IEEE

Madison Section NEWSLETTER

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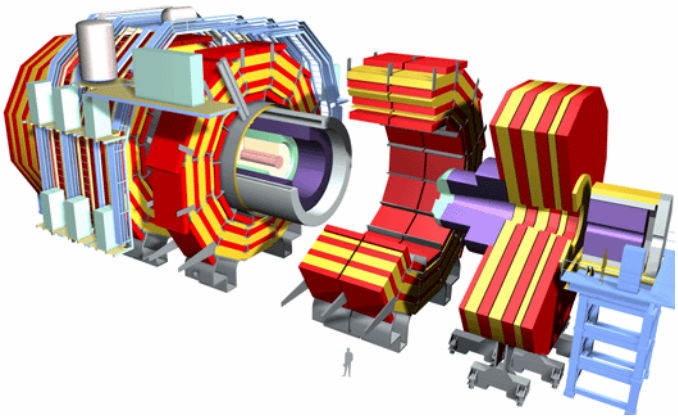
Building a 16,000 Ton Experimental (CMS) Detector for Physics Research

Date/Time: Thursday, May 18, 2000, 11:45 AM - 1:00 PM
Speaker: Farshid Feyzi, Technical Director, UW Physical Sciences Laboratory
Location: Rocky Rococo's Pizza, 7952 Tree Lane (Madison Beltline Hwy. at Mineral Pt. Rd.), Ph 829-1444
Menu: Pizza buffet, salad and soft drinks (cost $8.00)
RSVP: by May 16th to Roy Thompson via email (roy.thompson@tdstelecom.com) or call 608/664-4415

Non-member guests are always welcome!



The Compact Muon Solenoid (CMS) is one of two large detectors under construction for the Large Hadron Project (LHC) at CERN (European Nuclear Research Center) in Switzerland. LHC is the one of the largest high energy physics projects ever undertaken and seeks to advance our understanding of the nature of matter. The CMS detector is a very large and complicated structure with numerous engineering challenges. This presentation will give an overview of the project and highlight some of these challenges and the adopted solutions.

Farshid Feyzi is the Technical Director at the Physical Science Laboratory (PSL) of the University of Wisconsin. PSL is a design, development and construction facility with nearly 35 years of experience in the various fields of research. PSL has a large multinational client base and a staff of very experienced engineers and scientists. Farshid has worked at PSL for 16 years starting at as mechanical engineer. As Technical Director he is responsible for all technical operations and direction of projects.

Summer Recess.
No section meetings
June - August.

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IEEE Networking the World™

IEEE MADISON SECTION NEWSLETTER

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IEEE Adds to Career Resource Services for Members

The IEEE Computer Society has launched the Career Service Center -- the latest of several online resources for job seekers and employers. The Center features searchable postings for jobs available in the computer field around the world as well as employer profiles to help job seekers make informed choices about prospective employers. This service also offers IEEE Computer Society members the opportunity to post resumes, and it links to all of the Society's other career-related offerings.

IEEE members also can search job listings in a broader range of technical interest areas on the IEEE Spectrum online site (www.spectrum.ieee.org) and on the recently updated IEEE-USA Job Service online job board (www.ieeeusa.org/jobs). The IEEE-USA site also includes a resume referral service that enables members to upload information at no cost.

International Workshop on Quality of Service

The 8th IEEE/IFIP International Workshop on Quality of Service will be held on 5-7 June in Pittsburgh, PA USA.

We are pleased to announce an outstanding invited and technical program covering a broad spectrum of QoS research topics. The organizing committee received 84 submissions of which 21 full papers and 6 position statements were selected to appear in the final program. Reflecting the international character of this workshop many of the submitted papers were from Europe and Asia.

The technical program is divided into 8 paper sessions representing the state-of-the-art in Internet QoS research.

We also have two very exciting invited programs. Jim Roberts of France Telecom will give the keynote speech on Engineering For QoS and the Limits of Service Differentiation. Dabanjan Saha of Tellium will lead the discussion among the distinguished panelists on Optical Networks, Terabit Routers and Their Impact on Network and QoS Architectures.

We hope that you will join us for IWQoS 00. We are confident that you will find it an exciting, productive, and highly interactive workshop filled with innovative and sometimes controversial QoS research results and directions.

For further program information (or to register) go to our WWW site: http://www.cs.cmu.edu/~iwqos/

Attendee registration is limited so register now.

