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*The*  **IEEE**

# *MONITOR*

PUBLISHED BY THE NEW YORK SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

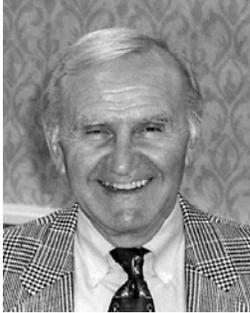
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# Chairman's Column



We are on the pathway of success. The GOLD Chapter is holding programs on “Stuff you don’t learn in engineering school”. Topics that have already been covered include decision-making, setting priorities and being effective at meetings. Most attendees were EEs in their early careers – reflecting the “GOLD” theme, “Graduates Of the Last Decade”, and several were undergraduate students.

The following are reactions from attendees:

“Thank you once again for your talk – it was an excellent start of the NYC GOLD Chapter. Everybody thinks the meeting was a big success and you contributed to it very much – thanks! I also enjoyed our conversation afterwards – you have many other great thoughts and stories to share. I think it’s absolutely necessary to teach young engineers the stuff that you are teaching. And you’re doing it great. ? I can really recommend: Stuff with my whole heart. If I can help in any other way, please feel free to contact me.”

“I really enjoyed your seminar! Thanks!”

“Thank you again for the awesome presentation. The IEEE GOLD Chapter kicked off in grand style because of your program. I hope that the next seminar will give us more time to discuss (interactively) the topics at hand. We were constrained by time by and I can see

the potential value in talking more about the topics we skimmed over.”

“Thanks for the lecture. It was very helpful. After your seminar I realized what my problem really was: I need more information to make my decisions. So my first step is to gather as much information as I can to help me make the decision, then list the advantages and disadvantages of my choices. I think I can make the decision sometime this year. Thanks for helping me to clear the strategy to plan my career.”

“I am glad I went to your seminar. It has already paid off. My biggest decisions were taken care of (by two working days later). It is incredible how what one sets your mind to do, gets done. My “two important decisions” (recorded at the seminar) were: Personal decision – To find time or ways to relax and let go. Work decision – How much will we need to have prepared for Monday’s meeting? My 3 most important things to do were:

- 1-Finish cost estimate (simplify, rough estimate).
- 2-Prepare plans for meeting.
- 3-Submit PE licensing paperwork.

“Everything has (already) gotten addressed to the level it needed to get addressed. NOW I WANT TO START OVER AGAIN AND BEGIN AGAIN. Can every week be like last week? ...WOW!!!!!! Thanks a million.”

Let’s remain on track, be supportive of one another and keep up the good work.

Ralph Tapino, Chairman

# Professional Activities Information Page

## **This page dedicated to member professional activities information**

It's the end of a hectic summer of weather, world and national events and the stock market and economic conditions. However, I hope you all had an enjoyable summer despite this and had some time to relax. It is the time for us to resume our IEEE business that of providing the New York Section members support and programs for their professional career. In planning the 2002-2003 schedule for PACE meetings, I have arranged with the GOLD Chair to hold joint meetings.

In representing the New York Section at the Annual PACE Conferences & Workshops I have been involved in forums for the members which gave me some insight into the issues that members would like IEEE-USA to address. A resource available from IEEE-USA is providing speakers and support for conducting meetings such as M-PAC's, Member Professional Awareness Conferences. The issues and concerns of the local members can be addressed at these meetings. Speakers are available to deliver presentations on each issue. For this year we hope to cover some topics including Career Development, Engineering Management, Financial Related Issues, Professional Ethics and Societal Responsibilities and Public Policy Issues.

Because of the diversity of the work that our New York membership is involved in, it is difficult to provide meetings to discuss all the issues or topics that are relevant to our section members. However we hope to cover as many topics which cover economic conditions, employment and personal

situations which may be relevant to you as it may be in other sections of the country.

*We hope to hear from you with your opinion of current top issues and things that PACE can help you with.* Remember that this will be used to provide feedback to me in scheduling programs and seminars for PACE activities in our section.

Please respond by telephone, fax or e-mail to: Peter Greco, PACE Chairman

Tel.: 212-614-3357 Fax: 212-529 5237

email: [p.j.greco@ieee.org](mailto:p.j.greco@ieee.org)

### **Calendar of Upcoming Events**

The following are proposed Section activities. Dates for seminars are tentative and locations will be announced in future issues when they become available. Please plan to attend at a meeting or seminar.

