

IEEE THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.



The National Capital Area Council

SCANNER

A Joint Publication of the Washington and Northern Virginia Sections

VOLUME 1, NUMBER 8

APRIL 1987

Administrative Committee Meetings

Northern Virginia
April 1

Washington Section
April 6

April 13

Joint Meeting ♦ Northern Virginia Section
Social Implications of Technology Society (NV/B/W)
"Scientists as Early Political Activists"

Plan now to attend

*The National Capital Area Council Awards Dinner Dance
at the Fort Myer Officers' Club on April 11, 1987*

Call IEEE Washington Section Office 202/737-4333 for reservations.

IEEE National Capital Area Council

SCANNER

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Piscataway, NJ 08855-1331

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TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

Attendance at IEEE meetings. IEEE meetings are open to members and guests. When meetings are combined with luncheons or dinners, it is not mandatory — although desirable — to attend food functions. Please make early reservations for food functions. (Cancel early — if necessary). Any IEEE member may attend Section Administrative Committee meetings.

Announcements. Calendar item instructions: Calendar information should follow the appropriate format based on examples in this calendar. A ♦ on the calendar indicates further information is in this issue. IEEE meeting announcement articles should be limited to 150 words; include a title, the name of the sponsoring organization, date of meeting and text; and refer to the calendar for place, time and contact. Announcements of non-IEEE meetings, conferences and continuing education programs will be included within the limits of available space.

Deadline: All announcements, must be sent to the Editor only by the first of the preceding month.

EDITOR
James F. Strother
P.O. Box 3296
Alexandria, VA 22302
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ASSOCIATE EDITOR
Vacant

APRIL APRIL

Apr. 1 Northern Virginia Section AdCom Meeting
Tyson's Pimmit Regional Library, 7584 Leesburg Pike, Route 7, Falls Church, VA
Time: 7:30-9:00 pm

Apr. 1 Western Maryland Subsection and Frederick Chapter Maryland Society of Professional Engineers
The Role of Harry Diamond Laboratories in R&D
Speaker: Donald Dinger, Technical Director, Harry Diamond Laboratories
Place: Watson's Family Restaurant, West Patrick St. Shopping Center, Frederick, MD
Time: Cocktails 6:30 pm; Dinner 7:15 pm; Meeting 8:00 pm
Contact: Walt Staruk, 301/662-5901. Reservations required for dinner; cost \$10.00.

Apr. 6 Washington Section Adcom Meeting
PEPCo Building, 1900 Pennsylvania Ave., NW, DC
Time: 6:00-7:30 pm
Contact: Washington Section Office, 737-4333.

Apr. 6 Aerospace and Electronics Systems Society (W/NV)
From Stonehenge to Spaceflight
Speaker: G. Hawkins, USIA
Place: Bldg. 3 Auditorium, NASA/GSDC, Greenbelt, MD
Time: 3:30-4:30 p.m.
Contact: IEEE/AES 301/493-4934.

Apr. 7 Ultrasonics, Ferroelectrics and Frequency Control Society (W/NV/B) ♦
Subject: Low Noise, Microwave Signal Generation Using Bulk and Surface Acoustic Wave Resonators
Speaker: M.M. Driscoll, Westinghouse Electric Corporation
Place: Plata Grande, 4060 Powder Mill Road, Beltsville, MD at Calverton Exit of I-95.
Time: Dinner, 6:30 pm; Meeting 8:00 pm.

Apr. 7 Microwave Theory and Techniques Society (W/NV)
Subject: EW Technology and Future Trends
Speaker: Dr. John Montgomery, Naval Research Laboratory
Place: University of Maryland, Center of Adult Education, College Park, MD
Time: Social 5:30-7:30 pm; Dinner 6:30 pm (\$10, reservations required), Lecture 7:30 pm
Contact: Gus Bontzos, 301/459-8240, Dave Hinzl, 301/454-9792 or John Jacobi, 301/937-3600, ext. 1803.

