

1884  1984  
A CENTURY OF ELECTRICAL PROGRESS

VOLUME XIX  
NUMBER 11  
AUGUST 1984



1879 -

THOMAS A. EDISON DEMONSTRATES HIS PRACTICAL  
INCANDESCENT ELECTRIC LIGHT

PUBLISHED BY ORLANDO SECTION  
INSTITUTE OF  
ELECTRICAL AND ELECTRONIC ENGINEERS

## CHAIRMAN'S CORNER

I want to sincerely thank Ed Willis, the Chairman of our Section during the past twelve months for the excellent programs he started and supported in addition to managing the affairs of an active Section. He has done an outstanding job.

Our "ORLANDO" Section of the IEEE is large (close to 900 members) and active. In area, it includes Seminole, Lake, Sumter, Orange, and Osceola counties. Our Section has local Chapters of the following SOCIETIES: Aerospace and Electronic Systems (AES), Communications (COMM), Computer (COMP), and Electron Devices (ED). We also have two "joint" Chapters — Antennas and Propagation joined with Microwave Theory and Techniques (AP/MTT); and Power Engineering joined with Industry Applications (PE/IA). These local Chapters are concerned with specific disciplines and interests, but all IEEE members are welcome to their meetings.

We would like more contact with the areas of our Section outside Orange and Seminole counties and with our Student Chapter. If you have any suggestions for plant tours or would like to speak at a chapter meeting, or a Section meeting, please contact me.

In this, the 100th year of existence of IEEE, we will have many opportunities to inform the public of the important role of the Electrical Engineer in achieving our present quality of living. George McClure is seeking speakers on engineering topics to speak to local civic, school or church groups. Please contact him if you would like to let others know what engineering is and what it has accomplished.

Your Section is now operating under newly revised By-Laws. For a copy, contact the Section Secretary (Don Malocha) or me.

Frank Fluet

Chmn, Orlando Section

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### ORLANDO SECTION, INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, 96 SWEETBRIAR BRANCH, LONGWOOD, FL 32750

#### ADVERTISING RATES

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	1-2 Insertions	3-10
1/4 page	\$30	\$25
1/3 page	40	35
1/2 page	50	45
2/3 page	57	52
3/4 page	65	60
1 page	75	70

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## 1984 - 1985 GOALS IEEE ORLANDO SECTION

1. Support/promote Centennial celebration of IEEE.
  2. Support/sponsor local conferences. (#?)
  3. Recruit new Section officers.
  4. Rejuvenate AP/MTT Chapter.
  5. Increase student involvement.
  6. Increase activity of COMM Chapter.
  7. Survey members wants, locally.
  8. Put together an information booklet on our Section (for distribution to local corporations, Chambers of Commerce, etc.).
  9. Petition and submit request for new chapter in Section (perhaps Instrumentation and Measurement or Electromagnetic Compatibility).
  10. Keep all local members well informed of IEEE activities and local issues (primarily by doing a good job on Section Notes).
- 

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## SUMMARY OF IEEE EXECUTIVE COMMITTEE MEETING

DATE: JUNE 5, 1984

### MINUTES:

A motion was made by Jeff Dick to accept the minutes. Frank Fluett seconded the motion. Motion passed.

### Treasurer's Report

A motion was made by Russ Theisen to approve the report. Motion seconded by Bill Cram. Motion carried.

Checking account balance	(5-1-84)	\$ 1,712.91
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#### Deposits

PE/IA dinner (3/22)	\$ 88.00
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Computer Tutorial Week	500.00
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#### Advertising checks

Fla Inst of Tech	60.00
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Probe Consultants	40.00
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February banquet	15.00
------------------	-------

\$ 703.00

### Subtotal

\$ 2,415.91

### Disbursements

Sec. mailings	\$ 23.91
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Mike Haddad (PE/IA dinner)	110.00
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D. Khandelwal postage	5.00
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D. Khandelwal postage	13.60
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D. Khandelwal (book/poster)	135.90
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Seminole House Printers	380.88
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Altamonte Data Processing	38.64
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Altamonte Data Processing	36.00
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(\$ 743.93)

### Balance (6-5-84)

\$ 1,671.98

### Current Status

Checking Balance (6-5-84)	\$ 1,671.98
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Dreyfus Fund (6-1-84)	10,012.46
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Total	\$11,684.44
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Unpaid bills (as of 6-5-84)	
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None



### **Chairman's Report**

The Chairman thanked the members of the Executive Committee for the support given him during the year.

### **Programs**

The Installation Banquet has been set for Saturday, June 23, 1984. It will be held at the Langford Hotel in Winter Park. There will be a cash bar before the banquet which will have Prime Rib as the meal. The cost will be \$15.00 a person. The speaker will be Bob Duggan who is the Region 3 Vice Chairman. His topic will be "A Fresh Look at Behind the Bamboo Curtain".

Due to the cost involved, a reservation will constitute the same as a ticket sale. The person making the reservation will be responsible to pay for the event unless the commitment is withdrawn prior to the Section providing the guarantee count.

### **Publications**

There will be no notes published in July. The information for the August notes will be due on July 20, 1984.

### **Awards**

Ed Ellis reported that the nomination for Outstanding Engineer of Region 3 and nomination for Vice-Chairman of Region 3 were due. Also the nomination for the Exemplary Section of Region 3 is due. We will nominate our section for this award.

### **Intersociety Liaison**

Florida Council of IEEE - Russ Theisen reported on the meeting held on June 2, 1984 at the Sheridan Jet Port. John Miller was the program.

Florida Engineering Society - Someone is needed to represent the section at FES who is a registered professional engineer in the state of Florida. Any volunteers.

### **PACE**

John Gilbert reported on the goals of Region 3. He also reported that PACE would pay 25% of the printing costs of the Section Notes if at least one page on PACE was included in an issue of the Notes. PACE will not pay for the cost of mailing. Ed Ellis commented on the IMPACT magazine and recommended every one take it.

### **Education**

Dr. Simons reported that UCF College of Continuing Studies would co-sponsor the Televideo conferences that IEEE has scheduled.

Dr. Simons recommended that students from any professional society, e.g. ASME, ASM, IEEE, etc., be allowed to be members of the student chapter. Bill Cram made a motion to recommend to the By-Laws committee to define a student member so as to allow students from allied fields to become members of the student chapter. Carl Schunemann seconded the motion. Motion carried.

**Membership Development**

Russ Theisen reported that there were 898 members in the section as of May 30, 1984 with 94 members in the arrears.

**By-Laws**

George Taack reported that the proposed by-laws had been mailed to the executive committee in accordance with the current by-laws. Bill Cram moved that the proposed by-laws be adopted. Frank Fluet seconded the motion. Motion passed.

**Historian**

Russ Theisen reported that the section was 25 years old on May 13th. Ed Ellis read a mailgram he received from Richard Gowen.

**Communications**

The following officers were elected at the May 16, 1984 meeting:

Chairman - Madjid A. Belkerdid

Vice-Chairman - Michael Harris

Secretary - Mike Oleyar

**AP/MTT**

Carl Schunemann reported for Fred Wilcox that they were working on next fall's program which had not been finalized. He also said that he was determined not to let AP/MTT die.

**Chapters Chairman**

Jeff Dick reported that 31 meetings were held (most were technical) along with 4 socials and 4 conferences. This is the most activity that he has seen in years.

**Old Business**

It was pointed out that a vote had not been taken on the new slate of officers. Russ Theisen moved to elect the slate by accumulation. Carl Schunemann seconded. Motion carried.

**New Business**

Mickey Mindock has left Martin and is president of his own business, High Tech Sensors. The phone number is 862-8182.

Proposed budgets are due by the end of June.

The Engineering Accreditation Board for Engineering and Tehcnology (EAB) needs volunteers to surve on teams to take a week to go to a college or university to review their programs. They prefer people from government or industry.

Candidates for the position of President-Elect are Jose' B. Cruz Jr. and Bruno O. Weinschel.

Frank Fluet stated that selection of chapter officers for next year should be completed by June 30, 1984.

# REGISTRATION FORM

Cut Out and Return to Address Shown.

## Registration Form: IEEE Video Conferences

- ☐ Project Management September 11, 1984  
☐ VLSI October 8, 1984  
☐ Integrated Manufacturing Systems December 4, 1984

Name: \_\_\_\_\_ S.S.No. \_\_\_\_\_

Position: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP \_\_\_\_\_

Tel. No. Bus: \_\_\_\_\_ Home: \_\_\_\_\_

IEEE Membership No. \_\_\_\_\_

### FEES: MARK APPROPRIATE BOX

- ( ) \$10 IEEE Student Member ( ) \$60 IEEE Member  
( ) \$25 Non-Member Student ( ) \$90 Non Member or Walk-ins

No refunds for cancellation after 7 days before conference

Make Checks payable to: University of Central Florida

Mail to: College of Extended Studies

University of Central Florida

Orlando, Florida 32816-0177

Tel. No.: 305-275-2123

## DESCRIPTION

essional management, leadership techniques activity by establishing judgments and new ap- cision making.

eam Building and Pro- illustrated lecture and volving interpersonal ogical effects.

agement" broadcast a prerequisite for this

upported by bibliogra- rticles.

## ABOUT THE COURSE

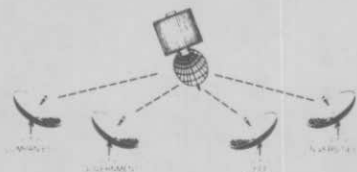
This high-quality, peer-reviewed course is being produced by the Educational Activities Board (EAB) of the Institute of Electrical and Electronics Engineers, Inc. (IEEE). As with all IEEE-EAB live videoconferences, all participants will be supplied with supporting resource materials, bibliographies, etc. Local sponsors include universities, corporations, government agencies and IEEE Sections, Chapters and Societies. For more information on this and future videoconferences, contact the registration site in your location or call: IEEE Continuing Education Department, 445 Hoes Lane, Piscataway, NJ 08854 Telephone No. (201) 981-0060 Extensions 327, 328, 329.

## Continuing Education for Engineers to the Third Millennium

As the beginning of the first years of the Third Millennium of modern history nears, the need of engineers to keep abreast of rapidly changing technology has accelerated. Recognizing this need and the desire of engineers to see the new, innovative approaches coming, the Institute of Electrical and Electronics Engineers, Inc. has created a series of Live Videoconferences via Satellite to enable a large number of participants to attend. The live conferences include a two-way audio process to seek out answers to questions.

### Project Management— Team Building and Project Leadership

This conference will develop the professional approach to creating a project team. Techniques of leadership to improve project productivity will be shown using cost effectiveness developments, judgments and new concepts to integrated decision making. The conference will cover case studies, interpersonal relationships, the psychological effects and how to deal with them. On January 12, 1982, the IEEE ran a videoconference on an "Introduction to Project Management". That videoconference is not a prerequisite to this program. For this conference, participants will be supplied with resource materials.



**A One-Day  
Live Videoconference  
Via Satellite Network**

**September 11, 1984**

**11:00 A.M.—4:00 P.M. Eastern Time\***

*\*Daylight Savings*



THE INSTITUTE OF ELECTRICAL  
AND ELECTRONICS ENGINEERS, INC.

### INTERACTION WITH SITE

The course will be broadcast "live" and be available to sites in North America via satellite. During the program, participants will be given the opportunity to ask questions of the presenters with an interactive phone hook-up with the origination studio.

## COURSE OUTLINE

### MANAGEMENT STYLE

- Authority, Influence and Power
- Getting People to Work Together
- Participative Managing
- Handling Interpersonal Relationships
- Dealing With Risks and Uncertainty
- Negotiation Techniques
- Resistance to Change

### COMMUNICATION

- Communication and Perception
- Understanding the Fundamental Styles
- Words/Vocals/Non-Vocals
- Active Listening
- Coordination Mechanisms
- Human Synergism
- Communication - Self Assessment

### PROJECT LEADERSHIP

- Setting the Right Atmosphere
- Motivation in Task Oriented Groups
- Levels of Objectives
- Group Dynamics
- Involvement and Commitment
- Conflict - Its Positive Aspects

### PROJECT START UP AND MANAGEMENT

- The Necessary Homework
- Priorities, Interests and Judgments
- Effective Meetings
- The Project "Kickoff" Format
- Specific Tools and Approaches
- Project Status Analysis - Avoiding Surprises
- Integrated Decision Making

UNIVERSITY OF CENTRAL FLORIDA  
COLLEGE OF EXTENDED STUDIES  
AND THE  
ORLANDO SECTION IEEE  
ANNOUNCE A VIDEOCONFERENCE ON

**"Project Management—  
Team Building and Project Leadership"**



A One-Day  
Live Videoconference  
Via Satellite Network

September 11, 1984  
11:00 A.M.—4:00 P.M. Eastern Time\*

\*Daylight Savings



THE INSTITUTE OF  
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**TECHNICAL CONSULTANT**



**MERRILL W.  
BUCKLEY, JR.**

Merrill W. Buckley, Jr. is administrator of planning and measurement at RCA, Moorestown, NJ. He ranks among the foremost instructors in project management skills and has conducted more than 200 seminars. He has served in planning and management positions on such programs as Minuteman and Talos missile systems, BMEWS and Atlas and has been actively engaged in developing and implementing improved management systems for projects such as Apollo, Viking, Aegis and Tradex. Mr. Buckley has also provided specialized training services for a number of large corporations and government agencies. In 1982, Mr. Buckley was the instructor of the first IEEE/EAB Videoconference, "An Introduction to Project Management."

**PRESENTERS**



**THOMAS E.  
SUROWICZ**

Thomas E. Surowicz is a supervisory management analyst with the U.S. Naval Supply Systems Command where he is also the Director of the Performance Analysis and Evaluation Division. His primary responsibility is the development of systems to measure the effectiveness of management policies and systems to evaluate and improve productivity. He has served as a consultant in the development and operation of management information centers and MBO programs for a number of government agencies.



**ROBERT  
YOUKER**

Robert Youker is a Management Training Specialist in the Education Projects Division of the World Bank. His concentration is in the areas of project implementation, management, marketing, demand forecasting, project identification and agro-industry systems. He was formerly President of Planalog Management Systems, a consulting firm specializing in implementation of project management systems. Mr. Youker has published articles in: Management Review, Government Executive and Planning Review. He is a frequent seminar lecturer in project management and has served as a visiting lecturer at the Project Planning Center at the University of Bradford, England.

