



®The Institute of Electrical and Electronics Engineers, Inc.

NATIONAL CAPITAL AREA COUNCIL

# SCANNER

June/July/August 1996

Volume 11, No.3

## Communication Link Analysis and Simulation Aerospace and Electronics Systems Society

(See Calendar of Events, page 4)

## Annual Awards Banquet a Big Success!

(See "Your Local Reporter," Page 10)

## IECEC 96 31st Intersociety Energy Conversion Engineering Conference

(See Ad on Page 9)

ISSN 0894-0452

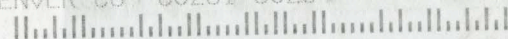
A Joint Publication of the Northern Virginia and Washington Sections

# SCANNER

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## 1995/96 Season

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### Calendar of Events

**Attendance at IEEE Meetings.** IEEE meetings are open to members and guests. When meetings are combined with meal functions, it is not mandatory — although desirable — to attend the meal functions. Please make timely reservations for all meetings (cancel early, if necessary). Any IEEE member may attend Council and Section Administrative Committee (ADCOM) meetings.

**Announcements.** Calendar information should follow the format used in this Calendar of Events. The calendar item listing includes the abbreviation for the managing section after each society chapter listing. In the case of joint chapters, the managing section is listed first. A diamond (◆) preceding the event in a calendar item indicates that further information on that event is provided in the

"Diamond Stories" Department of that issue. Articles for the "Diamond Stories" Department should be limited to 150 words, and include a synopsis of the talk or event, and a biosketch of the speaker which lists, if available, his or her academic background, current position, and IEEE as well as other professional societies memberships, if any.

All announcements, diamond stories, and other material to be printed in an issue of the SCANNER must be sent or faxed to the Editor-in-Chief in time to arrive on or before the 25th of the second month preceding the month of desired publication. The deadline for camera-ready material (e.g., ads) is the first workday of the month preceding the month of desired publication.

### June 1996

**Mon Jun 3 - Radar Target Signature Measurement,  
Wed Jun 5 Exploitation and Coherent Signal Processing (ROO-431)**

**Sponsor:** Johns Hopkins University/OEI Short-Courses Program

**Instructor:** Dr. David Casasent

**Place:** Washington, DC

**Time:** 8:30 am to 4:00 pm

**Contact:** Anita Hellstrom, 301/871-9608, e-mail <info\_oei@apl.jhu.edu>

**Mon Jun 3 - High Speed Data Communications: Principles  
Thu Jun 6 and Practices (TOO-346)**

**Instructor:** Mr. Roger Freeman (For further information, see Johns Hopkins entry for Jun 3-5)

**Tue Jun 4 Meeting of the NCAC Steering Committee**  
**Place:** Tysons-Pimmit Library, 7584 Leesburg Pike, Falls Church, VA

**Time:** 6:30 pm

**Contact:** NCAC Office, 703/803-8701

**Tue Jun 4 ◆ Communication Link Analysis and Simulation**  
**Sponsor:** Aerospace and Electronics Systems Society (W/NV)

**Speaker:** Badri Younes, NASA CLASS Manager  
**Place:** Goddard Space Flight Center Recreation Center. From Beltway, take Baltimore Washington Parkway north to Rte. 193 exit. Take left onto Greenbelt Road. Follow approximately 3 miles and take left onto Soil Conservation Rd. Take second right, follow to Rec Center.

**Time:** Registration/open bar 5:30 pm; Dinner 6:30; Meeting 7:30

**Contact:** NCAC Office, 703/803-8701. RSVP by May 24. If you attend dinner, send check for \$15.00, made payable to Jay Hart, to 141 National Business Pkwy, Suite 200, Annapolis Junction, MD 20701, Attn: Jay Hart

**Tue Jun 4 ◆ Network with the Experts — Wins and Losses**  
**Sponsor:** NCAC PACE Consultants' Network (W/NV)  
**Place:** Dinner: Sir Walter Raleigh Restaurant, Falls Church, VA; Meeting: Virginia Tech @ Falls Church. I-495 to Rte 50 West. 1st exit to Gallows Road/Rte 650. 2nd t/c light right onto Gatehouse Rd. Restaurant is on left; VaTech is down the road— first left onto Telstar Ct.

**Time:** Dinner 5:30 pm; Meeting 8:00

**Contact:** For further details and/or reservations, call 301/460-4693 or 301/924-2610 by noon, June 4

**Mon Jun 10 Northern Virginia Section ADCOM Meeting**

**Place:** Patrick Henry Library, 101 Maple Avenue East (Rte. 123), Vienna, VA

**Time:** 6:30 pm

**Mon Jun 10 - Cellular and Personal Communications  
Thu Jun 13 Services (PCS): Systems Engineering Perspective with emphasis on CDMA Technology (TOO-340)**  
(For further information, see Johns Hopkins entry, Jun 3-5)

**Tue Jun 11 Washington Section ADCOM Meeting**

**Place:** Allee's Pantry Restaurant, Bethesda Marriott Hotel, 5151 Pooks Hill Road, Bethesda, MD. From Beltway take Wisconsin Ave (Rockville Pike) north to Exit 34. Stay in right lane to Rte 355 South, Bethesda. Follow the U-turn to go south on Wisconsin Ave for about 1/4 mile to first t/c light: Pooks Hill Road. Bethesda Marriott Hotel is at 5151 Pooks Hill Road.

**Time:** Dinner 6:00 pm; Meeting 7:00 to 9:00

**Contact:** Nino Ingegneri, 301/279-4217, or NCAC Office, 703/803-8701

**Tue Jun 18 ◆ Finance 101 for Consultants**

**Sponsor:** NCAC PACE Consultants Network  
**Place:** Dinner Seven Seas Restaurant, College Park, MD; Meeting Univ of MD College Park Campus, AV William Eng Bldg, Room 2460 — Rte. 1 South from I-495. Right onto Campus Drive and immediate right onto Stadium Drive. 1-1/2 blocks to Eng Bldg on right. Park on left in Lot G.

