to the National Missile Defense (NMD) system that had been developed earlier by the Clinton Administration and established a limited system in Alaska to counter threats from North Korea. But even with the new emphasis on anti-terrorism and closer relations with Russia, NMD was still a very controversial topic as seen with the U.S. proposal to install parts of the Missile Defense System in Europe for protection against Iran. The European proposal had negative impacts on the US/Russia relations during the later years of the Bush Administration. The Obama administration is trying to mend relations with Russia by taking a new look at the system proposed for Europe.

The NMD program will continue to be a key technical, political, and legislative issue facing the U.S. and the rest of the world. The Bush Administration focused more on testing and developing new equipment for the NMD system and also investigated a wider variety of sensors (such as space-based and sea-based systems) to detect and track incoming missiles. The upgrade to the existing Early Warning Radars was one of the few features that did not change from the Clinton plan. The Obama Administration is still finalizing its approach to NMD.

This talk will provide background information on the political issues facing NMD. It will also provide technical information on some of the major systems including upgrades to the Early Warning Radars. The talk will also provide system engineering details on the proposed elements of the system that could be installed in Europe.

Speaker Biography:

Dr. Larry Chasteen was the 1998 Dallas IEEE Section Chair and received the IEEE 3rd Millennium Medal for his service to the IEEE. He was also a 2000 IEEE Congressional Fellow and worked on the National Missile Defense Program in Washington. He had previously worked for 25 years in the defense industry for Texas Instruments and Raytheon specializing in radar and smart weapons. He also served in the Viet Nam War as a USAF B-52 pilot and retired from the USAF Reserves in 2000 with the rank of Colonel. He now teaches Project Management and Entrepreneurship at the University of Texas at Dallas and at ESC Lille in France. His research concerns evolving technical communities and their clustering. He was also a Fulbright Professor to Germany in 2006.



Larry Chasteen, Ph, Distinguished Lecturer of the AESS

Power & Energy Society Chapter Recap

The St Louis Chapter of PES held a tour and lecture on August 5 of Ameren's Taum Sauk Power Plant Facility. The speaker was Dr. Imre Gyuk who spoke at Jefferson College beforehand on the topic of Energy Storage, Applications and Technologies. Dr. Imre Gyuk, Program Manager, Energy Storage Research, U.S. Dept of Energy

Abstract

The merits of energy storage have come increasingly recognized during recent years. Already some 2.5% of U.S. electricity passes through storage in the form of pumped hydro. But 10% in Europe and some 15% in Japan provide much more substantial grid stability. As technology becomes increasingly digital and greater power quality is needed, storage devices, which can provide seamless continuity, are becoming an indispensable necessity. On the grid, fast energy storage can provide frequency and voltage regulation, which is twice as effective as regulation by fossil fuel generation and has a carbon footprint reduced by 70%. Storage can provide deferral of substation or distribution upgrade. As the electric load grows and generation and transmission fail to keep pace, management of peak load become an important task for storage. But the most serious role for storage arises from increasing penetration of intermittent renewable generation. Since fluctuations will now come from both the load and the generation side, regulation will need to be considerably increased. In addition, sudden ramping, particularly from wind, will have to be accommodated. Finally, wind in many parts of the U.S. is anticorrelated, so that available power at night time is often greater than the load. The resultant negative electricity prices impose a severe burden on both fossil and renewable generation. Energy Storage, along with demand response and distributed generation, has an essential role in all these applications. A portfolio of storage technologies, including advanced batteries, flow batteries, supercapacitors, and flywheels, is available to address applications in the tens of MW range. For larger applications, pumped hydro and compressed air energy storage (CAES) offer a good fit. While there are only two CAES plants currently in existence, there is considerable interest in establishing new plants. Funding available through the American Recovery and Reinvestment Act can be expected to result in many new and sizable storage facilities in the near future.