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**PROGRAM 6  
LIVE  
VIDEOCONFERENCE  
VIA SATELLITE  
SEPT. 11, 1984  
"Project Management—  
Team Building & Project Leadership"**

**FOR WHOM INTENDED**

Designed for all project management personnel—including those responsible for new products, construction, research and development, technical field programs and system development programs—the course explores the human equation in the requirements of bringing in a program on time.

This course will deal with case studies, interpersonal relationships, and the psychological effects.

Whether you work in industry, education or government, this course will cover important aspects of your profession.

**COURSE DESCRIPTION**

When used properly, project management techniques can improve project productivity, establish cost effective priorities, and develop effective approaches to integrated project management.

"Project Management II: Project Leadership" will use a case study approach to develop interpersonal relationships and psychological effects.

"Introduction to Project Management" was presented on January 12, 1982, is now available as a video program.

The presentation will be available on video, audio cassettes, printed notes and slides.

**FUTURE CONFERENCES ● OCTOBER 8 - VSLI: Its Impact on Your Business**

## IEEE COMPUTER SOCIETY MEETING NOTICE

The September meeting of the IEEE computer society will be held at Quincy's Steakhouse of Longwood (see directions below) on Thursday, September 20, 7:30 PM. This will be a short business meeting. We will discuss the election of new Computer Society officers for the Orlando chapter and also the programs for 1984-85. Anyone who is interested in serving as a chapter officer of the Computer Society or who would like to participate in the Computer Society by giving a talk on a computer-related topic or who has suggestions about our program content is welcome to attend. If you are planning to attend, please call Steve Forsythe at work (339-1600) or home (886)2231).

Quincy's of Longwood is right off the 434 exit of I-4. Exit I-4, turn west. Turn south at Douglas Rd., the first light.

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Several Seminars of one to three days are offered.

<b>1 DAY</b>	Managing Time	<b>Sept 17, Oct 11, Nov. 29</b>
<b>3 DAY</b>	Supervisory Development	<b>Sept 25, Oct. 2, Oct. 9 or Nov. 16, Nov. 23, Nov. 30</b>
<b>3 DAY</b>	Finance and Accounting for Non-Financial Executives	<b>Sept. 17 to 19 or Dec. 10 to 12</b>

For further info, call 275-2446.

## AEROSPACE AND ELECTRONICS SYSTEMS SOCIETY

On July 18th Dr. Roger W. Johnson of Grumman Technical Services, Inc. spoke on "The Industrialization of Space".

The development of equipment and procedures for the fabrication of structures in space was discussed. Included were examples demonstrating near term repair missions using Shuttle, as well as future concepts for the generation of large space structures, i.e. space stations, solar power satellites, etc.

The Launch Processing System at Kennedy Space System described along with the procedures used in implementing test operations.

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## MEETING NOTICE

The next meeting of the Orlando Section Executive Committee will be held on Tuesday, August 28 at 5:30 P.M. The meeting will be at a new location this time at Automotron Intelligence, Inc., 1200 West Colonial Drive, Orlando. (Rte. 441 and Colonial Drive.)

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## COMMUNICATION SOCIETY

Dinner meeting on November 1, 1984. The guest speaker will be Dr. Misha Schwartz from Columbia University. Title of the talk is "Computer Communication Network: Past, Present and Future."

Detailed information will be provided in September Section Notes.

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## MTT/AP MEETING

Thursday September 20, 1984  
5:30 P.M.

**MEETING LOCATION:** Hewlett Packard Co.  
Lake Ellenore Drive - Orlando

**SUBJECT:** Network Analysis in the Time Domain

**SPEAKER:** Phil Bartley  
System Engineering District Manager  
Hewlett-Packard Company  
Atlanta, Georgia

Refreshments, courtesy Hewlett-Packard Co.

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## IEEE CENTENNIAL CONVOCATION

The IEEE-Franklin Institute Centennial Technical Convocation will be brought live, via Satellite, from the Franklin Institute to Orlando on Monday, October 8, 1984 at 8:30 P.M. This two hour session will be screened on the UCF campus and is open to all IEEE members, free of charge. However, since the seating is very limited, the admission will be by reservations only. For reservations, please call George Taack at 339-1600. For further details, look for September Section Notes.

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## PACE REPORT - JOHN GILBERT

The following is a brief summary of the July 1984 legislative report published by the Washington, D.C. office of IEEE - Edith Carper. Should anyone desire further details regarding any or all of the following seven items, please contact your PACE Committee or the Washington IEEE office.

1. Conference committee to iron out different versions of Immigration Bill H.R. 1510, Section 212 - The provision addressed by IEEE, came out of the House debate whole. This is the section that requires foreign students to return home for two years upon completion of their studies. However, there is a provision that permits the Attorney General to Waive the "return home" requirement under certain conditions.

2. USAB explains stand on employee inventions. The Intellectual Property Committee of IEEE has spoken out again recently on the importance of employed inventor's rights and has, at the same time, refined its comments on Legislation H. R. 3286 that defines what belongs to the employee and what to the employer in inventions made on the job.

3. Senate approves Math-Science Education bill. S-1285 authorizes \$425 million in FY 1984 and \$540 million in 1985, primarily to train math and science teachers. In the House, another effort at improving the state of math and science teaching at the high school level has been launched by Republican Representative Thomas Coleman, his bill H.R. 5802.

4. Senate seeks to retain copyright protection for computer software. The measure (S. Con. Res. 117, June 7) was referred to the finance committee.

5. Tax breaks important to electronics fail to pass. Two provisions of H.R. 4170 were rejected by the conferees, renewal of the Education Assistance Act and giving permanent status to the 25% R. & D. tax credit.

6. House votes health care technology unit. The House has passed legislation (H.R. 5496) that creates a dedicated health care technology assessment office in the Department of Health and Human Services that calls for engineering representation on the advisory council.

7. New computer research center planned by DOD. The proposed software engineering institute is to be modeled after Lincoln Lab at MIT which was created to hasten radar development and use. Peak employment at the institute will be 250 people.

1984

August

Sun	Mon	Tue	Wed	Thu	Fri	Sat
First Quarter 4 ☽ July S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Full Moon 11 ☾ September S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	Last Quarter 18 ☾  7 EXECUTIVE COMMITTEE SECTION MEETING 5:30 PM	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
						UCF STUDENT CHAPTER PICNIC/ BASEBALL FOR INFO CONTACT DR. MALOCHA
26	27	28	29	30	31	New Moon 26 ☿
		28 EXECUTIVE COMMITTEE MEETING 5:30 PM 1200 W. COLONIAL DR.	●			

# IEEE ORLANDO EXECUTIVE COMMITTEE EXECUTIVE BOARD

		Business	Home
Chairman	T. E. (Ed) Ellis	339-1600	834-3319
Vice Chairman	Frank Fluet	843-7030	339-8905
Secretary	George Taack	339-1600	321-0319
Treasurer	Carl Schunemann	356-5801/2736	647-4992
Chapters Chairman	Geoffrey Dick	356-2796	678-0979

## STANDING COMMITTEE CHAIRMEN

Jr. Past Chairman	Mannie Connell	1-784-7000	273-8588
Sr. Past Chairman	Ben Patz	275-2816	855-3685
Programs	George B. Taack	339-1600	321-0319
Public Relations Chairman	George McClure	356-3782	647-5092
Publications	Al Fowler	678-2141	365-5772
	William Kownacki	275-2318	365-5818
Awards	Joe Massett	356-3858	834-3448
Fla. Eng. Soc. Liaison			
Prof. Act. Comm.	John Gilbert	365-2363	859-5492
Student Act. Comm.	Richard Miller	275-2786	892-7337
Education	Fred O. Simons	275-2405	678-1796
Membership Develop.	Deen Khandelwal	356-2583	277-5959

## SPECIAL COMMITTEES

By-Laws	Ernest E. Erickson	275-2310	365-5560
SOUTHCON	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	William A. Kownacki	275-2318	365-5818
Historian	Russell E. Theisen	356-4320	671-4139
Member at Large	William C. Cram		647-4123
Centennial	Deen Khandelwal	356-2583	277-5959

## SOCIETY CHAPTER OFFICERS

AES	Chmn.	Dave Flinchbaugh	1-268-7252	859-4855
COMMSOC	Chmn.	Madjid A. Belkerdid	275-2787	273-8527
	V. Chmn.	Michael Harris	275-2787	
	Secy.	Mike Oleyar	628-9884	876-3582
Computer	Chmn.	Steve Forsythe	339-1600	830-8853
	Mbr. V. Chmn.	Jorge Medina	834-9600	277-8929
Electron Dev.	Chmn.	Ralph M. Mindock	862-8182	862-7764
	Mbr. V. Chmn.	Donald C. Malocha	275-2414	862-5693
	Prog. V. Chmn.	Dick Zanowick	356-2914	645-0831
AP/MTT	Chmn.	Fred Wilcox	356-2328	857-0098
Power Engineering/	Chmn.	Michael V. Haddad		851-3719
Industry	V. Chmn.	Avelino Gonzalez	281-2982	365-6812
Applications	Secy.	Sally M. Merry		629-1901
Student Chapter	Chmn.	Mike Brig		277-1396
Officers	V. Chmn.	Kim Wallace		677-4213
	Treas.	Don Vincent		678-4603

The Executive Committee meets the first Tuesday of each month, except July, at Stromberg-Carlson Training facility, 1044 N. Orlando Ave., Winter Park, FL (Galloway St. side), at 5:30 p.m. All IEEE members are welcome to attend.

ORLANDO SECTION  
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ORLANDO, FLORIDA

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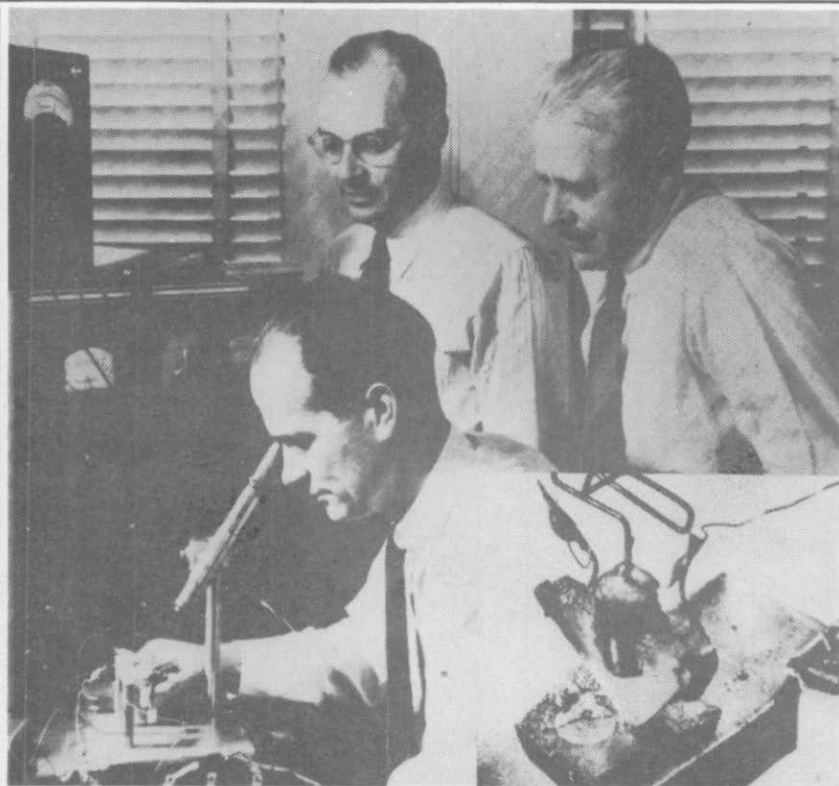


Call your  
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Representative at 859-2900



A CENTURY OF ELECTRICAL PROGRESS

VOLUME XX  
NUMBER 1  
SEPTEMBER 1984



**WILLIAM SHOCKLEY, JOHN BARDEEN  
AND WALTER BRATTAIN AND THE  
FIRST TRANSISTOR DEVELOPED IN 1947.**

**PUBLISHED BY ORLANDO SECTION  
INSTITUTE OF  
ELECTRICAL AND ELECTRONIC ENGINEERS**

## CHAIRMAN'S CORNER

### TOPIC: Notes Advertising

A major function of our Section is to inform our members of local Section and Chapter activities, such as technical, professional and social meetings. The primary media of information is this publication — The Orlando Section Notes. Publishing the Section Notes accounts for half of our \$14,000 budget for 1984-85 fiscal year. In recent years we have placed little emphasis on advertising in the Section Notes, and have maintained, what seem to be, low advertising rates compared with other sections our size. In the past year, only \$1800 of income, was generated from advertising. This large difference between publishing expense and advertising income places too much of the Section's revenue into publishing at the expense of other activities. If advertising came closer to covering publishing expenses, we could spend more to improve other member services in the Section. Inviting distinguished speakers more frequently, sponsoring more continuous education programs, more social and professional meetings, and more support of our student chapters are examples of areas that could benefit.

To this end, I am asking for a volunteer for the Advertising Manager's position, preferably someone with sales experience. Geof Dick has volunteered to review the present advertising rate structure with the hope of bringing it in line with other sections. Our publication has a well-targetted audience of approximately 1100 engineers. This should be appealing to many potential advertisers. Anyone interested in the Advertising Manager's chair please call me at 843-7030 (work)/339-8905 (home).

The October issue will be a special "IEEE CENTENNIAL" edition of the Orlando Section Notes containing many items of local historical interest. Don't Miss It!!!

Frank Fluet  
Chairman, Orlando Section

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### ORLANDO SECTION, INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, 96 SWEETBRIAR BRANCH, LONGWOOD, FL 32750

#### ADVERTISING RATES

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1/4 page	\$30	\$25
1/3 page	40	35
1/2 page	50	45
2/3 page	57	52
3/4 page	65	60
1 page	75	70

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**POWER ENGINEERING/INDUSTRY  
APPLICATION SOCIETIES  
MEETING NOTICE  
TOUR OF HYATT GRAND CYPRESS  
September 27, 1984**

**6:30 P.M. DINNER****7:45 P.M. TOUR**

A tour of this spectacular new hotel will be conducted, highlighting the electrical distribution, fire protection, HVAC and Energy Management Systems. Dinner at Hemingways, a restaurant located in the hotel, will precede the meeting. Attendees who can't join the dinner are welcome to participate in the tour.