Apr. 11 National Capital Area Council Awards Dinner Dance
Fort Myer Officers' Club, Fort Myer, Virginia
Time: 6:30 pm Social Hour; 7:30 pm Dinner; 8:30 pm Brief Awards Ceremony; then dancing till midnight to music by Charlene de Ceault and Fifth Avenue
Contact: Reservations are being taken only by calling the IEEE Washington Section Office at 202/737-4333. Cost: \$25 per person and \$15 per student.

Apr. 13 National Capital Area Council Steering Committee Meeting

Place: Atlantic Research Corporation, Foley Building, 5300 Cherokee Ave., Alexandria, VA
Time: 6:00 pm
Contact: Mr. Thomas W. Doepfner, Chairman; (O) 703/664-3763; (H) 703/780-3983

Apr. 13 Northern Virginia Section and Social Implications of Technology (NV/B/W) ♦

Subject: Beyond the Laboratory: Scientists as Political Activists in 1930s America
Speaker: Dr. Peter J. Kuznick, Department of History, American University
Place: Japanese Steak House Restaurant, 1701 North Fort Myer Drive, Rosslyn, VA
Time: Cocktails 6:15 pm; Dinner 6:45 pm; Meeting 7:45 pm
Contact: Vernon E. Gardner, O&H 703/533-0999, Amor L. Lane, O: 301/433-8823 or Marc T. Apter, O: 202/692-0170 or 0171

Apr. 14 Vehicular Technology Society, Land Transportation Committee (W/NV) ♦

Subject: Update on Automatic Train Control System Activities
Speaker: Gary Pruitt, Staff Principal Engineer, ARINC Research Corp.
Place: George Washington University's GW Club, 3rd Floor, Marvin Center, 800 21st St., NW, Washington, DC
Contact: Gerald Hott, 202/785-1351 for reservations.

Apr. 15 Reliability Society (W/NV)

Subject: Air Force R&M 2000
Speaker: Brig. Gen. Frank Goodell, Headquarters, USAF
Place: Plaza Room, Holiday Inn National Airport Crystal City, 1489 Jefferson David Hwy., Arlington, VA
Time: Cocktails 11:30 am; Luncheon 12:00 Noon; Meeting 1:00 pm
Contact: Bill Breslyn, 301/231-1558; Nino Ingegneri, 703/979-8220; Bill Hamby, 301/585-0421

Apr. 16 Communications Society (W/NV) ♦

Subject: Implementation of Nationwide Networks Based on Packet Switching, X.25 and SNA Technologies
Speaker: Mr. Ran Khare, MITRE Corp.
Place: Blackie's House of Beef, 22nd and M St., NW, DC
Time: Luncheon 11:45 am; Meeting 12:30 pm
Contact: Washington Section Office, 202/737-4333. Luncheon reservations required.

Apr. 16 The Computer Society (NV) and The Association of Computing Machinery (ACM) ♦

Subject: Evolution of Cellular Phones Into the Cellular Access Digital Network
Speaker: Jesse E. Russell, AT&T Bell Labs
Place: Holiday Inn, 1850 North Fort Myer Drive, Rosslyn, VA (near Key Bridge, US 50/I-66, Rosslyn Metro Stop)
Contact: Nancy McIntyre, 703/893-5900; Dinner reservations required by Tuesday, April 14.

Apr. 20 Aerospace and Electronics Systems Society (W/NV)

Subject: Sun Workstation: A Performance Analysis
Speaker: W. Joy
Place: Bldg. 3 Auditorium, NASA/GSFC, Greenbelt, MD
Time: 3:30-4:30 pm
Contact: IEEE/AES 301/493-4934.

Apr. 21 Computer Society (W) ♦

Subject: HP Precision Architecture
Speakers: Dave Trout and Andy Suchoski, Hewlett-Packard
Place: National Headquarters, American Red Cross, 17th Street, between D & E Sts., NW, Washington, DC
Time: Refreshments, gratis — 6:30 pm
Contact: Pat Grant, 301/459-7900.

Apr. 21 Acoustics, Speech and Signal Processing Society (NV) ♦

Subject: Subband Coding of Images
Speaker: Dr. John M. Woods, National Science Foundation
Place: MITRE Corp., 7525 Colshire Drive, McLean, VA
Time: 7:30 pm
Contact: Daniel J. Schaefer, 703/883-6688.

