

SCANFAX

June 1998

Volume 50, Issue 6



IEEE

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A publication of the
Institute of Electrical & Electronics Engineers
— Chicago Section —

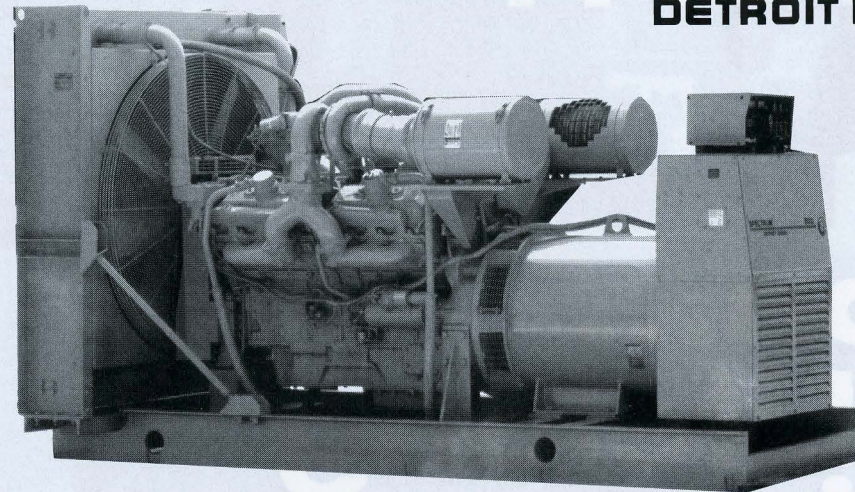
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Printed By

Town & Country Printers
Columbus, WI

SCANFAX (ISSN #0018-1297) is a monthly publication (except July and August) of the Chicago Section Institute of Electrical and Electronics Engineers, 1919 Swift Dr., Ste. 121, Oak Brook, IL 60521-1502, (800) 898-4333 or (630) 575-8045. It is published by **Slack Attack Advertising**, 6400 Gisholt Dr., Suite 203, Madison, WI 53713, (608) 222-7630. Printing is by **Town & Country Printers**, Columbus, WI 53925. For **advertising information**, contact Slack Attack Advertising.

Subscriptions included in IEEE membership dues; non-member subscriptions: \$25 per year.

Address corrections should be sent to the IEEE office, 1919 Swift Drive, Suite 121, Oak Brook, IL 60521-1502.

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SCANFAX

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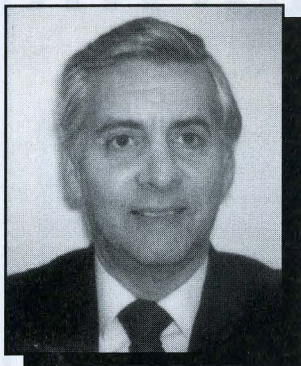
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On the cover: With more than 33,000 students enrolled at campuses throughout North America, DeVry Institute of Technology offers bachelor and associate degree programs in business and technology disciplines. *Photo courtesy of DeVry Institute of Technology.*

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Chairman's Message



Irwin C. Smiley, P.E.
IEEE Chicago Section, Chairman

As my term as IEEE Chicago Section Chairman comes to an end, I would like to take this opportunity to highlight some of the accomplishments of the past year along with the challenges this organization faces in the year to come.

First of all, we must always keep in mind that IEEE is the largest technical organization in the world and has become international in membership in the last few decades. IEEE is composed of a number of societies, each with a separate technology focus. IEEE is also recognized by the American Standards Institute (ANSI), the official government-recognized standards group for the United States. In this role, IEEE is one of the organizations which generates standards for equipment and procedures which ANSI may elect to give official status. Each of us should do all we can to keep this organization strong.

As chairman, I had the pleasure of representing the Chicago Section at the national and regional IEEE meetings and other joint engineering society meetings and functions. I also enjoyed attending IEEE chapter meetings where I met many IEEE members and students. Recruiting volunteers to serve on the Executive Committee was another of my priorities as your chairman.

The first day of my term provided me with my first challenge. I was notified that our current secretarial office was going out of business. After much dis-

cussion and planning, we entered into an agreement with the Electric Association to become our new section office. This relationship has worked out very well.

Throughout the year the Executive Committee was forced to make some unpopular decisions in order to hold the line on spending, including cutting some of the past routine programs. Our section has always spent more than it has received from the IEEE national dues rebates (\$3.00 per member). Additional income has come from IEEE national society conferences held in our area as well as from local seminars and conferences. However, these additional sources have significantly decreased and are almost extinct.