Reservations are required for either the tour or the dinner. Please call Avelino Gonzalez 281-2982 or Sally Merry 629-1901 by September 24, 1984 to make a reservation.

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For further info, call 275-2446.

## SECTION MEETING

Monday, October 8, 1984

8:30 — 10:30 P.M.

Live, via satellite, from Philadelphia the

### IEEE-Franklin Institute Centennial Technical Convocation

presents what may be the largest technical meeting ever convened.

In October 1884 the Franklin Institute was host to an International Electrical Exhibition that included a "National Conference of Electricians." The American Institute of Electrical Engineers was formed in May of that year, in part to serve as a national electrical society to receive the foreign "electrical savants, engineers, and manufacturers" who were expected in Philadelphia. The first technical meeting of the AIEE was held at the Franklin Institute on October 7 and 8 as part of the International Electrical Exhibition.

Now, 100 years later, the IEEE and the Franklin Institute are together again, co-sponsoring a Centennial Technical Convocation that will focus on the future, to assess likely developments and their implications for society.

#### SUBJECT: "The Second Century Begins"

**The Principal Speaker:** **Bernard M. Oliver**, recently retired Board Member and Vice President for Research and Development in the Hewlett-Packard Company, continues to serve HP as Technical Advisor. He is an IEEE Fellow and served as both Vice President and President of the IEEE during the 1960s. In 1973 he was elected to the National Academy of Sciences.

**The Moderator:** **Edward E. David, Jr.** is President of Exxon Research and Engineering Company. Formerly Executive Director, Bell Telephone Laboratories Research Communication Principles Division and Executive Vice President of Gould, Inc., Dr. David also served as Science Advisor to the President and Director of the White House Office of Science and Technology.

**The Panelists:** **Alvin Toffler** is a scholar, author, and futurist best known for his analysis of contemporary social change. His books *Future Shock 2* and *The Third Wave* have been published in more than 30 languages; his most recent book, *Previews & Premises*, is now in translation in many countries. He holds five honorary doctoral degrees and is a member of the International Institute for Strategic Studies.

**Charles H. Townes** is Professor of Physics at the University of California, Berkeley. He has served as a member and Vice Chairman of the President's Scientific Advisory Commission and as Chairman of the Scientific and Technical Advisory Commission for Manned Flight. Dr. Townes is the recipient of numerous awards, including the Nobel Prize for Physics in 1964.

**Local Meeting location:** UCF Library / TV Studio in Basement

**COST:** NONE

**RSVP:** Because of limited seating, please phone reservations by noon Monday, August 8, 1984 to **George Taack** or **Ed Ellis**

849-3000



## IEEE COMPUTER SOCIETY MEETING NOTICE

The September meeting of the IEEE computer society will be held at Quincy's Steakhouse of Longwood (see directions below) on Thursday, September 26, 7:30 PM. This will be a short business meeting. We will discuss the election of new Computer Society officers for the Orlando chapter and also the programs for 1984-85. Anyone who is interested in serving as a chapter officer of the Computer Society or who would like to participate in the Computer Society by giving a talk on a computer-related topic or who has suggestions about our program content is welcome to attend. If you are planning to attend, please call Steve Forsythe at work (339-1600) or home (886)2231).

Quincy's of Longwood is right off the 434 exit of I-4. Exit I-4, turn west. Turn south at Douglas Rd., the first light.

### In Memory of Frank H. Palmer

The United States Activities Board notes with sadness the passing of Frank H. Palmer, who died suddenly on May 24, 1984 in Huntsville, Alabama. He was 56 years old.

Mr. Palmer had served IEEE as Chairman of the Canaveral Section, Chairman of the first USAB Service Contracts Task Force, and PACE Chairman of the Canaveral Section and the Florida Council. He was also the IEEE delegate to the Canaveral Council of Technical Societies. In 1978 he was awarded USAB's Citation of Honor.

Mr. Palmer was a radar and communications engineer with RCA. He was also a ham radio operator, a member of the Quarter Century Wireless Association, and had been director of public Broadcasting at WMFE-FM in Orlando.

A Memorial Endowment Fund has been established in his name at the WMFE Endowment Fund for the Humanities program. Contributions or requests may be sent c/o Cynthia Link, WMFE/Frank Palmer Fund, 1150 East Colonial Drive, Orlando, FL, 32817, telephone (305) 273-2300.

### SOUVENIER ISSUE WRITEUPS

The next issue of Orlando Section Notes (for the month of October) will be our Centennial souvenir issue. This will include all the historical information of the Orlando Section of IEEE that we can collect. If you would like to contribute articles and/or tidbits related to the theme, please submit these to our guest Editor T.E. (Ed) Ellis. He can be reached at 305-339-1600 during the day and at 305-834-3319 in the evenings. Entries must be received by September 15, 1984.

## NEW BUSINESSES

8. Financial statement will be submitted for last year by treasurer and chairman.  
Finance committee will be convened to take a "snap shot" of our current budget.
9. IEEE 1984-1985 Goals
  - a. Support/promote the IEEE Centennial celebration.
  - b. Support/sponsor local conferences.
  - c. Recruit new section officers via present chairman in standing committees soliciting colleagues to join the executive committee.
  - d. Rejuvenate AP/MTT Chapter.
  - e. Increase student involvement.
  - f. Increase activity of Comm. Chapter.
  - g. Survey member wants, locally.
  - h. Information booklet on our Section (for outside distribution, Chamber of Commerce, etc.).
  - i. Petition and submit for new chapter in Section.
  - j. Keep all local members well informed of IEEE activities and local issues (continue good job on Section Notes).
10. George McClure suggested the Awards committee consider plaques for recognition of outgoing officers.
11. Deen K. suggested chapter chairman submit a history of each chapter for inclusion in the Centennial Issue.
12. Meeting adjourned at 7:30 pm. Members broke into work groups to discuss the Centennial items and budget.

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## MEETING NOTICE ORLANDO SECTION IEEE MTT & AP SOCIETY

### SPEAKER

**Phil Bartley**  
**Hewlett Packard Co.**

Phil Bartley is a System Engineering District Manager for the Hewlett-Packard Company. As such, he is involved in the application of Automatic Microwave Test Equipment. Before joining Hewlett-Packard, he spent six years writing Microwave ATE Application Software for the Department of the Navy. Mr. Bartley holds bachelor and master degrees in Electrical Engineering from Old Dominion University, and has had several technical papers and articles published by the IEEE and the Department of Defense.

### TOPIC

**NETWORK ANALYSIS IN THE TIME DOMAIN**

**PLACE AND TIME:** Hewlett-Packard Co.; Lake Ellenor Drive  
Sept. 20, 1984 — 5:30 PM

Dinner at Gary's Duck Inn after the talk.

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## IEEE CENTENNIAL LIFE MEMBERS DAY

In the spirit of our celebration of the IEEE Centennial, we have planned for the Orlando section members to spend a day with our life members on OCTOBER 20, 1984 from 11am to about 4pm. Dr. John Ryder, Chairman of IEEE Centennial task force will be our featured speaker. He will be talking on the subject of "The AIEE - IRE Merger - an Event of our Century" and will include various historical items not well known. Informal discussions with the life members, door prizes, snacks and drinks, historical exhibition etc. are being planned all free of charge. Meeting location will be the Casselberry Senior Citizens Center. Since food is involved, reservations will be required. For further information, please look for the October issue of the Orlando Section Notes or Call Al Levy at 305-356-7411 (office) or at 305-843-7619.

## IEEE EXECUTIVE COMMITTEE MEETING SUMMARY Orlando Section

**Date:** August 7, 1984

**Location:** Stromberg-Carlson, 1044 N. Orlando Ave., Winter Park

1. Meeting called to order at 5:33 pm by Frank Fluet, Chairman. The necessary quorum was present.

2. The June minutes were reviewed by attendees. A motion was made by Ed Ellis to accept the minutes and was seconded. Motion passed.

**3. Treasurer's Report - Carl Schunemann:**

Treasurer's report dated July 31, 1984 was submitted.

**4. Programs - George Taack:**

The Installation banquet was attended by 32 persons and the presentation on "Behind the Bamboo Curtain" by Mr. & Mrs. Bob Dugan was well accepted. The actual out-of-pocket expenses was \$107.19.

The October 8 Section Meeting which will include the IEEE satellite feed of the IEEE Centennial Convocation. A limited number of seats are available (30-40 people) and RSVP will be necessary.

Engineers Week Banquet will be held Feb. 16, 1985 at the Langford Hotel.

Installation Banquet will be held at the Harley Hotel on June 22, 1985.

A proposed subsidy of \$5.00 to \$10.00 for student members at banquets. Proposal will be reviewed next month with the budget.

**5. Publications - Al Fowler:**

Al Fowler will be out of town and Ed Ellis will be guest editor for the September issue.

Centennial issue will be 30 pages. Publication will be prior to October 8 convocation.

**6. Student Activities - Don Malocha:**

Student chapter submitted a proposal for IEEE section support for a student project. The student project is a Satellite Receiving System. Project will be completed for Engineering fair submission in Feb. 1985. Further assistance is strongly solicited and any members or associates who can aid should contact D. Malocha. It was suggested a mobile system for use by IEEE should be considered.

**7. Centennial - Deen Khandelwal:**

Slide show available with a length of 35 min.

30 posters available.

IEEE standards and dictionaries have been delivered to Orlando Library. Both the IEEE section and Martin Marietta are acknowledged for the donation in the book covers since significant financial contributions were made by each.

Life members day will be scheduled for October.

## September

1984

Sun	Mon	Tue	Wed	Thu	Fri	Sat
First Quarter 7 ☾ August S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Full Moon 10 ☽ October S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Last Quarter 18 ☾	New Moon 25 ●			1
2	3 Labor Day  LABOR DAY	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20 AP/MTT MEETING 5:30PM AT HEWLETT PACKARD NETWORK ANALYSIS ON TIME DOMAIN DINNER 7:30 PM	21	22
23 30	24	25	26 COMPUTER SOCIETY MEETING 7:30PM QUINCY'S IN LINDWOOD HEMMINGWAY TOUR AT 7:45PM	27 Flash Hardware POWER ENGINEERING INDUSTRY APPLICA. BYATT GRAND CYPRESS TOUR DINNER 6:30PM	28	29

## October

1984

Sun	Mon	Tue	Wed	Thu	Fri	Sat
First Quarter 1-21 ☾	1	2 EXECUTIVE COMMITTEE SECTION MEETING 5:30 PM 1200 W. COLONIAL	3	4	5	6 YOM KIPPUR
7	8 SECTION MEETING SATELLITE FEED IEEE CENTENIAL CONVOCACTION BASEMENT UCF LIBRARY	9	10	11	12	13
14	15	16	17	18 AP/MTT PROF. BEN MUNK DISTINGUISHED LECTURER FREQUENCY SELECT. SURFACES & ARRAY ANTENNAS 5:30 PM HEWLETT PACKARD	19	20 LIFE MEMBER CENTENIAL MEETING 11AM - 3PM LUNCH-TALK-EXHIBIT DR. JOHN RYDER AT ORLANDO GARDEN CLUB
21	22	23	24	25	26	27
28	29	30	31 HALLOWEEN	Full Moon 9 ●	Last Quarter 17 ☾ September S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	New Moon 24 ☾ November S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

## JOINT MEETING COMMUNICATIONS SOCIETY AND ORLANDO SECTION

Thursday, November 1, 1984

**TIME:** Cash Bar 6:45 p.m.  
Dinner 7:30 p.m.

**MEETING LOCATION:** Orlando International Airport Marriott

**SUBJECT:** Computer Communications Networks:  
Past, Present and Future

**SPEAKER:** Mischa Schwartz

Mischa Schwartz (S'46—A'49—M'54—SM'54—F'66) received the B.E.E. degree from Cooper Union, New York, NY in 1947, the M.E.E. degree from the Polytechnic Institute of Brooklyn, NY in 1949, and the Ph.D. degree in Applied Physics from Harvard University, Cambridge, MA in 1951.

From 1947 to 1952 he was a Project Engineer with the Sperry Gyroscope Company, working in the fields of statistical communication theory, radar detection, and radar design. From 1952 to 1974, he was Professor of Electrical Engineering at the Polytechnic Institute of Brooklyn, serving as Head of the Electrical Engineering Department from 1961 to 1965. During the year 1965-1966, he was an NSF Science Faculty Fellow at the Laboratoire de Physique, Ecole Normale Supérieure, Paris, France. During the academic year 1973-1974, he was a Visiting Professor at Columbia University, New York, NY. He joined that institution in September 1974 as Professor of Electrical Engineering and Computer Science. For the 1980, calendar year, he was on leave as a Visiting Scientist with IBM Research.

Dr. Schwartz is a Fellow and former Director of IEEE, formerly Chairman of the IEEE Information Theory Group, on the Board of Governors of the IEEE Communications Society, was Vice-President and currently President of that Society. He is author or coauthor of six books on communications, signal processing, and computer communication networks, and has published extensively in the technical literature. He is on the editorial boards of Networks, Computer Networks, Performance Evaluation, and the Journal of Telecommunication Networks. He has lectured extensively both in this country and abroad on various aspects of communication theory, communication systems, digital communications, and computer communications. He was a recipient of a Distinguished Visitor Award in 1975 from the Australian-American Education Foundation. He is a Fellow of the AAAS, and past Chairman, Commission C, U.S. National Committee/URSI. He has been a consultant on communications, computer communications, signal processing and radar to many companies.

In 1983, Dr. Schwartz was the recipient of the IEEE's annual Education Medal.

