



# Cleveland Contact

Publication of the Cleveland Section of the Institute of Electrical and Electronics Engineers.

## IEEE Officers Nominations Banquet and Holiday Party!

by Allen Morinec

The IEEE Cleveland Section will hold the Annual Officers Nominations Banquet and Holiday Party at the Glidden House on Friday, December 3, 1999. Members, Student Members, and their guests are highly encouraged to attend this extravagant event. A social will begin at 6:30 p.m., with dinner served at 7:30 p.m. The cost for members is \$15 per person, and the cost for students is \$10 per person. Hors d'oeuvres, dinner, dessert and alcoholic beverages included. Please call Allen Morinec at (216) 447-2505 for reservations and details. Reservations must be received by November 25th.

- What:** Officers Banquet and Holiday Party
- When:** Friday Dec. 3, 1999  
6:30 Social, 7:30 Dinner
- Where:** Glidden House,  
1901 Ford Drive, Cleveland OH,  
216-231-8900
- Cost:** \$15 for Members and Guests,  
\$10 for Students

## IEEE Power Engineering Society Meeting November 19, 1999

By Allen Morinec

The IEEE Power Engineering Society will have an informal luncheon meeting at Mountain Jacks Restaurant, 6001 Quarry Lane in Independence just off of Rockside Rd. on November 19th, 11:30 a.m. A new Dip Proofing technology will be presented which enables motor starters to ride through voltage sags and momentary power interruptions, thereby preventing the motor from dropping out. The needs of the Power Engineering membership can also be discussed. Call Allen Morinec at (216) 447-2505 for reservations and details.

## IEEE and the Society of Automotive Engineers Cleveland Section to Sponsor a December Joint Meeting

### *“The Physics of Star Trek: Mobility in the Next Millennium”*

by Stephen Phillips

The IEEE has joined the Society of Automotive Engineers and other Cleveland area professional societies for a meeting in December. The SAE Cleveland Section has arranged for guest speaker Lawrence Krauss to make a presentation entitled "The Physics of Star Trek: Mobility in the Next Millennium."

Dr. Krauss is the Physics Department Chair at Case Western Reserve University, and best selling author of "The Physics of Star Trek" and "Beyond Star Trek." He provides an entertaining analysis of warp speed, transporter beams and time travel using Newton's laws and the theory of relativity. This will be a technical discussion on the future of mobility (fictional or realistic) presented by a local celebrity. The theme fits well with the start of the new millennium.

The tentative date for the meeting is Monday, December 6, to be held on the CWRU campus. The meeting agenda includes a social at 5:30 p.m., dinner at 6:30, and the presentation at 7:30. Approximate dinner cost is \$16 per person. The SAE is handling all arrangements and making a donation to CWRU as an honorarium on behalf of Dr. Krauss.

If you are interested in attending this dinner, please contact Stephen Phillips via e-mail: smp2@po.cwru.edu or phone (216) 368-6248 to make a reservation.





## IEEE Cleveland Section CHAIRMAN'S COLUMN

by Stephen Phillips

As this is the final newsletter for the year, I would like to review some of our Section's accomplishments. We began with the election of officers whose terms began January 1, 1999. Our officers have met monthly to organize and coordinate

activities and events for the Section and its technical society chapters. While most of our chapters had some activity during the year, the Power Engineering Society and the Industrial Applications Society chapters have been especially active. We should look to these chapters as models for our less active chapters.

The student chapters at both Case Western Reserve University and Cleveland State University have had several well attended events. These student chapters are the largest source of new members for the Section. I am convinced that, since these student activities represent our future, they deserve special attention. I would like to thank Bill Schultz for implementing a new initiative to give the student chapters increased responsibility and authority for their activities. In recognition of their importance, I have volunteered to serve as the education coordinator for next year.

The Section has diligently maintained sound financial practices over the past several years, and this year, our income modestly exceeded our expenses. We have implemented several expense saving measures this year as well. In particular, the conversion to an electronic newsletter will allow us to spend more of our resources next year on programs and events to serve our members. We have also re-introduced a web page for the Section which includes our newsletter and other section and region events. It can be reached from links on the [www.ieee.org](http://www.ieee.org) national homepage.

Looking forward to next year, the Section will be expecting to grow the quantity, quality and diversity of programs that it offers. Those of us who have remained active in the operation of the Section would also welcome some new names for the back page of our newsletter (officers and chapter chairs). Finally, if you or someone you know is not receiving e-mail announcements of the newsletter links, please update the e-mail address on the member profile page with the national IEEE office via phone: (800) 678-IEEE or the web: [www.ieee.org](http://www.ieee.org).

## IEEE Industrial Applications Society Cleveland Chapter, Region 2--West

by Carl J. Dister

Welcome to a new year for the Cleveland Chapter of IEEE IAS! As the new IAS Chapter Chair, I look forward to meeting each of you at one of our meetings in the near future. Come join us.