**Time:** Dinner 5:30 pm; Meeting 7:30

**Contact:** For further detail and/or reservations, call 301/460-4693, or 301/924-2810 by noon, June 18

**Time:** Dinner 5:30 pm; Meeting 7:30

**Mon Jun 24 - Multitarget-Multisensor Data Fusion: Detection, Identification, and Tracking (ROO-407)**

**Instructor:** Dr. Sam Chaudhuri  
(For further information, see Johns Hopkins entry for Jun 3-5)

**Wed Jun 26 - Modeling and Simulation of Distributed Information Systems (SOO-615)**

**Instructor:** Dr. Dennis Mok  
(For further information, see Johns Hopkins entry for Jun 3-5)

## JULY 1996

**Tue Jul 2 Meeting of the NCAC Steering Committee**  
**Place:** Tysons-Pimmit Library, 7584 Leesburg Pike, Falls Church, VA

**Time:** 6:30 pm

**Contact:** NCAC Office, 793/803-8701

**Tue Jul 2 ◆ Balancing Personal and Professional Life**  
**Sponsors:** NCAC PACE Consultants Network (W/NV)

**Place:** Dinner: Sir Walter Raleigh Restaurant (Falls Church, VA) Meeting — Virginia Tech @ Falls Church; I-495 to Rte 50 West; First exit to Gallows Road/Rte 650; 2nd t/c light right onto Gatehouse Road; Restaurant is on left. VA Tech is down the road: 1st left onto Telstar Court.

**Time:** Dinner 5:30 pm; Meeting 8:00

**Contact:** For further details and/or resvns: 301/460-4693, or 301/924-2610 by noon, July 2.

**Mon Jul 8 - Software Engineering Principles, Techniques and Tools (SOO-603)**

**Instructor:** Dr. Howard Jeffrie (For further information, see Johns Hopkins entry for Jun 3-5)

**Mon Jul 8 - Optical Fiber Link Technology for High Data Rate Communication Network (TOO-343)**

**Instructor:** Dr. Leonard Bergstein  
(For further information, see Johns Hopkins entry for Jun 3-5)

**Tue Jul 9 Washington Section ADCOM Meeting**

**Place:** Allee's Pantry Restaurant, Bethesda Marriott Hotel, 5151 Pooks Hill Road, Bethesda, MD. From Beltway take Wisconsin Ave (Rockville Pike) north to Exit 34. Stay in right lane to Rte 355 South, Bethesda. Follow the U-turn to go south on Wisconsin Ave for about 1/4 mile to first t/c light: Pooks Hill Road. Bethesda Marriott Hotel is at 5151 Pooks Hill Road.

**Time:** Dinner 6:00 pm; Meeting: 7:00 to 9:00

**Contact:** Nino Ingegneri, 301/279-4217, or NCAC Office, 703/803-8701

**Tue Jul 16 ◆ "Fusion Marketing" for Consultants**

**Sponsors:** NCAC PACE Consulting Network (W/NV)  
**Place:** Dinner: Seven Seasons Restaurant (College Park, MD) Meeting: Univ of MD, College Park Campus, AV Williams Eng Bldg, Room 2460 — Rte. 1 South from I-495; right onto Campus Drive and immediate right onto Stadium Drive; 1-1/2 blocks to Eng Bldg on right; park on left in Lot G

**Time:** Dinner 5:30 pm; Meeting 7:30

**Contact:** For further details and/or reservations, 301/460-4693, or 301/924-2610

**Wed Jul 24 - Effective Web Page Development Using Java (SOO-605)**

**Instructor:** Dr. Dan Benanav  
(For further information, see Johns Hopkins entry for Jun 3-5)



**Thu Jul 25** ♦ Digital Signal Processing Methods Used in Implantable Cardioverter Defibrillators: Past and Prologue  
**Sponsor:** Engineering in Medicine and Biology Society (W/NV)  
**Speaker:** Janice M. Jenkins, Ph.D., Professor, Univ of Michigan  
**Place:** The Golden Bell Restaurant; call contact for directions  
**Time:** 12:00 noon  
**Contact:** Robert Munzner, 703/620-3120, e-mail r.munzner@ieee.org or Carole C. Carey, 301/443/8609

### AUGUST 1996

**Mon Aug 5 - Fri Aug 9** ♦ Project World Summer 1996 Management Conference and Exposition  
**Sponsor:** Engineering Management Society (W/NV)  
**Place:** Omni Shoreham Hotel, Washington, DC  
**Times:** Pre-conference workshops 9:00 am to 5:00 pm, Aug 5-6; Paper sessions: 8:15 am to 5:15 pm, Aug 7 to 8, and 8:15 am to 12:00 noon Aug 9; Exposition 11:30 am to 5:30 pm Aug 7-8  
**Contact:** To register or receive conference catalog: tel 888/943-4444, or e-mail adminpw@projectworld.com IEEE contact (for IEEE-related info only: Cinda Voegtli, 415/966-1650x2

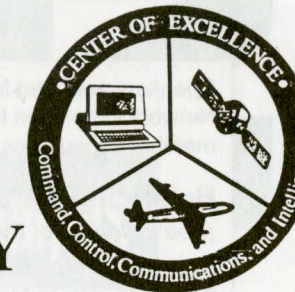
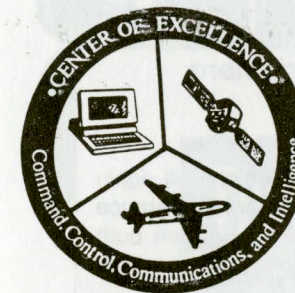
**Sun Aug 11 - Thu Aug 15** ♦ 31st Intersociety Energy Conversion Engineering Conference (IECEC 96); see ad on page 9  
**Sponsors:** IEEE (EDS, AESS, NCAC, AIChE, ANS, SAE, AIAA, ASME)  
**Place:** Omni Shoreham Hotel, Washington, DC  
**Time:** Sessions 8:45 am to 5:00 pm daily  
**Registration:** Sun 4:00 pm to 7:00; Mon-Tue 8:00 am - 4:00 pm; Wed-Thu 8:00 am to 12:00 noon

**Contact:** Eleanor B. Dicks, Conference Manager, 10400 Connecticut Avenue, Suite 100-355, Kensington, MD 20895; Tel 301/946-1586; Fax 301/946-4374; e-mail HMJJutland@aol.com