# IEEE ORLANDO EXECUTIVE COMMITTEE EXECUTIVE BOARD

		Business	Home
Chairman	Frank Fluet	843-7030	339-8905
Vice Chairman	George Taack	849-3000	321-0319
Secretary	Don Malocha	275-2414	862-5693
Treasurer	Carl Schunemann	356-5801/2736	647-4992
Chapters Chairman	Geoffrey Dick	356-2796	678-0979

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Fla. Eng. Soc. Liaison	Richard Harden	855-0881	855-5775
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Student Act. Comm.	Don Malocha	275-2414	862-5693
Education	Fred O. Simons	275-2405	678-1796
Membership Develop.	Woody Carter	843-7030	831-4591

## SPECIAL COMMITTEES

SOUTHCON	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	William A. Kownacki	275-2318	365-5818
Historian	Russell E. Theisen	356-4320	671-4139
Member at Large	William C. Cram		647-4123
Centennial	Deen Khandelwal	356-2583	277-5959

## SOCIETY CHAPTER OFFICERS

AES	Chmn.	Dave Flinchbaugh	1-268-7252	859-4855
COMMSOC	Chmn.	Madjid A. Belkerdid	275-2787	273-8527
	V. Chmn.	Michael Harris	275-2787	
	Secy.	Mike Oleyar	628-9884	876-3582
Computer	Chmn.	Steve Forsythe	339-1600	830-8853
	Mbr. V. Chmn.	Jorge Medina	834-9600	277-8929
Electron Dev.	Chmn.	Ralph M. Mindock	862-8182	862-7764
	Mbr. V. Chmn.	Donald C. Malocha	275-2414	862-5693
	Prog. V. Chmn.	Dick Zanowick	356-2914	645-0831
AP/MTT	Chmn.	Fred Wilcox	356-2328	857-0098
Power Engineering/	Chmn.	Michael V. Haddad		851-3719
Industry	V. Chmn.	Avelino Gonzalez	281-2982	365-6812
Applications	Secy.	Sally M. Merry		629-1901
Student Chapter	Chmn.	Mike Brig		277-1396
Officers	V. Chmn.	Kim Wallace		677-4213
	Treas.	Don Vincent		678-4603

The Executive Committee meets the first Tuesday of each month, except July, at AUTOMATION INTELLIGENCE, INC., 1200 W. COLONIAL DRIVE (corner of 441 and Colonial), at 5:30 p.m. All IEEE members are welcome to attend.

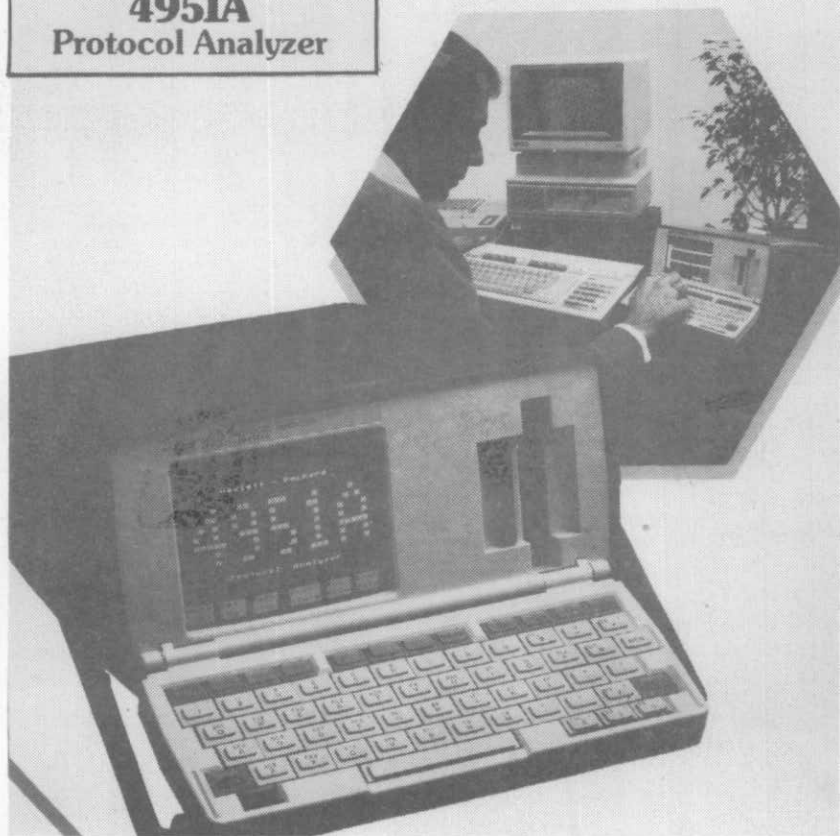
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VOLUME XX  
NUMBER 3  
NOVEMBER 1984

# REMEMBER NOVEMBER

- 1st** Communication Society and Orlando Section Joint Meeting at Orlando International Airport Marriott, at 6:45 PM  
Speaker: Mischa Schwartz
- 6th** Executive Committee Meeting at 5:30 PM,  
at Automation Intelligence, Inc.
- 13th** Power Engineering Society Special Joint Meeting at Tampa Airport Holiday Inn.  
Presentation by Thomas Beckwith following dinner.
- 15th** MTT and AP Society Program at Hewlett-Packard Co. followed by dinner.  
Speaker: Dr. Oren B. Kesler

DETAILS INSIDE

PUBLISHED BY ORLANDO SECTION  
INSTITUTE OF  
ELECTRICAL AND ELECTRONIC ENGINEERS

## CHAIRMAN'S CORNER

### Centennial Activities

The Centennial Committee, chaired by Deen Khandelwal, continued its excellent production of Centennial activities:

a. I have received some very positive comments on the Centennial Edition of the Orlando Section Notes (edited by Ed Ellis). Congratulations Ed.

b. Thanks to the University of Central Florida (and Vince D'Amico of UCF) for providing the viewing facilities and arranging for the satellite reception of the special, live IEEE Centennial Convocation from the Franklin Institute in Philadelphia on October 8. It was enjoyed by about 15 local members (we had room for quite a few more).

c. I found the highlight of this month's events to be the meeting with Orlando Section's LIFE MEMBERS on October 20 at the Casselberry Senior Citizen Center. The meeting was chaired by Al Levy. Dr. John Ryder presented many "insider" details of the personalities and activities leading up to the merger of AIEE and IRE into our IEEE in 1963. The talk was followed by each LIFE MEMBER discussing personal highlights in their Engineering careers. These gentlemen had wonderful experiences and observations to relate to us all. It again was unfortunate that more Section members didn't take the opportunity to enjoy this meeting of people with a more intimate appreciation for the changes that took place during much of the "Century of Electrical Progress".

### New Advertising Rates

Starting with the October issue of the Section Notes, the advertising rates have increased. (Typically for a full page ad from \$75 to \$100.) This was found necessary to pull our advertising revenue in line with publication cost increases over the last few years. (Geof Dick's analysis of last year's statistics was very helpful in arriving at this decision.) We feel that the high quality of the publication and the specific audience of approximately 1100 engineers should appeal to many potential advertisers. Requests to place ads in the Section Notes should be directed to John Gilbert 365-2363 (office).

### Quarter Million Mark

The growth of IEEE continues. The 250,000th IEEE member is expected to join this month. He or she will be rewarded with five free years of membership.

Frank Fluet

Chairman, Orlando Section

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### ORLANDO SECTION, INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, 96 SWEETBRIAR BRANCH, LONGWOOD, FL 32750

#### ADVERTISING RATES

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	1-2 Insertions	3-10
1/4 page	\$45	\$35
1/3 page	55	45
1/2 page	65	55
2/3 page	75	65
3/4 page	85	75
1 page	100	85

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## A WORD FROM THE EDITOR

As your new editor, I have a tough act to follow. I will try to serve your needs to the best of my ability. You can help me by getting your information to me as early as possible. If you have any suggestions regarding content or form, send me a note or call me at 629-5591. A brief background on myself: I recently left Harris Government Systems in Melbourne, and came to work in Orlando as a Sales Engineer with CAE Systems, Inc. I have been traveling a lot, and I am in and out even when I'm in town. When you try to reach me, don't give up. In any case, I do return phone calls.

Alex Marton  
Editor

---

## IEEE EXECUTIVE COMMITTEE MEETING ORLANDO SECTION

**Date:** October 2, 1984

**Location:** Automation Intelligence, 1200 W. Colonial Dr., Orlando

**Attendees:**

George B. Taack, Jr.  
Richard Harden  
George McClure  
Don Malocha  
Ben Patz  
Russ Theisen  
David Flinchbaugh

Frank Fluet  
Ed Ellis  
Steve Forsythe  
Fred O. Simons, Jr.  
Geoff Dick  
Joe Massett  
John Gilbert

### **Abbreviated Summary of Minutes**

Meeting called to order at 5:33 pm by Frank Fluet, Chairman. The necessary quorum was present at 6:25 pm.

The Sept. minutes were reviewed by attendees. A motion was made to accept the minutes and was seconded. Motion passed.

### **Treasurer's Report - Carl Schunemann:**

Treasurer's report dated Sept. 4, 1984 was submitted and is attached. Carl was absent and report was approved.

### **Public Relations - George McClure**

Possible Orlando Sentinel coverage for Engineering week.

### **Publications - Al Fowler: Ed Ellis reported.**

Will add "TIME VALUE MAIL" to section notes for quicker delivery.

### **Advertising - Geoff Dick:**

Motion for new rates for advertising was presented and passed unanimously. The new schedule appears in this issue.

**Awards - Ben Patz:**

A discussion of plaques for outgoing officers was held. No decision was made and discussion is tabled until next meeting.

**Florida Engineering Society Liason - R.C. Harden:**

FES will meet Oct. 3.

**PACE - John Gilbert:**

No new activities. Announced 1 day Region 3 meeting on Nov. 17 in Charlotte, N.C. This is PACE Chairman workshop. Some travel support is available.

**Education - Fred Simons:**

If not enough attendants by Oct. 3, short courses will be cancelled.

**Student Activities - Don Malocha:**

UCF students will attempt to hold Student Professional Awareness Conference (SPAC) on Nov. 14. FES will provide \$300.00 to student section. Dr. Guha will be faculty coordinator.

Student TVRO satellite project is progressing. Donations of \$450.00 have been obtained from outside sources.

**Membership Development - Deen Khandelwal:**

Report was submitted. Deen was absent and no discussion was held.

**Historian - Russ Theisen:**

IEEE will report the 250,000th member and this person will receive benefits and prizes in celebration of centennial.

IEEE T-shirts and caps are available from Russ. IEEE or Comp. Soc. emblems are available. \$70.00 was approved by section for purchase of set to distribute among selected student members.

## CHAPTER REPORTS

**AEES - Dave Flinchbaugh**

Dave was in Germany participating in International Cooperation on Space Exploration Conference.

**Communication - Madjid Belkerdid:**

November 1st joint Comm. and Section dinner meeting is planned. The speaker will be Misha Schwartz who will present "Computer Communication Networks; Past, Present and Future" at 6:30 pm. See section notes for details.

**Computer Society - Steve Forsythe:**

Organizational meeting was held. George Medina is now Vice-Chairman. Program planning is being conducted.

Meeting adjourned at 8:30 pm.

Time/Place of next meeting:

Nov. 6, Tues., 5:30 pm, Automation Intelligence (AI)  
1200 W. Colonial Drive  
(west of I-4 and Colonial Drive)

## IEEE ORLANDO SECTION TREASURER'S REPORT OCTOBER 2, 1984

CHECKING ACCOUNT BALANCE, SEPTEMBER 4, 1984 TREASURER'S REPORT	\$544.97
---	----------

PLUS DEPOSITS, NOT PREVIOUSLY RECORDED:

4-9-84	C. William Cleworth Centennial Contribution	\$ 25.00
4-11-84	Rest of tickets receipts Electron Devices Dinner Meeting of 4-10-84	\$373.31

REVISED CHECKING ACCOUNT BALANCE AS OF SEPTEMBER 4, 1984	\$943.28
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DISBURSEMENTS:

#1144	Casselberry Senior Citizens Center (to reserve Life Members meeting room for October 20, 1984)	\$ 50.00
#1145	Orlando Airport Marriott Attention: Bernie Ackley (November 1st IEEE meeting deposit)	\$100.00
#1146	Mr. Steve McKenna (donation to IEEE Student Chapter)	\$400.00

TOTAL DISBURSEMENTS	\$550.00
---------------------	----------

October 2, 1984 checking account balance (\$943.28 - \$550.00 = \$393.28)	\$393.28
--	----------

Dreyfus Account Balance, 9/28/84	\$10,362.46
----------------------------------	-------------

GROSS FUNDS	\$10,755.74
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## POWER ENGINEERING SOCIETY INDUSTRY APPLICATION SOCIETY

Special Joint Meeting with the Florida West Coast P.E.S. Chapter and with  
Administrative Committee (AD COM) of the Power Engineering Society

### TOPIC:

ELECTRICAL TRANSIENT ENVIRONMENT PROTECTION TECHNIQUES

presented by Mr. Thomas R. Beckwith of Beckwith Electric Company

The PES AD COM, consisting of the President of the PES, Mr. C.L. Wagner, and other officers and chapter representatives listed inside the cover of "Power Engineering Review," is holding a three-day working meeting in Tampa. All Florida PES Chapters have been invited to participate in a special joint meeting with the AD COM. This meeting will provide you with the opportunity to meet other Florida PES members, to hear an interesting technical presentation, and to meet Society Officers.

### MEETING ARRANGEMENTS

#### Where:

Tampa Airport Holiday Inn  
4500 Cypress Street  
Tampa, FL

#### When:

Tuesday, November 13, 1984

#### Time Schedule:

6:00 - 7:00 Social Hour (Cash Bar)

7:00 - 8:00 Dinner (London Broil)

8:00 - 9:00 Presentation - Thomas R. Beckwith

9:00 - P.E.S. Forum - C. L. Wagner

#### Cost:

\$ 13.50 each

(Student tickets half price.)

**Reservations:** For dinner, call by Thursday November 8.

For technical program only, call by Tuesday November 13.

Contact Mike Haddad (281-2393), Avelino Gonzalez (281-2982) or  
Sally Merry (629-1901). Car pooling may be arranged.

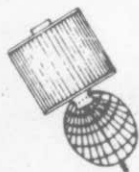
### Program Description:

Mr. Thomas R. Beckwith of Beckwith Electric Company will give the after dinner presentation on "Electrical Transient Environment Protection Techniques".

