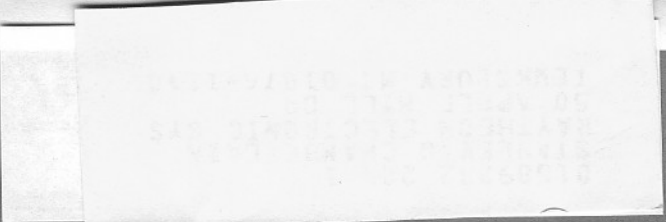


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# OCEANIC ENGINEERING SOCIETY

Newsletter



VOLUME XXX

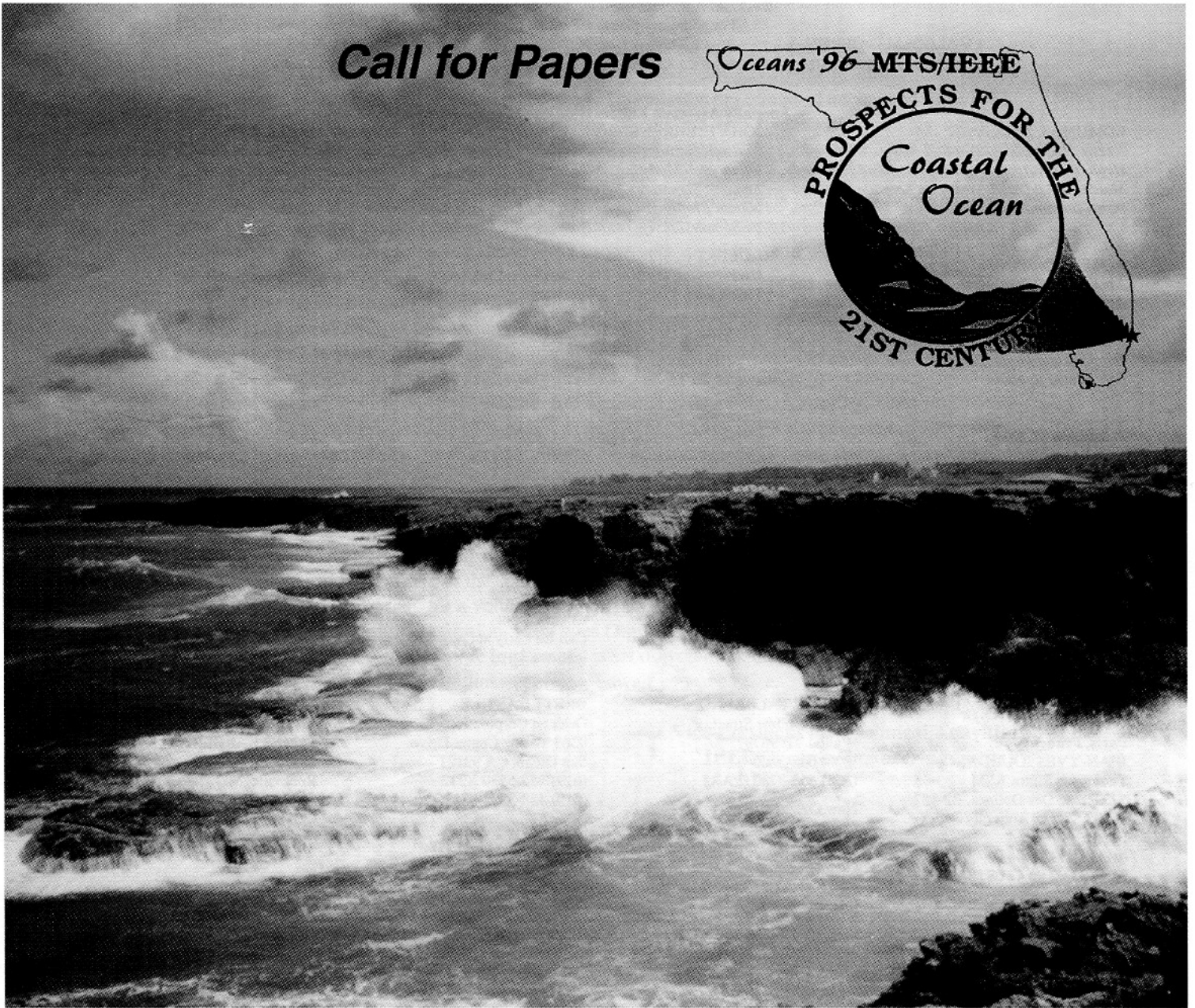
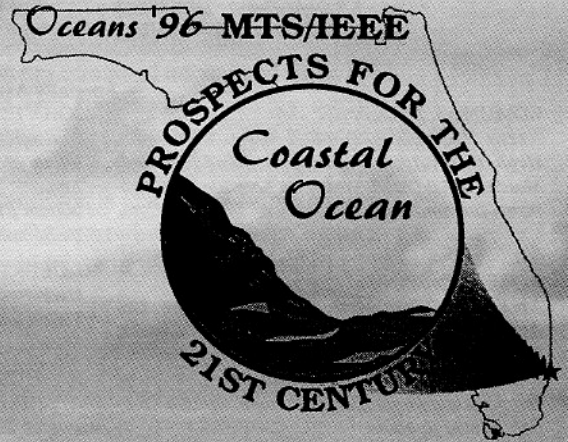
NUMBER 4

EDITOR: FREDERICK H. MALTZ

WINTER 1995

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**Call for Papers**





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(Continued on inside back cover)

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## Is It Time for an Oceanic Engineering Society Name Change?