September 11: General Meeting

September 25: Financial Seminar

October 9: General Meeting

October 23: Engineering Mgt. Seminar

November 13: General Meeting

November 20: Career Development Seminar

December 11: General Meeting

### **IEEE Job Site:**

This highly rated job listing service in service for six years has been replaced by a new internet-based job site. The site allows the active and passive job seeker more control over the recruiting process. Search job listings and create a member profile. For more details go to:

**[http:// jobs.ieee.org/index.html](http://jobs.ieee.org/index.html)**

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## PUBLISHER'S STATEMENT

The IEEE MONITOR is the official news publication of the New York Section of The Institute of Electrical and Electronics Engineers, Inc. The New York Section is comprised of the five boroughs of New York City (Brooklyn, Bronx, Manhattan, Queens and Staten Island) plus Rockland and Westchester Counties. The publication reports on events and activities of interest to the general membership composed of electrical and electronics engineers and computer scientists, presents topical feature material relevant to the engineering profession, and carries the monthly IEEE society chapter calendar of events as a service to its readers.

## CIRCULATION

The IEEE MONITOR is distributed to all IEEE members in the New York Section plus additional subscribers. Monthly circulation as of December, 1999 is 6,200.

## ISSUE AND CLOSING DATES

The IEEE MONITOR is published monthly except June, July and August. Advertising order deadline is the first of the month preceding issue date. Camera ready material is due on the 5th of the month preceding issue date.

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## IEEE CONSULTANTS' NETWORK OF NORTHERN NJ

99 Conklintown Road  
Wanaque, NJ 07465

<http://www.TechnologyOnTap.org>

**MEETING ANNOUNCEMENT for Thursday, September 26th, 2002**

### ***Getting Small For Small Manufacturers: Thru-Hole vs. SMT***

*On Thursday September 26th, 2002, the IEEE Consultants' Network of Northern NJ (CNNNJ) will present an seminar outlining the criteria involved in taking low-volume products to Surface Mount (SMT) technology.*

#### **ABOUT THE TOPIC**

SMT is widely recognized as the most economical technology for high volume manufacturing. Choosing between conventional thru-hole technology and SMT is not as simple when the volumes to be manufactured are low. A decision on which technology to use should be made early in the product design cycle. That decision will have a major impact on the cost to manufacture the product. An informed understanding of the component and manufacturing costs of each technology is essential.

A comparison of the two technologies will be presented. The cost to manufacture a simple product will be examined for an SMT and a Thru-Hole version of the design for 10 prototypes, a pilot lot of 50 pieces, and yearly production quantities of 100, 200, and 500. The design limitations with each technology will be covered, such as product size. The component selections required for each design will be compared and the trade offs and component costs for each will be discussed. The presentation will include a discussion of the process and the cost to manufacture each design using Thru Hole assembly, Prototype SMT, and Automated SMT assembly techniques. Factors such as tooling, panelizing, CAD data, component packaging requirements, testing, and rework costs will also be discussed to provide the information needed to make an informed decision on which technology is most economical to use at these lower quantities.

#### **ABOUT THE SPEAKER**

Jim Disser founded Infrared Of New Jersey, Inc (<http://www.irnj.com/>) in 1986. His designs include the company's line of optoelectronic People Sensors™ as well as numerous custom OEM products including controls for the HVAC industry. After 15 years of product design and manufacturing, Jim created a new division of IRNJ, RealTime Manufacturing Co. (<http://www.realtimemfg.com/>) to address the need for a new kind of contract manufacturer, solving the types of problems he encountered with outsourcing in IRNJ and providing cost effective manufacturing with good service and quality to the low-to-medium volume customer.

#### **ABOUT THE CONSULTANTS' NETWORK**

The IEEE Consultants' Network of Northern NJ was founded in 1992 to encourage and promote the use of independent technical consultants by business and industry.

#### **ALL WELCOME!**

You do not have to be a member of the Consultants' Network to attend.