Apr. 22 Information Theory Group (W/NV) and EE&CS Department, George Washington University

Subject: Artificial Intelligence: Present State and Prospects for the Future
Speaker: Dr. Saul Amarel, Director of Information Science and Technology Office, Defense Advanced Research Project Agency
Place: Continental Ballroom (3rd Floor), Marvin Center, George Washington University, 800 21st St., NW, DC
Time: 4 pm
Contact: Mrs. Marilyn Henry, 202/676-6083.

Apr. 23 Aerospace and Electronics Systems Society (W/NV)

Subject: Strategic Defense Initiative: An Overview
Speaker: Major K. Small, SDIO
Place: Bldg. 3 Auditorium, NASA/GSFC, Greenbelt, MD
Time: 3:30-4:30 pm
Contact: IEEE/AES 301/493-4934.

Apr. 28 Computer Society (W) and Artificial Intelligence Subchapter (W) ♦

Subject: Addressing the Knowledge Acquisition Bottleneck
Speaker: Dr. James Naughton, Expert-Knowledge Systems, Inc.
Place: Tyson's Pimmit Region Library, 7584 Leesburg Pike, Falls Church, VA
Time: 7:00 pm
Contact: Diane Tosh Entner 703/385-5880 ext. 3884.

Apr. 28 Antennas and Propagation Society (W/NV) ♦

Subject: Frontiers of HF Skywave Radar Technology: An Australian Perspective
Speaker: Dr. Stuart J. Anderson, Australian Defence Science and Technology Organisation
Place: MITRE Corp., 7525 Colshire Dr., McLean, VA
Time: Pre-meeting dinner at Grand Wok Restaurant, right next to MITRE Corp. (Hays Building — off Route 123 between Colshire) Dr. and Anderson Rd.), 6:30 pm; Meeting 8:00 pm
Contact: Dr. Yung Wu, 703/883-6948 or Dr. J. Rao, 202/767-2684

Apr. 29 Acoustics, Speech and Signal Processing Society (W) ♦

Subject: The State of Digital Spectral Analysis
Speaker: S. Lawrence (Larry) Marple, Jr., Martin Marietta Corp.
Place: Catholic University of America, Nurse's Auditorium, 620 Michigan Ave., NE, Washington, DC
Time: Social 6:00 pm; Dinner 6:30 pm at Colonel Brooks Tavern, 901 Monroe Street, NE, DC; meeting 8:00 pm
Contact: Edgar E. Neal, 301/258-8301 or Craig Olson, 301/770-2550 by Noon, April 27.

MAY MAY

May 1 Magnetism Society (W/NV)
Subject: Hysteresis Modelling
Speaker: Professor Isaac Mayergoyg, University of Maryland
Place: George Washington University, Marvin Center, Room 410, 800 21st St., NW, Washington, DC
Time: 4:00 pm
Contact: Dr. Edward de la Torre, 202/676-5919.

May 4 Washington Section Adcom Meeting
PEPCo Building, 1900 Pennsylvania Ave., NW, DC
Time: 6:00-7:30 pm
Contact: Washington Section Office, 737-4333.

May 4 Aerospace and Electronics Systems Society (W/NV)
Subject: National Aerospace Plane
Speaker: D. McIver, NASA
Place: Bldg. 3 Auditorium, NASA/GSFC, Greenbelt, MD
Time: 3:30-4:30 pm
Contact: IEEE/AES 301/493-4934.

May 6 Northern Virginia Section AdCom Meeting
Tyson's Pimmit Regional Library, 7584 Leesburg Pike, Route 7, Falls Church, VA
Time: 7:30-9:00 pm

May 11 Aerospace and Electronics Systems Society (W/NV)
Subject: Exploration of Mars: A Joint US/USSR Plan
Speaker: A. Albee, California Institute of Technology
Place: Bldg. 3 Auditorium, NASA/GSFC, Greenbelt, MD
Time: 3:30-4:30 p.m.
Contact: IEEE/AES, 301/493-4934.

