



Madison Section NEWSLETTER

Volume 3, Number 1

Serving IEEE Members of South Central Wisconsin

January 2000

Application of Superconducting Magnetic Energy Storage Systems

- Date/Time:** Thursday, January 20, 2000, at 11:45 AM
Speaker: John Diaz de Leon II, American Superconductor (ASC)
Location: Rocky Rococo's Pizza, 7952 Tree Ln., Madison Beltline Hwy. at Mineral Pt. Rd. (829-1444)
Menu: Pizza buffet, salad, soft drinks (cost \$8.00)
RSVP: by January 17 to Roy Thompson via email (roy.thompson@tdstelecom.com) or call 608/664-4415

Non-member guests are always welcome!

Note: The technical presentation will be preceded by the annual officer nominations and election.

Superconducting Magnetic Energy Storage, or SMES, is a technology capable of improving the power quality characteristics of electric systems. American Superconductor (ASC), with its Power Quality facilities in Middleton, Wisconsin, has developed a SMES system, where energy is stored within a magnet that is capable of releasing megawatts of power within a fraction of a cycle to replace a sudden loss in line power. The application of a SMES system to a electric utility system in Northern Wisconsin will be discussed, as will the development of the technology and its characteristics.

John Diaz de Leon II is a Network Solutions Senior Transmission and Distribution Planning Engineer with ASC in Middleton. He performs planning studies to analyze transmission and distribution systems for voltage, capacity, stability, transfer capability, and power quality problems. John was previously with Alliant Energy (formerly Wisconsin Power & Light Co.) where he was responsible for developing solutions to voltage, capacity, stability, transfer capability, and power quality problems. He has a BSEE degree with honors from the University of Wisconsin - Madison and is a registered professional engineer in the State of Wisconsin.

The Overture Project - joint dinner meeting with ASCI, WSPE and SWE

- Date/Time:** Thursday, February 24, 2000, time to be determined
Speaker: George E. Austin, President of the Overture Foundation
Location: to be determined
Menu: to be determined

Non-member guests are always welcome!

The Overture Project is a \$100 million privately funded initiative to promote excellence in the arts and continue the downtown Madison renaissance. The Overture Project will transform the current Civic Center block in downtown Madison, remodeling and expanding existing performing and visual arts facilities and adding new ones.

George E. Austin is the president of the Overture Foundation, a newly formed foundation to provide support for cultural arts facilities in Madison, Dane County, and the State of Wisconsin, which is currently developing the Overture Project. His previous position was Director of the City of Madison Department of Planning and Development, and Director of the Community Development Authority of the City of Madison including serving as Project Manager for the development of Monona Terrace.

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IEEE Wants You!

The Madison IEEE Section is still in need of a couple of additional volunteers to serve as Members-at-Large for its year 2000 officer's term. This involves assisting with activities, such as planning monthly meetings, writing copy for the newsletter, etc. If you can spare a few hours each month, summers off and would welcome camaraderie over beers in doing so, please contact Dan Danbeck, danbeck@engr.wisc.edu, (606) 262-3748.

Madison Section Officer Election January 20

The Madison Section will conduct a short nomination and election session of its section officers for the 2000 term at its regular meeting on January 20, just prior to the technical presentation. Please plan to attend and be prepared to nominate and elect interested fellow section members for these important positions.



IEEE Announces Free Access to Video-on-Demand Until February 2000!

The Educational Activities has launched Video-On-Demand, a service that brings streaming technical video tutorials directly to users' desktops via the IEEE Web site. Interested members can log on to ieee.mediaplatform.com/vod/ieee/index.po to demo the service during the introductory free trial period going on now through February 2000. There are certain hardware, software and network requirements that are detailed at the web site. The current categories include topics in Communications, Computer Engineering and Networking, Interdisciplinary and Power.

For more information, contact Alan Trembly at IEEE Educational Activities, 732/562 5488, a.trembly@ieee.org.

National Engineer's Week February 20

National Engineers Week will be held during the week of February 20, 2000. It is a coordinated effort by major companies, engineering societies, schools, and students to focus public attention on the role of engineering and its importance to our quality of life.