This year, we will meet on the third Wednesday, every other month, at the Hofbrau Haus downtown. At each meeting, we will have a speaker of interest to IAS members. It is a chance for all of us to get together and exchange ideas for the betterment of our profession.

To better serve you, please e-mail me at [carldister@ieee.org](mailto:carldister@ieee.org) or call me at (440) 255-2977 x. 739, with the following information:

What is your professional area of interest? What can IEEE IAS Cleveland Section offer you in keeping with your professional interests? What is your correct e-mail address, or fax and/or phone number so that we can keep you up to date on events?

Thanks for your support.

**Meeting location:** Hofbrau Haus  
1400 East 55th Street  
Cleveland, Ohio 44103  
Time: 11:30 a.m. to 1:00 p.m.

### *IAS Calendar of Events*

#### **January 19, 2000**

Update/Discussion on Efforts to Keep Technology Companies from Leaving Northeast Ohio

Speaker: Jeff Thornberry, N.E. Ohio Instruments and Control Cluster Project / Cleveland Growth Association

#### **March 15, 2000**

"Practical Assessment of the Quality and Reliability of Industrial Electronics"

Speaker: Bill Klinger, Klinger Engineering Services

#### **May 17, 2000**

"Understanding the Mechanical Forces Acting on an Induction Motor and Load Resulting from Operation Under Inverter Power"

Speaker: Ed Labrush, Dynacor

**Note:** Lunch is available at the Hofbrau Haus for \$7.50 (German Buffet) starting at 11:30 a.m. Guest speakers will talk from 12:00 to 12:30. Question and answer session from 12:30 to 1:00.

**For further information, contact Carl J. Dister, IEEE IAS Section Chairman via e-mail: [Carldister@ieee.org](mailto:Carldister@ieee.org) or by phone: (440) 255-2977 X 739.**



## ***Proper Care and Feeding of Trademarks***

*by Michael Garvey*

During the past year, this column has covered mostly trademark topics. Trademarks stories seem to be more interesting. Next year, however, I will endeavor to cover more patent topics. To complete this year, however, I present one more trademark topic.

A trademark identifies the source of a product. A bottle of detergent marked TIDE means the detergent was manufactured by or under the authority of Proctor & Gamble. Trademark owners must diligently monitor the market to be sure that products bearing their trademarks are genuine. If a company other than Proctor & Gamble introduces a different detergent that is marked with TIDE or a similar mark, it may reflect poorly on P&G, reduce P&G's profits, and confuse consumers, who are not getting what they think.

Trademarks should be used in distinctive type. Using an initial capital letter, all capitals, italicized type, or a stylized form are all common ways to indicate use of a trademark.

Although not necessary, it is good practice to use the R in a circle ("®") for registered trademarks, the small TM for unregistered trademarks, and the small SM for service marks. Trademarks should be designated as "registered (if appropriate) trademarks of [owners name]". A footnote is a common way of doing this.

Trademarks should always be used as adjectives. The Nike Corporation does not sell Nikes, it sells NIKE shoes. This, of course, can be very inconvenient, and even the most prudent trademark owners do not follow this rule consistently. Advertisers are among the worst offenders, as they are primarily concerned with style and don't like legal restrictions on their creative expression.

Failure to properly use and police trademarks can result in loss of the rights in a trademark. One danger of improper trademark use is that a mark can become so commonly used as a noun describing a product, that it no longer identifies the source. The mark may even become generic. If you ask for a "kleenex" and instead get a PUFFS brand tissue, you may not be happy or you may not care. Certainly, the Kimberly-Clark Corporation (manufacturers of KLEENEX brand tissues) will not be happy.

Allowing improper usage and infringements, no matter how innocent, can weaken the rights in a trademark. If challenged, a mark can be deemed abandoned or otherwise unenforceable because the rights were not previously enforced. The mark then becomes a descriptive term for the product or may even become the trademark of another seller of the products if consumers associate the mark with the new seller.

In summary, trademarks must always be used to identify the source of products and must only be used to identify the source of products. If properly used and protected, trademarks will live long, happy lives.

*Michael Garvey is a patent attorney with Pearne, Gordon, McCoy & Granger LLP.*

## ***CES Events for November, 1999***

Following is a list of the Cleveland Engineering Society's upcoming events for November, 1999. Please contact CES at the number below for registration and additional information.

**4** Third annual Northern Ohio Energy Conference "Saving through Technology and Utility Deregulation," with Tom Hamilton, the Voice of the Cleveland Indians, as featured keynote speaker. Breakout sessions throughout the day focus on: current & future technologies; financing energy projects; buying & selling energy projects; deregulation updates; environmental permitting; e-Commerce; and waste management. 7:30 a.m. to 4 p.m. at Landerhaven Conference Center in Mayfield Heights. Cost of the conference: \$149/CES/BOMA/OMA/OPAE/Growth Association members; \$175/non-members. Includes conference, continental breakfast, lunch and snacks.