May 11 National Capital Area Council Steering Committee Meeting
Place: Atlantic Research Corporation, Foley Building, 5300 Cherokee Ave., Alexandria, VA
Time: 6:00 pm
Contact: Mr. Thomas W. Doepfner, Chairman; (O) 703/664-3763; (H) 703/780-3983

May 12 Information Theory Group (W/NV Chapter)

Subject: Fast Single Element PN Acquisition for the TDRSS MA System
Speaker: Professor Lee D. Davissou, University of Maryland
Place: Marriott Hotel, Gaithersburg, MD, 301/977-8900
Time: Pre-meeting dinner 6:30 pm; meeting 8:00 pm
Contact: Dr. Evangelos Geraniotis, 301/454-8840.

May 13 NCAC, Washington Section, Northern Virginia and Social Implications of Technology Society (NV/B/W)

Subject: Technology, Trade and Security
Speaker: Dr. F. Karl Willenbrock, Executive Director, ASEE
Election: Annual election of National Capital Area Council, Washington Section and Northern Virginia Section Officers and Directors will be held at the meeting. Plan to attend!
Place: To be determined
Time: Reception and dinner 6:00 pm; Elections and meeting 8:15 pm
Contact: IEEE Washington Section Office, 202/737-4333 for dinner and attendance reservations.

May 21 Aerospace and Electronics Systems Society (W/NV)

Subject: UARS: An End-to-End Systems Overview
Speaker: J. Padelides, NASA
Place: Bldg. 3 Auditorium, NASA/GSFC, Greenbelt, MD
Time: 3:30-4:30 pm
Contact: IEEE/AES, 301/493-4934.

MTT-S Awards Banquet

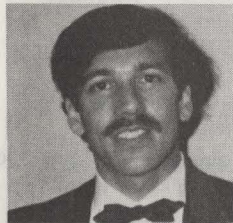
The annual awards banquet for the Washington/Northern Virginia Chapter of the Microwave Theory and Techniques Society will be held in May. At that time, election of new officers for the chapter will be held. The candidates are: Mr. Jaime Cordero for Chairman, Dr. Ramesh Gupta for Vice Chairman and Mr. Gus Bontzos for Secretary. For additional information, call John Jacobi at 301/937-3600, ext. 1803.

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Low Noise, Microwave Signal Generation Using Bulk and Surface Acoustic Wave Resonators

Mr. M.W. Driscoll will be the speaker at the Ultrasonics, Ferroelectrics and Frequency Control Society meeting on April 7, (see Calendar). The use of high Q, bulk and surface acoustic wave resonators provides a means for generation of low noise, microwave, carrier signals. The resulting signal phase noise spectrum consists of two distinct regions. In the near carrier region, the spectrum is characterized by flicker of frequency noise due to short term instability in the oscillator acoustic resonator itself. The spectral density of the fractional frequency fluctuations, $S_y(f)$, provides a convenient measure for comparing the short term frequency stability of resonators operating at different frequency ranges. Lowest near-carrier noise levels are obtained via frequency multiplication of a lower frequency oscillator using a correspondingly higher Q resonator. Frequency multiplication, however, results in higher relative noise floor levels at high carrier offset frequencies. Techniques for obtaining low noise floor levels will be discussed. Methods for obtaining further microwave signal short term frequency stability improvement include reduction of self noise levels exhibited by conventional bulk and surface wave devices resonators and use of unconventional resonator configurations exhibiting significantly higher Q than obtainable with quartz.

Scientists as Early Political Activists



"Beyond the Laboratory: Scientists as Political Activists in 1930s America" will be the subject at a joint meeting of the Northern Virginia Section and the NV/B/W Chapter of the Society on Social Implications of Technology on April 13 (see Calendar). The speaker will be Dr. Peter J. Kuznick, American University, whose book by the same title is expected to be published in August of this year. His talk will be based on this

upcoming book in which he challenges the traditional view of American scientists as either conservative or political innocents rudely awakened from their lethargy by the bombing of Hiroshima. He will discuss the dramatic transformation in the attitude and behavior of the scientific community during the Depression decade which led to an ethic demanding social and political responsibility. He will focus specifically on the public attack on science in the early years of the Depression, the "science and society" movement as it evolved during the decade, the influence of the Soviet Union on American scientists and the mobilization of the scientists against fascism. He will conclude by showing that by the beginning of 1939, these recently apolitical scientists that spawned two new organizations dedicated to social change and political action.