**Time:** 7:30 PM. Thursday, September 26<sup>th</sup>, 2002

**Place:** KDI Triangle, 60 S. Jefferson Road, Whippany, NJ.

**Information:** For directions call Robert Walker, at (973) 728-0344.

To download a map to KDI, go to:

<http://www.kditriangle.com/directions.htm>

**Attendance:** Free admission.



## CALL FOR PAPERS



The College of New Jersey  
March 12, 2003

### ADVANCES IN WIRED AND WIRELESS COMMUNICATIONS

The 2003 IEEE Sarnoff Symposium on Advances in Wired and Wireless Communications will continue its long tradition of bringing together professionals and industry experts to exchange information on the latest developments in the field. The conference includes an exhibition of components, technologies, systems and services and also features tutorials.

The Symposium is soliciting papers describing state-of-the-art research, innovative developments and applications. The areas of interest include, but are not limited to:

- Broadband Wireless Systems
- Network Security
- Satellite Communications
- Signal Processing for Communications
- Microwave Device Technology
- Modeling and Simulation
- Optical networking
- Ultrawideband Systems
- VoIP and QoS
- Military Communications
- 3G Mobile Systems and Wireless LANs
- Smart Antennas & Phased Arrays
- Microwave Photonics
- Software Radio

Proposals for tutorials are also encouraged. All accepted papers (after peer review by experts in the field) will be included in the 2003 Sarnoff Symposium Proceedings. Prospective authors should submit a one-page abstract to the Technical Program Chair by September 30, 2002 in .doc or .pdf format.

#### **CONTACTS:**

##### *Symposium Chair:*

Peter Zalud (pzalud@sarnoff.com)  
Sarnoff Corporation

##### *Technical Program Chair:*

Gerhard Franz (g.franz@ieee.org)  
A.G. Franz Associates, LLC

##### *Technical Program Vice-Chair:*

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US Army CECOM

##### *Publications Chair:*

Hank Owen (howen@sarnoff.com)  
Sarnoff Corporation

#### **IMPORTANT DATES:**

Abstract Due:	September 30, 2002
Acceptance Notification:	November 30, 2002
Final Version Due:	January 24, 2003

##### Conference Schedule:

Tutorials	March 11, 2003
Conference and Exhibit	March 12, 2003

# Calendar of Upcoming Events

**September 9 & 10, 2002** (Watch our website for further details)

IEEE NY Section Engineering Management Society and the NY Academy of Sciences  
“Voting Equipment Standard”

NY Academy of Science’s facilities in New York City

As details become available they will be posted on our website at:

[http://www.ewh.ieee.org/r1/new\\_york/](http://www.ewh.ieee.org/r1/new_york/)

**September 25, 2002** (Wednesday) 5:30 PM - 7:30 PM Refreshments at 5:30 PM

The New York Section, PACE and the GOLD Chapter

Financial Seminar on “What To Do Now – Investor Considerations”

Con Edison, Executive Dining Room, 4 Irving Place, 19<sup>th</sup> Floor, New York , NY

For information call Eva Kuruc at (917) 517-3957 or by email [eva@websyn.com](mailto:eva@websyn.com) or, Peter J. Greco at (212) 614-3357 or by email [p.j.greco@ieee.org](mailto:p.j.greco@ieee.org)

**October 24, 2002** (Thursday) 6:00 PM - 8:00 PM

The New York Section, IEEE Vehicular Technology

Rail Communications Innovations Forum

Nortel Networks, 320 Park Avenue, (50<sup>th</sup> ST) NYC

For information call Mr. Ramdane Benferhat at (718) 694-4433,  
or by e-mail at [ceents22rb@aol.com](mailto:ceents22rb@aol.com)

**November 14, 2002** (Thursrday) 9:00 AM - 4:30 PM Buffet lunch will be provided

The New York Chapter of the IEEE Communications Society

A Full Day Seminar on “Data Security”

Con Edison Auditorium, 4 Irving Place, 19<sup>th</sup> Floor, New York, NY

For information email [dimitar@websyn.com](mailto:dimitar@websyn.com) or phone: 212-656-1969

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The following New York Section members  
have been elevated to Senior Member

**Shai Benjamin**

**Siddhartha Chatterjee**

**Alexandros Eleftheriadis**

**Derbiau Frank Hsu**

**Alfred Spector**

**John Vlissides**

**Shalom J. Wind**

# The New York Chapter of the IEEE Communications Society

presents

A Full Day Seminar On

## Data Security

### Topics:

1. Access and Authorization Management
2. Internet Web Site Security
3. Leveraging Smart Cards for PC, Network, VPN and Building Access Security
4. Network Intrusion Detection
5. Ethical Hacking, Penetration Testing
6. VPN
7. Penetrating/Hacking Firewalls/Networks
8. Forensics