Over the years, micro-processor based components have been assimilated into countless industrial, commercial and residential applications. Intergrating micro-processors into industrial and utility applications has proven to be an extra tough challenge. Micro-processor based protective relays for generation, transmission and distribution circuits must be designed to function in severe transient environments. Mr. Beckwith will discuss these harsh environments, explore the methodology of protecting these electronic components, and demonstrate the M-0180A Surge Withstand Capability Tester Used at Beckwith Electric for product testing.

Following this presentation, Mr. C. L. Wagner, President of the Power Engineering Society, will entertain questions from the audience concerning the P.E.S. and the I.E.E.E.

UNIVERSITY OF CENTRAL FLORIDA  
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NON-MEMBERS STUDENTS - \$25.00

## PACE REPORT

This article by Russ Drew, USAB Chairman, appeared in the Oct. '84 issue of *IMPACT* and is reprinted in your Section Notes as it is felt it should be of interest to all members—Your PACE Chairman, John Gilbert.

### What have we learned?

This is the question I ask when I look back at the recent National PACE Conference.

Those of us who were privileged to attend the recent conference in Phoenix participated in a truly unique event. For the first time participants included members of the Board of Directors, the USAB, the Vice Presidents responsible for the other major boards in the institute, the President of the IEEE, and three of the four candidates for President-elect and Executive Vice President, along with over 150 PACE leaders. The program was stimulating and varied, thanks to the hard work of volunteers and staff, and the exchange of views was both spirited and very positive.

As we returned to our respective home bases, I'm sure most of you shared my conviction that we had made an important step forward in bridging the gap that is often perceived between PACE and the IEEE leadership.

In looking back at this memorable event, with the benefit of some time in which to think about the various things that occurred, let me give you some of my thoughts in response to the question: "What have we learned?"

First, I believe we learned to respect and perhaps to understand some of the different points of view that are present at various levels in the Institute structure. PACE is now viewed in a different light by those who are on the Board of Directors, and PACE leaders have a better appreciation of the Board, which at times has seemed distant and indifferent to PACE concerns.

Second, the importance of improving our communication links with and among each other was reinforced over and over again. Many sessions revealed that we in USAB leadership positions have to do a better job of telling the membership, and particularly our PACE leadership, what we are doing and what we have done and why. For example, the significant progress that IEEE has been able to make in re-molding the American Association of Engineering Societies (AAES) along the lines suggested at the last PACE conference has not been communicated to our members. We have agreed to address this topic in a special detailed report to PACE.

There are many other areas where there is a similar lack of information. This is why USAB is examining the prospect of converting *IMPACT* to a special insert in *The Institute*, so that we can reach all members more effectively. The PACE structure also needs to provide suitable opportunities for information to flow from the local level to USAB. Let me assure you, we want to hear about problems and developments at the local level that we can use to shape the activities of the USAB at the national level.

Third, we have a remarkable level of commitment at all levels of the Institute to make engineering a truly rewarding, lifetime career of high professional standing. This was



reflected in the extensive discussion of the need for a definition of "engineer" as it applies to the workplace (a task that the USAB will be pursuing through its committees). It was also reflected in the many discussions about continuing education, career planning, ethics, manpower, engineering awareness, patents, and entrepreneurship, just to name a few of the topics that received consideration. This commitment provides a clear signal to the USAB about the importance of professional activities to our members.

Fourth, despite significant progress in building understanding, there are still areas where members felt divorced from the USAB leadership and from the many volunteered committees that are addressing issues and carrying out programs to support the professional objectives of the Institute. Perhaps this will always be so, but I will be asking the USAB to consider new approaches to improve our connections to the members, in response to this perceived problem.

Fifth, we have only begun to utilize the great potential of the PACE network, both as a method of outreach and of bringing professional activities and professional awareness to all levels of the Institute, and as a "grass roots" source of directions and guidance to the USAB. We need more practical guides to local PACE leaders to assist them in carrying out their tasks, and probably more hands-on training sessions to review what works and what doesn't in various settings. In short, we need to do more to make each one of you more effective—and thereby have the USAB as a whole more effective.

Finally, we learned that beyond our immediate career concerns there are important public service roles we can play that build upon our unique perspective on advanced technology and its importance to society. One concern that was particularly highlighted was the crisis in pre-college math and science education. The seriousness of the problem was brought home by the comparisons with other developed nations—where the U.S. was the lowest of all the major nations cited. PACE can provide the catalyst for local action by the IEEE, since it was pointed out that we are one of the few organizations that have members in every school district in the U.S. Watch for more information about this topic in your mail. In addition to this subject, we also heard about topical energy issues, technology transfer, the environment, and engineering research, all concerns in which the IEEE can have an important voice in articulating public policy positions.

As you can see from my personal list of what was learned, there are many actions that will flow from the work done at the conference. I encourage each of you to take time and put your own list together. Then act! Make this event even more memorable for what it was able to bring about, than just for what was done or said at the conference.

—Russ Drew

## MEETING NOTICE MTT & AP SOCIETY

### SPEAKER

**Dr. Oren B. Kesler**  
**Antenna Laboratory**  
**Texas Instruments, Inc.**

There has been a renewed interest in reducing the radar cross section (RCS) of airframes, weapons and other targets. It has long been recognized that the reduction in the RCS is one of many tradeoff parameters that affect the success of a mission. However, only recently has there been a concerted effort to field new hardware designed with reduced RCS as a goal. Developments in microwave technology and analysis are just two of the factors that have influenced the reduced radar cross section (RRCS) trend.

Dr. Kesler will give an overview of the problem of reducing the radar cross section and briefly describe the past work. Developments in measurement techniques, particularly in compact range, will be discussed and data shown. Electromagnetic scattering analysis techniques and issues that affect RCS prediction will be considered and illustrated with examples. And, finally, projected trends in radar signature technology will be given.

### TOPIC

Radar Signature Technology

**PLACE AND TIME:** Hewlett-Packard Co., Lake Ellenor Drive,  
Nov. 15, 1984 5:30 PM  
Dinner at Gary's Duck Inn after the talk

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Managing Time	11/29/84	1 day	\$85
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## DECEMBER ACTIVITIES

- 4th** Executive Committee Meeting at 5:30 P.M.  
at Automation Intelligence, Inc.
- 5th** Central Florida Council for High  
Technology, get-acquainted meeting at  
5:00 P.M., at the House of Beef.

**DON'T MISS THIS!**  
**READ DETAILS ON PAGE 6**

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## CHAIRMAN'S CORNER

### Milestone:

The Orlando Section statistics for October 31, 1984 show 1,002 'active' members. I believe this is the first time we have exceeded 1,000 members. As we grow in membership, the group's interests change. We would like to take a reading of these interests to see how we can better meet the needs of our Section.

### Services:

For many of our 1,002 members, being 'active' means paying dues, receiving technical magazines and possibly taking advantage of low group insurance rates. We would like to get more of these 'active' members locally active. In the last year or so, the Orlando Section has sponsored or supported the following local events: distinguished speakers (last month's noted national lecturer Mischa Schwartz, for example), technical tutorials, courses via satellite, entrepreneurial seminars, section meetings on career development, Pensions/IRA's/Investments, Patent and Enterprise Forum, plant tours and social events. Member turnout for some of these has been poor. The success or failure of these activities are determined by member participation. We have dropped some events/activities due to lack of interest (e.g., the 'annual' summer barbecue). This is not unusual in a dynamic, growing group. Our job is to try to match services/activities to the group's present requirements.

### Survey:

We would like to address the needs of more of our members. Which services do you want added, improved or dropped? The Section Programs Chairman, Conrad Blankenzee, is working on a questionnaire and will distribute it in the near future. He hopes to identify the desired services and avoid a lot of trial and error in our program planning. Please take the time to give us your input when you receive the survey. A portion of your annual IEEE dues supports the Orlando Section activities. Help us use those funds efficiently in serving our members.

### Deadline:

Our new Section Notes editor, Alex Marton, is making a concerted effort to have the Section Notes delivered to members the first week of the month. For this reason, unless copy is received by Alex before the 15th of the month, it cannot be assured of publication in the coming month's Section Notes. This is necessary so we have timely meeting announcements.

Frank Fluet  
Chairman, Orlando Section

## SECTION MEETING

of November 6, 1984

### CHAIRMAN'S NOTES

1. We welcome Victor Alas, our new member of the Publication Committee. Victor will co-chair the committee with John Gilbert. Victor works at United Telephone Company. Mailing address and phone is:

Victor M. Alas, Jr.  
377 Springdale Dr.  
Altamonte Springs, FL 32701  
830-3326/788-6768 B/H

If anyone has leads to potential advertisers, contact John or Victor.

2. Publication costs of the Centennial Issue of the Section Notes ran over budget. We had budgeted \$1400 for 1100 copies; however, actual expenses were approximately \$2060 for 1300 copies.

3. Dr. Hanns Wolff has donated a number of artifacts from early radio, radar and electronics history. We would like suggestions for the best way to display them. Dr. John Ryder, at the meeting of Life Fellows, suggested IEEE headquarters, or the Smithsonian. Is there any Educational, Public Service or Industry display case that could make use of this resource? Please direct suggestions to Deen Khandelwal or me.

4. At the October 20th meeting of Life Fellows in celebration of the IEEE Centennial, 18 cups ('I AM AN ORLANDO SECTION MEMBER') were awarded as door prizes and were very well received and appreciated by the Life Fellows and their spouses.

5. George Taack will be representing our section at the Region 3 PACE Conference, Saturday, November 17, in Charleston, SC.

6. Deen Khandelwal would like to locate all the special Centennial Historical posters. Some of them were loaned to various individuals. If you have any, please notify Deen.

---

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1 page	100	85

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# IEEE ORLANDO SECTION TREASURER'S REPORT NOVEMBER 6, 1984

**Summary:**

Checking Account Balance, 10-2-84		\$ 393.28
Plus Deposits		9,019.37
	Sub-Total	9,412.65
Less Disbursements		6,387.07
Checking Account Balance, 11-6-84		3,025.58
Dreyfus Fund Balance, 9-28-84		10,362.46
Less Withdrawals		7,000.00
Current Dreyfus Fund Balance		3,362.46
<b>Total Funds:</b>		
Dreyfus Fund		\$3,362.46
Checking Account		3,025.58
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Respectfully submitted,  
Carl F. Schunemann  
Treasurer



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## MEETING REPORTS

George Taack reports that the meeting of October 8, 1984, IEEE-Franklin Institute Centennial Technical Convocation via Satellite, was attended by 16 people (12 IEEE members and 4 guests), and that the consensus was that it was an interesting and worthwhile event. Wish that the turnout had been greater.

Fred Wilcox reports that the AP/MTT meeting of 18 October was attended by 13 people, four of them guests. The paper "Scan Independent Phased Arrays" was presented by Professor Ben Munk.

Mike Oleyar writes that the joint ORLANDO SECTION-COMMUNICATIONS SOCIETY dinner meeting held at the Orlando International Marriott on November 1 may have been a record breaker for the Orlando Section insofar as attendance is concerned. Featured speaker Dr. Mischa Schwartz, COM SOC National Chairman, drew over 120 persons for both the dinner and the meeting (70-80 UCF students) and additional people who came to attend the 2-hour presentation on Computer Communications Networks. Dr. Schwartz devoted most of his talk to present networking, e.g., ARPANet, SNA and LANs including DECNET and ARCNet. He addressed the future with comments concerning ISDN. Judging by the number of questions following the talk, the meeting was a huge success.

In addition to the large turnout of representatives from UCF, there were attendees representing these activities or organizations:

Consultants  
AT&T Communications  
AT&T Information Systems  
Columbia University  
Hamilton Avnet  
HLOT Engineering

Lockheed Electronics  
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## PACE REPORT

*This article by Harb Hayre, National PACE Chairman, appeared in the Nov. '84 issue of IMPACT and is reprinted in your Section Notes; as we agree with Harb, all IEEE members do indeed have a role to play in our national energy policy.*

*—Your PACE Chairman, John Gilbert*

At this year's National PACE Conference, I attended the Energy Session from the beginning to the very end. I found the topics covered to be both interesting and thoroughly covered, although the attendance was sparse. The speaker was wondering whether our local IEEE and PACE leaders could organize and support state legislative activities on energy.

This question touches upon the basis of PACE, which was set up to influence local, state and national leaders to resolve professional and technological issues. PACE leaders have a major responsibility to increase the awareness of our members and to alert our volunteers to the issues of the day, as well as to work with legislators. No one influences an elected official better than his or her own constituent at the local level.

Telephone calls, followed by letters to your Congressmen and Senators do wonders in this process. I am told that a Congressman who gets 50 letters on an issue, and a Senator who gets 100 letters, considers that issue important and pays attention to what people say and write. Recent examples of our accomplishments with such actions are passage of the pre-college math and science education legislation and the expanded IRA legislation.

What does this have to say about energy? In my estimation, it illustrates that approximately 200,000 of us in the U.S. can and will affect the future of energy policy, even though it may take a long-term effort. We need to alert our Congressmen and Senators to research and development funding needed in this field so that we, as a nation, are not left behind in the world marketplace.

The industrial success of a nation is invariably measured by the amount of energy expended. Of course, the environmental impact of our energy processes, as well as safety, are issues that we need to approach positively and constructively. Our energy consumption has slowed down in the last few years, but any industrial resurgence shall certainly reverse this trend, even though we are using energy far more efficiently and conserving more than before.

IEEE members have a role to play in helping to formulate an efficient, safe, and environmentally clean energy policy, with appropriate R&D funding by both industry and government. Your personal involvement is the key to success.

*—Harb S. Hayre*

## **IEEE ENGINEER, DR. DAVID FLINCHBAUGH, CHOSEN FOR HONORS**

### **ASTRONAUT CAPTAIN JOHN YOUNG MAKES PRESENTATION TO ENGINEERS**

An outstanding member of the IEEE Orlando Section for sixteen years, Dr. David E. Flinchbaugh has been named as "Engineer of the Year" for 1984 by the Florida Engineering Society and the National Society of Professional Engineers. The presentation was made at a banquet culminating National Engineers Week at which John Young also described to the 440 attendees the successes of a recent space shuttle mission.