Automatic Train Control Systems Update

At a meeting of the Land Transportation Committee on April 14 (see Calendar), Gary Pruitt, Staff Engineer with ARINC Research Corp. will present the development of automatic train control systems and give an update on project status and technologies employed. Remaining plans for implementation of systems in progress will also be addressed. Mr. Pruitt holds a B.S.E.E. degree from Drexel University and a M.S.E.E. degree from Johns Hopkins University.

Implementation of Nationwide Networks Based on Packet Switching, X.25 and SNA Technologies

The Federal Reserve System uses a nationwide telecommunications network called Federal Reserve Communications System for the 80's (FRCS-80) for processing of on-line transactions such as funds transfer, securities transfer, and administrative messages. FRCS-80 is based on Packet Switching, X-25, and SNA.

This approach will be the subject of the April 16th meeting of the

Communications Society (W/NV) (see Calendar). The speaker, Mr. Ran Khare, is from MITRE Corporation. Mr. Khare has an extensive background in software networking and has worked for Digital Equipment Corporation, IBM and the Federal Reserve System.

Evolution of Cellular Phones Into The Cellular Access Digital Network

Jesse E. Russell, of AT&T Bell Labs, will discuss the dramatic advances in cellular phone technology at the April 16 joint meeting of the Computer Society (NV) and the ACM (see Calendar).

Since the start of commercial cellular mobile radio telephone service in the U.S. in November 1983, cellular technology has progressed from providing a vehicular voice telephone service to providing both voice and data telecommunications service for both vehicles and other special applications. As cellular technology matures, it is apparent that the capabilities of the technology are not limited to mobile radio communication but are evolving toward wireless access telecommunications. This talk will focus on the evolution of the current cellular mobile radio network design as well as the emergence of a new wireless access telecommunications network design referred to as the Cellular Access Digital Network (CADN).

HP Precision Architecture

Dave Trout and Andy Suchoski of Hewlett-Packard (HP) will be the featured speakers at the Tuesday, April 21 meeting of the Washington Section Computer Society Chapter (see Calendar). Their talk will consist of three sections: (1) Foundation components of HP Precision Architecture, (2) HP-UX implementation (HP9000/840), and (3) MPE XL implementation (HP3000/930). Components to be examined include RISC and the instruction set, register usage, virtual addressing, and optimizing compilers.

Dave is a Systems Consultant and has been with HP for 6 years. Andy is a Senior Systems Engineer and has been with HP for 10 years.

Subband Coding of Images

Dr. John M. Woods, Program Director of Circuits and Signal Processing, National Science Foundation, will address an evening meeting of the Northern Virginia Acoustics, Speech and Signal Processing Society on April 21 (see Calendar). Subband coding has become popular for the source encoding of speech. Dr. Woods will present a simple yet efficient extension of this technique to the source coding of images and discuss comparisons with other encoding techniques such as adaptive discrete cosine transforms and vector quantization. Experimental results will be presented.

ELECTRICAL ENGINEERING

The University of the District of Columbia invites applications for faculty positions in Electrical Engineering. Ph.D. required for associate and full professorships. Master's degree plus experience may be considered. Must be capable and willing to teach design courses. Salary and rank dependent on qualifications. Submit complete resumes to Ms. Christine Poole, Office of Personnel, University of the District of Columbia, 4200 Connecticut Avenue, N.W., Washington, D.C. 20008.