For those wishing to promote this event within their organizations, a free planning kit (with tips for sponsoring local activities and events) is available. For further information, see the National Engineers Week Web site at www.eweek.org.



National Engineers Week
February 20 - 26, 2000

NAE to Announce Engineering Achievements During Engineers' Week

The U.S. National Academy of Engineers (NAE) will announce the top engineering achievements of the 20th century during U.S. National Engineers Week on Tuesday, 22 Feb., 2000, at the National Press Club in Washington, D.C. The IEEE History Committee sent the following 11 nominations for 20th century's greatest engineering achievements, based on members' submission for NAE consideration:

- computers and software,
- personal and broadcast telecommunications systems (including TV, radio, cellular and microwave),
- electron devices (including vacuum tubes, transistors, integrated circuits, and optical and laser devices),
- computer networks (including the Internet and the World Wide Web),
- medical electronic systems for diagnosis, imaging and therapy,
- electric household appliances,
- the modern air-traffic control system (including telemetric, radar, avionic and global positioning systems),
- feedback control systems (including robotics),
- signal processing (including image processing).

Safety Code Information Added to IEEE Standards Web Site

IEEE recently added a web area dedicated to the National Electrical Safety Code (NESC) to its Standards site (<http://groups.ieee.org/groups/nesc/>). The NESC is adopted as law by the majority of states and Public Utility Commissions (PUCs) across the US, and is the single, most important document for safeguarding persons against electrical hazards during the installation, operation, and maintenance of electric supply and communication lines by utilities.

The web area includes approved meeting minutes, information on errata and Tentative Interim Amendments, and a survey recently conducted of the PUCs on which edition of the NESC they have adopted. Plus, it includes a PDF file of the form for submission of comments on the 2002 NESC Preprint proposals. The deadline for comment on the 2002 NESC proposals is 1 May 2000. The 2002 NESC will be published August 2001. For more information, contact Karen McCabe at 732/562 3824; k.mccabe@ieee.org.



You might be an engineer if ...

- At Christmas, it goes without saying that you will be the one to find the burned out bulb in the string of Christmas lights.
- Choosing to buy flowers for your girlfriend or to spend the money to upgrade your RAM is a moral dilemma.
- Everyone else on the Alaskan Cruise is on deck gazing at the scenery, and you are still on a personal tour of the engine room.
- In college, you thought Spring Break was metal fatigue failure.
- The Salespeople at the local computer store can't answer any of your questions.
- You are at an air show and know how fast the skydivers are falling.
- You bought your wife a new CD ROM drive for her birthday.
- You can quote scenes from any Monty Python movie.
- You can type 70 words per minute but can't read your own handwriting.
- You comment to your wife that her straight hair is nice and parallel.
- You go on the rides at Disneyland and sit backwards in the chairs to see how they do the special effects.
- You have saved every power cord from all your broken appliances.
- You have more friends on the Internet than in real life.
- You know what http:// stands for.
- You look forward to Christmas only to put together the kids' toys.
- You see a good design and still have to change it.
- You spent more on your calculator than you did on your wedding ring.
- You still own a slide rule and you know how to use it.
- You think that when people around you yawn, it's because they didn't get enough sleep.
- You window shop at Radio Shack.
- You're both in the back seat of your car, she's looking wistfully at the moon, and you're trying to locate a geosynchronous satellite.
- Your laptop computer costs more than your car.
- Your wife hasn't the foggiest idea of what you do at work.
- You've already calculated how much you make per second.
- You've tried to repair a \$5 radio.





Reach over 700 IEEE members in South-Central Wisconsin with information on *your products and services* every month with an ad in this newsletter.

Our members have professional interests in computers, power engineering, signal processing, communications, industry applications and a number of other technical fields.

For more information, contact John Hicks at (608) 233-4875 or jhicks@facstaff.wisc.edu.

Per issue ad rates:	<u>1 Time</u>	<u>2 Times</u>	<u>5 Times</u>	<u>9 Times</u>
Business Card	\$ 50	\$ 45	\$ 42	\$ 41
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1/2 Page	215	203	195	193
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