**9** Planning and Delivering Effective Presentations, featuring Neal Hazen of Anixter, Inc. and Scott Forshey of Fiber Network Solutions, Inc. 4:15 to 7:45 p.m. at the Cleveland Athletic Club. Sponsored by the Young Professional Division as part of the Career Enhancement Series. Cost: \$55/CES members; \$65/affiliate members; \$75/non-members and \$25/undergraduate students. Includes program and dinner.

**16** Renewable Energy, The Present and Future, featuring Fletcher Miller, Ph.D. 11:30 a.m. to 1 p.m. at the Spaghetti Warehouse in the Flats. Sponsored by the Senior Division. Cost: \$12/CES members and spouses; \$13/affiliate members; \$15/non-members. Includes program and lunch.

**17** Energy Production: A Plant Tour of McDermott Technology, Inc. in Alliance. 4 to 6:30 p.m., 1562 Beeson St., Alliance. Sponsored by the Management of Technology (MoT) Division. Cost: \$10/CES members; \$15/affiliate members; \$20/non-members.

**19** Leadership Breakfast featuring John Trostheim, President of ABB Automation, Inc., at Holiday Inn at I-77 and Rockside. Cost: \$20/CES members, \$25/affiliate members; \$30/non-members. Includes breakfast and program.

For more information, call The Cleveland Engineering Society at (216) 361-3100 or go to [www.cesnet.org](http://www.cesnet.org).

## IEEE Sections Congress

By Allen G. Morinec

I had the opportunity to attend the IEEE Sections Congress held in Minneapolis from October 8th-11th. The numerous workshops were divided into Successful Sections, Growing the Membership, and Serving Professional Needs. I will do my best to channel this valuable information to our members to meet their needs. All of these wonderful services are available through the IEEE web page and URLs. A few interesting areas include: the Engineers' Salary Survey, the Consultants Network, On-Line Library, E-mail Alias Service, and the Resume Listing Service. Feel free to contact me for additional information, or check out the IEEE web page.

## CEI Eastlake Power Plant Tour Saturday, November 6

By Allen Morinec

The IEEE Power Engineering Society will tour the CEI Eastlake Power Plant on Saturday, November 6th, from 9-11a.m. Generator unit #5 will be spotlighted. Unit #5 is a 620 MW fossil fired turbine supercritical unit which burns 250 tons of coal per hour, develops over 1 million HP, and generates electricity to power 450,000 homes. Space is limited, so make your reservations early. Call Allen Morinec at (216) 447-2505 for reservations and details.

## IEEE Computer Society Meeting Wednesday, November 3rd

By Allen Morinec

The IEEE Computer Society will be meeting on November 3rd, 6:00 p.m., at Cleveland State University's Mather Mansion on Euclid Ave. The meeting will be in conjunction with SPIN. Call Computer Chair Steve Belovich at (216) 267-1881 for reservations and details.

## IEEE Cleveland Section Officers Nominations

by Allen Morinec

The following officers have been nominated for the IEEE Cleveland Sections year 2000 executive committee:

<b>Chair</b>	Allen G. Morinec
<b>Vice Chair</b>	Open
<b>Secretary</b>	Mike Branicky
<b>Treasurer</b>	Ted Lapponi

Plan to attend the Nominations Banquet (see article elsewhere in this issue of the "Contact") to cast your vote. It is not too late to nominate yourself or someone you know for the position of Vice Chair. Contact any of the current executive officers for information. Don't forget, we also need volunteers to staff many of the chapter chairs. Donate your time and abilities. It's a very rewarding experience!

## Calendar of Events

*Mark your calendar.*

*You won't want to miss these!*

### November

**3** IEEE Computer Society meeting, 6:00 p.m., at Cleveland State University's Mather Mansion on Euclid Ave. Contact Allen Morinec, (216) 447-2505 for information.

**6** IEEE Power Engineering Society will tour the CEI Eastlake Power Plant on Saturday, November 6th, from 9-11 a.m. Contact Allen Morinec (216) 447-2505 for information

**19** IEEE Power Engineering Society will have an informal luncheon meeting at Mountain Jacks Restaurant, 6001 Quarry Lane in Independence just off of Rockside Rd. on November 19th, 11:30 a.m. Contact Allen Morinec, (216) 447-2505 for information.

### December

**3** Officers Banquet and Holiday Party, 6:30 Social, 7:30 Dinner at Glidden House, 1901 Ford Drive, Cleveland OH, 216-231-8900. Contact Allen Morinec at (216) 447-2505 for information.