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Local Area Networks

A Seminar Sponsored by The Western Maryland Subsection of IEEE

Wednesday, May 13, 1987

◆ USAMRIID Conference Room, Ft. Detrick, Frederick, MD ◆

PROGRAM

8:30 AM	Registration, Refreshments
9:00 AM	Introduction
9:10 AM	Keynote Address Speaker: Steve Ward, Director Information Management, Ft. Detrick
9:45 AM	Session I: Basic Network Topology Speaker from Novell
10:45 AM	Break
11:00 AM	Session II: File Server Technology Speaker from 3Com
12:15 PM	Lunch
1:30 PM	Session III: LAN Security Issues Speaker to be announced
2:30 PM	Break
2:45 PM	Session IV: Practical Experience — Frederick County Speaker: Carl Moore, Director Frederick County, Interagency Data Processing System
3:45 PM	Wrapup

REGISTRATION

BY MAIL
IEEE Seminar
8 Eastern Circle
Middletown, MD 21769

BY PHONE
(301) 663-0539
8:00 AM-5:00 PM
Monday through Friday

Registration Deadline: May 1, 1987

Name: _____ Phone: _____
Address: _____
IEEE No. _____

Fee Enclosed \$35 IEEE Member
 \$50 Non-IEEE Member
 \$15 Student

FEE INCLUDES LUNCH

Addressing the Knowledge Acquisition Bottleneck

Dr. Jim Naughton, principal scientist for Expert-Knowledge Systems, Inc., will address the Washington Computer Society and Artificial Intelligence Subchapter (W) on April 28 (see Calendar) on the topic of knowledge acquisition issues which determine the degree of success for many expert system development projects. His experience concludes that the principal factor is the emphasis placed on specialization of research personnel in technology areas at the expense of the application. What is needed is a wedding of the essential computer science contributions to the related disciplines which will make it possible to, in fact, realize the promise of expert systems which can successfully solve applied problems. In particular, the knowledge and methodologies needed to break the knowledge acquisition bottleneck must be integrated into the current expert systems development groups if real-world applications are to ever go beyond the demonstration stage. Expert-Knowledge Systems, Inc. (EKS) has developed a Precision Knowledge AcquisitionTM approach to develop expert systems which has been successfully used to provide an efficient and cost effective methodology for development groups to design and build expert systems. This presentation will provide an overview of this approach and will describe the advantages to new as well as on-going expert system development projects.

Frontiers of HF Skywave Radar Technology: An Australian Perspective

Dr. Stuart J. Anderson of the Australian Defence Science and Technology Organisation will be the speaker at the Antennas and Propagation Society (W/NV) meeting on April 28 (see Calendar). It is well known that HF skywave "over-the-horizon" radar systems for specialized military applications have been employed for over two decades, but only the recent development of the USAF AN/FPS-118, the USN AN/TPS-117, and the operational Australian JINDALEE radar have demonstrated that OTHR technology is now regarded as a credible alternative to other means of large-area surveillance. This talk will give an overview of the JINDALEE radar system, emphasizing the diverse applications which are currently undertaken or which we foresee as objectives to be pursued in the immediate future. An attempt will also be made to identify some of the frontier issues which await further investigation.

Dr. Anderson received BS and PhD degrees, both in physics, from the University of Western Australia in 1968 and 1972, respectively. In 1974 he joined the JINDALEE OTH-B Radar Project Team. Since 1979 he has been the leader of the JINDALEE Surveillance Program, with research interests in ionospheric physics, oceanography, signal processing, scattering theory, pattern recognition, and artificial intelligence.

The State of Digital Spectral Analysis

Mr. S. Lawrence Marple, Jr. will speak at the April 29 meeting of the Acoustics, Speech and Signal Processing Society (W) (see Calendar). He will present a review of the progress in digital spectrum analysis since the last presentation in March 1982. A tutorial overview will begin the talk. Classical spectrum estimation methods, Prony's method, maximum entropy method, maximum likelihood method, etc., will then be examined. Advances in eigenanalysis methods (e.g., the MUSIC algorithm), multichannel spectral methods, two-dimensional spectral methods, and new fast computational algorithms will be discussed.

Mr. Marple is presently with the Baltimore Division of Martin Marietta Aerospace, where he is working on advanced sonar signal processing algorithms. He is the author of *Digital Spectral Analysis With Applications*, Prentice-Hall, 1987. Mr. Marple also is an instructor in a short course on Modern Time and Spectral Analysis that is given in the US and in Europe.