We consider the ocean to be one of the most permanent features on this globe and the name and mission of our society has matched this permanence since 1981 when the Oceanic Engineering Council gained Society status. Why change it now? Everyone seems happy with it. If it works, don't fix it!

The name of this Society reflects its constitutional mission to "strive for the advancement of the theory and practice of electrotechnology applied to the ocean environment, allied branches of engineering and of the related arts and sciences,...". This mission has remained unchanged since 1981. What has changed is our understanding that the oceans are one subsystem in a very complex distributed global system which also includes land and atmospheric subsystems. The relation of atmospheric pollution and ocean and global warming are not yet completely understood but enough is known to recognize the collective nature of the system. Air pollution is just one example requiring joint consideration of land, ocean and atmospheric subsystems. Deforestation and sewage treatment are others with an impact for which the severity grows with the increase in world population and the decrease in non-renewable natural resources.

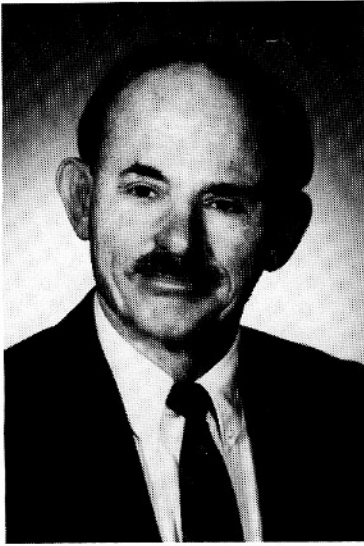
The Oceanic Engineering Society can look on involvement in what I shall call (for the moment) Global Systems as both an opportunity and a responsibility. It is an opportunity for the society to grow in an area very intimately related to oceanic engineering but not yet the declared interest of any other IEEE society. Much of the technology is very similar and includes for example: signal and image processing, acoustics, instrumentation (excepting transducers), scattering, certain remotely operated and autonomous vehicle subsystems as well as navigation, GPS and geographic information systems. The acceptance for the responsibility for the electrotechnology aspects of global systems by some society within the IEEE seems undebateably reasonable to me. Why should it not be the O.E.S.'s responsibility?

What are the steps to take? First it is necessary to determine if the initiative is desired by the O.E.S. membership and then determine if it is acceptable to the IEEE Technical Activities Board which oversees and periodically reviews the activities of societies. The process should be a consultative and evolutionary one appropriate for a volunteer organization.

Well! Back to the original question. How does Oceanic and Global System Engineering Society for example sound to you...but more importantly what do you think of the motivation behind such a name change? My e-mail is [j.s.collins@ieee.org](mailto:j.s.collins@ieee.org). I await your message.

**Jim Collins**  
**Vice-President for Technical Activities**  
**IEEE Oceanic Engineering Society**





## Editor's Note

### What Are Other Societies Doing?

I would like to share with you some things that are happening with other IEEE Societies. I received a "Sharing Activity Letter" from Harold S. Goldberg, Chair, TAB Public Relations Committee which contains information on other societies activities in:

- Going Electronic
- Inviting Lecturers to Meetings
- Interacting with State Government
- Arranging Local Tours
- Participating in Standards Activities

Send in your inputs to me so that we can share our activities with other societies.

**Fred Maltz**  
Newsletter Editor

### Sharing Activity Letter

We have received information about a very positive experience from Clay Maynard, Chair of the Santa Clara Vehicular Technology Chapter. Last year the Chapter implemented a voice mailbox and an 800 number to announce meeting information and receive registration names over the message center. They are overjoyed with the results. Now the recorded message on the voicemail supplies free IEEE information about meetings and issues 24 hours per day. By calling 800-800-IEEE from the Northern California area, members can receive the information and leave messages or register for seminars. Anyone interested in doing something similar, call Clay at (408) 462-0762 or CLAYMAY@AOL.COM on email.

By the way, other entities have made similar installations. The Boston Section has recently installed an email bulletin board wherein members can telephone in to a message center using their MODEMS and see the calendar for the next two months including meeting announcements, lecture series and special events. The bulletin board is upgraded monthly. The Section is now arranging to have the upgrade performed by email so that the volunteers don't have to visit the Boston office in order to make changes.