### Keynote Speaker

**Dr. Fred Cohen**

Fred Cohen is best known as the inventor of computer viruses and virus defense techniques. But his work on information protection extends far beyond the computer virus realm. In the 1970s he designed network protocols for secure digital networks carrying voice, video, and data; and he helped develop and prototype the electronic cashwatch for implementing personal digital money systems. In the 1980s, he developed integrity mechanisms for secure operating systems, consulted for many major corporations, taught short courses in information protection to over 10,000 students worldwide, and in 1989, he won the prestigious international Information Technology Award for his work on integrity protection. In the first half of the 1990s, he developed protection testing and audit techniques and systems, secure Internet servers and systems, and defensive information warfare techniques and systems. His more recent work in the use of deception for information protection has been widely acclaimed. All told, the protection techniques he pioneered are now used in more than three quarters of all the computers in the world.

**Date:** Thursday, November 14, 2002

**Time:** 9:00 AM - 4:30 PM

**Lunch** (Buffet) will be served

**Place:** Auditorium, Con Edison

4 Irving Place at 14<sup>th</sup> Street, one block east of Union Square, 19<sup>th</sup> floor,  
New York, NY 10003

<b>Fees:</b> IEEE members:	\$150
Non-IEEE members	\$175
New IEEE Member	\$135
Students:	\$35

**Reservations** Are Necessary

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or phone: 212-656-1969

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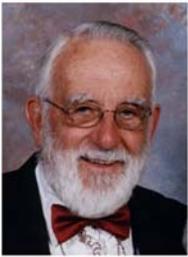
The agenda is subject to change.

Check URL: <http://www.comsoc.org/socstr/chpters/NYC>

The Long Island Chapter of IEEE Electromagnetic Compatibility Society is presenting a lecture titled:

**A View of Electromagnetic Life above 100 MHz**  
*(An Experimentalist's Intuitive Approach)*

**Tuesday, October 8, 2002**



**WHO SHOULD ATTEND?** Individuals who design and test equipment containing circuitry that operates in this frequency range, and individuals interested in learning more about the less desirable implications of the increasingly fast circuitry used in today's products

**WHAT ARE THE KEY BENEFITS?** The opportunity to learn practical design and measurement approaches from a leader in the EMC area.

**SPEAKER: Dr. Lothar (Bud) O. Hoeft -- Consultant, Electromagnetic Effects**

**Abstract:**

Interest in electromagnetic life above 100 MHz has increased in the past decade, primarily due to an increase in high speed digital electronics and telecommunications. In this frequency regime, many of the usual simplifying assumptions are no longer true and the EMC engineer must adopt a new way of looking at the problems. An intuitive approach allows the engineer to visualize the system as a collection of components whose characteristics can be estimated, or if necessary, measured. Effects, such as parasitic effects, absorption, radiation losses and wavelength effects become more significant above 100 MHz, but are reasonably well understood.

As a note, those of us who have heard Dr. Hoeft speak have been impressed with his ability to provide a lively talk while maintaining a careful balance between the theoretical and practical sides of the EMC world.

**Seminar Coordinators:**

Richard Mohr and Bruce Willard, Electromagnetic Compatibility Chapter Co-Chairs of the IEEE Long Island Section.

**Speaker Bio:**

Dr. Bud Hoeft received a B.S. and M.S. in physics from the University of Wisconsin and a PhD in physics and biophysics from Pennsylvania State University. In 1979, he completed a 25-year R&D career in the U.S. Air Force working on acoustical noise control, bionics, nuclear weapon simulation, pulse power technology and international R&D coordination. He joined BDM, where he was primarily concerned with helping designers build and test systems that are subject to electromagnetic effects. In 1994, he retired from BDM and became a private consultant. Dr. Hoeft is a Certified EMC Engineer. He has presented numerous papers and tutorials on shielding and electromagnetic effects at IEEE-EMC, NEM, Zurick-EMC, Wroclaw-EMC, IEE-EMC, Lightning and IICIT symposia. In 2001, he was appointed Distinguished Lecturer of the IEEE EMC Society.