See you in Pittsburgh

Peter Steenkiste and Hui Zhang

Co-Chairs, IWQoS 2000

Ensuring Electric Power Reliability - The Challenges Ahead

IEEE-USA, in collaboration with the IEEE Power Engineering Society and the Consortium for Electric Reliability Technology Solutions (CERTS), is holding a national symposium on Ensuring Electric Power Reliability on May 24, 2000, in Washington, DC. The conference is co-sponsored by the Department of Energy and the Electric Power Research Institute. Keynote speakers include Secretary of Energy Bill Richardson and EPRI President/CEO Kurt Yeager. The Symposium will focus on technical implications and related policy issues for electric power reliability resulting from proposals for electric industry restructuring. For more information, please visit http://www.ieeeusa.org/electricpower

25th Annual Professional Development Conference

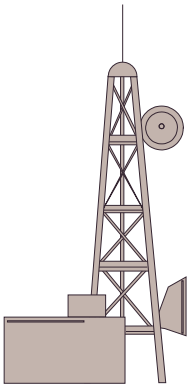
"The Millennium and Beyond" is the theme for the 25th Annual Professional Development Conference (ProDevCon), to be held over Labor Day weekend, September 1-4, 2000, at the Marriott Camelback Inn Resort and Spa in Scottsdale, Arizona.

The conference offers a wide range of professional and career development activities geared toward industry and engineering professionals. The conference program will include tutorials, plenary sessions with keynote speakers, concurrent workshops, and posterboard sessions. If you are interested in learning more about topics like effective career planning, professional skills management, mentorship, and influencing public policy, just to name a few, this is the conference for you!

For additional information on the 2000 IEEE-USA Professional Development Conference, contact Linda Hall at +1 202 785 0017, by email l.hall@ieee.org, or visit the conference site at http://www.ieeeusa.org/prodevcon/index.html

IEEE Microwave Magazine Publishes First Issue

The advancement of microwave theory and its application at frequencies from 0.2 GHz to 1000 GHz and beyond is the focus of "IEEE Microwave Magazine," which published its first issue in March. Serving the wireless radio frequency community of industry professionals and students, the magazine is sponsored by the IEEE Microwave Theory and Techniques Society. For information on a print subscription, contact the IEEE at subscription-service@ieee.org.



Largest Student IEEE Branches

Thadomal Shahani Engineering College in Bombay, India, was the largest IEEE Student Branch in 1999 with 695 Students. Rounding out the top five largest branches are: the University of Texas-Austin, USA; Georgia Institute of Technology, Atlanta, Ga., USA; Crescent Engineering College, Madras, India; and the University of Illinois-Urbana, USA. For more information, contact IEEE Student Services at student-services@ieee.org.

CEU Course Directory Now On The IEEE Web

Planning professional development requirements for the year? Maybe it's time to have skills freshened up for either short-term or long-term goals. Help is as close as the IEEE website at: http://www.ieee.org/organizations/eab/ceucourselist.htm.

A list of courses offering Continuing Education Units (CEUs), as well as contact information, can now be found on the IEEE website. Listed by date, the courses run the gamut from Advanced Induction Motor Production through XML Technologies.

Attention course developers: To list your CEU offering or offer CEUs at your educational program, please contact Sharon Strock, Projects Administrator, at s.strock@ieee.org.

Why 120V?

From http://www.ieee.org/organizations/history_center/

Why did the US choose 120v for household current and Europe choose 220v? It appears that they were chosen somewhat arbitrarily. Edison came up with a high-resistance lamp filament he thought desirable to keep distribution losses down. In 1882, he applied for patents on a 3-wire system which gave 220v transmission with 110v lamps.

Why does US use 60 cycles and Europe use 50 cycles? Many frequencies were used in the 19th Century for various applications, with the most prevalent being the 60 c/s supplied by Westinghouse-designed central stations for incandescent lamps. The development of a synchronous converter which operated best at 60 cycles encouraged convergence toward that standard. Around 1900, the introduction of the high-speed turbine led to settlement on two standards: 25 cycles for transmission and for large motors (this had been a compromise decision at Niagara Falls), and 60 cycles for general purpose systems. Meanwhile, in Germany, AEG -- which used 50 cycles -- had a virtual monopoly, and this standard spread to the rest of the continent. In Britain, differing frequencies proliferated, and Britain only settled on the 50 cycle standard after World War II.

(For more information on ac standards, we recommend Hughes, Thomas P., Networks of Power: Electrification in Western Society, 1880-1930, Baltimore, USA, Johns Hopkins University Press.)

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:	1 Time	2 Times	5 Times	9 Times
Business Card	$ 50	$ 45	$ 42	$ 41
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1/4 Page	145	135	129	127
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