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

KIMAS 2009, International Conference Knowledge Intensive Multi-Agent Systems



Welcome to KIMAS 2009. This conference is a premier forum for unified approaches to knowledge intensive multi-agent systems that emerge in all domains of business, engineering, and modeling of the human mind. This involves a variety of disciplines including: intelligent decision support, signal processing and financial prediction, robotics and infobot design, text understanding and generation, artificial life, computational linguistics, data mining, and collaborative systems. A need to integrate data, knowledge, information, and wisdom unifies these diverse fields.

Knowledge can be in the form of precise laws of physics, inborn brain structures, or uncertain intuitions of scientists. The ubiquitous requirement to combine data and knowledge for producing refined knowledge challenges us across disciplines.

Common algorithmic characteristics include a integrated operation of sensing, information extraction, knowledge construction, and action. Some researchers arrive at this structure motivated by practical needs and mathematical analysis. Others are inspired by studies of the mind and brain. Our aim is to provide a single, high-profile, internationally respected archival forum for research in all aspects of the theory and practice of knowledge intensive multiagent systems that complement contemporary artificial intelligence and multiagent systems.

Important Dates

Conference: October 11-14, 2009

<http://www.cs.siu.edu/~kimas>

Location

Marriot St. Louis Airport

10700 Pear Tree Lane

St. Louis, MO 63134

(314) 423-9700

Japan Robot Night

Japan America Society of St. Louis in cooperation with Center for International Studies, University of Missouri-St. Louis and JETRO, Chicago presents:

October 15, 2009

5:30 p.m. Registration and Reception

6:30 – 8:00 p.m. Program

University of Missouri-St. Louis

Millennium Student Center (MSC)

Century Room C

Japan has long been called the robot kingdom, where state-of-the art technologies have reinvented factory assembly lines. More recently, Japan has developed service robots that can play significant roles in helping its aging population. PARO (baby seal robot) interacts with people and makes them feel emotionally attached. It has an impact in three areas: psychological (such as relaxation and motivation), physiological (such as improvement in vital signs) and social effects (such as facilitating communication among patients and caregivers).

The Japan Robot Night will feature Dr. Takanori Shibata, the inventor of PARO and Senior Research Scientist at the National Institute of Advanced Industrial Science & Technology. The program includes the demonstration of PARO and a presentation by JETRO Chicago on service robots trends in Japan.

The event is open to the public and is free. However, a PARKING PERMIT is required for ALL visitors to UMSL. To request your FREE permit, a campus map and make a reservation for this program, call Japan America Society of St. Louis at 314 516 -5754.

MOCON Registration

Advanced registration for the 2009 Fall Missouri Conference (MoCon) Workshop is now open. Advanced registration fees are \$500.00 for a full day tutorial and \$250 for a ½ day tutorial and available at <http://www.moconstl.com>. Advanced registration will close on 16 (Friday) October 2009. After that, the fees will be \$550 for a full day tutorial and the fees for a ½ day tutorial will be \$275.00. You may use this form to register or you may register online at the MoCon Workshop web site: 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 ½ day tutorials on the same day. IEEE Members receive a 20% discount. PDHs and CEUs will be awarded.

Name _____ Tutorial # _____ Amt Enclosed \$ _____

Address _____ City/State/Zip _____

Email address _____ Tel No. _____ IEEE Member # _____

Remit check (no credit cards, POs OK) To

Jerry Herman, MoCon Workshop Treasurer

2112 McGregor Circle

Dardenne Prairie, MO 63368

Payable to "2009 Fall MoCon"

Fall Schedule – 22nd Annual MoCON Workshop

Dates and times are tentative. An application form will be in the Summer issue or you can go to the website at <http://www.moconstl.com> or contact MR. BOB MENZEL 314-545-6712.