I am particularly proud of the new SCANFAX magazine which was implemented during my year as chairman. The feedback I have received has been extremely positive, and other IEEE sections are now setting up programs to follow our format. I continue to spend time keeping SCANFAX going and promoting advertising in the magazine.

The new IEEE Chicago Section Chairman, Sam Peach faces some new and ongoing challenges:

- SCANFAX continues to need support. This means buying advertising, providing leads for potential advertisers and supporting those who buy advertising in SCANFAX.
- We need to encourage our colleagues to become IEEE members.
- We need to encourage our existing members to take a more active role in the IEEE organization. This includes attending local chapter meetings and volunteering to be on section and/or chapter executive committees.
- We need to keep a balanced budget and find alternative means to increase income.

This year is one I will always remember. I have enjoyed the experience and am grateful for the opportunity. I will continue to be active in this organization and do not intend to retire from being

active in IEEE. In fact, I am chairman of the IAS Annual Conference to be held in Chicago in 2001.

I wish each of the newly elected section Executive Committee members good luck and lots of success in their offices.

Finally, I would like to take this opportunity to give a special thank you to my wife, Lynda, for her support and encouragement, and to my three daughters who also gave me moral support. I also want to thank my company, Consoer Townsend Envirodyne Engineers for its support both professionally and financially. Finally, I would like to thank the IEEE membership for electing me and allowing me to serve as your 1997-98 Chicago Section Chairman. ■

Newly Elected IEEE Chicago Section 1998-1999 Officers and Committee Chairs

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Education... A Lifelong Commitment

by Christine M. Sloat, P.E.

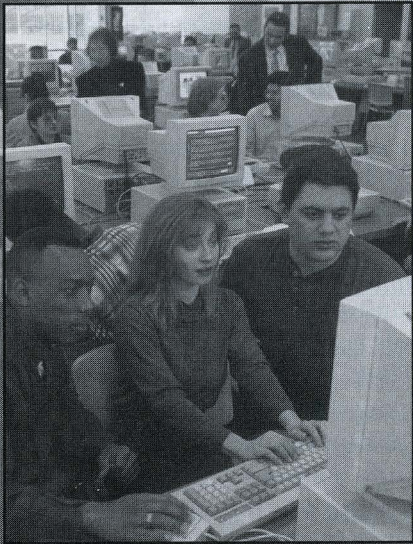


Photo courtesy of DeVry Institute of Technology.

It is vitally important that we stay in touch with the changes and challenges affecting our ability to perform as competent engineers. And, equally important, is an understanding of what colleges and universities are providing for the next generation of engineers.

So... how long has it been since you were a college student? Come on, admit it, a lot of us have been absent from college campuses as full time students for a while now. As with all things, including hairlines and hair color, change is inevitable. Our desire to learn new things is what provides the constancy in our ever evolving environments.

As a profession, it is vitally important that we stay in touch with the changes and challenges affecting our ability to perform as competent engineers. And, equally important, is an understanding of what colleges and universities are providing for the next generation of engineers. Those are the folks that we will hire, mentor, train... and will eventually take our place in the ranks of the profession.

There are a lot of exciting things happening in engineering education, not the least of which are the interesting courses and experiences that today's educators are providing. We went to several educational institutions to get a "snapshot" of engineering education that would be of interest to IEEE Chicago Section engineers. When we mentioned that IEEE members were the audience we were trying to reach, all of the schools noted the strong

influence of the computer and telecommunications on course offerings, particularly in light of their expanding roles in today's business environment.

Illinois Institute of Technology (IIT)

When we asked IIT representatives the question, "What's hot in the electrical and electronics professions?," they quickly replied telecommunications. And in the field of telecommunications, IIT's Stuart School of Business is addressing the business side of the boom. For most undergraduate programs, technology is the underlying theme. But what happens as we grow in our careers, moving from the more technology oriented aspects in the early stages into a combination of technological understanding and management know-how in later stages? In the telecommunications arena, gone are the days when the move to management required two dimensional proficiencies... technology and people skills. With the rapidly changing environment and increasing pressure for streamlined business practices, the qualified telecommunications manager requires skill in a third dimension... operations management, the ability to manage networks, environ-

Continued on page 4.

ments and outside influences. The Stuart School of Business has identified an expanding dimension of telecommunications management and is offering learning opportunities that will aid professionals in doing that job better. The school offers, as part of their MBA program, several Telecommunications Management courses. However, these courses may be taken separately as a part of a certificate program in Telecommunications Management without

the student having to enter the MBA track.