**Location and Time:**

This lecture serves as the "kickoff event" for the Long Island EMC Chapter. It will begin at 7:00 PM on Tuesday 8 October at the Holiday Inn, on Sunnyside Blvd in Plainview (between the Long Island Expressway and Northern State Parkway). Coffee and a snack will be served beginning at 6:30 PM. Seating is limited. If you wish to attend an RSVP is required by no later than 1 October. Please contact Richard Mohr via E-mail at [r.j.mohr@ieee.org](mailto:r.j.mohr@ieee.org) or Bruce Willard by via E-mail at [Willard@ieee.org](mailto:Willard@ieee.org). For those without E-mail access, a message may be left at (631)265-2282. This lecture is a part of the IEEE Distinguished Lecturer program and is locally sponsored by the IEEE Long Island Section.

# NEWS from IEEE-USA

## **IEEE-USA Opposes Government Proposal Eroding Medical Privacy**

The Department of Health and Human Services (HHS) should not adopt a rule allowing health care providers to share confidential medical records without patient consent, according to IEEE-USA.

IEEE-USA President LeEarl Bryant, in comments filed with the HHS' Office of Civil Rights, speaks out against the proposed March 27 rule change to HHS' "Standards for Privacy of Individually Identifiable Health Information." Currently, a patient has to grant written consent for a medical provider to share personal medical information among physicians and other medical professionals for Treatment, Payment and health care Operations (TPO).

"IEEE-USA is concerned about the unintended consequences of removing the mandatory consent regulation as a means to enhance efficient record sharing," Bryant said. "We believe the regulation would erode consumer confidence and lessen the benefits of the proposed changes, rather than providing a more efficient system."

The IEEE-USA Medical Technology Policy Committee (MTPC) recommends that individuals should retain control over the release of sensitive health information except for narrow cases such as emergency treatment, including prescriptions a patient might be taking.

Frank Ferrante, MTPC chair, thinks the HHS proposal could hurt health care quality.

"We believe this will pose a threat to the public's willingness to undergo clinical testing," Ferrante said. "Without the ability of individuals to control the dissemination of personal health information, consumers may be discouraged from having tests that may lead to early detection of disease and reduced treatment costs."

## **IEEE-USA Patent Rights Proposal Adopted by U.S. Supreme Court**

The U.S. Supreme Court, in a unanimous decision, substantially adopted IEEE-USA's proposed "foreseeable bar" standard on patent rights.

Ruling in the Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., LTD. case (<http://www.supremecourtus.gov/opinions/01pdf/00-1543.pdf>), the Court vacated and remanded the case back to Federal Circuit court, while rejecting each party's opposing standards.

The Festo case involves to what extent the holder of an amended patent is barred from asserting patent rights against another inventor whose design is substantially the same as the patented invention. As an alternative to the "flexible bar" and "absolute bar" standards advocated by the opposing sides in Festo, IEEE-USA's "foreseeable bar" states that holders of an amended patent give up protection for only those things that were foreseeable by persons familiar with the associated technology.

According to Bloomberg News, as reported in the New York Times today, the Supreme Court ruled that "patent holders who could not have foreseen that changing the description in an application would limit coverage" would still be able to sue others who make "equivalent" products.

Bloomberg also reported Thursday that the "ruling may prove to be the most significant Supreme Court patent decision in two decades, affecting as many as 90 percent of the 1.2 million patents now in force, lawyers said."

IEEE-USA submitted its proposal in an amicus curiae brief that was discussed openly during oral arguments on Jan. 8. That day, Justice Sandra Day O'Connor asked both sides to compare and contrast their position with that of IEEE-USA's, while other justices quizzed the parties on IEEE-USA's "foreseeable bar."

Justice Anthony M. Kennedy, writing for the Supreme Court, said that, "The patentee must show that at the time of the amendment one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent."

In its friend-of-the-court brief, IEEE-USA wrote that, "the doctrine of equivalents should be permitted to apply unless the limiting effect of the amended language with respect to an accused device would have been foreseeable at the time of the amendment. Applied objectively, from the perspective of a reasonable person skilled in the art, this 'foreseeable bar' applies principles that are readily, if not commonly, understood by both the public and the judiciary."

Carlton Fields, P.A. of Tampa ([www.carltonfields.com](http://www.carltonfields.com)) prepared the brief for IEEE-USA pro bono. Andrew Greenberg, a member of IEEE-USA's Intellectual Property Committee, served as counsel of record and headed a team of 10 lawyers and legal assistants.