Association for Computing Machinery

■ Spring Seminar Series ■

Washington DC Chapter— ACM One Day Seminars

Mon April 20	Computer Performance Management —Oursler Prototyping Essential Systems Requirements—McMenamin Software Development Using Modula-2 —Reid
Tue April 21	Information Security—Abrams & Podell New Paradigms for Software Development —Agresti
Wed April 22	Networking PCs—Abrams & Cotten Real-Time Systems Design Using Ada —Felsing
Thurs April 23	Ada for Information Systems—Thiess Software Development with Unix—Carson
Fri April 24	Comparing C, Pascal and Ada—Gehani Humanizing Jackson Structured Programming—Benson

International Speaker Series

On May 15th, the ACM Washington DC Chapter's International Speaker Series will feature Professor C.A.R. Hoare of Oxford University. Prof. Hoare will discuss "A Simple Approach To The Programming of Parallel Computer Systems." The seminar will cover concepts described in "Communicating Sequential Processes" and will be illustrated by the design and proof of correctness of a series of simple communication protocols.

For further information call (202) 462-1215 or write ACM PD Seminar Series, Washington, DC Chapter ACM, P.O. Box 39110, Washington, DC 20016.

The cost of each full day seminar ranges from \$50 to \$195.

Election of Officers

The election of officers for terms beginning July 1, 1987 will be held at a joint meeting of the Washington and Northern Virginia Sections on May 13, 1987. Officers will be elected for the National Capital Area Council, the Washington Section and the Northern Virginia Section.

The Chairman of the Washington Section Nominating Committee, Alvin Reiner, and the Chairman of the Northern Virginia Section Nominating Committee, John J. Kelleher, nominated the current officers of the National Capital Area Council for an additional term of one year beginning July 1, 1987. These are:

Office of Chairman: Thomas W. Doepfner/1
Office of Vice Chairman: John J. Kelleher/1
Office of Treasurer: James C. Arnold/1
Office of Secretary: Hardy C. Svenson/1

The following candidates have been nominated for the offices and terms indicated in the Washington Section:

Office of Chairman (87-88): G. Ferrell Sandy, Jr./2
Office of Vice Chairman (87-88): Ronnie Rawls/2
Office of Treasurer (87-88): Dr. Edward L. Walker/2
Office of Secretary (87-88): David A. Kriegman/2
Office of Director (87-89): Theodore S. Gordon/4
Office of Director (87-89): Louis L. Krisco, Jr./5
Office of Director (87-89): Dr. R. Craig Olson/3
Office of Director (87-89): Ricardo Parra/4
Office of Director (87-89): Juan A. Zumbado/5

The following candidates have been nominated for the offices and terms indicated in the Northern Virginia Section:

Office of Chairman (87-88): Marc T. Apter/2
Office of Vice Chairman (87-88): Dr. Andrew J. Grekas/2
Office of Treasurer (87-88): James F. Strother/2
Office of Secretary (87-88): William P. LaPlant, Jr./2
Office of Director (87-89): James H. Babcock/4
Office of Director (87-88): Carolyn W. Podbielski/4
Office of Director (87-88): Dr. Daniel J. Schaefer/4
Office of Director (87-88): Malcolm R. Uffelman/3

The nominations for NCAC officers and Section officers were approved in the respective Section Administrative Committee meetings held in February 1987. Subsequently, David L. Booth withdrew as a candidate for a second term as Director of the Washington Section and two additional candidates have been nominated to serve as Directors in the Washington Section, Louis L. Krisco, Jr. and Juan A. Zumbado.

The location of the May 1987 joint sections meeting will be announced in the May 1987 *Scanner*.

- /1: Biographical sketch in May 1986 *Scanner*.
- /2: Biographical sketch in the April 1986 *Scanner*.
- /3: Biographical sketch in the April 1985 *Scanner*.
- /4: Biographical sketch in March 1987 *Scanner*.
- /5: Biographical sketch in this issue.

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HAY Systems, Inc., 2000 M Street, N.W., Suite 650,
Washington, D.C. 20036 ATTN: CRB EOEMF

Candidate Biographies Washington Section

Office of Director 1987-1989 Louis L. Krisco, Jr.