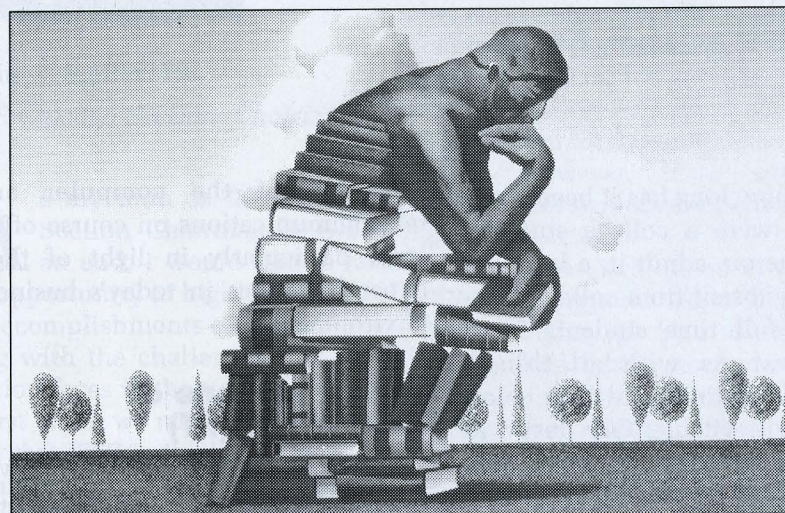
The Wireless Telecommunications Environment course is an overview of the differing wireless industries, such as cellular, personal communications service (PCS), specialized mobile radio (SMR), paging and satellite-based communications. The Networks and Telecommunications course is designed to address the modern environment of the intelligent network and the role telecom-

munications has come to play in the cost-effective operation of today's businesses. Topics include commercialization of the internet, fractional T1 service, voice and data aggregation, PCS, CENTREX, PBXs, LANs, and more. It attempts to bring together the nuts and bolts of technology and the business opportunities of telecommunications as various leading-edge implementations are deployed. Telecommunications Law & Policy addresses the legal and regulatory aspects of the emerging telecommunications environment, integrating rapidly changing technologies into the legal framework of modern society. It also provides a platform for discussion of national and international entrepreneurial opportunities and corporate strategies. (For more, go to the Stuart School of Business web site at <http://www.stuart.iit.edu/>)

DeVry Institute of Technology

DeVry has also recognized the importance of providing learning opportunities for the new manager of resources in the telecommunications field. Their curriculum is constantly "re-engineering" itself to address the needs of rapidly changing technologies and business environments. Interestingly, part of our discussion of management programs with school representatives centered on an emerging trend for "second time" students. Most of us have come to recognize that in today's fast-paced business environment, career changes and shifts are becoming more of the norm. DeVry program staff see an increasing number of students pursuing second bachelor's degrees versus the traditional master's degree option. For many, particularly in professions influenced by rapid technology changes, a second bachelor's degree is more supportive of a career change, or horizontal career movement, where the master's degree is more of a career enhancement.

Continued on page 6.



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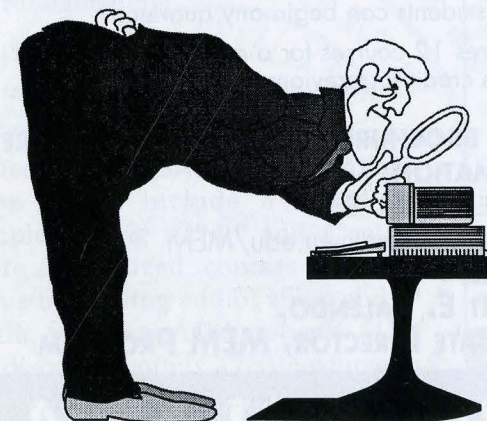
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fessionals. In this format, about 30 percent of the learning outcomes are covered by the student through classroom and independent learning activities. Independent learning activities can include writing papers and reports, and group projects. The use of computer-based technology, like e-mail, the internet, etc. facilitates teamwork outside of the classroom, as well as interaction with faculty members.