Dr. Flinchbaugh started initially with the Institute of Radio Engineers in 1954 in upper New Yorks State while he was studying at Union College. He completed his graduate work in Connecticut and worked in industry there for several years before moving to Central Florida. He is a registered Professional Engineer in both Florida and Pennsylvania, a Certified Manufacturing Engineer in Robotics, and a Florida Certified Teacher.

Earlier this year Dr. Flinchbaugh became the second Floridian to receive the "State Inventor of the Year" award and was subsequently nominated to United States Inventors Hall of Fame. The presentation was made by Isaac Fleischmann, past Director of Information for the U.S. Patent Office. Since 1955, Dr. Flinchbaugh has prepared 32 invention disclosures and holds eight U.S. and foreign patents in lasers, electro-optics, and robotics technologies.

Having received the Aerospace and Electronic Systems Society award in both 1980 and again in 1983, Dr. Flinchbaugh was honored last year with the Orlando Section "Engineer of the Year" award. He has the unique distinction of being the first Central Florida candidate to win this recognition from either the Institute of Electrical and Electronic Engineers or the Society of Manufacturing Engineers, as well as enjoying a dual nomination from both this largest professional engineering organization in the world and also the fourth largest. His primary work in industry has produced new laser systems, the development and commercialization of acousto-optic modulators, and significant advancements in hazardous environment robotics systems. Applications in military weapons and delivery systems, manufacturing automation, radar, sonar, and medicine are numerous. Since 1969 he has helped organize, chair sessions, or has spoken at over 25 national or international professional conferences, and he is a past Director of the Laser Institute of America, past President of the Optical Society of America Florida Section, President of the Central Florida Inventors Council, Chairman of Robotics International C.F. Chapter, and invited lecturer for the Fusion Energy Foundation, the Schiller Institute, and the Space Congress. He has presented over sixty technical papers, published in 28 journals and books, with some of them translated into six foreign languages.

Dr. Flinchbaugh's nomination for Fellow of the I.E.E.E. this year has been endorsed by a Nobel Prize recipient, ten additional Fellows, and numerous letters of recommendation from local, state, and regional representatives.

Currently a Senior Staff Specialist at McDonnell Douglas Astronautics Co., Dr. Flinchbaugh's work assignments range from braided composite IRAD to improved missile aiming, guidance, and tracking, as well as automated processing and materials handling. He has prior experience as Vice President of Control Laser Corp., President of Aerobeam Corp., Chief Consultant for Laser Optical Co. and for Cyber-Morphics International, Chief Engineer of Applied Devices Corp., and Senior Staff Consultant to Westinghouse, Sperry Electronics, Martin Marietta Aerospace, Planning Research Corp., and United Technologies Research Corp. He has also held R & D appointments at I.B.M. Corp., Argonne National Laboratories, and International Laser Systems, Inc. He is currently the Chief Booster and a Director of the M.D.A.C. Management Club Chapter of the National Management Association.

In addition, he holds an adjunct teaching position at Florida Institute of Technology, where he has developed a new course in Remote Operations Technology for their Aerospace Engineering graduate program. He has also taught at Case Institute of Technology, the University of Connecticut, Rollins College, Platts Academy, Seminole Community College, Valencia Community College, Emory-Riddle Aeronautical University, and the University of Central Florida. In his spare time, his interests have also earned him a license for amateur radio operation, experience as WRUC AM radio night manager and announcer, licenses as land and seaplane private pilot and basic ground FAA instructor, certified scuba diver, licensed financial planner and NASD representative, and volunteer instructor certifications for American Red Cross first aid, CPR, water safety, and Emergency Medical Technician I. He earned the highest awards in three branches of Scouting U.S.A.: Webelos, Eagle and Palms, and the Explorer Silver Award, and he is still active with boy and girl scout troops as well as being a co-founder of Aviation Explorer Post 727 in 1978. Other community service activities include Presbyterian Church choir and solos, occasional radio or television appearances to explain and describe modern technology utilization and spin-offs in our everyday lives, community science center lectures, and assistance with technical steering committees in various organizations.

Dr. Flinchbaugh was elected President of the Florida Council of Engineering Societies (1981-2) which represents approximately 25,000 engineers of all disciplines and provides an advisory function to the Governor. He also progressed through the chairs and served as Chairman of the Florida Council of the I.E.E.E. (1978-81). Other honors include the Bausch and Lomb plaque for scientific achievement, the Rensselaer Polytechnic Institute Gold Medal for excellence in science and mathematics, nine gold medals for solo piano in the New York State School Music Association Annual Festivals, and three awards for meritorious service from the Laser Institute of America. He is listed in American Men of Science, Who's Who in the Southeast, the International Who's Who, Who's Who in Lasers and Quantum Electronics, Personalities of the South, and Community Leaders of America. He was also one of a select group of professionals chosen by the Robot Institute of America and Robotics International in 1983 to be a Citizen Ambassador for technology information exchange in the President's program to develop trade relations with the Peoples Republic of China.

## CONGRESS RESTORES TAX BREAK FOR EDUCATIONAL ASSISTANCE

Congress in October approved a bill to reinstate for two years the tax-free status of tuition provided by employers for educational assistance. The 1978 tax law creating this fringe benefit expired at the end of 1983. H.R. 2568 allows individuals to receive educational assistance, such as tuition benefits, from an employer without declaring the aid as income. The bill approved makes the provision retroactive to Dec. 31, 1983. According to its sponsor, Rep. James Shannon, it is supported by a wide and diverse group that includes educational associations, colleges and universities, corporations in every area from banking to high-tech, and labor unions. IEEE was included in the group.

Here is what the approved measure does:

*The bill extends the exclusion for employee educational assistance for two years through 1985, subject to an overall annual limit of \$5,000 of excludable educational assistance benefits per employee. The bill waives penalties and interest for failure to withhold during 1984. In addition, the bill requires an employer with an educational assistance program to provide an annual information return on the plan to the Internal Revenue Service, and requires the Treasury Department to provide the tax-writing committees of the Congress with a study on the effect of the exclusion.*

As explained by Chairman Dan Rostenkowski, the Ways & Means Committee extended the program for only two years so that Congress could review it in the light of the information generated by the Treasury study. That study is due by October 1, 1985. Rostenkowski estimates that the revenue loss for FY 1985-87 will be \$186 million.

Another Ways & Means committee member, Rep. Jake Pickle, supports the principle of H.R. 2586 and another fringe benefit bill (group legal services) but, he said, "I do not believe that we should exempt these fringe benefits from employment taxes. In the next Congress, I expect a thorough review of employee fringe benefits from a Social Security and income tax perspective." Pickle heads the Social Security subcommittee of Ways & Means, which will examine the question of why there needs to be a Social Security tax exemption "to encourage the use of a fringe benefit that has nothing to do with the purposes of the Social Security program..."

He believes educational assistance benefits should be subjected to employment taxes and that, from the public policy viewpoint, "there is no compelling reason to have identical wage bases for social security and income tax purposes."

The companion bill in the Senate, which was sponsored by Sen. Bob Packwood, was approved Oct. 11. The senators did not discuss the tax base during the brief debate.

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Student Act. Comm.	Don Malocha	275-2414	862-5693
Education	Fred O. Simons	275-2405	678-1796
Membership Develop.	Woody Carter	843-7030	831-4591

## SPECIAL COMMITTEES

SOUTHCON	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	John Gilbert	365-2363	859-5492
Historian	Russell E. Theisen	356-4320	671-4139
Member at Large	Joe Massett	356-3858	834-3448
Centennial	Deen Khandelwal	356-2583	277-5959

## SOCIETY CHAPTER OFFICERS

AES	Chmn.	Dave Flinchbaugh	1-268-7252	859-4855
COMMSOC	Chmn.	Madjid A. Belkerdid	275-2787	273-8527
	V. Chmn.	Michael Harris	275-2787	671-1849
	Secy.	Mike Oleyar	628-9884	876-3582
Computer	Chmn.	Steve Forsythe	244-1166	830-8853
	Mbr. V. Chmn.	Jorge Medina	834-9600	277-8929
Electron Dev.	Chmn.	Ralph M. Mindock	862-8182	862-7764
	Mbr. V. Chmn.	Donald C. Malocha	275-2414	862-5693
	Prog. V. Chmn.	Dick Zanowick	356-2914	645-0831
AP/MTT	Chmn.	Fred Wilcox	356-2328	857-0098
PE/IA	Chmn.	Michael V. Haddad	281-2393	851-3719
	V. Chmn.	Avelino Gonzalez	281-2982	365-6812
	Secy.	Sally M. Merry		629-1901
Student Section	Chmn.	Steve McKenna	275-2786	277-1396
Student Comp.	Chmn.	Ron Krauskopf		677-4213
Chapter	Treas.	Don Vincent		678-4603

The Executive Committee meets the first Tuesday of each month, except July, at AUTOMATION INTELLIGENCE, INC., 1200 W. COLONIAL DRIVE (corner of 441 and Colonial), at 5:30 p.m. All IEEE members are welcome to attend.

ORLANDO SECTION  
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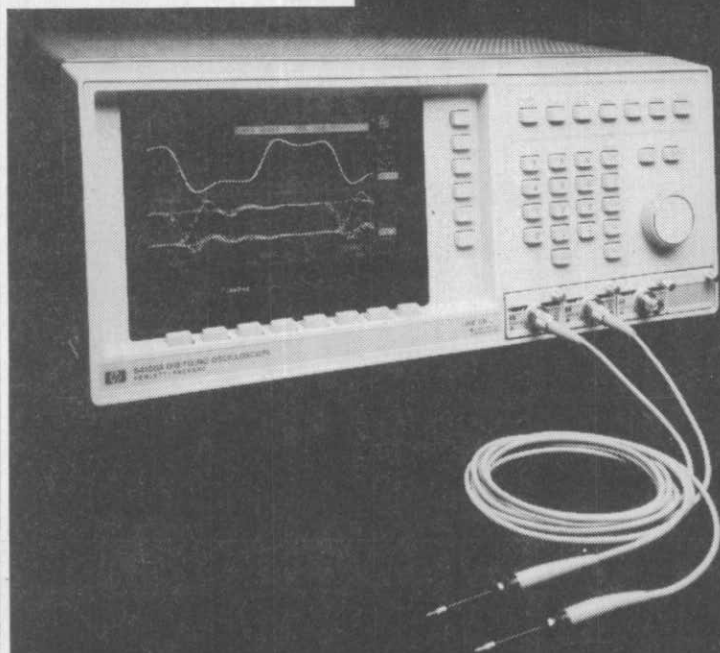
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VOLUME XX  
NUMBER 5  
JANUARY 1985

## **"THE GOLDEN AGE NEVER WAS THE PRESENT AGE"**

Poor Richard's Almanack, Nov. 1750

(Article on Page 8)



**PUBLISHED BY ORLANDO SECTION  
INSTITUTE OF  
ELECTRICAL AND ELECTRONIC ENGINEERS**

## CHAIRMAN'S CORNER

January 1985

### The 'SECTION':

In IEEE, a SECTION is the administrative unit in a geographical area — in our case, five counties in Central Florida. There are 249 Sections in IEEE. The Sections of the Southeastern U.S. form a 'Region' (Region 3). The international IEEE organization is made up of 10 Regions, six of which are in the U.S.

### The Role of a Section:

This inherently large size of IEEE isolates Headquarters policy makers from the working engineer. It is the role of Sections to communicate in both directions between these two groups and to try to satisfy the local requirements of its members.

### Sections Congress:

On May 15, 1984, for the first time, representatives from most Sections gathered together in Boston at a "Section's Congress". The purpose was to have an exchange of ideas and to make headquarters aware of grass-roots concerns and issues. I am sure the Section representatives did the best they could to express the perceived views of their members, but I wonder how accurate those perceptions were. Typically only a small group of members provide input to section leaders. The 'silent' seem to be a large majority in IEEE.

### Topics:

Following are some of the topics discussed at the Congress and some others that may be of local interest.

### PROFESSIONAL:

- Career Planning and Development
- Pensions
- Age Discrimination
- Entrepreneurial Activities
- Intellectual Property/Patents
- Ethics
- Licensure and Registration
- Public Image
- Salary Surveys
- Employment Assistance
- Awards
- Student Professional Awareness
- Meeting with peers

### SOCIETAL:

- Energy Policy
- Environmental Quality
- Health Care Technology Policy
- Pre-college Math/Science Education

### TECHNICAL:

- Continuing Education
- Home Study Courses
- Tutorials
- Local Chapters of IEEE Societies
- Conferences
- Distinguished Speakers
- Satellite Television Courses

**Survey:**

We are in the process of putting together a survey form to try to find out what our local members consider high priority concerns. The above list of topics will be reviewed for the survey. The results of our survey should illustrate where the general membership wants more local emphasis, and improve representation at future Congresses.

Do you know of any items that should be added to this list? If you have any thoughts in this area, drop me a line at:

96 Sweetbriar Branch

Longwood FL 32750

or call me at (305) 339-8905 during business hours.

Frank Fluet

Chairman, Orlando Section

\*\*\*\*\*

## A WORD FROM THE EDITOR

### *A tug at your sleeve*

Contributors have been doing pretty well in observing the submission deadline for publication of the Section Notes. If you continue getting your inputs to me by the 15th of the month, I'll be able to get the newsletter out in time for you to receive it before the first meeting of the month. It's your vehicle to get your news out to the membership. We can do it if we all pitch in.

### *Better service*

As the Section strives to serve the membership better (see Chairman's Corner), I would like to expand the usefulness of the Section Notes. One thing that comes to mind is a Classified Section. For a start, it will be free — until we see how it goes. The rules are simple: keep it short and *relevant* — remember this is a professional newsletter. Send ads to me: Alex Marton, 2705 Faulkner Rd., Orlando, FL 32810.

### *Advertising*

Everyone can do a little to generate additional advertising. More ads lead to more revenue, which enables us to add more pages and carry more items of interest to the members. Get your employer to run an ad for his product, or to run Help Wanted ads (a subject dear to my heart since my employer and I recently parted company) in the Section Notes. Business card ads are ideal for consultants, financial planners, etc. A "Services Offered" section would be a welcome addition. Tell your friends, and call John Gilbert for information on how to advertise.

