

SCANFAX

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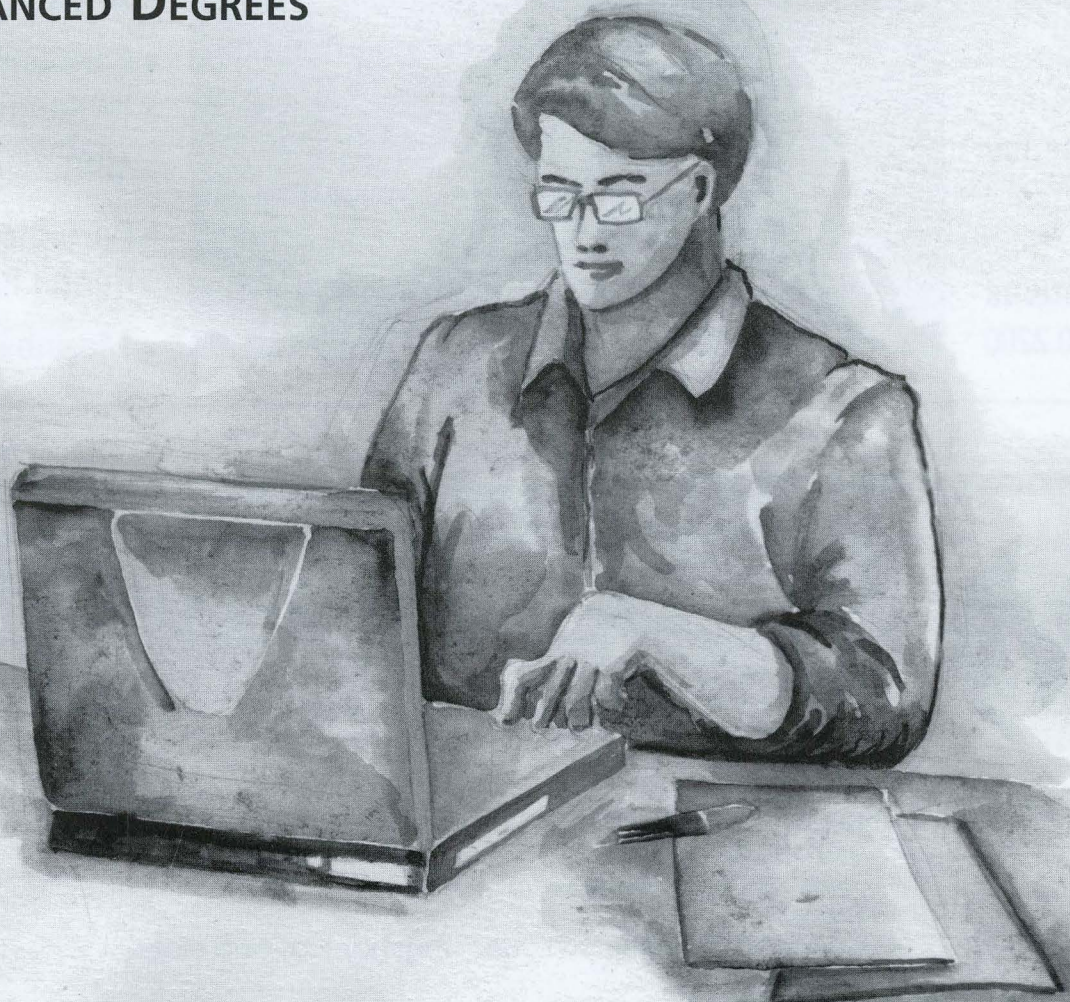


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CHICAGO-AREA UNIVERSITIES ADAPT TO NEEDS OF WORKING ENGINEERS FOR ADVANCED DEGREES



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SCANFAX

June 2003
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CHICAGO SECTION EXECUTIVE COMMITTEE MEETING

Tuesday, June 10, 7:00 p.m.