The program can be completed in less than three years, resulting in a bachelor's degree. Representatives of DeVry pointed out that the success of students involved in the accelerated format is directly related to the fact that they have been to college before. These students bring a high level of maturity, experience and motivation to the classroom and independent learning activities. (For more information, go to <http://www.dpg.devry.edu/>)

University of Illinois—Chicago (UIC)

We spoke with representatives of the Office of Continuing Education and Public Service to get a perspective on lifelong learning opportunities. For IEEE members, those oppor-

tunities would come primarily from course offerings developed through the Department of Electrical and Computer Sciences. Of interest to the computing profession is the rapidly changing programming environment. In response, fall course offerings include a new program, "Introduction to Object Oriented Paradigm, Design Patterns and UML."

Also included in the fall offerings is a popular seminar series on object oriented programming and C++. The instructor for this series is Caleb Drake, who is the author of Object Oriented Programming Languages (Prentiss Hall 1997). The series is taught in four two-day segments.

For more information on UIC's programs, call 312-996-5225.

University of Wisconsin—Madison (UW Madison)

All right, UW Madison is, well... "across the border." But it's only a short three hour drive for most. And, in today's environment, distance learning is commonplace. The Engineering Professional Development Department (EPD) of the university's College of Engineering offers approximately 50 courses a year, both

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8. tele-commuting and tele-work

EPD offers a number of courses aimed at the enterprise network engineer. These include a series on "Implementing ATM," and a set of more specialized courses in ATM focus on moving audio, video and IP traffic over an ATM network. UW Madison also offers a basic course in SONET networks. A new course will



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address "Technologies for Access and Wide Area Interconnection." This course will cover T-1, Fr, ISDN and XDSL. Additional courses are being planned in IP network optimization and gigabit ethernet.

The telecom and data course information is available on the web at <http://epdwww.engr.wisc.edu/catalogs/telecom.html> EPD's telecom courses can also be offered on-site or customized for an organization's specific needs. Specific inquiries via e-mail may be directed to: custserv@epd.engr.wisc.edu

Endless Opportunities

The options covered in this brief article represent only a few of the opportunities available to engineers as they begin their professional life, make vocation shifts, or enhance their chosen career. From young to old, inexperienced to seasoned, we continue to grow through our learning experiences. As you can see, the opportunities are endless. Best wishes as you travel the educational highway. ■

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New Self-Study Course Available from IEEE

Improve Your Understanding of Motor Drive Technology

A high demand for adjustable speed drive (ASD) systems in utility, industrial, and commercial sectors has created an increase in a wide variety of drive applications. This increase in the many drive options poses a potential concern about a lack of sufficient understanding of drive technologies, their benefits, and applications including emerging power quality issues.

To help engineers better understand the capabilities of motor drive technologies, The Institute of Electrical and Electronics Engineers Inc. is offering a self-study course on ASD. This continuing education course, authored by Wayne L. Stebbins, an electrical engineer at Hoechst Celanese, presents general guidelines for the proper selection of ASD systems. "Knowing and understanding these guidelines will help engineers select ASDs that can perform to their optimal level in a specific application," says Mr. Stebbins.

Among many objectives, the course teaches the following:

- AC motor fundamentals
- ASDs used in commercial, industrial, and electric utility applications
- successful ASD installations
- ASD application fundamentals
- power quality issues
- ASD project implementation

This course consists of a 13-chapter study guide, a 400-page textbook, and an optional ASD master software. A final examination follows the course. Those who successfully complete the course will be awarded eight Continuing Education Units (CEUs) and the IEEE Certificate of Achievement.

To order this self-study course, use the following product numbers:

Including Software HL5741; Member price: \$359; List price: \$499. Without Software HL5750; Member price: \$299; List price: \$399. Order from the IEEE Customer Service, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331. Make checks payable to IEEE. For single sales, call 1-800-678-IEEE; for company or institutional sales, call 1-800-701-IEEE; or fax 732-981-9667.

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Calendar of Events

DATE	EVENT
June 9, 1998	IEEE Chicago Section EXECUTIVE COMMITTEE MEETING
Sept. 18-20, 1998	IEEE, PELS, IAS, and CMPT Societies and the University of Illinois at Chicago, in cooperation with IEEE EDS and PSMA. INTERNATIONAL WORKSHOP ON INTEGRATED POWER PACKAGING (IWIPP)

— JAMES C. CARROLL —

Our Chicago Section is saddened to hear of the untimely passing of James C. Carroll on March 16, 1998. He was a very active member of our Administrative Committee who served as Section Secretary for one year, as well as Associate Editor and Editor of SCANFAX for many years. He worked hard to introduce electronic publishing techniques for SCANFAX to improve its appearance, readability, and usefulness to our readers while being severely limited by our stringent budgetary constraints.

