

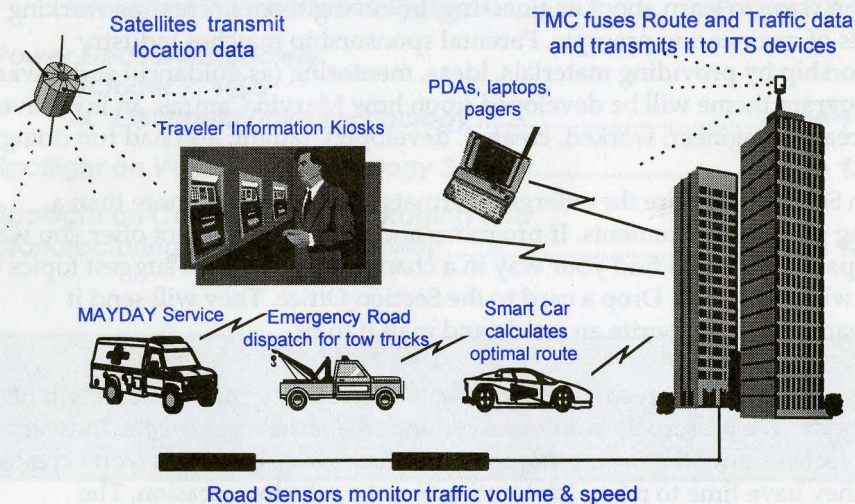


Scanfax

Institute of Electrical & Electronic Engineers  Chicago Section Newsletter

September 1995

Intelligent Transportation Systems



Chicago Section Kickoff Dinner
September 14, 1995

Also Meet the President of IEEE Wally Read

Details on Pages 8 and 9

Chairman's Message

Four opportunities will dominate our Chicago Section activities for the administrative year July 95 through June 96. They are:

1. The Marvin Camras Legacy
2. Recovery from Downsizing
3. Conferences and Opportunities for Skills Upgrading, and
4. Using IEEE Resources to Assist Business and Industry to Expand and Create New Ventures.



Jack Sherman

National Engineer's Week occurs in February, commemorating the birth of George Washington, a civil engineer. Programs nationally inspire children to develop ways to learn about engineering, involving them in creating working models of engineering precepts. Parental sponsorship matches industry sponsorship by providing materials, ideas, mentoring (as guidance) and rewards. It's program theme will be developed upon how Marvin Camras, an inventive and creative engineer, worked, created, developed, taught; and had fun doing it!

Watch Scanfax. Admire the emerging formats and pay a little more than a passing glance at its contents. If programs and advertising do not offer you ways to prepare yourself to find your way in a changing world, then suggest topics to cover what you need. Drop a card to the Section Office. They will send it upstream. Better yet, write an article and mail it to us.

Finally, we all need to recover. There won't be a recovery method that will fit everybody. We personally won't recover until the industry recovers. Industry won't recover until the inventors turn loose their ideas. Inventors won't create until they have time to relax. Job hunting is not a relaxing occasion. The equivalent task to job hunting for the independent consultant is client finding, for industry it's new products and new markets.

If the IEEE, and it's local entity, the Chicago Section cannot help you find ways to grow, it will itself be downsized. If the active chapters of the thirty-seven IEEE technical societies are not supporting you, tell us which societies are appropriate. We are looking for topics that will provide you with half-hour skill upgrading exercises. Of course, you don't know which skills you will need because the inventions haven't arrived.