We know that the Providence Section has had a bulletin Board for some time. Who else has gone electronic? Let's hear your experiences in this area. Electronic information exchange represents a new step in the direction of member information channels and we should not only exploit it, we should inform all our other entities of our experiences.

Continuing with the Santa Clara Section, a new idea comes from Linda Matthew, Chair of the Components, Packaging, and Manufacturing Technology Chapter. They are planning to hold a lunch meeting, inviting the "VP of Packaging" from about 10 of the largest local semiconductor companies. They expect to enlist a keynote speaker and follow that with a discussion to investigate ways they can best serve their membership. What a splendid way to gain visibility with the local industrial leaders, to determine their needs and to enlist their aid in the local programs. Linda reports that the Chapter has experienced the usual problem of spotty attendance at Chapter meetings despite promotional attempts including email, FAXES, and hosting joint programs. This meeting with industrial leaders sounds like a novel way to tackle the problems. We will await a report on the results.

John Upshur of the Washington, Northern Virginia Chapter of Microwave Theory and Tech-

niques reports that his Chapter held its annual lecture series with this year's topic "RF/Microwave Wireless Communications." The lecture was preceded by a social hour and catered dinner. Included as part of the series was a textbook, *Mobile Communications Design Fundamentals*, By William C.Y. Lee. A key part of the series is that each lecture is sponsored by one or two industrial representatives. This, in addition to the lectures series fee, generally covers the cost of the series. This very active Chapter also held a one day workshop on wireless communications with Dr. Martin Schneider as the Distinguished Lecturer.

The Shreveport Section Power Engineering Chapter invited the local NSPE Chapter to join them in hearing their State Representatives discuss professional engineering and its relationship to state government. This was a good opportunity for all to investigate effects on the profession of proposed changes in state laws.

The Chapter also embarked on several tours this year. They visited the new centralized dispatch center for Southwestern Electric Power Co. and then toured the largest casino riverboat on the Red River with the boat's Senior Chief Engineer and Captain. This was a unique opportunity for the members to tour a specialized all-electric boat and for the captain to see someone other than gamblers. Everyone enjoyed the visit. No report on gambling results.

We have received a suggestion from Robert Berkovits, Group Chapter Chair of the Long Island Section for increasing the exposure at meetings. He points out that many of our members do not attend Chapter meetings strictly because the travel distance is too far. He suggests that for selected meetings we try one way video conferencing. This can be inexpensive if the distance is confined to less than 75 miles. It seems to us to be an idea, in infancy stage, which should be investigated. Again, if any Chapter tries it, or can expand on it, please contact us and we will pass the information around.

From St. Louis, Jim Leonard, Chapter Chair of Aerospace and Electronic Systems, tells us about an interesting meeting his Chapter held explaining the IEEE Standards operations.

Al Keiner, VP Standards, was the speaker. He detailed the procedures required to generate a standard, keying in on IEEE Standard 1220 on System Engineering. Jim points out that, after the formal presentation, further discussion on the standard took place in small breakout groups. It turned out to be a fun, interactive meeting and a great idea for other Chapters to use.

## The IEEE-USA National Job-Listing Service

**Travel the Information Superhighway to Your Next Job!**

IEEE United States Activities has developed a new electronic job-listing service that gives IEEE members free information on job openings in every region of the country.

To browse through current job listings, send an e-mail message to any of the following Internet addresses (no subject line or text message is needed, and requested files will automatically return to your e-mail address):

**Region 1:** info.ieeeusa.jobs.r01@ieee.org; **Region 2:** info.ieeeusa.jobs.r02@ieee.org;

**Region 3:** info.ieeeusa.jobs.r03@ieee.org; **Region 4:** info.ieeeusa.jobs.r04@ieee.org;

**Region 5:** info.ieeeusa.jobs.r05@ieee.org; **Region 6:** info.ieeeusa.jobs.r06@ieee.org;

**Nationwide & non-U.S.:** info.ieeeusa.jobs.other@ieee.org

If you don't have Internet access, ask your local Section officers for assistance. For more information, contact Bill Anderson at 202-785-0017, 202-785-0835 (fax) or w.anderson@ieee.org (Internet).



