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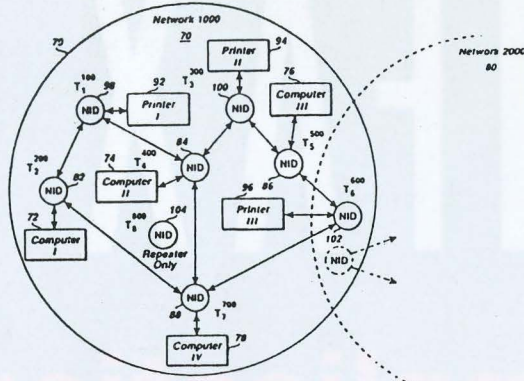
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A publication of the
Institute of Electrical & Electronics Engineers
— Chicago Section —

Social Implications of Information and Communication Technology



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CHICAGO SECTION EXECUTIVE COMMITTEE MEETING

Tuesday, May 14, 6:30 pm

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

No Registration Needed

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Social Implications of Information and Communication Technology



Although the IEEE Society on Social Implications of Technology does not have a Chicago-area chapter, the environmental, health and safety implications of technology are certainly of concern to all engineers, whatever their specialty. So are engineering ethics and professional responsibility, as well as social issues related to energy, information technology and telecommunications.

In fact, the larger issue may be that the engineering, management and regulation of modern technology involves countless specialists making decisions, the consequences of which mostly fall beyond their domain of expertise. So the "system" first produces problems and then often tries to mitigate them without ever getting to the root of the problem, according to Willem H. Vanderburg of the Centre for Technology and Social Development, University of Toronto. He is working on a concept called preventive engineering.

This discipline would have come in handy if it had existed when the first typewriters were invented, because it could have perhaps prevented an inefficiency each of us deal with daily — the QWERTY keyboard, so named for the first few keys on the upper left. With early typewriters, the problem arose of the mechanical keys jamming up as they struck the inked ribbon too close together. The QWERTY arrangement was therefore meant to slow down typists, a factor that is no longer needed, but that we seem to be stuck with, unless one is willing to relearn keystroking on a Dvorak keyboard.

Because the Chicago area has a high concentration of firms involved in IT and communications, the focus of the 2002 International Symposium on Technology and Society (ISTAS 02) being held June 6-8 in Raleigh, N.C., might be of interest: the Social Implications of Information and Communication Technology.

The organizers of the symposium contend that in the rush to develop a faster micro-processor or a "killer" app, the engineers responsible for these developments often seem to exhibit little or no awareness of issues such as privacy and security, equitable access,

freedom and responsibility in online speech, human-machine interaction, and the impacts of new information technologies on work, leisure and education.

However, they also note that a growing number of engineers, computer scientists, social scientists and ethicists have begun to focus attention on ethical and socially responsible use of information and communication technology. So the professed goal of ISTAS 02 is to bring together information and communication technology professionals, computer science and engineering educators, and scholars in the humanities and social sciences, and other interested parties to start crucial dialogue on the social and ethical dimensions of these rapidly evolving technologies.

One of the keynote speakers in Raleigh will be Dr. Lucy Suchman, Department of Sociology, Lancaster University, England. She came to Lancaster after twenty years as a researcher at Xerox's well-known Palo Alto Research Center. She focuses on studying the social and cultural interactions that take place at sites of technology production, and how people interact with machines.

This concept of the social study of information technologies will probably be quite a different perspective than most engineers have been trained to take. Prof. Suchman teaches a course called "The Sociality of Information Technologies" that explores the premise that technologies are socially constructed and have a social history.