And don't forget to respond to Camras' Legend —
"Regards and Thanks for Your Time"

Jack Sherman, IEEE Chicago Section Chair — j.sherman@ieee.org

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Chicago Section Executive Committee Meeting
September 14, 1995 • 5:30 to 6:00 PM
Como Inn • 546 N. Milwaukee Avenue • Chicago, IL
Previously Announced September 12th Meeting Canceled

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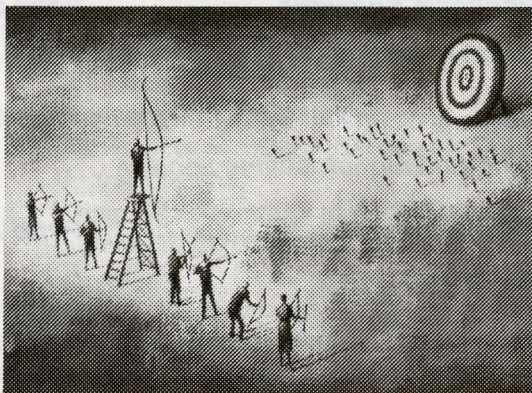
Articles for November '95 Scanfax due September 28. Articles for December '95 due October 26.

BUSINESS OFFICE IEEE Chicago Section 2460 Wisconsin Ave. Downers Grove, IL 60515 800/898-4333 or 708/964-4333 708/963-2122 FAX ChrisRow@aol.com	EDITOR Martin Lake AT&T Rm. 6W-104 2000 N. Naperville Road, Naperville, IL 60566-7033 708/224-6626 708/979-3423 FAX m.lake@ieee.org	ADVERTISING Len Cohen 8117 Parkside Ave. Morton Grove, IL 60053 708/272-8800 x42692 708/509-6217 FAX
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IEEE RELIABILITY
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Welcomes You to a
Evening Program

VIBRATION TESTING OF ELECTRONIC HARDWARE: UNDERSTANDING PRODUCT AND PROCESS THROUGH AUTOMATED ANALYSIS

Presented by

John E. Starr, Consultant

Thursday, September 21, 1995

ABOUT OUR TOPIC AND SPEAKER

Mr. Starr has provided consulting services in design life and stress analysis since 1974. He is involved in detailed stress analysis development methods, finite element program application and development, test definition and evaluation.

PLACE

Midway Motor Lodge
Busse Highway & Higgins Road
Elk Grove Village, IL

TIME

Social 5:30 PM
Dinner 6:30 PM
Presentation 7:30 PM

NOTES

Dinner will cost \$20.

FOR RESERVATIONS

Please call Tracy or Gail at (708) 867-0400 to make your reservation.

FOR FURTHER INFORMATION

Call Brian Mikota at (708) 673-8300 x395.

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Burt Resco
City of Chicago Dept. of Water

If you would like to help with this year's program, please call Patrick Hennelly at (708) 398-4510.

TECHNICAL CAREER FAIR

Monday, Sept. 11 • 3pm - 8pm
Tuesday, Sept. 12 • 3pm - 8pm

Embassy Suites Hotel
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*Chicago Chapter
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COMPONENTS,
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Welcomes You to a
Afternoon and
Evening Seminar

GAS TUBE SURGE VOLTAGE SUPPRESSORS

Presented by
Benny Lee of World Products, Inc.
Tuesday, October 3, 1995

ABOUT OUR TOPIC

Surge Protection Components — Gas Tube Surge Protection, Silicon Diode, Metal Oxide Varistors. What are the differences and benefits of each technology? How they can be used together to create effective hybrid solutions?

Surge protection devices are designed to protect equipment from the high surge voltages that occur on communication lines from direct crossing from power line accidental failure, by close proximity induction, and by lightning.

At voltages below their breakdown ratings, they are very high impedance devices. Above breakdown, gas tubes go into plasma conduction and act as constant voltage devices over their ranges of currents. They return to their high impedance state when the surge falls.

ABOUT OUR SPEAKER

Mr. Lee has an MSEE from Purdue and is affiliated with various IEEE working committees and is on the UL Advisory Committee for UL 1449 and 1414.

PLACE

Motorola Schaumburg Campus
Building 1301, Door Location 13
1301 Algonquin Road, Gate A
Schaumburg, IL

DeVry Institute of Technology
1221 N. Swift Road
Addison, IL

TIME

Presentation 3:00 PM

Presentation 7:00 PM

FOR RESERVATIONS

Please call the IEEE Business Office at (800) 898-IEEE.