WEDNESDAY, 28 OCT 2009

1. Electrical OverCurrent Protection by Mr. Paul Friemel, PE (Bussmann)
2. Low Noise Design by Dr. Jim Hahn (UMSL)

THURSDAY, 29 OCT 2009

1. Arc Flash Analysis (1/2 Day) by Mr. Edwin Scherry, PE (UMSL)
2. Robust & Adaptive Control Theory by Dr. Kevin Wise (TBD)

FRIDAY, 30 OCT 2009

1. Advanced Electrical OverCurrent Protection by Mr. Paul Friemel, PE (Bussmann)
2. Intro to TCP/IP Networking and Appl (1/2 Day) by Mr. Ken Owens (Savvis Com)
3. Advanced Network Implementations(1/2 Day) by Mr. Ken Owens (Savvis Com)
4. Digital Signal Processing by Dr. Jim Hahn (UMSL)

IEEE-USA and IEEE Computer Society Teaming Up to Develop Professional Exam for Software Engineering

NEWS from IEEE-USA and IEEE Computer Society

2001 L Street, N.W., Suite 700

Washington, DC 20036-4910

WASHINGTON (10 September 2009) -- IEEE-USA and the IEEE Computer Society will be working together to develop an examination requested by state licensure boards for prospective use in licensing software engineering professionals.

The National Council of Examiners of Engineering and Surveying (NCEES) approved the development of a Principles and Practice of Engineering examination -- PE exam -- for software engineering in August. NCEES develops and administers the engineering and surveying competency exams used for licensing purposes in all U.S. jurisdictions.

NCEES had received requests for the software engineering exam from engineering licensure boards in 10 states, a requirement that must be met prior to beginning the development of a new exam. These boards contend that because software engineers play a significant and ever-increasing role in the design and operation of safety-critical systems, they should be regulated in the same manner as other engineering disciplines. Projects affecting public safety require licensed engineers to verify that the engineering was done properly.

Software engineers agree. Nearly two-thirds (62.9 percent) of respondents to a September 2008 survey of software engineers conducted by the Computer Society said that they should be licensed if they practice in areas affecting public health, safety and welfare. In addition, 61.5 percent supported development of a path to software engineering licensure through the NCEES Model Law.

The Computer Society has been laying the foundation for greater professionalism in the software engineering field with "The Guide to the Software Engineering Body of Knowledge," or SWEBOK (<http://www2.computer.org/portal/web/swebok>), a 2004 guide that established a baseline for knowledge in the field and is now being updated. Under the new ISO/IEC 24773 standard approved in October 2008, all software certifications must conform to SWEBOK. The Computer Society's two certifications -- the entry-level Certified Software Developer Associate credential and the mid-career Certified Software Developer Professional credential (<http://www2.computer.org/portal/web/getcertified>), are the first two certifications that conform to the new ISO/IEC 24773 standard.

NCEES expects the software engineering PE exam to take between 24 and 30 months to develop. The Computer Society, NCEES, the National Society of Professional Engineers, IEEE-USA and the Texas Board of Professional Engineers will share the cost of developing and maintaining the exam, and will provide subject matter experts to help develop it.

Unofficial Black Box Rules and Guidelines

Continued from, page 1.

Note: Official Rules provided by host school upon request.

1. Students shall participate in teams of one to two students, where every team will be given their own laboratory station. The event duration will be three hours. If more groups register than can be accommodated by a single laboratory, the laboratory spaces will be assigned randomly. The quality of equipment may vary between laboratories, but all students will have access to the same equipment including at minimum an oscilloscope, a function generator, a multimeter, a power supply, a breadboard, and common circuit components
2. Each team will be allowed the use of personal calculators and two bound books of their choice. They may not bring outside laboratory equipment, computers/laptops, unbound reference material, etc. Also, no internet access, computer data acquisition, or software resources will be allowed.
3. The circuit will consist of up to 6 discrete components. The circuit will contain no more than 2 non-linear devices, if any. The non-linear devices are restricted to diodes and transistors (discrete BJT's and MOSFETs are possible, but ICs will not be included). The three standard linear devices, i.e. R, L, and C, will most likely all be present. The students will have access to four terminals that will be connected to four different points in the circuit. Power connections, if required, will be in addition to the four access terminals and the power specifications will be given.
4. The contest coordinator will be last year's winner. All requests, questions, etc. must go through the coordinator. Help related to using the laboratory equipment will be given to the teams, but no help that directly relates to the circuit will be given. Also, hints to ALL participants may or may not be provided during the competition. This is at the coordinator's discretion.
5. A blue essay book will be supplied each team. The documentation and solutions will consist of only handwritten entries, figures, and data; no printout will be considered. Multiple judges will examine and consider the notebooks only. The winners will be determined by a number of factors, including the correct answer (or proximity to) AND the documented steps and logical conclusions used to get that answer. Thus, a schematic, while necessary, is not sufficient alone.
6. Each judge will rank the teams and award 5 points to first, 4 points to second, 3 points to third, 2 points to fourth, and 1 point to fifth. The points awarded by the judges will be tallied and the winners determined by the scores. 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 disrupting another group, copying another team's work, and collaboration with another group or outside individuals.