For those who want a taste of this type of thinking they can access several of Prof. Suchman's papers online, including "Human/Machine Reconsidered." A sample: "Beginning with early work on machine intelligence in the 1950s, our conception of machines has expanded from the instrumentality assigned them in craft and industrial contexts to include a discourse of machine as acting and interacting other. Within the project of designing intelligent machines in the 1970s and 1980s ... the premise was being established that computational artifacts just are interactive, in roughly the same way that we are albeit with some more and less obvious limitations. However ambitious, the problem in this view was a fairly straightforward task of overcoming the limitations of machines by encoding more and more of the cognitive abilities attrib-

uted to humans into them. The less visible and somewhat restrained AI projects of the 1990s played down the personification of machines in favor of cybernetically-inspired computer science and engineering initiatives aimed at recreating artificial life forms, via the technologies of neural networks, genetic algorithms, situated robotics, and the like."

The paper goes on to explore what we mean by human intelligence and how vir-

tual pets and software agents may soon be our companions.

To explore the symposium topics and other articles on the social implications of technology, use these URLs:

<http://social.chass.ncsu.edu/herkert/istas02.html>

www.comp.lancs.ac.uk/sociology/lsuchman.html ■



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By Paul Zukowski

LUNCH MEETING

Chicago Chapter of the IEEE Power Engineering Society Variable Frequency Drives for Commercial Applications Wednesday, May 8, 2002

Virginia Wilson, Hatchell & Associates, Inc.

About the Topic:

The presentation will cover the application of variable frequency drives in commercial environments. Topics will include common concerns such as harmonics, carrier frequencies, RF/EMI noise and long lead lengths between motors and drives. Possible solutions will be discussed, as well as the various types of drives available for today's HVAC applications.

About the Speaker:

Virginia Wilson is a graduate of Texas A&M University with a BS degree in Industrial Engineering. She has also earned a Masters in Business Administration from Northern Illinois University. Her career has centered around the application of electrical

products including substation transformers, 15kV switchgear, induction motors of all sizes and voltages and variable frequency drives of all sizes and voltages. She is currently a Sales Engineer at Hatchell & Associates specializing in Consultant Relations and specification of various product lines including Toshiba Variable Frequency Drives. Virginia's background includes 6 years working for Toshiba in which her emphasis was on sales and application of variable frequency drives and motors.

Location:

Chicago Bar Association, 321 South Plymouth Court (Near Jackson & Dearborn), Chicago, IL 60604

Time:

11:30 AM Social
12:00 PM Lunch (optional)
12:15 PM Presentation
1:00 PM Adjourn

Reservations:

Lunch tickets can be purchased in the lobby bookstore (\$11.00). Please call the IEEE Business Office at (800) 898-IEEE to make your reservation.

For more information, please visit the Chicago Chapter IEEE PES web site:
<http://peschicago.org>

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IEEE Chicago Section Chapter Chairmen

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Step 2: Fax a confirming hardcopy of the notice to: 608-222-0262.

If e-mail is not an option, contact Amy Pierquet or Beth Vander Grinten at Slack Attack Communications, 608-222-7630.

IEEE Chicago Section Fox Valley Subsection Mailing List

The Fox Valley subsection now has a mailing list for announcements of its monthly technical presentations. If you subscribe, you will get a periodic message (usually once a month) describing our next scheduled meeting.

To subscribe, send an email to majordomo@majordomo.ieee.org with a blank subject field and the following line in the message field:
subscribe fox-valley-ss email_address

The response will tell you how to start using this IEEE-sponsored mailing list capability, as well as how to unsubscribe subsequently at your request.

LUNCH MEETING

IEEE-IAS/IES Luncheon Presentation City of Chicago Fire Alarm System Design and Installation Wednesday, May 15, 2002

Rochester Bailey, Chicago Dept. of Buildings and Asif Rahman, Chicago Fire Dept. Bureau of Fire Prevention

About the Topic:

Fire alarm systems are one of the most critical life safety systems. Proper design and installation are required to adequately protect building occupants. Based on their many years of experience, Messrs. Bailey and Rahman will provide us with guidance on the design of fire alarm systems and will identify common shortcomings that prevent the approval of plans and installations. Attendees will be better able to comply with the requirements of the City of Chicago for fire alarm systems.