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**UNITED STATES ACTIVITIES**

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# Report from Remote Sensing Technology Committee

David E. Weissman, Chairman

## Description of Field of Interest:

The Challenges facing ocean remote sensing are as unlimited as the variety of sea surface dynamics and meteorological conditions across the globe, and their range of spatial and time scales. The ultimate goal is to be able to make accurate estimates of a selected set of geophysical variables, with the intention of either making predictions across time and spatial boundaries, or advancing fundamental knowledge through developing empirical relationships and/or theoretical models. Advances are constantly being sought in both our understanding of the geophysical processes themselves (the electromagnetic and microwave properties of the surface and its associated air-sea interface) and their monitoring using the vast number of specialized technologies that can be selected to concentrate on one or a few of the physical processes for accurate measurements. The blending of deployed sensor programs (satellite-based or other platforms) with geophysical monitoring demands skills in making continuous observations and real-time interpretations that never seem fully adequate. The wide range of spatial scales of the sea surface (from millimeters to kilometers) must be matched by a broad spectrum of sensor technologies that have the optimum capabilities based on their electromagnetic frequency, polarization, incidence angle, coherence, Doppler characteristics and spatial/time resolution. Progress seems to be at an exponential pace, and the more effort a specialist devotes to advancing his or her own field, the more they may feel that there is a wider gulf between themselves and their colleagues. The OCEANS Conferences and the Journal of Oceanic Engineering are valuable means for immediate contacts with colleagues and professionals in related fields, and keeping abreast of their accomplishments and gaining ideas and insights for future directions.

## Remote Sensing Keywords

Radar (active) remote sensing and scattering  
Radiometric (passive) remote sensing and emission  
Synthetic aperture, imaging and interferometric radar  
Airborne, shipborne and satellite platforms for remote sensing  
Sensing of the air-sea interface and the marine boundary layer  
Electromagnetic and microwave properties of the ocean surface  
Scattering surface characterization: roughness and material properties  
Synergistic combination of remote sensing instruments  
Sea ice electromagnetics  
Microwave properties of the cryosphere  
Sensor model functions for estimating ocean surface winds, stress, temperature, currents, elevations and biology both spatially and temporally



# OCEANS 96 MTS/IEEE

*The Coastal Ocean - Prospects For The 21st Century*

23 - 26 September 1996

Broward County Convention Center

Fort Lauderdale, Florida

## CALL FOR PAPERS

The IEEE Oceanic Engineering Society and the Marine Technology Society solicit prospective authors for papers dealing with new technology concepts, developments and applications which provide a basis for advances in science and engineering in the ocean environment. The theme for OCEANS 96 MTS/IEEE, *The Coastal Ocean - Prospects For The 21st Century*, highlights the littoral zones of the global oceans and the technologies of the future to address them. Proposed technical sessions at the Conference will focus on the following technical topic areas:

### A-Theme Related Topics

- 1-Bottom Topographic Mapping
- 2-Coastal Exploration Using AUVs
- 3-Coastal Circulation Prediction
- 4-Real-Time Observing Systems
- 5-Oil Spill Info Management Sys
- 6-Search, Rescue & Recovery
- 7-Special Coastal R&D Platforms
- 8-Marine Weather Forecasting

### B-Underwater Acoustics

- 1-Acoustical Oceanography
- 2-Signal Propagation
- 3-Detection & Classification
- 4-Localization & Tracking
- 5-Boundary Interaction
- 6-Matched Field Proc/Tomography
- 7-Transducers & Arrays
- 8-Shallow Water Acoustics

### C-Signal & Information Processing

- 1-Non-Acoustic Imaging
- 2-Image Compression/Processing
- 3-Geographic Information Systems
- 4-Metrology & Calibration
- 5-Modeling, Sim & Data Bases
- 6-Neural Networks for Oceanic Eng
- 7-Sonar Signal Processing
- 8-Visualization Systems

### D-Ocean Measurement Systems

- 1-Air/Sea Interaction
- 2-Oceanographic Instrumentation
- 3-Polar & Severe Environments
- 4-Satellite/Airborne Remote Sensing
- 5-Active/Passive Remote Sensing
- 6-Water Current Measurements
- 7-Wave & Tide Sensors

### E-Communication, Nav & Control

- 1-Global Positioning
- 2-Mapping/Navigation
- 3-Intelligent Dynamics
- 4-Mission Control
- 5-Communications/ Telemetry
- 6-Acoustic Communications
- 7-Marine Geodesy

### F-Marine Resources & Environment

- 1-Marine Living Resources
- 2-Marine Mineral Resources
- 3-Ocean Energy
- 4-Ocean Pollution
- 5-Ocean Economic Development
- 6-Physical Oceanography
- 7-Meteorology

### G-Advanced Marine Technology

- 1-Unmanned Underwater Vehicles
- 2-Remotely Operated Vehicles
- 3-Manned Submersibles
- 4-Marine Materials
- 5-Defense Technology
- 6-Oceanographic Ships
- 7-Novel Ocean Sensors

### H-Ocean & Coastal Engineering

- 1-Seafloor Engineering
- 2-Offshore Structures
- 3-Buoy & Mooring Technology
- 4-ElectroOpt Cables & Connectors
- 5-Ropes & Tension Members
- 6-Marine Salvage & Towing
- 7-Diving

### I-Marine Policy & Education

- 1-Coastal Zone Management
- 2-Marine Education
- 3-Marine Law & Policy
- 4-Marine Recreation
- 5-Marine Security
- 6-Merchant Marine
- 7-Technology Exchange