Alex Marton

Editor

## IEEE ORLANDO SECTION EXECUTIVE COMMITTEE MEETING MINUTES

Date: December 4, 1984

Location: Automation Intelligence, 1200 W. Colonial Dr., Orlando.

Attendees:

George B. Taack, Jr.

Don Malocha

Fred Wilcox

Geoff Dick

Alex Marton

David Flinchbaugh

Mike Oleyar

Frank Fluet

Ed Ellis

Conrad Blankenzee

Woody Carter

George McClure

Ben Patz

David Horrigan

### MINUTES:

1. Meeting called to order at 6:00 pm by Frank Fluet, Chairman. The necessary quorum was present.

2. The Nov. minutes were reviewed by attendees. A motion was made to accept the minutes and was seconded. Motion passed.

#### 3. **Treasurer's Report - Carl Schunemann:**

Treasurer's report dated Dec. 4, 1984 is attached. A motion was made to accept the treasurer's report and was seconded. Motion passed.

#### 4. **Chairman's Report - Geoffrey Dick:**

Note Central Florida Council for High Technology announcement on Dec. 5.

**Urgent!!!** Please get in meeting announcements immediately!!

#### 5. **Programs - George Taack/Conrad Blankenzee:**

Section survey to be compiled.

#### 6. **Public Relations - George McClure:**

See attachment on proposed public relation initiatives.

#### 7. **Publications - Alex Marton:**

Please get all announcements for publication in by 2nd week of the month.

#### 8. **Advertising - John Gilbert/Victor Alas:** No report.

#### 9. **Awards - Ben Patz:**

Outstanding Engineering Award nominations for 1985 from each Chapter are due by Jan. 8.

---

**ORLANDO SECTION, INSTITUTE OF ELECTRICAL AND ELECTRONIC  
ENGINEERS, 96 SWEETBRIAR BRANCH, LONGWOOD, FL 32750**

#### **ADVERTISING RATES**

	1-2 Insertions	3-10
1/4 page	\$45	\$35
1/3 page	55	45
1/2 page	65	55
2/3 page	75	65
3/4 page	85	75
1 page	100	85

---

**NON-MEMBER SUBSCRIPTIONS: \$15.00/YEAR.**

**SAMPLE ISSUE: \$1.50.**

**10. Florida Engineering Society Liason - R.C. Harden: No Report.****11. PACE - John Gilbert: Absent.**

George Taack attended one day PACE conference. A number of goals were set which include the 1 pg./month in Section Notes, set a science & technology office, 1 PACE meeting/yr., a PACE chairman in every section and others.

**12. Education - Fred Simons: Absent****13. Student Activities - Don Malocha:**

The IEEE shirts provided by the section to the TVRO student group leaders were distributed.

The students held one meeting. IEEE Fellow Dr. Robert Wagers from Texas Instruments was the speaker. Approximately 20 students and faculty attended.

The Student Senate voted \$600 for the TVRO student project.

**14. Membership Development - Woody Carter:**

Report attached.

**15. By-Laws - George McClure: No Report.****16. Historian - Russ Theisen: Absent**

Report attached.

### CHAPTER REPORTS

**17. AEES - Dave Flinchbaugh**

Planning a Jan. 23 meeting. Speaker TBD.

**18. Communication - Madjid Belkerdid:**

Meeting planned for Jan. 28 as follows:

Speaker: Chuck Atwater

Topic: Cellular Radio

Place: Stromberg Carlson, Lake Mary

Time: Monday, Jan. 28, 1985, 7:30 pm.

Because of limited seating, reservations are required by Jan. 21.

**19. Computer Society - Steve Forsythe: No Report.****20. Electron Device Society - Ralph M. Mindock: No Report****21. MTT/AP - Fred Wilcox:**

Nov. 15 Dr. Kessler from Texas Instruments spoke. 19 attended of which 13 were IEEE members. Next meeting is planned for January with Mr. Jerry Hickmann from Scientific Atlanta speaking. (No meeting is scheduled for January. Ed.)

**22. PE - Mike Haddad: No Report****23. Student Branch IEEE - Steve McKenna: No report.****24. Student Chapter, Computer Society - Ron Krauskopf: No Report.****25. Unfinished Business:**

Awards: Motion to give plaques to outgoing executive committee members was tabled indefinitely.

**26. New Business:**

A section survey is being developed to better serve the interests and needs of the local members. Anyone who wishes to provide input, contact Conrad Blankenzee, 876-3577.

**27. Meeting adjourned at 8:00 pm.****28. Time/Place of next meeting:**

Jan. 8, Tue., 5:30 pm.

Automation Intelligence (AI)

1200 W. Colonial Drive

(west of I-4 and Colonial Drive)

## IEEE ORLANDO SECTION TREASURER'S REPORT DECEMBER 4, 1984

Checking Account Balance	
November 6, 1984 Treasurer's Report	\$3,025.58

### Deposits:

12-1-84 IEEE Second Half 1984 Rebate, Check #130211, 10-30-84	\$1,166.63
12-1-84 Casselberry Senior Citizen's Center, Check #10371, 11-7-84, Security Deposit Refund	\$ 50.00
12-1-84 Whitman Engineering, Inc., Check #442, 10-30-84, Advertising	\$ 130.00
12-1-84 SOUTHEASTCON '83, Check #165, 10-21-84, Final Settlement	\$ 19.24
	Total Deposits \$1,365.87

### Disbursements:

#1157 Seminole House Printers, September Section Notes Invoice #7600, 9-17-84	\$ 389.02
#1158 F. A. Fluet, Executive Committee Meeting Refreshments	5.38
#1159 Ed Ellis, Postage, Centennial Issue Section Notes, 11-6-84 Statement	5.37
#1160 University of Central Florida, Invoice #083, 10-22-84 (Centennial Video Conference Refreshments)	24.94
#1161 Fred P. Wilcox, AP/MTT Dinner Meeting with Speaker, 10-18-84	20.65
#1162 Sally Mae Merry, Secretary PES/IA, 9-27-84 Dinner Meeting, Speaker, Bruce Bell	25.00
#1163 Seminole House Printers, November Section Notes Invoice #7801, 11-13-84	410.02
#1164 Altamonte Data Processing, Invoice #16048, 11-14-84	88.12
#1165 Russell E. Theisen, Reimbursement per 11-6-84 Statement	192.80
Life Member Meeting	\$ 39.98
Historian Expenses	82.82
Caps & T-Shirts for Student	70.00
Satellite Project Team	\$192.80
#1166 Professor Mischa Schwartz (via Dr. Madjid A. Belkerdid) Speaker's Travel Expenses per 11-7-84 Statement	263.63
	Total Disbursements \$1,424.83

**Summary:**

Checking Account, 11-6-84 Report	\$3,025.58
Plus Deposits	1,365.87
Subtotal	\$4,391.45
Less Disbursements	\$1,424.83
Checking Account, 12-4-84	\$2,966.62
Plus Dreyfus Fund (11-6-84 Report)	3,362.46
Total Funds	\$6,329.08

Respectfully submitted,  
Carl F. Schunemann, Treasurer

## MEETING REPORTS

Fred Wilcox reports that the AP/MTT meeting of 15 November was attended by 19 people, six of them guests. Dr. Oren Kesler of Texas Instruments, Inc. gave a very interesting overview of the problem of reducing the radar cross-section, and briefly described the past work that has been done in this area. He concluded his talk by outlining the projected trends in radar signature technology. After the talk, Dr. Kesler joined five of the attendees for dinner at Gary's Duck Inn.

## IEEE EMPLOYMENT GUIDE

The revised 2nd Edition of the Employment Guide for Engineers and Scientists is an expansion of the practical "how-to" advice on career planning, interviewing, resume preparation, consideration of salary and fringe benefits offered, pre-employment agreements and employment contracts, contained in the earlier edition. This Guide also includes expanded directories of companies and employment and outplacement agencies that actively recruit IEEE members along with advertisements placed by many of the organizations listed.

Members \$7.50; Nonmembers \$15.00.

Unemployed members may request a complimentary copy by writing to the IEEE Washington Office. Be sure to include membership number.

### NEED A JOB?

Looking for a job in electrical and electronics engineering is now as easy as logging on to your personal computer. In fact, a personal computer or terminal/modem is all you need to plug into the latest innovation of the IEEE Professional Engineering Employment Registry (PEER).

PEER now offers prospective job seekers the opportunity to review job openings in their fields via computer. Anyone with access to a personal computer or terminal/modem can scan PEER's listing of employment opportunities by dialing (617) 275-4112, pressing "return" and entering the password "PEER."

The PEER computer service is open 24 hours a day, seven days a week.

*Cover article.*

## **"THE GOLDEN AGE NEVER WAS THE PRESENT AGE" Poor Richard's Almanack, Nov. 1750**

The 1984 Centennial year is almost over. Awards have been given; hundreds of speeches made; thousands of meals consumed. IEEE's past has been honored. Our present and future pondered with laments over the break up of AT&T and the poor education of our young. Regret is expressed for the days when a single person such as Faraday, Edison, Tesla or Franklin could make great contributions. But even those greats relied on bits and pieces of information gleaned by others to generate success. They often had labs with assistants.

Who knows? Perhaps these recent years will be remembered in 2084 with longing. As a time, when a person with a good idea could start a company. More importantly, that IEEE afforded a vehicle to exchange information among interested people and for developing countries. For William Hittinger, Executive Vice President for RCA, has noted that in the future information may become the main product sold.

Thus, IEEE carries on Franklin's belief when he wrote, "As we enjoy great advantages from the inventions of others, we should be glad of an opportunity to serve others by an invention of ours; and this we should do freely and generously." Perhaps our greatest pride this year should be knowing our commitment to this tradition will be appreciated by those honoring us a hundred years from now.

Reprinted from Interface, the Executive Newsletter.

\*\*\*\*\*

## **COMMUNICATIONS SOCIETY MEETING ANNOUNCEMENT**

**DATE:** 28 January, 1985

**TIME:** 7:30 PM

**PLACE:** Stromberg-Carlson, Lake Mary

**SPEAKER:** Chuck Atwater, A Director of Astronet Corporation.

**TOPIC:** Cellular Radio

Due to limited seating, reservations are required by 21 January, 1985.

Contact Madjid Belkerdid at 275-2787 (w) or 273-8527 (h)



## AES SOCIETY

AES Society meeting held jointly with Society of Manufacturing Engineers.

### DINNER MEETING

**DATE:** 24 January, 1984 **PLACE:** York Steak House  
**TIME:** Dinner at 6:30 PM Fashion Square Mall  
Program at 8:00 PM  
**SPEAKER:** Tom Feaster, NASA Future Programs Office,  
Kennedy Space Center  
**TOPIC:** NASA's Missions Planned over the Next Decade

For more information, call Dr. David Flinchbaugh at 1-268-7252 (w) or 859-4855 (h).  
No reservations required.

\*\*\*\*\*

## ELECTRON DEVICES SOCIETY

**DATE:** Monday, January 14, 1985

**PLACE:** Gary's Duck Inn

Cocktails: 5-6 PM

Dinner: 6:00 PM

**Speaker:** Professor H. C. Len

National Lecturer for Electron Device Society

EE Dept., Univ. of Maryland

**Topic:** Variable Threshold Voltage Model for Short Channel MOSFET - A Unified Approach.

For further information contact:

Richard Yanowich at 356-3593 (w) or 645-0831 (h)

Don Malocha at 275-2414 (w) or 862-5693 (h)

\*\*\*\*\*

## AWARDS BANQUET FOR 1985

**DATE:** 16 February, 1985

**PLACE:** Langford Hotel, Winter Park

**SCHEDULE:** 6:45 PM Cash Bar

7:30 PM Dinner

8:15 PM Break

8:30 PM Awards

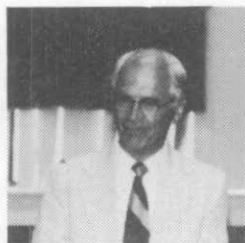
9:00 PM Speaker - to be announced

More details will be forthcoming in the February issue of the Section Notes.

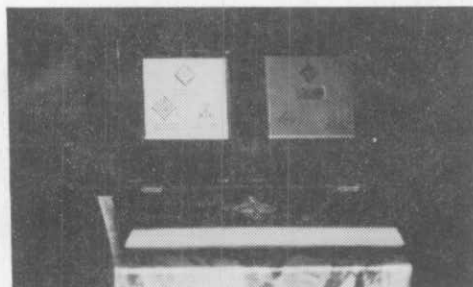


IEEE CENTENN





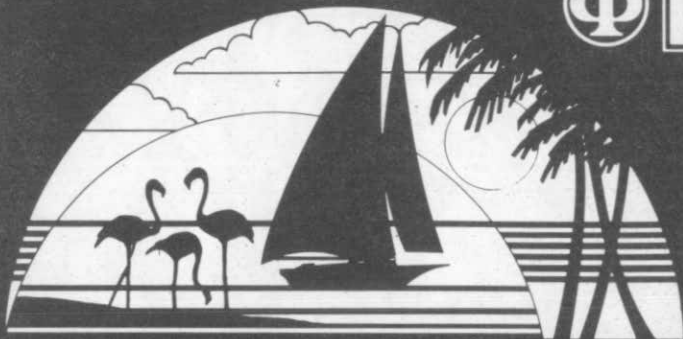
## AL IN ORLANDO



Advance Announcement

# Tutorial Week 85

## Φ EAST



General Chairman  
Program Chairman  
Committee

Brian Petrasko, Univ. of Central Florida  
Kenneth Berg, IBM Corporation  
Murali Varanasi, Univ. of So. Florida  
Ratan Guha, Univ. of Central Florida  
Russ Theisen, Martin Marietta  
Ed Galizzi, Eckerd College  
Harry Hayman, IEEE Computer Society

### A solid week of tutorials in 3 tracks • March 25-29, 1985

Attendance limited to 100 per tutorial. Advance registration discount deadline: March 15, 1985

MONDAY, MARCH 25

TUESDAY, MARCH 26

WEDNESDAY, MARCH 27

THURSDAY, MARCH 28

FRIDAY, MARCH 29

①

Expert Systems  
Overview  
Kamran Parsaye

②

Microcomputer  
Overview  
Margaret Eggers

③

Design  
for  
Testability  
Constantin C. Timoc

④

VLSI Technologies  
and  
Computer Graphics  
Henry Fuchs

⑤

Computer Graphics  
John Staudhammer

⑥

**Programming  
Productivity:  
Issues for the 80's**  
Capers Jones

⑦

**Software Management**  
Donald J. Reifer

⑧

**Automated Tools  
for  
Software Engineering**  
Edward Miller

⑩

**Software Testing**  
Edward Miller

⑪

**The C Programming  
Language**  
Alan Feuer

⑫

**The UNIX  
Operating System**  
John Carson

⑬

**Ada**  
Joseph Urban

⑭

**Modula 2**  
Winsor Brown

⑮

**Prolog**  
Doug De Groot

**Register NOW!**

Select up to one tutorial per  
individual per day

Fees*	Member	Non-Member
<b>Advance Registration</b> (Postmarked prior to 3/15/85)		
All Week	\$675	\$850
Software Management	\$275	\$350
Per Tutorial	\$150	\$185
<b>Late Registration</b> (Postmarked after 3/15/85)		
All Week	\$775	\$950
Software Management	\$325	\$395
Per Tutorial	\$175	\$210

\*Includes Coffee breaks, notes, and luncheon

**Hotel Accommodations**

Reserve your room now  
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☐ I am interested in the following tutorials (please circle numbers)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Please mail me the complete program announcement.