About the Speakers:

Asif Rahman

Education: BSME, University of Illinois at Chicago.

Present Position: Assistant Chief Fire Prevention Engineer, City of Chicago Fire Department Bureau of Fire Prevention.

Asif has been with the Fire Prevention Bureau for 14 years, beginning as a Fire Prevention Engineer, and was promoted to Assistant Chief in 1999. Previously he worked as a mechanical engineer in consulting.

Rochester Bailey

Education: Apprenticeship and advanced training in electronics, IBEW Local 134 & NECA.

Present Position: Supervisor of Electrical Inspectors, City of Chicago Department of Buildings Bureau of Electrical Inspections.

Rochester Bailey is a supervisor of Electrical inspectors with the City of Chicago over plan reviews and permit processing. Previously Rochester was a fire alarm plan reviewer and made field inspections of fire alarm installations. He has been with the City of Chicago Department of Buildings Bureau of Electrical Inspections for 17 years. He has served as Chairman of the Illinois Chapter of the International Association of Electrical Inspectors and is a member of the Illinois Chapter Executive Committee. He is currently the chairman of the Chicago Division of the IAEL. Rochester has

been a member in good standing of local 134 IBEW for over 30 years.

NEW Location:

Costa's, 340 S. Halsted St., Chicago- Located in Greektown on the corner of Van Buren and Halsted.

Time:

11:30 AM Social
12:00 PM Dinner
12:30 PM Presentation

Cost:

Your cost includes the presentation and a four-course dinner with a choice of the main entree - roast lamb, chicken, or fish (Vegetarian or special dietary meals available upon request). Cost

is \$25 for IEEE members and \$30 for non-member. Valet parking is included with your meal.

Directions:

See www.iaschicago.com for directions.

Reservations:

Call the IEEE Business Office at (800) 898-IEEE or (630) 493-4333 or www.iaschicago.com with your reservation. Please note any special meal requests at the time of the reservation.

Note: For P.E. licenses that require continuing education for renewal, attendance at IEEE Technical Meetings is acceptable as one Professional Development Hour (PDH) per meeting.

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EVENING MEETING

IEEE Chicago/Rockford Consultants Network Meeting Polish Your Presentation Skills and Score New Clients Monday, May 20, 2002

Sam Bader, Argonne National Laboratory

About the Topic:

In addition to networking and sharing leads and referrals, we plan to have an open discussion on "Polish Your Presentation Skills and Score New Clients" based on the article by Jennie Ganz in the January 2002 edition of Engineering Times.

"You are a top notch and experienced engineer. Very few can do what you can do. But when it comes to giving an oral presentation to a potential client your stomach turns to Jell-O. You agonize about it and you are not even sure where to begin. Many people have a fear of professional speaking, but fortunately there are some basic guidelines you can follow that can help you become a polished presenter who may even look forward to speaking opportunities.

A consultant gave an oral presentation to a prospective client but lost the assignment because the client felt more comfortable with another consultant. Effective speakers, no matter how technically expert, must project human qualities that show others they are easy to deal with...It includes listening skills, responding well under pressure, a sense of humor, and body language, dress, grooming, and conduct appropriate for your profession."

Location:

Dinner-Baker's Square

270 E. Northwest Highway and North Court, just south of the library.

Meeting-Palatine Public Library, 700 North Court, Palatine, Ill. 847-358-1216.

Time:

6:15 PM Dinner

We order individually from the menu.

7:30 PM Meeting

Reservations:

Members and non-members are invited to join us for the optional informal dinner and meeting. Reservations are not required.

Information about the network can be obtained by e-mail: g.l.blank@ieee.org or visit our web site at www.drblank.com/coaction.htm.

Meetings are usually held on the last Monday of odd-numbered months.

Bring consultants and those who aspire to be consultants for a pleasant and informative evening of networking.