**Tue Aug 13** Washington Section ADCOM Meeting  
**Place:** Allee's Pantry Restaurant, Bethesda Marriott Hotel, 5151 Pooks Hill Road, Bethesda, MD. From Beltway take Wisconsin Ave (Rockville Pike) north to Exit 34. Stay in right lane to Rte 355 South, Bethesda. Follow the U-turn to go south on Wisconsin Ave for about 1/4 mile to first tlc light: Pooks Hill Road. Bethesda Marriott Hotel is at 5151 Pooks Hill Road. 5151 Pooks Hill Road, Bethesda, MD. (Located off Wisconsin Ave (just south off Beltway). Shuttle available from Medical Center Metro Station; call 301/897-9400 for shuttle.  
**Time:** Dinner 6:00 pm; Meeting 7:00 to 9:00  
**Contact:** Nino Ingegneri, 301/279-4217, or NCAC Office, 703/803-8701

**Mon Aug 19 - Wed Aug 21** Surveillance Expo '96  
**Place:** McLean Hilton, McLean, VA  
**Contact:** Michael Sheehan, tel/fax 781/437-0160/0161, or Marilyn Roseberry, Tel 800/873-3284, Fax 703/450-2204

**Tue Aug 20** ♦ Crossed T's and Dotted I's — Contracts for Consultants  
**Sponsors:** NCAC PACE Consultants' Network (W/NV)  
**Place:** Dinner: Seven Seasons Restaurant (College Park, MD) Meeting: Univ of MD, College Park Campus, AV Williams Eng Bldg, Room 2460 — Rte. 1 South from I-495; right onto Campus Drive and immediate right onto Stadium Drive; 1-1/2 blocks to Eng Bldg on right; park on left in Lot G  
**Time:** Dinner 5:30 pm; Meeting 7:30  
**Contact:** For further details and/or reservations, 301/460-4693, or 301/924-2610



## STATE-OF-THE-ART COURSES AND CERTIFICATE PROGRAMS AT GEORGE MASON UNIVERSITY FALL 1996

### CERTIFICATE PROGRAMS

- Graduate Certificate in C<sup>3</sup>I
- Graduate Certificate in Systems Engineering for Computer, Information and Software Intensive Systems
- Graduate Certificate in Communications and Networking: concentration in one of five areas (networks, optical, mobile, digital, or theory)

All of the Certificate Programs can lead to a M.Sc. Degree

### COURSES

**SYST 510: System Definition and Cost Modeling: Professor Peggy Brouse**  
**Monday 4:30 - 7:10 p.m.**

**SYST 511: System Definition and Functions Analysis: Professor Alexander Levis**  
**Monday 2:00 - 4:40 p.m.**

**SYST 680: Principles of C<sup>3</sup>: Professor Buede, Professor Van Trees and Staff**  
**Wednesday 4:30 - 7:10 p.m.**

**ECE 642: Design & Analysis of Computer Communication Networks: Professor B. Jabbari**  
**Wednesday 4:30 - 7:10 p.m.**

**ECE 732: Mobile Communications Systems: Professor Peter Paris**  
**Thursday 7:20 - 10:00 p.m.**

**INFT 836 (002): Optimum Array Processing: Professor Harry Van Trees**  
**Text - Array Processing: Part IV of Detection, Estimation, and Modulation Theory**  
**Tuesday 4:30 - 7:10 p.m.**

**INFT 934: Statistical Methods in Speech Processing: Professor Yariv Ephraim**  
**Thursday 4:30 - 7:10 p.m.**

### FOR MORE INFORMATION ON:

<b>M.Sc. in C<sup>3</sup>I or Certificate in C<sup>3</sup>I:</b>	Call Professor Van Trees 703 993-1510
<b>M.Sc. in Electrical Engineering:</b>	Call Professor Cook 703 993-1570
<b>M.Sc. in Systems Engineering:</b>	Call Professor Brouse 703 993-1502
<b>Ph.D. in Information Technology:</b>	Call Professor Black 703 993-1500
<b>Admission:</b>	Call Ms. Gail Knedler 703 993-1512

### ◆ DIAMOND STORIES ◆

*This Department of the SCANNER provides short abstracts and biosketches to accompany those calendar items which show a diamond (◆) before the item's subject or event.*

#### **Network with the Experts — Wins and Losses**

*(See Calendar of Events, Tuesday, Jun 4)*

The IEEE/NCAC Consultants' Network provides an opportunity to meet and discuss war stories with consultants in the network. New or "about-to-be" consultants should also attend to learn important facts and details about consulting. We discuss what works and what doesn't — the wins and losses of the profession.

This first meeting of the month provides a strong interactive element for the organization and promotes marketing of individual capabilities. Also, each consultant is able to provide a thumbnail sketch of his/her organization.

#### **Communications Link Analysis and Simulation**

*(See Calendar of Events, Tuesday, Jun 4)*

The presentation will introduce the Communication Link Analysis and Simulation System (CLASS) and explain its role with NASA's communications networks. CLASS plays a significant role in the

pre-mission, mission, and post-mission phases. CLASS is a principal provider of communication system design analysis and compatibility studies for spacecraft design and mission planning. Real-time performance prediction and communications interference analysis is provided. In addition, CLASS is used for post-mission anomaly assessment and fault isolation analysis.

#### **Finance 101 for Consultants**

*(See Calendar of Events, Tuesday, Jun 18)*

Hate all that administrative stuff?? Bored with record keeping?? You're not alone. We can't make it go away, but we can talk about ways to make it easier, and how not to miss important information. (Honestly, we all get more interested in accurate record keeping when the tax man comes knocking.)

We'll show you the ins and outs of: taxes, accounting, record keeping, and proper reporting techniques and methods.

We try to keep our topics directed toward the business or marketing aspects of the consulting practice, since all of us need help in these areas and are proficient in our technical disciplines. Technical issues are only encouraged when they relate to changing or new technologies.



Speakers are used from both within and outside the Consultants' Network in an effort to get a broad variety of topics and to give the member consultants a chance to sharpen their presentation skills.