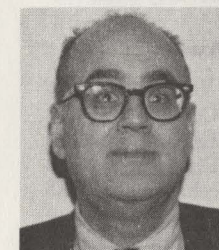


Lou Krisco is a Manager with Bell Atlantic — Network Services, Inc. His responsibilities pertain to the capital budgeting for telecommunications network equipment. He chairs a technology advisors committee addressing tax legislation. Prior to this assignment, he was a network equipment engineer with C&P Telephone Company. He has power engineering experience in the coal mining industry with the Pittston Company. Before entering industry, he was on the teaching faculty at several universities and junior colleges. He is currently active as a visiting lecturer.

Mr. Krisco is a member of the IEEE Communications Society and the Engineering Management Society.

He has a B.E.E. and a graduate degree in mathematics and is a member of Tau Beta Pi, Eta Kappa Nu, and Pi Mu Epsilon. He is a Register Professional Engineer.

Office of Director 1987-1989 Juan A. Zumbado



Mr. Juan Zumbado is an Advisory Engineer with IBM Federal Systems Division in Gaithersburg, MD, where he assists in the strategic planning, formulation and implementation of technical investment programs. Prior to his current assignment, Mr. Zumbado was lead engineer for the development of sonar computer front ends for current and next generation submarines. Mr. Zumbado joined IBM in 1963 and has held technical and management positions in hardware development for avionics and space applications.

Mr. Zumbado's IEEE activities included Vice Chairman of COMPASS'86, and presently Washington Section Activities Chairman. He is a member of IEEE Circuits and Systems, and Solid-State Circuits Societies.

Mr. Zumbado holds a BEE degree from New York University, and a MS in Technology of Management from American University.

Electrical/Mechanical Engineer

Leading railway air brake manufacturer located in greater Washington DC area seeks an engineer with at least a B.S. degree, having 5-10 years experience in electronic and microprocessor controls for use with pneumatic devices. The position entails application engineering, specification writing, sourcing and evaluating subcontractors, and some field testing on railway vehicles.

Good oral and written communication skills are mandatory. Knowledge of German helpful but not required.

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Alexander Graham Bell Medal Award



Dr. Joel S. Engel has been named by the IEEE Board of Directors as a co-recipient of the 1987 Alexander Graham Bell Medal with the following citation: "For fundamental contributions to the theory, design and deployment of cellular mobile communications systems." The medal and monetary award will be presented at the IEEE Annual Awards presentation and reception on June 20, 1987 in Los Angeles, California. Dr. Engel

will also be honored at the National Capital Area Council Awards Dinner Dance on Saturday, April 11, 1987.

Dr. Engel is Vice President of Research and Development for MCI Communications. He joined Satellite Business Systems (SBS) in October 1983 as Vice President of Engineering. He assumed his current position in March 1986, with the merger of SBS into MCI.

Dr. Engel received a Bachelor's degree in electrical engineering from the City College of New York in 1957 and a Master of Science degree in electrical engineering from the Massachusetts Institute of Technology in 1959. He received a Ph.D. in electrical engineering from the Polytechnic Institute of Brooklyn in 1964.

United States Activities Board Awards

Mr. James F. Strother has received two IEEE USAB Professional Leadership Awards for 1986. They were awarded "for exercise of outstanding leadership and dedicated effort that fostered the advance of the professional aims of IEEE during 1986." The Region 2 award will be presented at the NCAC Awards Dinner Dance on April 11, 1987, while the Division VI award will be presented at the USAB National Pace Workshop at Kansas City over the Labor Day weekend.

National Capital Engineering Award

The National Capital Senior Engineer of the Year Award was presented to Dr. George Abraham by the District of Columbia Council of Engineering and Architectural Societies (DCCEAS). The award was presented at the Engineers and Architects Day luncheon on February 26 during the observance of Engineers Week. The DCCEAS consists of twenty-eight organizations representing over 10,000 engineers and architects in the Washington metropolitan area. The Council's National Capital Awards Program provides a tangible symbol of recognition for those engineers and architects who have made major technical contributions or have a career of outstanding achievements. Dr. Abraham was cited for his significant contributions of scientific and technical excellence to the public service and the professional societies which he has served.

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