EVENING MEETING

IEEE Fox Valley Subsection and Joint Chapter If Software is So Easy to Create, Why is it So Difficult to Evolve? Tuesday, May 21, 2002

William F. Opdyke, North Central College

About the Topic:

At a time when it is easier than ever to rapidly create software, incorporating new features into an existing software system has remained stubbornly difficult and expensive. Why is this the case, and what can be done about it? We will begin with a very brief "team exercise" where participants take on the roles of software project managers. Then, we will discuss two major issues that add complexity and costs in changing a software system. We will discuss how some individuals and organizations have successfully addressed these issues. We close with "lessons learned" that apply more generally to technology introduction and organizational change.

About the Speaker:

William F. Opdyke has spent most of his career

focusing on issues related to software evolution and the complexities of designing and developing communications software. He was a feature topic/guest editor of the October, 2001 issue of IEEE Communications ("Evolving Communications Software: Techniques and Technologies"). After a twenty year career at Bell Labs (AT&T/Lucent Technologies), he recently transitioned to his current position as associate professor of computer science at North Central College (Naperville, Ill).

Location:

IIT's Rice Campus, 201 East Loop Road, Wheaton, Ill. Take Rt.56/Butterfield Rd. to first stoplight east of intersection of Butterfield & Naperville roads. Turn north onto East Loop Road (Grady's Restaurant and Phillip's 66 Gas Station on the corners); the campus will be on

your right about a block north of Butterfield Road. More detailed directions and a map are available at www.rice.iit.edu/directions.html

Sponsorship:

IEEE's Fox Valley Subsection and Joint Chapter on Engineering Management and Professional Communication, Illinois Institute of Technology's Center for Professional Development (Rice Campus), Rice Student Association, and the UniForum.

Time:

6:00 PM Networking time

7:00 PM Presentation

Reservations:

Please call the IEEE Business Office at (800) 898-IEEE to make your reservation.

EVENING MEETING

IEEE Chicago Section (Joint with all its chapters and subsections) Improving the Odds of Surviving Cardiac Arrest or Stroke Wednesday, May 22, 2002

Kenneth Kasza, Argonne National Laboratory

About the Topic:

If you have a cardiac arrest outside of a hospital setting you have a slim chance of surviving, less than one in fifty. Even if you do survive, oxygen-deprivation of cells in the brain and heart immediately begins to cause damage. Doctors have long been aware that cold slows this cell deterioration. Any field administrable treatment that can induce sufficient system cooling to retard cell damage can improve survivability and recoverability. Researchers from Argonne National Laboratory in collaboration with physicians from the University of Chicago Medical School, Department of Emergency Medicine have discovered a method of inducing rapid, internal cooling to mitigate the effects of oxygen deprivation. Dr. Kenneth Kasza of the Argonne National Laboratory will present for us this break-through methodology and progress of the research.

Awards Recognition:

The Chicago Section will be using this occasion to recognize the 2001 and 2002 Fellow Award Recipients.

Location:

Wilton Manor

2200 N. Main St.

Wheaton, IL 60187

Northwest corner of Geneva Rd. and Main St. (Schmale Rd.)

Directions:

From I355, west on North Avenue, Rt 64, to Schmale Rd. Turn left on Schmale and continue south to Geneva Rd. and Main St. (Schmale). From I88, north on Naperville Rd. to Roosevelt Rd., Rt 38. West on Roosevelt to Main St. Turn right on Main and continue north to Geneva and Main.

Time:

6:30 PM Social

7:00 PM Dinner

8:00 PM Presentation

Cost:

\$25 per person which includes rolls, salad, family style dinner (sirloin of beef, roast chicken, sausage, pasta, whipped potatoes, and vegetable), and dessert.

For Reservations:

Please call the IEEE Message Center at (800)898-4333 or (630) 493-4333 by 1PM Monday, May 20th. For information, call Norm Phoenix at (847) 523-1078 or Connie Kelly at (847) 670-4630.