IEEE-USA E-Book Reaches Out to Unemployed Engineers

NEWS from IEEE-USA

2001 L Street, N.W., Suite 700

Washington, DC 20036-4910

WASHINGTON (16 September 2009) -- "The Best of Today's Engineer on Career Survival," available from IEEE-USA E-Books, is a compilation of articles designed to assist engineers who need help searching for a new job, getting in the front door, maintaining their competitiveness and managing their finances while they search. The e-book contains such titles as:

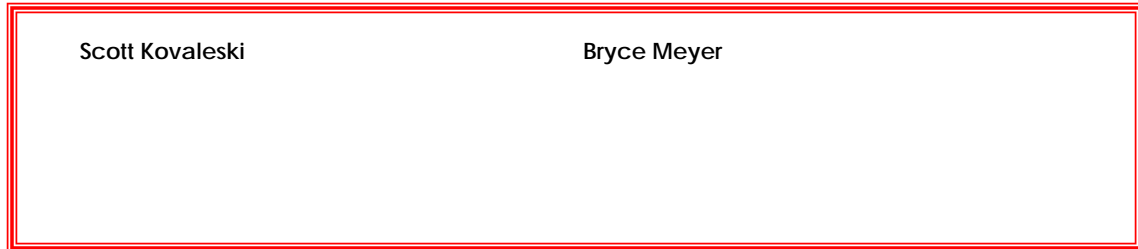
- What Are Engineering Employers Looking For?
- Converting Gatekeepers to Greeters
- Picking a Good Boss
- Building Your Network Purposefully -- Before You Need a Job
- Seeking a New Job? Think Like an Employer
- Cold Calling Your Way to a New Job
- Transitioning Jobs, Managing Your Finances
- Five Steps to a New Job
- Jump Start Your Job Search
- Globalization and Your Career: Building Career Resilience
- Successful Career Makeover for Engineers in the 21st Century
- Sine Qua Non: Networking
- Finding Employment in an Economic Downturn
- Six Ways to Maximize Job Search Success

You can purchase your copy of "The Best of Today's Engineer on Career Survival" at www.ieeeusa.org/communications/ebooks for the IEEE member price: \$4.95. Nonmember price is \$19.95.

IEEE members can purchase other IEEE-USA E-Books at deeply discounted member prices -- and download some free e-books at www.ieeeusa.org/communications/ebooks.

Congratulations – Elevated Senior Member

Congratulations to the following Elevated Senior Member in our Section for June, July, August, and September.



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 July, August, and September (through September 23, 2009).