DeVry DuPage, Room TBA, 1221 N. Swift Rd., Addison, IL

No Registration Needed

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CHICAGO-AREA UNIVERSITIES ADAPT TO NEEDS OF WORKING ENGINEERS FOR ADVANCED DEGREES

by Paul Zukowski

Illinois has a number of distinguished engineering programs at universities throughout the state. Due to the concentration of working engineers in the Chicago area, institutions of higher education have responded to the need for continuing education and career-enhancing degrees that engineers seek while working full time.

Perhaps the most well established of these advanced programs for working professional engineers is at Northwestern University's McCormick School of Engineering. Northwestern's Master of Engineering

Management Program (MEM) began in 1977 and has a large number of alumni in area companies. The salaries of Northwestern MEM graduates were higher than those of any other engineering management program according to a recent study conducted by Dartmouth College.

"I think engineers like education," said Jeanne Husain, associate director of MEM, "and of course technical expertise is something that needs to be updated. The people I meet through our program are very committed to staying on top of their fields, and so education and professional development are real priorities for them."

Unlike a traditional MBA program, the MEM Program emphasizes skills specifically required in technology-based organizations. This is also true of the other professional masters' programs the university offers, such as the Master of Product Development, Master of Project Management, and Master of Information Technology Program.

"It's an alternative for people who are also considering an MBA," said Husain, "but the fence they straddle is that not

all engineers want to change careers so dramatically -- they want to stay in the technical side of their company but move up on the management track, as opposed to changing careers and getting into finance or marketing."

She said the Northwestern program offers a combination of advanced technical skills with management training from business school professors.

All the programs are designed for people who are working in their professions. Northwestern has four quarters and students can be admitted and finish in any quarter, and can pace themselves, taking as many or as few courses as they want.

Another area school offering the combination of management and engineering training is Elmhurst College.

"One graduate program that is attracting more and more engineers is our master of science in Supply Chain Management," said Betsy Keebler, director of graduate admissions. "It trains people to work in all phases of the supply chain, which is a whole new concept of product delivery."

This will be the third year for that program, and Elmhurst is starting up an MBA program this fall. "Both programs are cohort model programs where students begin the program as a group and stay together throughout the program. In Supply Chain, it's for the full two years, the MBA is for one year, then they specialize in one of seven areas for the second year."

These are part-time programs meeting one evening a week, so working professionals can participate in graduate study while they're maintaining a full-time job.

Another growing area is in offering courses through distance learning.

In the early days that meant closed-circuit television, and the Illinois Institute of Technology still uses that method for 23 degrees and 28 certificates, according to Holly Prior-Harris.

"We have been offering televised courses since 1976," she said. "It was 1996 when we piloted our first Internet course, and in 1997 we began offering the Analytical Chemistry master's degree program completely through online course delivery."

"In fall 2003 we will be offering a master's program in Information Technology Management online, and we're already offering Manufacturing Technology and Operations. We also offer over 50 courses in 11 academic areas online, so someone who is pursuing a degree in electrical engineering or computer science has the option of taking live courses on campus or taking an Internet or televised course if that's convenient for them because they are working."

IIT currently offers six online degrees and seven online certificates. Why aren't all courses available online? There can be a lot of work involved in putting a course on the Internet, and not every course is adaptable to the medium.

"We do leave it up to the academic department to determine the appropriateness of whether or not a program can be delivered online," said Prior-Harris.

"Then we provide them with resources to develop the courses online."

The University of Illinois at Chicago College of Engineering offers an online Master of Engineering (MEng) degree program based entirely on course work, without a research component. Topics include wireless communications and signal processing, electromagnetics, chemical engineering, computer engineering and science, and energy resources.

In these and other ways, area universities seek to fulfill the needs of professional engineers to keep their skills current and get into areas of management without having to leave the workforce.

MEng Director Carolyn Williams said the program is offered both on campus and at remote sites through a combination of educational delivery systems that include live teaching either in the classroom or via TV-audio systems, videocassette courses, and the Internet.

Like most of the newer courses, MEng is designed to provide graduate training that is controlled by the needs of employers for up-to-date education, and may respond to these changing needs in real time by creating new specializations with little delay.