EVENING MEETING

IEEE Chicago Section-Fox Valley Subsection Tour Fermilab Thursday, May 23, 2002

The IEEE Chicago Section, our Fox Valley Subsection, and our Joint Chapter on Engineering Management and Professional Communication, in conjunction with the Association of Energy Engineers (AEE) invite you to a guided tour to show you some of the world-class research being done at Fermilab.

Please note the following restrictions based on Fermilab's current security rules:

- Send e-mail to AEE's Steve Krstulovich at "stevek@fnal.gov" with the name(s) of each prospective visitor no later than May 20, 2002 so we are cleared ahead of time. Please try to notify Steve earlier so Fermilab can arrange for a sufficient number of guides.

Note: Since the dinner (at a cost of \$25 per person) will be optional, also advise Steve by May 20th how many of you plan to come to this dinner.

- Visitors can enter (and leave) only via Fermilab's west gate on Kirk Road at Pine Street (look for the steel arch).

Tentative Schedule:

6:00 pm Welcome to Fermilab - Jane Monhart, Fermi Area Manager, DOE

6:10 pm Steve Krstulovich (Fermilab) - Introduction with wine and cheese

6:30 pm Nancy Lanning (Fermilab) will serve as our tour guide, with the assistance of several docents

7:30 pm Dinner

Note: Due to the prevailing construction at Fermilab there may be a last-minute need to have this dinner at an off-site location (to be announced)

Please send e-mail to "G.Kattke@ieee.org" if you need additional information (or directions).

Please Note:

Our Chicago Section plans to start stressing the electronic dissemination of our meeting announcements using e-mail, as well as our Section's web page (currently still under construction). Our list of e-mail addresses provided by IEEE Hq on a monthly basis is updated only at the annual membership renewal time. Therefore, if your personal IEEE e-mail address has changed since your most recent renewal (or since joining IEEE for the first time), please send this change with your IEEE membership number to our Membership Chairman Jack Sherman at "j.sherman@ieee.org".

IEEE Power Engineering Society (PES) 2002 Summer Meeting July 21-25, 2002

The 2002 IEEE Power Engineering Society (PES) Summer Meeting will be held at the elegant Palmer House Hilton Hotel in Chicago, Illinois, July 21-25. Convening in downtown Chicago, among some of the world's most breathtaking skyscrapers, the conference will focus on how the electric power industry is *Taking Technology to New Heights*, with technical tracks on:

- Securing new/alternative sources of energy
- Improving power delivery
- Enhancing reliability and power quality
- Improving customer service using innovative measurement and control techniques
- Surviving new markets and new structures

Conference highlights will include:

- Plenary session speakers John Rowe CEO of Exelon Corp., and Bill Abolt, Chief of Management, City of Chicago Mayor's Office.
- Wednesday night's gala event "Taste of Chicago" in the Grand Ballroom on Navy Pier.
- Tutorials and new special technical sessions geared toward practicing engineers.
- Technical tours of the S&C Electric Company manufacturing plant, Jardine Water Filtration plant, several urban substations and more.
- Student activities including a Poster Session and the Student/Faculty/Industry Luncheon.

- The Showcase of Innovation featuring newly introduced products for the electric power industry.

Please visit www.ieee.org/power for further information concerning the 2002 Summer Meeting, including Online Registration.

Employment Opportunities

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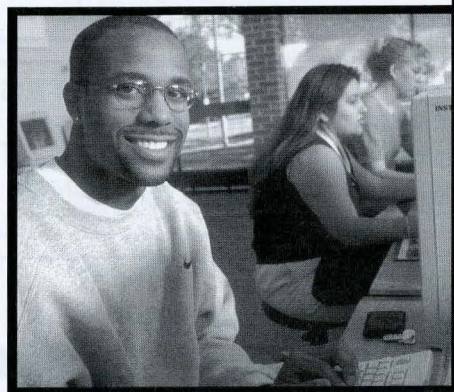
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