**6** IEEE and the Society of Automotive Engineers Cleveland Section will sponsor a joint meeting on "The Physics of Star Trek: Mobility in the Next Millennium," on the CWRU campus. This is a tentative date. Please contact Stephen Phillips at (216) 368-6248, for information and reservations.

### POSITION AVAILABLE

Wanted: Electrical engineer (PE preferred), part-time, to assist in design projects for local clients. Prior industrial and/or wastewater treatment facility design experience helpful. Contact BAT Associates, Inc. at (216) 351-8011 or via e-mail at batassoc@stratos.net.

# IEEE Cleveland Section 1999 Officers

## ELECTED SECTION OFFICERS

Section Chairman	Stephen Phillips	216-368-6248
Vice Chairman	Allen Morinec	216-447-2505
Secretary	Michael Branicky	216-368-6430
Treasurer	Ted Laponi	216-771-2060

## APPOINTED SECTION OFFICERS

Area Rep/Ad Manager	Lee Bernasek	440-446-1985
Awards Chairman	Gerald Lucak	440-255-2977
CTSC Representative	open	
Database Manager	James Sens	216-642-1230
Education Chairman	open	
Engineer Week Rep.	Dick Carlson	440-951-1595
Newsletter Editor	M. Greene	216-292-2686
PACE Representative	open	
Consultants Network	Dragan Dugandzic	440-257-2151

## TECHNICAL SOCIETY CHAPTER CHAIR

Computer	Steve Belovich	216-267-1881
Control Systems	Wei Lin	216-368-4493
Industrial Applic.	Carl Dister	440-255-2977
*MIREA	Vincent Lalli	216-433-2354
**MLE	Masud Tabib-Azar	216-368-6431
Power Engineering	Allen Morinec	216-447-2505
Systems/Men/Cybernetics	Ben Malakooti	216-368-4462
Vehicular Technology	open	

## STUDENT BRANCH OFFICERS

CSU Advisor	George Kramerich	216-687-2405
CSU Chair		
CWRU Advisor	Robert Edwards	216-368-2833
CWRU Chair	John Bennardo	216-754-1972

## IEEE Internet

Webmaster		
Website:	<a href="http://www.ewh.ieee.org/r2/cleveland/">http://www.ewh.ieee.org/r2/cleveland/</a>	
News Group Mgr.	Richard Bloss	216-464-0405
FAX		216-464-0490
e-mail:	aa974@cleveland.freenet.edu	

## JOB LISTING SERVICE

Send blank e-mail to: [info.ieeeusa.jobs.r02@ieee.org](mailto:info.ieeeusa.jobs.r02@ieee.org)

*For member address changes, please call the IEEE Hotline, (800) 678-IEEE.  
Do not call the newsletter editor. For advertising rates, contact Lee Bernasek.*

**\*MIREA:** Engineering in Medicine & Biology/  
Instrumentation & Measurement/ Reliability/ Industrial  
Electronics/Aerospace & Electronic Systems

**\*\*MLE:** Microwave Theory & Techniques/Lasers &  
Optoelectronics/Electron Devices

**Please note: if you are trying to contact the IEEE  
Cleveland Section by FAX, dial 440-473-6557.  
The line is open twenty-four hours per day.**

## Real-World Fun-Facts

by Steve Belovich

The Intel I860 chip is a 64-bit microprocessor with a load/store architecture. It used delayed branching to reduce pipeline stalls and has a conditional branch instruction which can operate in either "predict-taken" or "predict-not-taken" modes. The I860 can issue up to one integer and one floating-point instruction at the same time. The I860 has an integer instruction throughput equal to the clock rate. The I860 has over 1 million discrete devices.

The DEC 21064 family of 64-bit microprocessors are "super-pipelined", which means that instructions are issued with every clock cycle. The integer and memory reference hardware has a seven stage pipeline. The floating-point unit has a ten stage pipeline. Special hardware called the "I-box" maintains the pipeline state information for all outstanding register writes. The 21064 chip is "super-scalar" which means that it can issue two instructions at a time for a maximum speed of 600 MIPs/300 MFLOPs for the 300 Mhz version. The 21064 contains over 1.7 million discrete devices.

The MPC601 PowerPC chip is a microprocessor with a 32-bit address bus and a 64-bit data bus. It has an instruction queue which holds up to 8 prefetched instructions. It uses branch folding which removes branch instructions from the queue upon resolution of the branch decision and address. The set of allowed branch instructions is reduced so that they are not dependent upon general-purpose or floating-point registers and so potential pipeline stalls are eliminated.



*Cleveland Section*

**Editor:**  
M. Greene

**Art Director:**  
Jeff Greene

**Advertising Manager:**  
Lee Bernasek

**IEEE Chairman:**  
Stephen Phillips

The "Contact" is published eight times per year: September, October, November, January, February, March, April and May. The deadline for Newsletter articles is the 10th of the previous month.