Prospective authors should submit a single page with title and abstract (300 to 500 words) in these or related subject areas. The single page Abstract Submittal Form provided on page 3 of this Call For Papers must be completed, showing title, author name(s) [designate one author as contact], affiliation, postal and e-mail addresses, and telephone and fax numbers. In the abstract, authors should describe the problem that is addressed, indicate its importance and describe how this work contributes to the field. Authors must indicate a primary and secondary subject category (from the topics A-1 through I-7 above) and any preference for a poster presentation. Talks will be 20 minutes in length. The OCEANS 96 MTS/IEEE Technical Committee will select papers for presentation and organize the final program following receipt of abstracts. Six copies of abstracts and supporting information should be mailed or 1 copy e-mailed to the address below. E-mail is preferred.

*The schedule for authors is:*

- Abstracts deadline - February 1, 1996
- Notification of acceptance to authors - April 1, 1996
- Camera-ready paper (6 pages max.) deadline - June 14, 1996

It is understood that submission of an abstract is a tacit agreement that if the abstract is accepted, the author and his organization agree to present the Paper at the Conference.

Abstracts and supporting information should be E-mailed to (E-mail is preferred), or six copies mailed to:

**OCEANS 96 MTS/IEEE, Computer Science Department, MS 3122, Texas A&M University, College Station, TX 77843, USA; E-mail: oceans96@cs.tamu.edu; FAX: (409) 847-9284**



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## CALL FOR TUTORIALS

As part of an OCEANS 96 MTS/IEEE focus on advanced technology, the Conference Committee solicits proposals for half day (4 hour) or full day (8 hour) TUTORIALS in technology areas related to those highlighted in this Call For Papers. Interested individuals must submit a 500 word abstract on tutorial utility, focus and intended audience, a 200 word biography of the instructor, an outline of material to be presented and any supporting materials useful for evaluation of tutorial merit and content. Instructors will be compensated in accordance with tutorial registration. Tutorial proposals must be received before February 1, 1996 to be considered for acceptance. Tutorials will be presented on Monday, September 23, 1996. Submit tutorial proposals or requests for further information on related issues to (E-MAIL is preferred):

**OCEANS 96 MTS/IEEE  
Computer Science Department  
MS 3122  
Texas A&M University  
College Station, TX 77843, USA  
FAX: (409) 847-9284  
E-MAIL: oceans96@cs.tamu.edu**

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## CALL FOR VIDEOS

Current and archival footage of events relevant to the Conference's focus topics are solicited. Video segments demonstrating results described in the conference proceedings are particularly appropriate.

Video clips from one to five minutes length are suggested. Early electronic submission of an abstract describing the video is most strongly encouraged and will directly impact inclusion of the clip if space becomes an issue. Written abstracts describing the video should accompany each clip. Abstracts should not exceed 100 words, and should also include title, author name(s), organizational affiliation, address and phone/fax/e-mail as appropriate. If e-mail is not possible, inclusion of an additional abstract copy in electronic form (ASCII or Word Perfect diskette) with the film clip is appreciated.

Clarity and technical content of the video submissions are essential. Narration and audio are critical components. Entries must be edited to provide a high quality, quickly-paced presentation of general interest to symposium attendees. We can accommodate standard play (SP) VHS, Super VHS and 8mm camcorder tape. Extended play (EP/LP) format VHS is unacceptable due to poor video quality. Please label your videotape mailer "Magnetic Media Enclosed."

All Selected videos will be professionally compiled without individual clip editing onto a single master duplicated and provided to conference attendees with the printed proceedings at no extra charge.

<b>Video Submission Deadline:</b>	<b>May 1, 1996</b>
<b>Notification of Video Acceptance:</b>	<b>July 1, 1996</b>
<b>Final Production:</b>	<b>July 15, 1996</b>

Mail tapes and abstracts to:

**Dr. Don Brutzman & Cdr. Mike Holden  
Code: UW/BR  
Naval Post Graduate School  
Monterey, CA 93943-5000, USA  
Voice: (408) 656-2149  
Fax: (408) 656-3679  
E-mail: Brutzman@nps.navy.mil**

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OCEANS 96 MTS/IEEE Conference Abstract Submittal Form

PAPER TITLE: \_\_\_\_\_  
CORRESPONDING AUTHOR: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_  
(With whom OCEANS 96 MTS/IEEE will correspond on all matters) E-MAIL: \_\_\_\_\_ FACSIMILE: \_\_\_\_\_  
COMPANY \_\_\_\_\_  
MAILING ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP/POSTAL CODE \_\_\_\_\_ COUNTRY \_\_\_\_\_  
CO-AUTHORS & COMPANIES \_\_\_\_\_

Has this paper been previously published? YES \_\_\_ NO \_\_\_ If yes, give place and date: \_\_\_\_\_  
Technical topic areas are listed on page one. Please indicate number of topic area that most directly applies to your abstract in Primary and Secondary (if appropriate) spaces.  
Primary (required) \_\_\_\_\_ Secondary (optional) \_\_\_\_\_ Prefer poster session: YES \_\_\_ NO \_\_\_

Note to authors: The official language of the OCEANS 96 Conference is English. The OCEANS 96 Program Committee will evaluate papers on the basis of information supplied on this form only.