"We are very pleased with the result," Greenberg said. "The Supreme Court's adoption of the foreseeability test brings into balance competing policies that form the heart and soul of our patent system."

The IEEE-USA brief and other relevant resources are available at <http://www.ieeeusa.org/forum/POLICY/2001/01aug31festo.html>. The oral arguments are found at [http://www.supremecourtus.gov/oral\\_arguments/argument\\_transcripts.html](http://www.supremecourtus.gov/oral_arguments/argument_transcripts.html)

### **IEEE Members Encouraged to Comment on FCC Spectrum Policy**

The Federal Communications Commission (FCC) announced today that it is seeking public comment on a range of radio spectrum issues, including recommendations for enhancements and information on emerging technologies and future spectrum allocation.

To guide the public, the FCC's Spectrum Policy Task Force has developed a series of 28 questions to help it assess radio spectrum policies. The five categories are: 1) Market-Oriented Allocation and Assignment Policies; 2) Interference Protection; 3) Spectral Efficiency; 4) Public Safety Communications; and 5) International Issues.

Go to [www.fcc.gov/sptf](http://www.fcc.gov/sptf) for more information, instructions and access to the questions. You may respond to as many questions as you choose, or file comments on any spectrum-related issue. Comments must be filed by 8 July, 2002; reply comments by 23 July, 2002. The task force is supposed to provide a report to the commission by October 2002.

IEEE-USA encourages interested IEEE members to review the FCC Public Notice and respond with comments and recommendations. The IEEE-USA Committee on Communications and Information Policy will also review the notice and prepare a response. U.S. IEEE members can contact Deborah Rudolph at [d.rudolph@ieee.org](mailto:d.rudolph@ieee.org) for more information.

## **IEEE-USA, CNSR Seeks Increase to \$11 Billion for Department of Defense Science and Technology Program**

Because homeland security has never been more important, Dr. Allan C. Schell, a member of IEEE-USA's Research and Development Policy Committee, asked the Senate Appropriations Subcommittee on Defense on Wednesday to provide funding of at least \$11 billion for the Department of Defense Science and Technology Program (accounts 6.1 ? 6.3) for Fiscal Year 2003. Funding for FY '02 is \$9.89 billion.

Schell, speaking on behalf of IEEE-USA and the Coalition for National Security Research (CNSR), asked the subcommittee to fund the DoD S&T Program accounts for basic research (6.1), applied research (6.2) and advanced technology development (6.3) at 3 percent of the overall department budget. The funding plays a critical role in ensuring the national security of the United States and the safety and effectiveness of our armed forces, Schell testified.

The S&T Program supports the fundamental research, development and demonstrations in sciences and technologies identified as important to military capabilities and operations. This includes the development of our nation's high-tech weapons systems and the technology base upon which they rely.

The S&T Program also supports a major share of university research, including a majority of total federal investment in electrical and mechanical engineering. Schell noted that this research pays dividends beyond the battlefield.

"These defense science programs contribute to the research enterprise of the country and to the education of tomorrow's scientists, engineers and policy makers," Schell said. "The Defense Department provides a critical investment in several disciplines, including engineering and physical, math, computer and behavioral sciences, vital to our future national security."

IEEE-USA is an organizational unit of The Institute of Electrical and Electronics Engineers created in 1973 to promote the careers and public-policy interests of the more than 235,000 electrical, electronics, computer and software engineers who are U.S. members of the IEEE. The IEEE is the world's largest technical professional society. For more information, go to <http://www.ieeeusa.org>.

CNSR is a broadly based coalition united by a commitment to a stronger defense science and technology base. Participants include scientific, engineering, mathematical and behavioral societies, academic institutions and industrial associations. Visit [www.cnsr.org](http://www.cnsr.org) for more information.

### **Record Engineering Unemployment Spurs IEEE-USA Call for Congressional Action**

Although the overall U.S. unemployment rate fell in the second quarter, it increased significantly for engineers and computer scientists. IEEE-USA is calling on all Members of Congress to conduct a field hearing or town hall meeting during the August district work period to gather input on the situation from engineers and other high-tech professionals.