FOR FURTHER INFORMATION

Contact Jack Sherman at (708) 576-8222.

CHICAGO SECTION

Welcomes You To
Its Annual
Kickoff Dinner

ORGANIZATIONAL CHANGE IN THE IEEE AND

FINDING YOUR WAY IN A CHANGING WORLD

Presented by
Wally Read, President of IEEE

VEHICLE ENGINEERS AND INTELLIGENT TRANSPORTATION SYSTEMS

Presented by
Clay Collier of SEI Information Technology
Thursday, September 14, 1995

ABOUT OUR TOPICS

The last five IEEE Presidential elections and the last two IEEE Sections Congresses showed a remarkable change in the needs and desires of the 300,000 IEEE members, some in sharp contrast to the traditional positioning of the administrative functions of the Societies and Regions and Sections.

The organizational changes that have been accomplished and those in process of changing are directed toward responding to the members who answered the call for input. Many industrial giants have taken the same steps, and smaller companies are following.

Intelligent Transportation Systems (ITS), one of the fastest-growing segments in the computer industry, applies advanced computing, sensor and telecommunications technologies to the field of transportation, producing significant improvements in the efficiency, capacity, and capability of

transportation systems. In Australia, Europe, the Pacific Rim, and the United States, the first generation of such systems is already being deployed.

ABOUT OUR SPEAKERS

Clay Collier of SEI Information Technology, a leading force in the field, will talk about overlapping vehicle/ITS technologies. He will give his view on where the opportunities are, and the number and type of business possibilities that await enterprising vehicle engineers.

PLACE

Como Inn
546 North Milwaukee Avenue
Chicago, IL

TIME

Social 5:00 PM
Dinner 6:00 PM
Presentations 7:00 PM

NOTES

Your dinner will cost \$18 and will feature Italian Roast Half Chicken with Wine, Bread, Soup, Salad, Pasta, Potato, Vegetable, and for dessert Spumoni and Coffee. Dietary and vegetarian meals can be requested when you make your reservation.

FOR RESERVATIONS

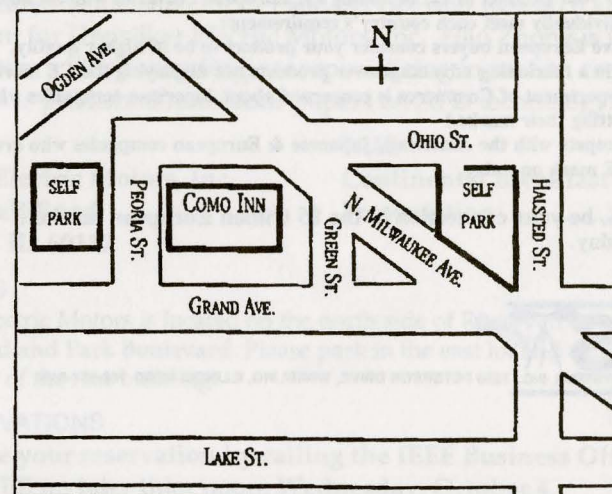
Please make your reservation by calling the IEEE Business Office at (800) 898-IEEE. Reservations are required.

DIRECTIONS

From the North: Take 90/94 to Ogden Avenue exit. Turn left onto Ogden to Milwaukee Avenue. Turn right on Milwaukee and proceed south. The Como Inn is located just over the expressway.

From the South: Take 90/94 to Lake Street exit. Turn left on Lake to Halsted Street. Turn right on Halsted to Milwaukee Avenue. Turn left on Milwaukee to the Como Inn.