DeVry University Chicago has also built a wide array of courses in business and technology to fill the needs of working adults. DeVry's technology-based degree programs integrate general education with industry-specific coursework to enhance graduates' personal development and career potential.

In addition to online courses, DeVry also offers accelerated Weekend Degree Programs that condense the usual 15-week class term down to approximately 8 weeks, with all classes meeting on weekends.

DeVry offers a wide range of bachelor's degree programs including Computer Engineering Technology, Computer Information Systems, and Electronics Engineering Technology. For those interested in the management track,

DeVry's Keller Graduate School of Management has a master's degree program designed for busy professionals with evening, weekend and online courses.

In these and other ways, area universities seek to fulfill the needs of professional engineers to keep their skills current and get into areas of management without having to leave the workforce. ■

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EDITORIAL SCHEDULE*

2003 January Issue

EDITORIAL FOCUS: Circuits and Devices
SPACE RESERVATIONS AND CAMERA READY
MATERIALS DUE: Nov. 25, 2002

February Issue

EDITORIAL FOCUS: Industrial Applications
SPACE RESERVATIONS AND CAMERA READY
MATERIALS DUE: Dec. 25, 2002

March Issue

EDITORIAL FOCUS: Communications
Technology
SPACE RESERVATIONS AND CAMERA READY
MATERIALS DUE: Jan. 27, 2003

April Issue

EDITORIAL FOCUS: Electromagnetics
and Radiation
SPACE RESERVATIONS AND CAMERA READY
MATERIALS DUE: Feb. 25, 2003

May Issue

EDITORIAL FOCUS: Engineering and
Human Environment
SPACE RESERVATIONS AND CAMERA READY
MATERIALS DUE: March 25, 2003

June Issue

EDITORIAL FOCUS: Education/Universities
SPACE RESERVATIONS AND CAMERA READY
MATERIALS DUE: April 25, 2003

September Issue

EDITORIAL FOCUS: Energy and
Power Engineering
SPACE RESERVATIONS AND CAMERA READY
MATERIALS DUE: July 25, 2003

October Issue

EDITORIAL FOCUS: Computers
SPACE RESERVATIONS AND CAMERA READY
MATERIALS DUE: Aug. 26, 2003

November Issue

EDITORIAL FOCUS: Signals and Applications
SPACE RESERVATIONS AND CAMERA READY
MATERIALS DUE: Sept. 25, 2003

December Issue

EDITORIAL FOCUS: Systems and Control
SPACE RESERVATIONS AND CAMERA READY
MATERIALS DUE: Oct. 27, 2003

*Features subject to change without notice

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The Department of Computer Science at the Illinois Institute of Technology invites applications for a Program Coordinator for its Professional Master's degree program in Computer Science. The department offers Ph.D., M.S., and B.S. programs. For more information about the department and its programs, visit <http://www.cs.iit.edu/>. The duties of the Program Coordinator will include promoting the departmental programs, recruiting professional master's degree students, interacting with current students, graduate admission staff, and faculty advisors, attending meetings, and coordinating other activities related to the professional degree programs. The position, to begin immediately, carries a competitive salary and benefits. Candidates with a Ph.D. or Master's degree in computer science, teaching and education management experience, and excellent communication and interpersonal skills are encouraged to apply with a letter of application, a current resume or curriculum vitae, and names and addresses of three to four references to: Professor Bogdan Korel, Associate Chair, Department of Computer Science, Illinois Institute of Technology, 10 W. 31st Street, Chicago, IL 60616.

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UNIVERSITY OF ILLINOIS AT CHICAGO COLLEGE OF ENGINEERING

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Engineering Management *
Intellectual Property Law
Advanced Thermodynamics

For additional information: www.uic.edu/eng/meng or: meng@uic.edu

*Core course, required of all students

EVENING MEETING

IEEE Fox Valley Subsection and Naperville Astronomical Association Potentially Hazardous Asteroids Friday, June 6, 2003

Robert C. Elliott

About the Topic:

With the advent of off the shelf CCD cameras and computer controlled telescopes, in the past few years many amateur astronomers have found a way to make a valuable contribution to the field of Minor Planet and Comet research. A collaborative effort of professional and amateur astronomers around the world allows the pros to keep tabs on a group of objects called "Potentially Hazardous Asteroids" with the observations made and reported by amateurs and their back yard observatories. Large survey telescopes are discovering more of these PHAs each month and the job of following up on these new interlopers is largely left to the amateur. A plan of action will be presented that would allow an astronomical society to become involved in this important work.