ABSTRACT (see instructions on page 1):

# GREATER FORT LAUDERDALE: The Meetings Paradise of the '90s



**GREATER  
FORT LAUDERDALE**

**CONVENTION & VISITORS BUREAU  
BROWARD COUNTY CONVENTION CENTER**

Greater Fort Lauderdale offers an abundance of attractions. Not only is it home to The Greater Fort Lauderdale/Broward County Convention Center, located in Port Everglades, the world's largest five-star port and the second largest cruise port overall, it's also home to festivals and fairs, waterways and fairways, pari-mutuels and para-sailing, cowboys and Indians and sports of all sorts. It boasts 3,000 hours of sunshine annually, an average temperature of 77 degrees, 27,000 hotel rooms, 2500 restaurants and a wealth of off-the-beach activities for a perfect meeting location.

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The IEEE Oceanic Engineering Society  
and  
The Marine Technology Society

Present the

**OCEANS 96 MTS/IEEE Conference and Exhibition**  
SEPTEMBER 23-26, 1996 IN FT. LAUDERDALE, FLORIDA



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Advanced Technology Focus \* High Quality Papers \* Key Technology Tutorials \* Technical Exhibits \* Autumn in Ft. Lauderdale

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## Networking on Internet

As more and more members of IEEE use the Internet to seek jobs we need to pass on a few words of caution. An article in the *Wall Street Journal*, February 27, 1995, — "The Dangers of Casting One's Net," gives this advice: "Employed job seekers who use on-line services such as resume databases take a big risk in losing their present job. Your current employer may stumble on your resume while searching the resume database while looking for other candidates to fill employment opportunities. Based on a survey of 80 managers, a majority indicated that they would fire an employee who was entertaining outside offers."

To avoid becoming a casualty on the information highway:

- Find out whether the resume database services allow you to block specific companies from viewing your resume.
- Ask whether your current job description, name, and address can be omitted from the resume placed in the resume database viewed by employers.
- Ask job-matching services to contact you before they send your resume to hiring companies.
- Ask whether you can identify employers that shouldn't get your resume.

## Upcoming Conferences

### 1996 IEEE INTERNATIONAL CONFERENCE ON ROBOTICS AND AUTOMATION

Minneapolis, Minnesota 22-28 April 1996

Contact: Norman Caplan, General Chair,  
Tel: (703) 306-1318; Fax: (703) 306-0312;  
Email: ncaplan@note.nsf.gov

### OFFSHORE TECHNOLOGY CONFERENCE

Houston, Texas 6-9 May 1996  
Contact: OTC, (214) 952-9494, Fax: (214) 952-9435

### AUV '96

Monterey, California 3-6 June 1996

Contact: Don Brutzman, (408) 656-2149,  
Fax: (408) 656-3679, brutzman@nps.navy.mil

### PACON '96

Honolulu, HI June 16-20, 1996

Contact: Pacon International  
P.O. Box 11568, Honolulu, HI 96828

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Department, MS 3122, Texas A&M University,  
College Station, TX 77843, USA; FAX: (409) 847-9284

## 1996 Schedule of OES Newsletter Inputs

### I. DUE DATES TO THE EDITOR

Spring	March 15
Summer	June 15
Fall	September 15
Winter	December 15

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## **Looking at Electronic Information Access, Industry Migration Research, Retirement Savings**

### **We Favor Use of Technology to Control Objectionable Material**

Congress is considering legislation restricting the electronic transmission of obscene or indecent materials to minors, and IEEE-USA is advocating that technology be utilized in lieu of government policy. USA Board Chair Joel B. Snyder wrote to members of the U.S. Senate Commerce, Science and Transportation Committee on June 15, the House Commerce Committee on July 14, and the House Judiciary Committee on July 17, offering information and advice on electronic filtering techniques.

Snyder provided a briefing paper outlining alternatives to imposing legislative or regulatory restrictions on electronic transmissions. The paper explained how technology can be used to develop and identify electronic information sources deemed suitable for children, and how to use control mechanisms that limit availability to approved sites. We also packaged this information in an opinion article that was distributed nationwide to nearly 200 daily newspapers.

### **Snyder Urges Research on Industry Migration**

USA Board Chair Snyder requested a study of the international migration of people and services in science and engineering, in a May 22 letter to Phillip A. Griffiths, chair of the National Academy of Sciences' Committee on Science, Engineering and Public Policy. Snyder explained that the realities of competition in a global market, the revolution in information technologies, and the increasing mobility of the large and well-educated international science and engineering work force are dramatically changing the nation's sci-tech enterprise. He added that these changes are influencing how scientists and engineers live and work.