### **Balancing Personal and Professional Life**

*(See Calendar of Events, Tuesday, Jul 2)*

Not enough time to do everything you want to do?? Not enough time to do everything you have to do?? Come to this meeting and discuss with other consultants how they balance their time. It's a very important issue for everyone, but even more so for consultants who always seem to be "at home" and available.

Some of the more successful techniques for mastering time allocation will be discussed, and actual successes and failures will be highlighted.

### **"Fusion Marketing" for Consultants**

*(See Calendar of Events, Tuesday, July 16)*

Want to find a better way to market your consulting services? Team up with another consultant and market yourselves together! You'll find a tremendous number of advantages with this approach: you can offer a broader, more attractive set of services, you'll get a chance to help each other figure out which approaches work and which don't, and you'll get more business.

This month's speakers will present their ideas about successful team marketing techniques. Several consultants in our group will provide war stories of methods that worked (and also those that bombed!!) Also, discussions will continue on how to start the alliances, what specialties should align with one another, and where to start using these new team approaches.

### **Digital Signal Processing Methods Used in Implantable Cardioverter Defibrillators: Past and Prologue**

*(See Calendar of Events, Thursday, Jul 25)*

Over 75,000 implantable cardioverter defibrillators (ICDs) have been implanted since FDA approval in 1985. These devices are designed to reverse sudden cardiac death, a phenomenon which claims 400,000 lives per year in the U.S. The devices have dramatically reduced this mortality (from earlier figures of over 500,000) and continue to yield impressive survival rates.

We are now in the third generation of these devices. First-generation ICDs merely shocked, and the decision invoked was based on a simple heart-rate threshold. Second-generation ICDs expanded the logical decision and used heart-rate derivatives (rate of change, stability of fast rate duration) for improved specificity. Third-generation devices offer tiered-therapy (pacing, low energy cardioversion, and defibrillation) as well as ventricular tachycardia (VT) and ventricular fibrillation (VF) zones to further refine therapeutic choice.

Yet ICDs which employ ventricular sensors alone for detection strategy, continue to realize false shocks as high as 40% of all delivered, and are experiencing patient dissatisfaction with false shock aggravation and early battery depletion. Microprocessors and analog-to-digital converters are now incorporated into the miniaturized circuitry, giving promise of more sophisticated signal processing techniques to address the arrhythmia detection schemes possible in next-generation ICDs.

This talk will describe the historical approach, give details of ongoing studies in modern research laboratories, and predict changes in technology which can be expected to dramatically improve the safety and efficacy of ICDs of the future.

### **Project World 1996 Project Management Conference**

*(See Calendar of Events, Mon, Aug 5 to Fri, Aug 9)*

In 1996 the IEEE Engineering Management Society will again participate in the Project World Project Management Conference and Exposition. This year Project World will be held on both coasts: The summer conference in Washington, DC; the winter conference in Santa Clara, CA, Dec 11-15.

Project World conferences are designed to provide information on the latest advances in project and program management for technical professionals and other executives who work in technology-supported organizations. Project World Summer will include 24 pre-conference workshops; an exhibition with 80 booths highlighting state-of-the-art developments in project management, groupware, consulting, and training; and 8 paper tracks presented by experienced industry practitioners, covering the following subjects: leadership and team building; implementing project management methodologies; reducing time-to-market; project management in software design and systems integration; strategies for coping with super-urgent demands; business process re-engineering; and establishing and maintaining a project management organizational culture.

The EMS will have a booth on the exhibition floor at both conferences, to meet current and potential members, and show conference delegates what the IEEE and EMS have to offer.

IEEE members will receive a \$100 discount off the conference fee. To obtain more information about ProjectWorld, including a full catalog of conference workshops, paper sessions and exhibitors, call toll free 888/943-4444, e-mail to [admin@projectworld.com](mailto:admin@projectworld.com), or check the Web site at <http://www.projectworld.com/projectworld>.

### **Tales from the Trenches: Marketing the High Tech**

*(See Calendar of Events, Tuesday, Aug 6)*

This month we will talk about the recent alliances between the Consultants' Network and the Suburban Maryland High Technology Council. Several member consultants have attended meetings of the Council and new client/consultant relationships have developed. One of the many advantages of joining the Consultants' Network is the ability to market and network at these meetings. Membership in the High Tech Councils is quite expensive, but as a member of the Consultants' Network, you are also a full member of the High Tech Council. This includes Montgomery, Frederick, Anne Arundel, Howard, and Prince George's County High Tech Councils. Coverage like this isn't available any other way.

Several additional high technology councils exist adjacent to the Greater Washington DC area, and these will also be addressed. Advantages and pitfalls of these councils will be discussed.

### **Crossed T's and Dotted I's — Contracts for Consultants**

*(See Calendar of Events, Tuesday, Aug 20)*

At this meeting we will present information on contracts. Topics of mutual interest include: reading the client's contract; creating a professional services agreement; and negotiating a reasonable contract with your client.

All of us need additional help in the area of contractual issues, since we haven't been trained in legal matters. By discussing and listening to relevant issues, we can all become better acquainted with this important area of our business.

# The George Washington University Virginia Campus

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**Wednesday, June 19  
or Monday, August 19, 6:30-8:00pm  
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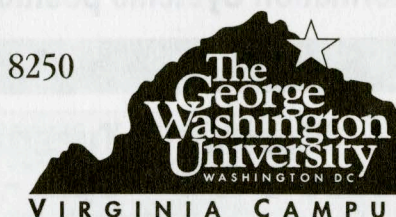
Contact Kathy:

**Metro area:** (703) 478-8980, ext. 8250

**In Virginia:** (703) 729-8250

**Fax:** (703) 729-8251

**E-mail:** [seasva@seasva.gwu.edu](mailto:seasva@seasva.gwu.edu)



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175TH ANNIVERSARY 1821-1996

The Virginia Campus is on Rt. 7, one mile west of Rt. 28,  
about 12 miles west of Tysons Corner

GW is an equal opportunity/affirmative action institution



## IECEC'96

### 31st Intersociety Energy Conversion Engineering Conference

(See Calendar of Events, Sun, Aug 11 to Thursday, Aug 15)

This series of conferences was initiated by the IEEE in the mid-1960s to provide an interdisciplinary, intersociety forum for the presentation and discussion of energy technology issues. The IECEC now deals with a broad spectrum of energy topics from aerospace power systems through the terrestrial utility applications, electric vehicles and military requirements to environmental and policy issues, and has evolved into a full-fledged international event. It features invited luncheon speakers and plenary discussions of major issues which this year will cover the themes of IECEC '96: "Industry, Energy, and Conservation in the 21st Century" and "Energy Opportunities in Aerospace." There will be panels on timely topics such as the prospects for fusion power and wireless energy transmission, and 100 technical sessions with over 500 contributions from 34 countries in a wide range of topical areas which include: Aerospace Power Systems; Aerospace Power Technologies; Conversion Technologies; Electrochemical Technologies; Environmental Impact; Energy Systems; Policy Impacts on Energy; Renewable Energy Sources; Stirling Engines; and Thermal Management.