The unemployment rate for all engineers increased from 3.6 percent in the first quarter of 2002 to 4.0 percent in the second quarter, data from the U.S. Department of Labor, Bureau of Labor Statistics reveals. The rate for electrical and electronics engineers (EEs) rose from 4.1 percent to 4.8. The rate for computer scientists, which includes systems analysts, jumped from 4.8 to 5.3 percent. Overall unemployment fell from 5.9 to 5.4 percent.

"IEEE-USA is concerned that the most recent increase in engineering unemployment is not a short term or cyclical phenomenon, but represents a more fundamental shift in engineering utilization that has potentially negative impacts for our nation," IEEE-USA President LeEarl Bryant said in a letter to Congress (<http://www.ieeeusa.org/forum/POLICY/02July12.html>).

IEEE-USA is asking Congress to investigate the impacts of increased hiring of non-U.S. guest workers, the greater use of temporary workers and the outsourcing of engineering work overseas as causes of the unemployment problem, in addition to the economic downturn.

"It is time for Congress to take a closer look at the problem of engineering unemployment and to eliminate the government subsidies and incentives that encourage corporate management to treat U.S. engineers as a disposable labor commodity rather than an essential investment in our nation's future," Bryant said.

### **IEEE-USA Remains Opposed to UCITA, Despite Amendments**

IEEE-USA remains opposed to the Uniform Computer Information Transaction Act (UCITA) despite amendments to the proposed model state law passed by the National Conference of Commissioners on Uniform State Laws (NCCUSL) in Tucson, Ariz., the week of 29 July.

According to IEEE-USA President LeEarl Bryant, the amended UCITA still fails to address several fundamental IEEE-USA concerns:

UCITA turns a sale of goods into a licensing transaction, which permits software publishers to enforce contract provisions contained in "click through" and "shrink-wrap" licenses that may not be disclosed to consumers prior to purchase. Such provisions may be burdensome or unreasonable, but place the burden on the purchaser to display that they are legally "unconscionable" or "against fundamental public policy." Failure to require a pre-transaction disclosure of terms is one of the main reasons why UCITA received a negative report by the American Bar Association's UCITA Task Force earlier this year.

UCITA, as amended, now recognizes the right to reverse engineer software for purposes of interoperability, but justification for other reasonable reverse engineering practices (e.g., privacy protection, security or compliance verification, academic research or instruction, reporting or remediation of flaws, etc.) are still not explicitly protected.

Although the use of "self-help" measures (i.e., a software company's ability to turn off your software remotely if it suspects a license violation) would now be restricted by amendment, software companies are still free to design "back doors" into their software for that purpose and limit company liability if those "back doors" are misused, by themselves or others. With so much critical national infrastructure (e.g., water, electricity, telecommunications, health information systems) dependent on commercial and custom software, this loophole heightens security risks and makes the nation vulnerable to potentially crippling cyber attacks.

"Electrical engineers and computer scientists rely on software to aid in the complex technical analysis and development their jobs requires," IEEE-USA's Bryant said. "UCITA could undermine these technical professionals' efforts to ensure the security of critical information systems."

Among the new amendments are provisions that would ensure that state consumer protection laws take precedence over UCITA license provisions, as well as amendments to make unenforceable license terms that seek to restrict the right to criticize information products or to reverse engineer

software for purposes of product interoperability, which were championed by IEEE-USA in Virginia in 2000.

Maryland and Virginia adopted UCITA, with amendments, in 2000. "The current NCCUSL amendments are designed to more closely harmonize the model law with the versions adopted in Maryland and Virginia," said Bryant, "in hopes of breathing new life into the law, which stalled in other states during 2001-02 legislative sessions."

UCITA is designed to regulate commercial transactions involving intangible goods such as computer software, online databases and other digital information products. The law was adopted by NCCUSL in 1999 after a joint effort with the American Law Institute to expand the Uniform Commercial Code broke down.

After early efforts to help NCCUSL craft a workable law went unheeded, IEEE-USA formalized its opposition to UCITA in a February 2000 position statement (<http://www.ieeeusa.org/forum/POSITIONS/ucita.html>). Widespread opposition to UCITA has continued to grow since its introduction, and now includes a majority of state Attorneys General, as well as insurance companies, library associations, consumer protection groups, the open source software community, and large industrial software consumers such as Boeing, Georgia Pacific and Phillips Petroleum.

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