The IEEE-USA leader said that the study should quantify the scale of transnational movements of engineers and scientists in the United States and around the world. Snyder noted that Griffiths' committee is uniquely qualified to conduct this research and assess the implications of technological globalization for the nation's scientific and engineering resources. In addition, he offered our assistance in identifying panel participants to review analyses and reports.

### **Our Survey Shows Pending Legislation Would Boost Engineers' Personal Savings**

According to an IEEE-USA survey released on May 22, electrical engineers would increase their personal retirement-savings rates if Congress enacts pending savings-incentive legislation. The questionnaire, which appeared earlier in the *Electronic Engineering Times*, yielded nearly 150 responses

on issues ranging from engineers' current saving patterns to their preferences on competing legislative proposals.

Survey participants were enthusiastic about pending savings-incentive legislation, and 90 percent indicated they would invest in proposed savings instruments. USA Board Chair Snyder said: "The poll reveals an overwhelming consensus that engineers will do their part to rebuild the collapsing national savings rate—if Congress gives them the tools. Engineers are telling us that they're worried about retirement security, but they simply can't be expected to increase their savings and pay higher taxes at the same time."

For more information, or for a copy of the survey results, contact Chris Currie at our office in Washington, D.C.: (202) 785-0017, ext. 342 (phone); (202) 785-0835 (fax); or c.currie@ieee.org (e-mail).

### **We Back Senate Support for Electrotechnology R&D**

In a May 24 letter to Senators Rockefeller, D-W.Va., Lieberman, D-Conn., and Bingaman, D-N.M., USA Board Chair Snyder backed a proposed amendment to the Senate Budget Resolution, (S.Con. Res 13), supporting research, technology and trade promotions. He noted that recent budget resolutions passed by the House of Representatives drastically reduce R&D programs. Snyder emphasized: "This shortsightedness must be short-lived before irrevocable harm is done to the U.S. R&D base."

### **Consultants' Workshop Guides Independent Contractors**

More than 150 consultants participated in an IEEE Alliance of Consultants' Networks (AICN) national workshop in Anaheim, Calif., on June 3. Attendees travelled from around the country to attend the workshop, though local consultants were in the majority.

With guest speakers on such topics as networking, self-marketing and taxes, and panel participants from a variety of local networks, the sessions provided valuable guidance on securing work and conducting business as an independent contractor.

Ron Pizer, vice-chair of the Los Angeles Area Consultants' Network (LAACN) and Steve Maas, editor of LAACN's newsletter, participated: in a panel on *Growing Your Business With Good Marketing*.

During the session on *Staying Out of Trouble*, Ed Carl alerted the group to current actions by the California Board of Registration for Professional Engineers and the possible fallout on practicing engineers and engineering consultants. Then, AICNCC Vice Chair Bob Gauger led a panel on fee setting and offered advice on billing rates.

(Reprinted from *IEEE-USA Impact*, August 1995)



Irwin Weitman received a special award at the workshop, for his work in founding the IEEE's Private Practitioners' Task Force (AICN's predecessor) in 1992. Gauger accepted a similar recognition for his efforts to establish consultants' networks and his "commitment to elevating the status of consulting within the IEEE."

Engineers interested in consulting as a career alternative are invited to attend local network meetings. For more information on AICN activities, or to locate your area network, contact Bill Anderson at the IEEE-USA Office: (202) 785-

0017, ext. 330 (phone); (202) 785-0835 (fax); or w.anderson@ieee.org (e-mail).

#### Repeal 'Section 1706'

IEEE-USA has joined a coalition of engineering and computer consulting societies in a July 11 letter supporting House Ways and Means testimony, urging repeal of Section 1706 tax treatment of independent contractors. Section 1706 classifies technical services personnel differently from consultants in other fields. *For additional information:* Contact Vin O'Neill at ext. 319 and v.oneill@ieee.org

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## U.S. Workers Urged to Examine Pension Options — And to Increase Savings

Two cabinet agencies have combined forces to launch an educational campaign to "wake up" American workers — specifically the baby-boom generation — to prepare for retirement. The wake up call is necessary, the two agencies believe, because the decline in the number of retirees covered by "traditional" defined-benefit plans and the accompanying sharp drop in the savings rate that workers set aside for their retirement years. The savings and retirement education plan was formally inaugurated July 19 at a meeting attended by Labor Secretary Robert Reich and Treasury Secretary Robert Rubin.