There will be a Conference Office to assist out-of-town participants and their families; the major social event will be a Potomac River dinner cruise on board the "Spirit of Washington" on Tuesday evening, August 13, at 7:00 pm. As space is limited, early booking for this opportunity to relax with the IECEC '96 participants and their families is advised.

## LETTERS TO THE EDITOR

Scanner:

The quote on metrics states that the metrics "transition" phase could go on forever. I recall about 10 years ago seeing road signs with English & metric units and digital temperature displays on public signs alternating Fahrenheit and Celsius. No more. Perhaps it would be more accurate to admit that we are no longer making progress in metrification — we are regressing!

Richard Reis  
711 Copley Lane  
Silver Spring, MD 20909

Hello Mr. Doeppner!

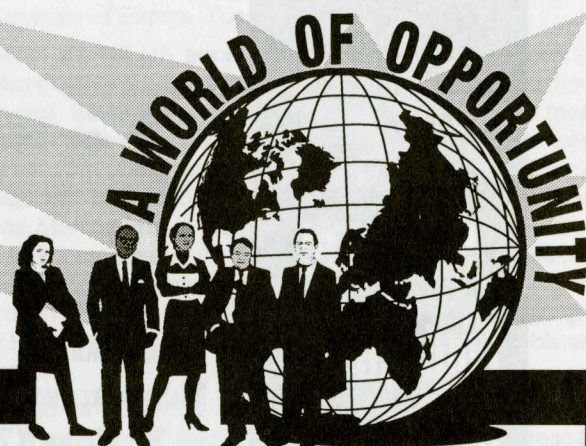
I noticed a letter-to-the-editor in the April/May issue of the NCAC SCANNER about putting SCANNER on the WWW. As a student member, I am interested in getting involved in something and I thought this might be an interesting project. Please let me know if I can help.

Christopher M. Griffin  
5139 Ellicott Hall  
College Park, MD 20742  
Tel 301/314-8906  
e-mail: cgriffin@wam.umd.edu

(Editor's note: Mr. Griffin's name has been given to Mr. George Hagn, an IEEE Fellow who is in charge of getting the SCANNER on the WWW. Mr. Hagn has agreed to involve Mr. Griffin, as requested.)

# TECHNICAL CAREER FAIRS

Talk to hiring managers from over 70 leading companies. On-the-spot interviews for a wide variety of Engineering and Information Systems positions.



**Monday & Tuesday**  
**June 3 & 4 • 3pm - 7pm**

Embassy Suites Hotel • Tysons Corner, VA

**Wednesday**  
**June 5 • 11am - 6pm**

DoubleTree Guest Suites - BWI • Linthicum, MD

- **NO Cost • NO Obligation**
- **NO Pre-registration required**
- **Interview in private suites**
- **Bring plenty of resumés**

See our ads in the *Washington Post* and *Baltimore Sun* Employment sections on Sunday, June 2 for further information.



Sponsored by: IEEE

Companies interested in participating call 1-800-288-2890

For more information call the 24-Hour Infoline: 1-800-765-HIRE (4473) x9110 or visit us at <http://www.lendman.com>  
If it is impossible for you to attend, mail, fax or e-mail (ASCII text only) your resumé, Attn: 6DCT-IEEE, to the address below.

The Lendman Group • 141 Business Park Drive • Virginia Beach, VA 23462 • FAX: 804-490-7448 • E-MAIL: [lendmnd@infi.net](mailto:lendmnd@infi.net)

## 31st Intersociety Energy Conversion Engineering Conference

Omni Shoreham Hotel, Washington, D.C.

August 11-16, 1996

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96  
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LEARNING TOGETHER



"Industry, Energy and Conservation in the 21st Century"

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- ★ **Over 500 Papers**
- ★ **166 Foreign Contributions**
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# YOUR LOCAL REPORTER

## April 27 NCAC Awards Banquet Big Success!

The 1996 IEEE National Capital Area Council's annual Awards Banquet was held at the Bolling Air Force Base Officers' Club, with an attendance of approximately 120 members and guests. It started with the Pledge of Allegiance, led by our Master of Ceremonies Jerry Gibbon, followed by a non-denominational prayer by Doug Ballard. Our speaker was Joel B. Snyder, IEEE Vice President for Professional Activities and Chairman, U.S. Activities Board. He discussed recent plans for the organizational improvement of the IEEE.

The Region 2 Pinnacle Award was presented to Russell C. Drew "in recognition of his service with honor and distinction in the office of IEEE President for 1988."

Five of the new Fellows listed in your April-May SCANNER elected to receive their Fellow Citation at this banquet. The presentations were made by Mr. Snyder.

The National Capital Area Council made the following awards:

To Arthur Cotts "for his efforts as Chair of the Conference Committee and the success of the RADAR 95 Conference."

To Gerald Johnston "in recognition and appreciation of valued services as Business Manager for the SCANNER from April, 1993 to April, 1996."

To Robert Miller "for his efforts as Chair of the Consultants' Network from July 1, 1994 to June 30, 1995."

To R. Paul Zeineddin "in recognition of his liaison activities with the IEEE Technology Policy Council and its Committee on Communications and Information Policy."

A new award, The Distinguished Service Award, To Dr. Andrew Sage "for his many significant contributions and support of the IEEE at George Mason University."