Jim worked for Lucent Technologies for 26 years, most recently as a member of the Long Distance and Call Services Applications Department. He is survived by his mother, Bernadette, as well as a brother, Thomas, and his two daughters, Patricia and Colleen.

At the family's request, memorial donations may be made to the American Heart Association, 5192 Harrison Avenue, Rockford, Illinois 61108.

Jim, we will miss you.

JOE FEITLER (former Assistant SCANFAX Editor for Jim Carroll)

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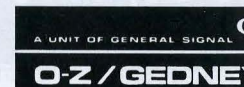
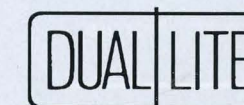
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Chicago Section Executive Committee Meeting

Any member is welcome to attend.

June 9, 1998 @ 7:15pm

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WORKSHOP

IEEE, PELS, IAS, and CMPT Societies and the University of Illinois at Chicago, in cooperation with IEEE EDS and PSMA.

International Workshop on Integrated Power Packaging (IWIPP)

Ramada Congress Hotel
Chicago, Illinois

Sept. 18-20, 1998

The International Workshop on Integrated Power Packaging (IWIPP) provides a forum for technical communication focused on the needs and interests of power electronics components and systems design engineers. Papers covering the design, analysis, fabrication, testing and application of advanced power electronics components and systems packaging technologies are solicited. All papers must be suitable for a twenty minute presentation. Text and figures must not have been presented at other conferences or published in any scientific or technical publications prior to IWIPP.

WORKSHOP HIGHLIGHTS:

- Short course
- Evening panel discussions on future challenges and controversial issues
- Several invited papers on emerging technologies
- Luncheon speech by a distinguished engineer/scientist

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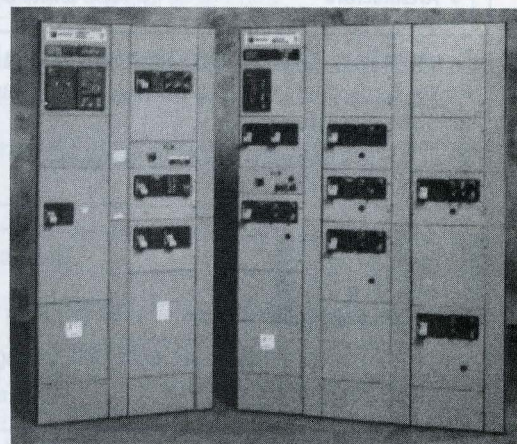
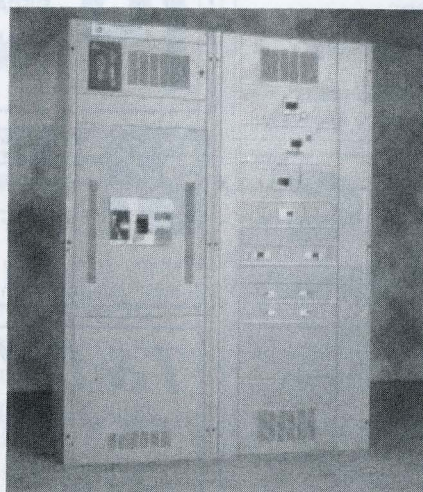
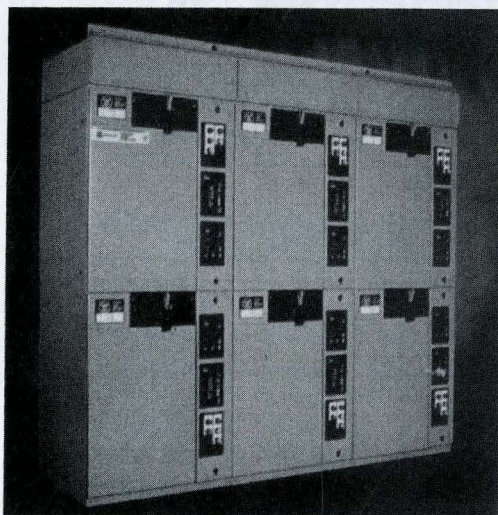


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