A recent Labor Department report (based on 1994 data) provides a reading on today's workers' benefits. Among the key findings are these:

- Less than one-half of today's retirees over 65 have received a private pension benefit to supplement Social Security checks. Of retirees 65 and over employed in the private sector, 96 percent receive Social Security benefits. Of this number, 43 percent either have gotten or will get a lump sum or a pension annuity.
- Less than one in four retire employees of small firms (under 100 workers) have received a pension benefit.
- More workers who do get private pensions have chosen a single lump sum payment. These plans often require workers to set aside part of their paycheck.
- Private pensions and Social Security benefits replace 60 percent or more of preretirement income for only one-half of today's retirees. Therefore, 50 percent of current retirees will need to supplement their benefits with other savings to reach the income necessary to maintain their living standard.

The Labor Department's Olena Berg highlighted some of the reasons behind the current campaign. In a July 12 speech Berg, assistant secretary for Pensions & Welfare Benefits, explained that statistics "make it strikingly clear that workers need to be more aware that the decisions they make now

directly affect their prospects for retirement security." She added that broader reasons springing from global competition have spurred the effort. U.S. competitiveness depends on increased productivity — "and increasing productivity depends greatly on a healthy savings rate for capital formation."

Although recognizing the scope of the problem, the Labor Department has limited its focus to an education effort. It does not seek changes in ERISA law or more attractive Individual Retirement Account options — policy alterations highly unlikely with the budget-minded GOP Congress.

The education campaign has the backing of organizations ranging from AFL-CIO to the American Bankers Association. IEEE-USA is one of the partners as well. In a July 12 letter to Secretary of Labor Reich, USAB Chair Joel Snyder said IEEE-USA "shares the department's concern about the adverse implications of declining savings rate for the economic health of the nation and for the future economic security of individual American. We share your determination to encourage more American workers, including engineers and scientists, to plan and save for their retirement years."

However Snyder urged Reich to pursue other changes, specifically the following:

- Strengthen Social Security to preserve the system's long-term financial health.
- Improve the employer-sponsored pension system by encouraging public and private employers to sponsor and adequately fund pension plans and other retirement savings arrangements, reduce vesting requirements, guarantee the portability of benefits when workers change jobs, and promote preservation of plan distributions for use in retirement.
- Boost personal savings for retirement by expanding opportunities for individuals to contribute to tax-favored retirement savings arrangements, including IRAs and Keogh plans for the self-employed.

(Reprinted from *IEEE-USA Legislative Report*, September 1995)



\*\*\*\*\* CALL FOR VIDEOS \*\*\*\*\*  
IEEE Oceanic Engineering Society  
Symposium on Autonomous Underwater Vehicle Technology  
AUV 96

June 3-6, 1996 \* Hyatt Regency Hotel \* Monterey, California, USA

The IEEE Oceanic Engineering Society is sponsoring the next Symposium on Autonomous Underwater Vehicle Technology (AUV 96) on June 3-6, 1996. The Symposium will be held at the Hyatt Regency Hotel in Monterey California USA.

The Symposium will focus on topics that are related to the  
**AUTONOMOUS OPERATION OF UNDERWATER VEHICLES**

These include but are not limited to:

Sensors and Multi-Sensor Fusion	Communications and Telemetry
Navigation, Rendezvous and Docking	Imaging Techniques and Systems
Modeling and Simulation Methods	Mission Control and Software Architectures
Energy Systems	Autonomous Manipulation
Vehicle Design and Control	New Concept Vehicles for Mine Countermeasures
Biological Models	Oceanographic Sampling Networks
Multiple Cooperating Vehicles	Mission Scenarios

Current and archival footage of events significant to the development of autonomous underwater vehicle technology and applications are welcome. Video segments demonstrating results described in the conference proceedings are particularly appropriate.

Video clips from one to five minutes length are suggested. Early electronic submission of an abstract describing the video is most strongly encouraged and will directly impact inclusion of the clip if space becomes an issue. Written abstracts describing the video should accompany each clip. Abstracts should not exceed 100 words, and should also include title, author names, organizational affiliation, address and phone/fax/e-mail as appropriate. If email is not possible, inclusion of an additional abstract copy in electronic form (ASCII or WordPerfect diskette) with the film clip is appreciated.

Clarity and technical content of the video submissions are essential. Narration and audio are critical components. Entries must be edited to provide a high quality, quickly-paced presentation of general interest to symposium attendees. We can accommodate standard play (SP) VHS, Super VHS and 8mm camcorder tape. Extended play (EP/LP) format VHS is unacceptable due to poor video quality. Please label your videotape mailer "Magnetic Media Enclosed."

All selected videos will be professionally compiled without individual clip editing onto a single master, duplicated, and provided to conference attendees with the printed proceedings at no extra charge.

Call for Videos:	September 1, 1995
Video Submission Deadline:	March 1, 1996
Notification of Video Acceptance:	May 1, 1996
Final Production:	May 15, 1996

Mail tapes and abstracts to:

CDR Michael J. Holden, USN  
Internet: mjholden@nps.navy.mil  
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Visit the AUV 96 World-Wide Web page at

[http://www.nps.navy.mil/research/auv/auv\\_96.html](http://www.nps.navy.mil/research/auv/auv_96.html)

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