Dane Anderson	Dylan Erb	Linda Larson-Prior	Dinesh Ramamurthy	Jun Wu
Kevin Antrobus	Mark Fildew	Wayne Lewis	Avinash Ravipati	Lin Xue
Sai Krishna Arika	Scott Follmer	Zhen Li	John Reynolds	Gang Yao
Patrick Ashby	Margaret Foster	Chad Limestall	Navid Rezaie	Ji Zhang
Dominic Asher	Virginia Foster	Darren Lindsay	Justin Roark	Dongyang Zhang
Patrick Bacon	Mark Franke	Jonathan Lusardi	Stephanie Roberts	Ke Zhang
Patrick Balsman	Benjamin Frederick	Ismail Malique	Adam Rouse	Chengyu Zhang
Scott Baum	Aditya Gali	William Marchetto	Liyang Rui	Lei Zhang
Andrew Benbow	Brady Gall	John Maurer	Spencer Schneidenbach	Fan Zhou
Michael Bollinger	Bob Gardner	Brian Maydwell	Raquel Schroeder	James Ziebold
Ronaldo Caguin	Ronald Gifford	Aaron Medsker	Brian Schulze	Peter Zylka
Daniel Campbell	Michael Gorzik	Jennifer Melton	Greg Schwartz	
Michael Carney	Neda Hantehzadeh	Munir Mohammad	Ali Sepehri	
Priyam Chakravarty	Petra Harris	Aaron Mosher	Danielle Simko	
Jerry Chang	Lisa Harrison	Matt Mower	Atmika Singh	
Sai Chaparala	Shawn Hayden	Satya Kiran Nanduri	Romauld Sokol	
Phani Chavali	Jason Hoeft	Argha Nandy	Siddharth Sridhar	
Jen-Shiun Chen	Scott Hollingshaus	Hoanglong Nguyen	Jason Starr	
Ju Chieh Cheng	Ruizhi Hong	Harry Nguyen	Nouman Syed	
Qi Cheng	Austen Hufton	Vernal Nicholson	Taimen Taylor	
Gregory Christ	Doug Huttegger	Alan Nogic	Kiet Tran	
Jon Clark	Samuel Jantz	Steven Palmer	Mike Truskowski	
Craig Clarke	Timothy Johnson	T C Parry Jr	Alexander Turek	
Kelton Clements	Caitlin Kelleher	Bhavesh Patel	Anh Vu	
Matthew Criscione	Victor Khilkevich	Mihir Patel	Dale Wagner	
Luke Davis	Matthew Kohli	Nathan Peters	Seinn Wai	
James DeBrecht	Sandeep Kolli	Luke Peterson	Brandon Wall	
Joe Dent	Sergey Komarov	Chassidy phipps	Jesse Wheeler	
Ryan Dickherber	Lavanya Lakshmanan	Sheela Pola	Jocelyn Wildman	
Matt DiLalla	Dao Lam	Douglas Porter	Andrew Wilson	
Carly Eastman	Wayne Lapierre	Eric Pyle	Matthew Wilson	

Section Membership Numbers

Membership Category	Total (Aug 2009)
Member (M)	1173
Life Member (LM)	130
Senior Member (SM)	252
Life Senior Member (LS)	65
Fellow Member (F)	20
Life Fellow Member (LF)	19
Student Member (StM)	167
Grad Student Member (GSM)	162
Associate Member (SM)	187
Honorary Member (H)	0
Total for Saint Louis Section	1998

School	Total (9/26/2009)
University of Missouri	85
Missouri Univ of Science & Technology	103
Southern Illinois Univ – Carbondale	34
Southern Illinois Univ – Edwardsville	36
St. Louis University	22
Washington University	43
St. Louis Community College	4

Active Society	Saint Louis Section Total (9/26/2009)
Aerospace and Electronic Systems Society (AESS)	60
Communications Society (COMSOC)	140
Computational Intelligence Society (CIS)	60
Computer Society (CS)	331
Education Society (ES)	28
Engineering in Medicine and Biology Society (EMBS)	71
Industry Applications Society (IAS)	93
Power & Engineering Society (PES)	255
Graduates of the Last Decade (GOLD)	346
Women in Engineering (WIE)	27
Rolla Subsection (Aug 2009)	170

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

2009 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

2009 Affinity Group Contacts

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

2009 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

Fall 2009 Upcoming Events

SIUE Student Picnic	October 2
ITS Conference at St. Louis Union Station	October 4 – 7
KIMAS 2009-09-27	October 11-14
Japan Robot Night	October 15
October Planning Meeting	October 22
Fall MoCON	October 28, 29, 30
Tiger Night of Fun at Hearnes Center	October 30
SIUIS at SIUC	October 29-31
Black Box Competition	November 14
AESS Student Branch Distinguished Lecturer	November 18
WuSTL Student Branch Christmas Social	December 5
Section Winter Social	December

OCTOBER 2009

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NOVEMBER 2009

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DECEMBER 2009

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20	21	22	23	24	25	26
27	28	29	30	31		

Website

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

Officers

sec.stlouis@ieee.org