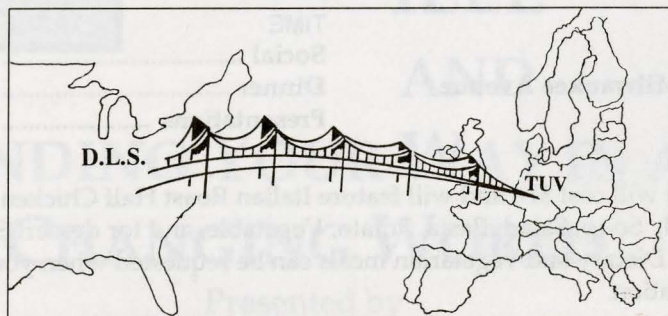
Parking: Two large free self park lots are available (see map) or valet service at the Como Inn entrance on Ohio Street.



FOR FURTHER INFORMATION

Contact Jack Sherman at (708) 567-8221.

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Welcomes You to a
Morning Seminar

AC ELECTRONIC DRIVE TECHNOLOGY

Presented by
Howard Penrose and Hao Zhong
of
Dreisilker Electric Motors, Inc.

Saturday, October 7, 1995

ABOUT OUR TOPIC

Electronic control of electric motor systems has moved forward at an alarming pace. New Technologies allow for precise control of inverter motor operation while paying for themselves in a relatively short period of time. This seminar shall present a half-day feature of Adjustable Frequency Drive Technology. The focus will be on the purpose of AFD's for energy efficiency and production control. It will cover some of the general features of Pulse Width Modulation (PWM) Insulated Gate BiPolar Transistor (IGBT) drives.

The seminar will cover basic electric motor theory. AFD's in variable load and constant load applications, basic AFD components and operation, and power quality effects on AFD's and the motor system. A board-level walkthrough of AFD operation and the operation of closed loop vector drives will also be presented.

ABOUT OUR SPEAKERS

Howard Penrose is the Director of Field Service and Research and Development for Dreisilker Electric Motors, Inc. Hao Zhong is Dreisilker Electric Motors's Electronics Engineer specializing in motion controls. Mr. Zhong has published numerous papers on AFD technology.

PLACE

Dreisilker Electric Motors, Inc.
352 Roosevelt Road
Glen Ellyn, IL 60137

TIME

Continental Breakfast 7:30 AM
Presentation 8:00 AM

DIRECTIONS

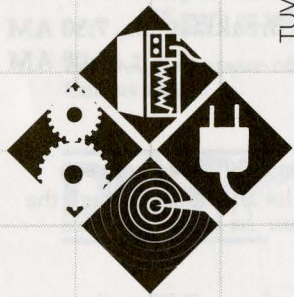
Dreisilker Electric Motors is located on the north side of Roosevelt Road between Lambert Road and Park Boulevard. Please park in the east lot and enter through the east entrance of the rear building.

FOR RESERVATIONS

Please make your reservation by calling the IEEE Business Office at (800) 898-IEEE no later than noon, Wednesday, October 4.

FOR FURTHER INFORMATION

Contact Howard Penrose at (708) 469-7510 x250.



EUROPEAN CONFORMITY SEMINARS

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- Ergonomics
- EMC
- Medical
- Machinery

TUV Rheinland's seminars have been very successful, attracting over 1000 attendees in the past year. Three one-day seminars are scheduled in the fall of 1995 to help manufacturers and exporters comply with the European Community (EC) directives, standards and regulations. TUV Rheinland will present information on European Product Safety, EMC, Machinery, Medical Directives and Ergonomics.

WHO SHOULD ATTEND

- Product Safety and EMC Engineers
- Design Engineers and Managers
- Reliability and Standards Personnel
- Marketing Managers
- Test Engineers/Technicians
- R & D Engineers
- Manufacturing Personnel

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Cost: \$245 pp

Location	Safety/EMC & Machinery	Medical	Ergonomics
Atlanta, GA	Aug 10	n/a	n/a
Cleveland, OH	Sept 13	Sept 14	n/a
Orange County, CA	Oct 3	n/a	n/a
San Jose, CA	Oct 4	n/a	Oct 5
Milwaukee, WI	Oct 24	n/a	n/a
Boston, MA	Nov 29	Nov 30	n/a



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Spotlight on IEEE Vehicular Technology Society



The Vehicular Technology Society fields of interest are the theoretical, experimental, and operational aspects of electrical and electronic engineering in mobile radio, motor vehicles, and land transportation.