A new award, The George Abraham Memorial Award "in recognition and appreciation of a lifetime of outstanding dedication and service to the IEEE both nationally and locally," was awarded to Jim Strother and Tom Doepfner.

The Washington Section presented awards to James Comas, Robert Hollingshead, William Jackson, Judy Jarrell, Catherine Jordan, and Kelly Korzenowski.

The Northern Virginia Section presented awards to William C. Johnson, Peter Sypher, and Angelo Toutsis.

## Are You an Active Local Member? (Advice from one of our VPs)

Dear Colleagues and Friends:

As your new Vice President of Regional Activities, I have the very pleasant duty of offering you some words of encouragement in your IEEE activities. In my view, the officers at the local level are the life-force of IEEE. They develop programs for their members, welcome new recruits to the fold, actively campaign for new members, encourage Students and Student Branches, implement leadership training and opportunities, offer career incentives and advice -- the list of contributions goes on.

From our surveys, we know most people join the IEEE to fulfill technical objectives, meet other people to share technical information, solve technical problems, or network with others in

the profession. They retain membership because it gives them something extra. That's where you, the leaders of the IEEE, come in. How can you give your members the most satisfaction?

Perhaps the most important question is: "What can I do to maintain a healthy, viable entity within the IEEE?". It isn't enough to chair a committee, develop a program, or spend your time recruiting. You must also provide opportunities for your members to savor the benefits of membership. Give your members a chance to participate. Create opportunities for them to develop leadership skills - to become members of your team. Remember, a passive member may not be a member tomorrow. A member committed to fulfilling the objectives of IEEE will always be a member. Help them to fulfill that commitment, and your membership will grow.

Regards,  
Ray Finley  
Vice President, Regional Activities  
(Extracted from "The SCOOP,"  
Carol Coffey, Editor

## Kudos for our President

I am pleased to inform you that our President, Wally Read, has been awarded the 1996 Julian C. Smith Medal by the Engineering Institute of Canada (EIC). This is the highest award given by EIC, and is for "achievement in the development of Canada." Congratulations, Wally!

Vijay Bhargava  
Past Vice President,  
Regional Activities

## A New Look at Member Services

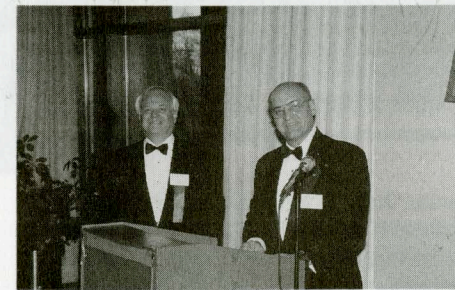
Recognizing that each Region has its own particular needs, Member Services has gone to a regional focus. In a recent "Staff Circuit", Adrienne White of Member Services explains. "In the past, Member Services was divided into three basic teams...organized according to how the member made an inquiry (telephone, e-mail, or mailed correspondence). Five teams, guided by a group leader, are now organized to work with the region in which the member resides. Each team's goal is to assist members from two IEEE Regions.

Within recent months, Member Services has expanded to include five new personnel. The new staff has undergone extensive training to become familiar with the services offered by the Institute, and with the Oracle system that contains each member's record.

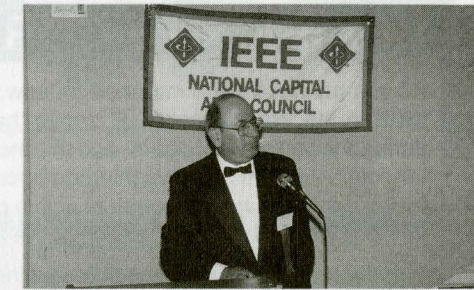
To further fine-tune the process, member inquiries can now be e-mailed directly to their own group by using the address "member.services.(2-digit region number)@ieee.org". The inquiry will be researched and resolved by one of that Region's team mates, affording the members an opportunity to become familiar with the names and voices of those who handle their inquiries, and providing them with a sense of continuity on those occasions when an issue requires more than one correspondence.

Bill Cook, Director of Member Services, and Member Services Manager Marianne Schmidt, have implemented these changes with an eye toward developing the "best support staff of any professional organization in the world."

## National Capital Area Council Awards Banquet April 27, 1996



Jerome Gibbon and Rex Klopfenstein



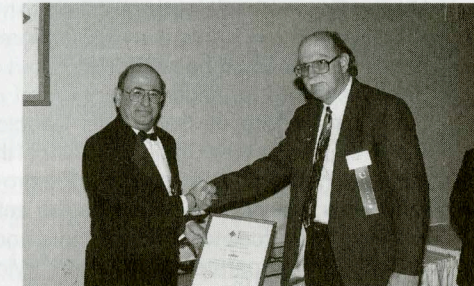
Joel Snyder, VP, Professional Activities



Dan Benigni, Russell C. Drew,  
and Jerome Gibbon



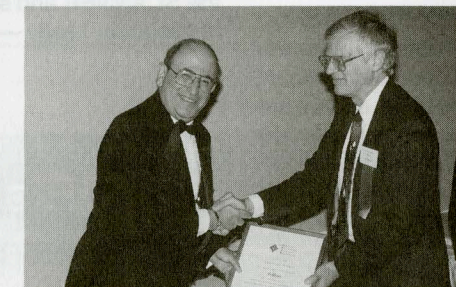
Joel Snyder & Audrey M. Bush



Joel Snyder & Harry C. Charles, Jr.