About the Speaker:

Robert C. (Bob) Elliott is a professor emeritus of the University of Wisconsin-Eau Claire where he taught Physics and Astronomy and directed the Planetarium and Observatory for 31 years. He now spends his time as President of the Friends of Beaver Creek Reserve, a nature center near Fall Creek, Wis., and home to the Hobbs Observatory, which he helped build. He has a BS in Physics from Michigan State and an MST in Astronomy from Cornell with additional graduate work at the University of Arizona where he started making astrometric observations of comets and minor planets in 1970. Bob has co-authored several papers on Markarian Galaxy positions and minor planet sizes and since retiring has submitted over 1500 comet and minor planet positions to the Minor Planet Center; 653 of those are of Near Earth Objects.

Location:

Naperville Municipal Center
Aurora Ave. & Eagle St. (downtown)
Naperville, IL 60540
For detailed directions and a map, go to:
<http://www.stargazing.net/naa/map.htm>

Sponsorship:

IEEE's Fox Valley Subsection and the Naperville Astronomical Association

Time:

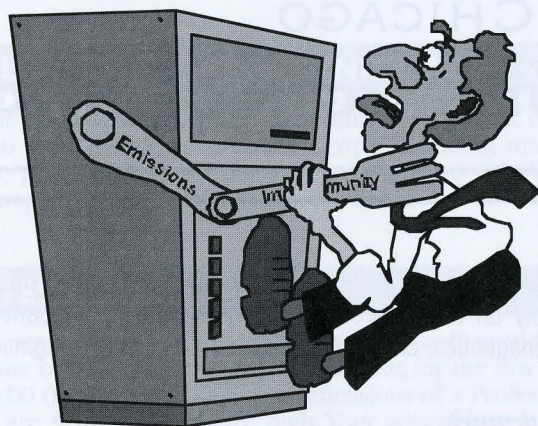
7:30 PM Presentation

Reservations:

Reservations are not required.

The Fox Valley subsection website is at:
www.ieee.org/foxvalley/

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For students to apply what they have learned from the classes to their specific products, they are encouraged to bring a product, or a schematic, to a free personal consultation offered by the instructor or his associate on July 26 or 30. Classes will also be offered October 23-24 and October 27-28 as well as in January and April.

For more information or to receive a brochure,
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*These are the same classes formerly offered by Don through the University of Wisconsin.



EVENING MEETING

ED/CAS/SSC (Electron Devices/Circuits and Systems/Solid State Circuits) Digital Broadcast Television Wednesday, June 11, 2003

About the Topic:

High Definition television has had a tough road to implementation. Now, it's available from network broadcasters. This presentation will include an interesting history of how we got here along with beautiful demonstrations of High Definition Video and Dolby Digital surround sound. Details of the transmission system will be explained and its superiority over analog will be demonstrated. Come and gain all the information you'll never find at your local TV superstore. This demonstration will include:

- DTV History
- Implementation Schedules
- ATSC System Description
- HD on Plasmas, LCDs, CRTs, etc.
- Dolby Digital
- Strengths of DTV Broadcast
- Interactive DTV Applications

from Illinois Institute of Technology in 1966. He is a member of IEEE, SMPTE, AES, and SID, and represents Zenith in ATSC and a number of professional and industry associations. Gary Sgrignoli is a Staff Consulting Engineer in Electronic Systems R&D. He received his Bachelor's and Masters of Science degrees from the University of Illinois, Champaign. He has been extensively involved in the design and implementation of the digital VSB transmission system. He has given numerous VSB tutorials and demonstrations and published many technical papers. Tim Laud is a Senior Member of the Technical Staff in Electronic Systems R&D. He received his BSEE and MSEE from Purdue University. He has been closely involved in international demonstration and testing of the ATSC DTV standard.