Mobile radio includes all terrestrial mobile services. Motor vehicles include the components and systems used in mobile power for propulsion and auxiliary functions. Land transportation includes the components and systems used in both automated and non-automated ground transport.

The Society started in Detroit and will celebrate its 50th anniversary in the year 2000. It sponsors and co-sponsors a dozen conferences and mini-conferences each year, relying on its local chapters and society committees for program content.

The 1995 conference was held in Chicago this past July, with almost 700 attendees. The Northern New Jersey and San Francisco chapters have organized mini-conferences for this November. The steering committee for the Chicago Chapter will start to work on one too. Topics will be smart vehicles and smart highways. The ASME Joint Rail Conference will be in Chicago on April 30, 1996. If you have technical material to present at our mini-conference, please contact the Chicago Section office.

The Chicago Chapter has had varying activity over the past two decades and seeks steering committee members. It would be appropriate to provide equal billing to the three fields of VTS interest - mobile radio, motor vehicles and land transportation. There are 200 VTS members in our Section, and 180 non-society members with VTS Technical Interest Profile. Therefore, there should be easily 12 members to help with arrangements. Can you overcome your fear of volunteering?

The Chicago Section Chapter Activity Kickoff Meeting will be September 14th. The topic, "Vehicle Engineers and Intelligent Transportation Systems (ITS)" is expected to continue the following Friday. The meeting notice will be mailed to Section VTS active members. If you wish to attend, call the IEEE Chicago office to get your name on the roster. Guests are welcome.

— From Jack Sherman, Chicago Section Chair

Spotlight on IEEE Components, Packaging and Manufacturing Technology Society



The Society started as PMP- Parts Materials, Processes; changed its emphasis to include hybrid circuits to become PHP - Parts Hybrids Processes, added emphasis to Manufacturing Technology, the society changed its name to Components, Hybrids, and Manufacturing Technology - CHMT. Recently, it identified the waning of Hybrid Circuits technology and the increase of emphasis on Packaging, and became the present Components, Packaging and Manufacturing Technology Society.

The Society interests are the nuts and bolts of Consumer Electronics, Communications Equipment, and Instruments and Control Systems, as well as Vehicular Technology and Electron Devices. It sponsors or co-sponsors 8 major national conferences yearly. For a look at the society via the Web, <http://www.ieee.org> - thence to /pub_preview/cpmta_toc.html. For transactions part B, use cpmtb.

Ralph Armington of Chicago was a prime mover in the IEEE Holm Conference on Electrical Contacts. Watch for announcements of the conference.

There are fewer than 100 members in the Chicago Chapter, insufficient to sponsor a area wide conference. In previous years, the chapter was a silent contributor to joint meeting programs. This year the chapter plans to contribute programs at several schools and industrial firms in our area, providing an upgrade of skills to understand the developing component technologies and manufacturing processes.

Features of these plans are the presentation of topics such as failure analysis strategies, reliability risk evaluation, and supplier quality issues as they relate to manufacturing process capability needs. To volunteer your material, or service to the steering committee, please note that the IEEE Chicago Office is only a phone call away.

— From Jack Sherman, Chicago Section Chair

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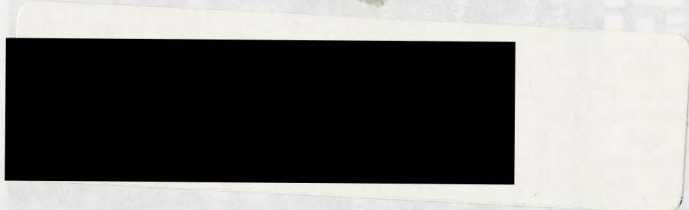
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