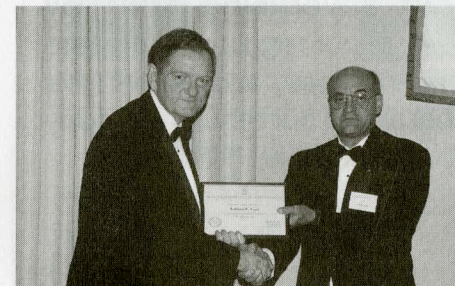
Joel Snyder & Steven Harvey Gold



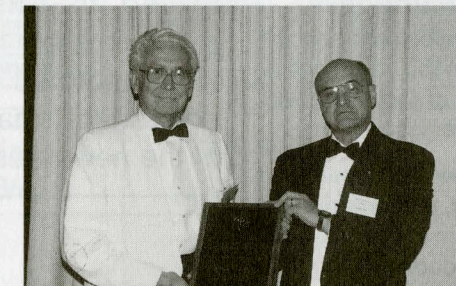
Joel Snyder & Robert J. Harrington



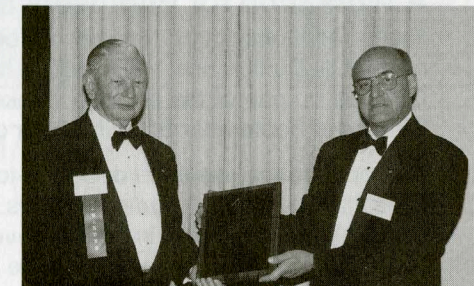
Joel Snyder & Mona E. Zaghloul



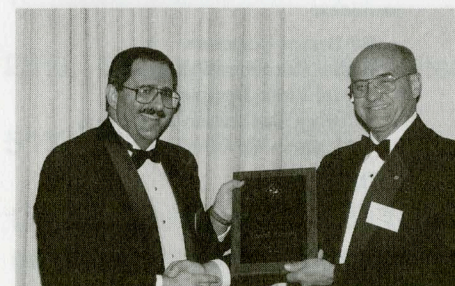
Andrew P. Sage & Rex Klopferstein



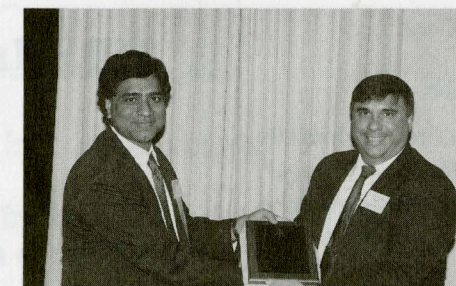
Thomas W. Doepfner & Rex Klopfenstein



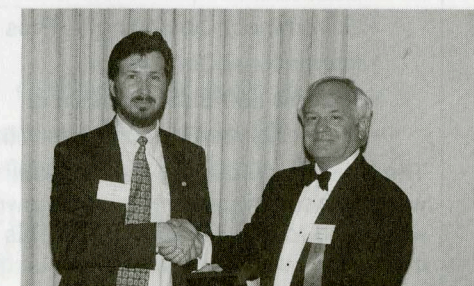
James F. Strother & Rex Klopfenstein



Dan Benigni & Rex Klopferstein



Lalit Batra & Nickolas Vlannes



Antonino Ingegneri & Jerome Gibbon



## CHAIRMAN'S CORNER

As you may have been informed by now, the membership of the IEEE in the Washington, D.C. region has declined significantly during the last several years, and this includes both the Northern Virginia Section and the Washington Section. This is also reflected by the decrease in the number of active chapters of various IEEE societies, and in the participation in the active chapters.

This issue has been continually examined during the past IEEE year by the Northern Virginia Section ADCOM, as well as within the NCAC. The issue has been reviewed in the context of commitment of time and financial resources of the Northern Virginia Section to attempt to re-establish membership and revitalize inactive chapters, particularly when there are active chapters and members that could be supported on an expanded basis. Thus a debate has been engaged. After several years of participation with the Northern Virginia Section as Director, Vice Chair, and now Chair, as well as Vice Chair and Chair of the Washington/Northern Virginia chapter of the Lasers and Electro-Optics Society, my view is to favor a policy that supports the active membership and to devoting resources to those chapters and IEEE activities that are continuing to operate, rather than trying to resurrect inactive chapters, unless the membership takes the specific initiative to bring these inactive chapters back. The Northern Virginia Section is certainly ready to assist the membership to reactivate dormant chapters, or start new ones.

One new initiative that the Northern Virginia Section is actively pursuing is the "Graduates of the Last Decade" (GOLD) program. This program is intended to provide support and services to recent graduates. GOLD is in the formative stages at this time, and we are

interested in hearing from recent graduates as to the kind of services they would like to have available to assist them as IEEE members, and with their careers as electrical and electronics engineers.

Regardless of the local issues that the Northern Virginia Section faces, the above concerns have a larger IEEE scope. Several questions that pertain to these issues and need to be answered in order to fully address them include:

- Why have members stayed with the IEEE?
- Why have members left the IEEE?
- Why do members participate in chapter and society activities?
- Why do members not participate in chapter and society activities?

I have gathered some answers to these questions from direct discussions with IEEE members; however, considering that there are over 5,000 members in the Northern Virginia Section, and about 15,000 members in the Washington, D.C. area, my sample of opinion is relatively small.

Tally Ho! The discussion and debate are still afoot! The officers and directors of the Northern Virginia Section would welcome your answers and comments to these questions and concerns, and would like your opinions as to the direction in which the Northern Virginia Section should proceed. Also, send in your comments to the SCANNER and share your perspective with the membership in this area. Lastly — We are still arm twisting...

Nick Vlannes

Chairman, Northern Virginia Section

## PACE CORNER

[This Department provides information on the activities of the Sections' or Council's "Professional Activities for Engineers" (PACE) Committees, including the NCAC Consultants' Network]

### Alliance of IEEE Consulting Networks (AICN) A Workshop for Engineers and Managers

The NCAC Consultants' Network has been selected to host the next AICN Conference, which will be held in the Washington, DC area on one of the first two weekends of October 1996. Watch the September SCANNER for details.

This conference has been designed to appeal to both expert consultants and new or potential ones. Also, the sessions will be run as a single thread in order for everyone to hear all of the presentations. Among the topics to be included in the agenda are:

- Marketing
- Contracts
- Government Consulting — Pros and Cons
- International Consulting
- Right vs Left Brain Consulting
- Balancing your Personal Life with your Professional Life

The keynote speaker on Saturday will be someone you won't want to miss. This person is well known both to the consulting world and to the general public. This may well become the motivation which will cause a change of direction in your career.

## EDITOR'S CORNER

### SCANNER Ad Rates Have Gone Up!!

Primarily due to an almost 33% increase in the cost of paper over the last several years, we were forced to raise our advertising rates by approximately 15%. All of our regular advertisers were informed of this increase, and, so far, we don't seem to have lost any of our regulars. A copy of the new rates is provided here. TWD.