Location:

Zenith Electronics
2000 Millbrook Drive
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Directions:

Exit I-94 at Half Day Road (Rt 22) and go west

About the Speakers:

Wayne Bretl is a Principal Engineer in Electronic Systems R&D. He received his BSEE

on Rt 22. Cross Milwaukee (Rt 45 & 21) after approximately two and a half miles. Next traffic light is Old Half Day Road on right and Barclay Blvd on left. Turn left at next corner past light. South 1/2 mile on Schelter Rd to Millbrook. Zenith is on southwest corner of Shelter and Millbrook.

Time:

7:00 PM Social (Free Pizza & Beverages)
7:30 PM Presentation

Reservations:

Please call the IEEE Message Center at (800) 898-4333 or (312) 253-4333 by 1:00 PM Monday, June 9th. For information, call Norm Phoenix at (847) 523-1078.

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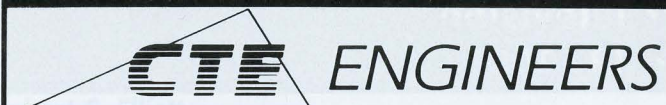
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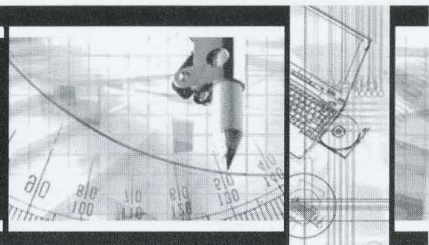
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Dreamweaver for Web Publishing	Oct 24-25	\$495
UML: Achieving Software Productivity	Nov 3-4	\$695
XML Database Strategies	Nov 10	\$295
Access XP Databases	Nov 18-19	\$495

* \$995 each if registering for two or more classes

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Course Name	Dates	Fee
PE/FE-EI Review Course	Aug - Oct	\$895
Pro/E Mentor-1	Aug 26-29	\$795
Finite Element Method (FEM): An Introduction	Sep 3-5	\$995
Advanced Techniques for Monitoring of Batch Processing	Sep 29-30	\$795
Modeling and Simulation for Signal Integrity & EMI	Oct 15-17	\$595
Seismic Design in Earthquake Engineering of Structures*	Oct 14-17	\$995

* \$495 for any one day, \$795 for any two days

LEADERSHIP • MANAGEMENT

Course Name	Dates	Fee
Project Management with MS Project	Aug 5-6	\$695
Strategic Business Game (per team of 4-5 participants)	Aug 19-21	\$595
Knowledge Management: From Assessment to Implementation	Sep 9-11	\$995
Entrepreneurial Management: Global Best Practices	Sep 15	\$295
Strategic Negotiation & Smart Decision-Making	Sep 18	\$295
Preparing Phase I SBIR and STTR Proposals	Sep 18	\$295
Asset and Liability Protection with Trusts and Business Organizations	Sep 25	\$250
Effective Workplace Presentations	Sep 26	\$250
Developing Leadership & Management Skills	Oct 7-9	\$995
Raising Money for Your Business: Legal and Practical Issues	Oct 20	\$250
Business Process Management	Oct 25-26	\$595
Project Management with MS Project	Nov 11-12	\$695

TECHNICAL MANAGEMENT

Course Name	Dates	Fee
Balanced Scorecard: Firm Knowledge Base*	Sep 8 - a.m.	\$150
Balanced Scorecard: Process Mapping and Re-engineering*	Sep 8 - p.m.	\$150
Balanced Scorecard: Customer-centric Marketing and Management*	Sep 22 - a.m.	\$150
Balanced Scorecard: Financial Management*	Sep 22 - p.m.	\$150
Strategy for Supply Chain Metrics	Sep 23	\$250
Forecasting & Inventory Replenishment	Oct 29	\$350

* course available individually or all four for \$495

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