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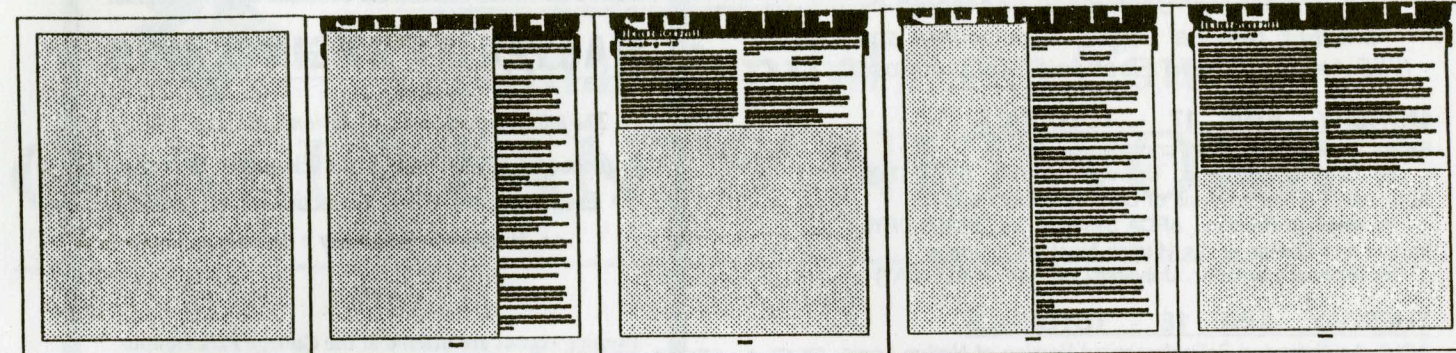
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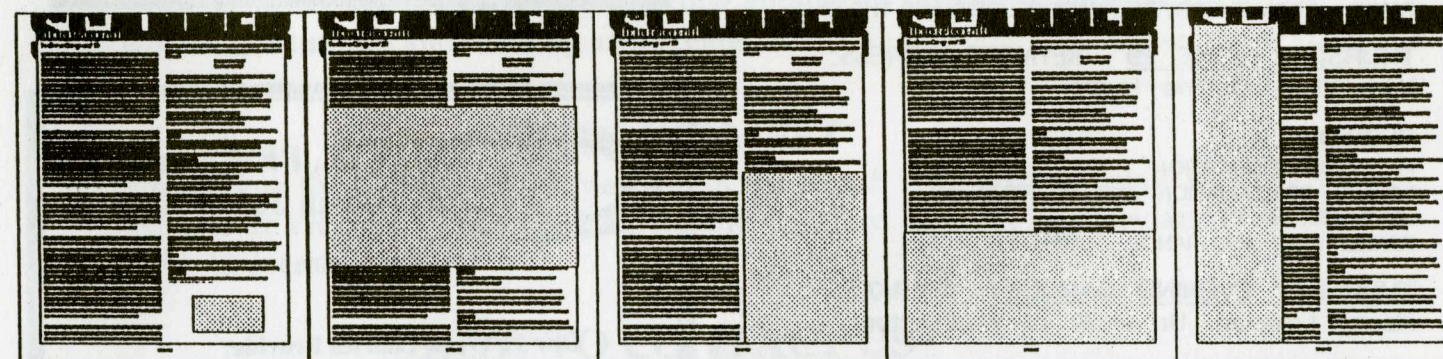
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## MONDAY, JUNE 17 - TUTORIALS

Safety Case Construction and Management  
by John A. McDermid, University of York (FULL DAY)  
Automatic Formal Analysis of Cryptographic Protocols  
by Stephen Brackin, ARCA Systems, Inc. (HALF DAY)  
Impact and Design of the Human-Machine Interface  
by Michael Harrison, University of York (HALF DAY)

## TUESDAY, JUNE 18 - TUTORIALS

ACL2, An Extended Reimplemented Version of Nqthm Logic  
Theorem Prover by J Strother Moore and  
William D. Young, Computational Logic, Inc. (FULL DAY)  
A Framework for Reasoning About Assurance  
by Jeffrey R. Williams, ARCA Systems, Inc. (HALF DAY)  
Second Half Day Tutorial -- TBD

**WEDNESDAY, JUNE 28 KEYNOTE ADDRESS:**  
David Weiss, Lucent Technologies Bell Labs

## SESSIONS:

FORMAL SPECIFICATION AND ANALYSIS  
APPLYING MECHANICAL THEOREM PROVERS  
PRACTICAL APPLICATIONS OF FORMAL METHODS  
PANEL: FROM THEORY TO PRACTICE: BRIDGING THE GAP

**THURSDAY, JUNE 29 KEYNOTE ADDRESS:**  
Mike Viola, Ontario Hydro

## SESSIONS:

PROGRAM VERIFICATION  
FORMAL SPECIFICATION AND VERIFICATION  
SOFTWARE SAFETY  
PANEL: HIGH ASSURANCE COMPUTING

**THURSDAY EVENING BANQUET SPEAKER:**  
Nancy Leveson, University of Washington

## FRIDAY, JUNE 30 SESSIONS:

COMPUTER SECURITY  
TESTING

## TOOLS FAIR:

8:00 A.M. TO 5:30 P.M.: JUNE 19, 20 (WED., THURS.)  
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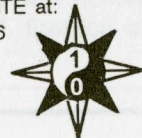
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We meet at least twice a month to share experiences, gain new insights from one another, and listen to a featured speaker on some topic of mutual interest. Also, we communicate with one another to provide a network of work opportunities and teaming arrangements.

## WHEN WE MEET

We meet on the first and third Tuesdays of the month -- the first Tuesday in Virginia at Virginia Tech, Falls Church; and the third Tuesday in Maryland at the University of MD.

## HOW TO CONTACT US

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## IEEE/NCAC-CN BULLETIN BOARD

The IEEE National Capital Area Council Consultants' Network Bulletin Board exists on CapAccess, (telephone number is 703/671-9383). Type "go iee" after logon.

## E-MAIL

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