☐ I want to register right now. Enclosed is \$\_\_\_\_\_ to reserve space at  
the following tutorials (circle numbers as appropriate):

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☐ Check enclosed    ☐ VISA/BankAmericard    ☐ Master Charge

Card No. \_\_\_\_\_ Exp. Date \_\_\_\_\_ Signature \_\_\_\_\_  
Name \_\_\_\_\_ IEEE or IEEE-CS  
Membership No. \_\_\_\_\_

Street Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_



**IEEE COMPUTER SOCIETY**



**INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS**

## NOMINATIONS SOUGHT FOR IEEE COMMITTEES AND BOARDS

All individual members and IEEE organizational units are invited to nominate candidates to be considered by the Nominations and Appointments Committee for appointment to the following 1986 IEEE standing committees and Boards:

- Admission and Advancement Committee.
- Awards Board.
- Conference Board.
- Constitution, Bylaws, and Policy Statements Committee.
- Credentials Committee.
- Educational Activities Board
- Fellow Committee.
- History Committee.
- IEEE Employee Committee.
- IEEE Facilities Committee.
- Individual Benefits and Services Committee.
- Long-Range Planning Committee.
- Member Conduct Committee.
- Nominations and Appointments Committee.
- Public Information Committee.
- Publications Board.
- Tellers Committee.
- U.S. Activities Board

The general qualifications for committee and Board service are the same as those for any other position of leadership: competence, experience, willingness to take on the task, availability of time to participate, enthusiasm, vigor, and cooperation with others in achieving the objectives of the committee or Board.

Nominations must be submitted by April 1 to the Staff Secretary, Nominations and Appointments Committee, IEEE Headquarters, 345 E. 47th St., New York, N.Y.

### JANUARY 1985 CALENDAR

- |             |   |
|-------------|---|
| <b>8th</b>  | Executive Committee meets at 5:30 PM at Automation Intelligence, 1200 West Colonial Drive, Orlando. |
| <b>14th</b> | Electron Devices Society. See announcement on page 9.   |
| <b>24th</b> | AES Meeting. See announcement on page 9.  |
| <b>28th</b> | COMMSOC Meeting. See announcement on page 8.  |

## PARTICIPATION AS A PROFESSIONAL GROUP IN THE TAX ASSISTANCE PROGRAM

George McClure, Orlando Section Public Relations Committee Chairman, reports that VITA, the Volunteer Income Tax Assistance program sponsored by the Internal Revenue Service, is looking for volunteers to help taxpayers with their 1984 tax returns. Since 1969, VITA has helped low-income, elderly, handicapped, and non-English-speaking people who have problems preparing their returns. Only simple returns will be involved, 1040EZ, 1040A, and a basic 1040 with Schedule A for deductions.

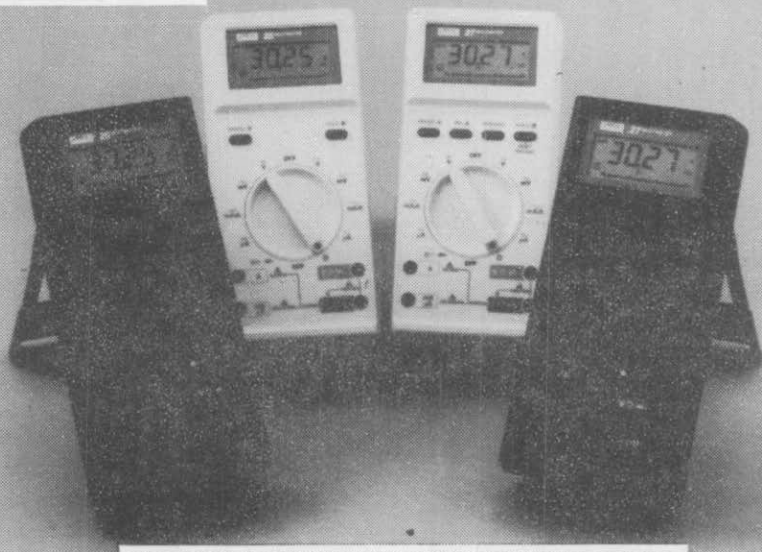
Volunteers must attend a training course in January or take a proficiency test to exempt them from the training. Members of professional groups are sought to participate in the program, as well as law and business students in college and civic group members.

Tammy White is the VITA coordinator at the IRS in Orlando.

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## OPERATING PLAN FOR SPEAKERS' BUREAU REVEALED

The Orlando Section's Speakers' Bureau was kicked off with an earlier announcement in the Section Notes. The purpose of the Speakers' Bureau is to create a means for the section to provide visibility to the non-technical community for electrical engineering and for the Orlando Section. Additional volunteers for the Speakers' Bureau are welcomed. Inquiries should be directed to George McClure, Chairman of the Public Relations Committee for the Section.

To kick off the Speakers' Bureau, three general-interest program topics are being developed. These will be supplemented with other topics as time goes on. These other topics may include special favorites of individual members -- material you are willing to share with school or civic groups.

The initial topics for speakers will include the IEEE Energy Program (with slides) and the IEEE Centennial Program (with slides). A third program, on the need for improvements in education for engineering and science, will be developed based on materials presented in IMPACT and other data. A professionally produced movie describing the roles of engineers at work and in the community is available by special arrangement. This 16 mm film, narrated by Orson Welles, runs for 20 minutes.

Other topics may be contributed by individual speakers, but all speakers will have an opportunity to get familiar with the first three programs. The overall time allotted to a program delivery should range between 20 and 45 minutes, with the shorter period being suitable for luncheon groups, such as service clubs.

All members of the Executive Committee and other volunteers from the Orlando Section will be charter members of the Speakers' Bureau and will be invited to fulfill speaking requests as they are received, in rotation. Schedule conflicts with a particular invitation will be resolved by inviting another speaker on the list and offering the first speaker another opportunity.

The availability of speakers and their topics will be announced to service clubs through the Orlando Area Chamber of Commerce, school science advisors and engineering clubs, church groups, and other available channels by the Public Relations Committee after allowing some time for the speakers to review the materials they will be using.

Additional speakers and topics are welcomed; topics may be newsworthy or even controversial, but the presentation should be balanced. Speakers should not take personal stands and imply that these are IEEE positions. Actual IEEE positions on topics such as age discrimination, pension reform, nuclear power, and technology transfer may be conveyed in talks.

Other topics such as the role of the computer in personalized networking and in electronic cottage industry may be offered by those speakers interested. Interpretations of electronic technology advances are useful program themes for general audiences and for high school engineering and science clubs.

For school groups, the videotape of the Centennial Convocation at the Franklin Institute may be used. This videotape was made by the UCF Video Laboratory during the direct satellite broadcast.

As an interested section member, you are encouraged to call George McClure to discuss your own ideas for a program, or to receive and review the material for the three standard programs as a prospective member of the Speakers' Bureau.

Contact George McClure at 356-3782 (office) or 647-5092 (home).



## PACE REPORT

*This excerpt appeared in the December 5th, 1984 issue of Legislative Report, Washington, D.C. office by Edith Carper. It is reprinted in your Section Notes as it is felt it should be of interest to all members —*

*Your PACE Chairman, John Gilbert.*

### DEPARTMENT OF SCIENCE AND TECHNOLOGY PROPOSED BY ADVISORY GROUP

The Loch Ness monster has been sighted again. A cabinet department of Science & Technology has been proposed again. The recommendation for such a department comes (Nov. 26) from the President's Commission on Industrial Competitiveness (John Young) and is being forwarded to the Cabinet Council on Commerce & Trade. The latter body (headed by the Secretary of Commerce) will then decide whether to incorporate the proposal into a reorganization plan for Congress or a legislative proposal.

The Young Commission proposes the cabinet department as a concept rather than a finished organizational model: It suggested a department drawn from the predominantly civilian agencies whose R&D programs are a significant part of their missions. They are the DOE, the NSF, NASA, Bureau of Standards, National Institutes of Health, and the National Oceanic & Atmospheric Administration. These agencies currently have budgets of about \$25 billion annually, of which about \$13 billion is devoted to R&D.

The Department of Defense would not be included in the new department. "The Committee envisions that the Department of Science & Technology could capitalize on the mechanisms already in place with the sizeable defense R&D programs of the Department of Energy to develop broadened interactions with the Department of Defense."

The primary missions of the Science/Technology department would be the following:

- Ensure effective funding for R&D to promote research and technological innovation in government and the nation.
- Develop long-term strategic plans to build the science and technology base in support of research, development, and technological innovation, in government, industry, and academia.
- Analyze and promote policies throughout government that would better address the needs of scientific and technical research, innovation, and development.

The subject of a department of Science/Technology is also being talked about in OSTP.

## NOMINATION CALLED FOR ENGINEER OF THE YEAR

As part of the annual Engineer's Week banquet in February 1985 the Orlando Section will select persons for the following awards from nominees submitted by local Groups, Society Chapters, Student Chapters, or Professional Activities Committees. Additionally, those section members desiring to present additional nominees may do so by petitions signed by eight (8) or more Orlando Section members. Student awards shall be submitted by the University of Central Florida Electrical Engineering and Computer Engineering departments. Awards to be made are as follows:

- Engineer of the Year
- Outstanding Electrical Engineering Graduate Student
- Outstanding Electrical Engineering Senior Student
- Outstanding Chapter Chairman of the Year

### **Qualifications of Candidate Nominees are:**

The nominee must be a current member of the IEEE in good standing and may be any grade from Student through Fellow inclusive. The nominee need not be a member of any Group or Society of IEEE.

### **Form of Nomination:**

The form of the nominations is left to the groups providing the nominations. It is to be emphasized that nominations should be in enough detail that the candidate may be fairly and completely evaluated for the Section award according to the criteria listed below. It is suggested that a minimum concise nomination should consist of a resume, activities list, and a cover letter explaining why he or she has been chosen for the Chapter nomination. Nominations should be addressed to the Awards Committee Chairman and are due to be received no later than January 15, 1985. The Awards Chairman will be pleased to answer any questions that arise.

### **Selection Criteria:**

The Electrical ENGINEER OF THE YEAR will be selected by the Awards Committee who will evaluate the candidates by the following point system:

1. The quality and quantity of contributions through efforts on Research, Development, Design, Managerial, Educational and other equivalent engineering areas. (70)
2. Contributions to the IEEE. (10)
3. Publications, Patents, and associated activities. (10)
4. Memberships, accomplishments, and responsibilities in other technical and professional groups and activities in various activities of benefit to the community and society in general. (10)

This is the third year we are awarding The Chapter Chairman of the Year. This award will be voted by the Section officers and the Awards Chairman. The award will be based on the number of chapter meetings held in 1984; attendance to those meetings; contributions toward a better chapter; activities to improve the image of the chapter; attendance at Section Executive Committee meetings; Section committee assignments.

### **Presentation of Candidates:**

Each nominating entity shall present a three minute introduction of their candidates at the banquet.

# IEEE ORLANDO EXECUTIVE COMMITTEE EXECUTIVE BOARD

Chairman	Frank Fluet	Business	Home
Vice Chairman	George Taack	843-7030	339-8905
Secretary	Don Malocha	244-1389	321-0319
Treasurer	Carl Schunemann	275-2414	862-5693
Chapters Chairman	Geoffrey Dick	356-7207	647-4992
		356-2796	678-0979

## STANDING COMMITTEE CHAIRMEN

Jr. Past Chairman	T.E. (Ed) Ellis	244-1203	834-3319
Sr. Past Chairman	Mannie Connell		273-8588
Programs	Conrad Blankenzee	351-9485	876-3577
Public Relations Chairman	George McClure	356-3782	647-5092
Publications	Alex Marton	293-4642	293-4642
Awards	Ben Patz	275-2816	855-3685
Fla. Eng. Soc. Liaison	Richard Harden	855-0881	855-5775
Prof. Act. Comm.	John Gilbert	365-2363	859-5492
Student Act. Comm.	Don Malocha	275-2414	862-5693
Education	Fred O. Simons	275-2405	678-1796
Membership Develop.	Woody Carter	843-7030	831-4591

## SPECIAL COMMITTEES

SOUTHCON	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	John Gilbert	365-2363	859-5492
Historian	Russell E. Theisen	356-4320	671-4139
Member at Large	Joe Massett	356-3858	834-3448
Centennial	Deen Khandelwal	356-2583	277-5959

## SOCIETY CHAPTER OFFICERS

AES	Chmn.	Dave Flinchbaugh	1-268-7252	859-4855
COMMSOC	Chmn.	Madjid A. Belkerdid	275-2787	
	V. Chmn.	Michael Harris	275-2787	671-1849
	Secy.	Mike Oleyar	628-9884	876-3582
Computer	Chmn.	Steve Forsythe	244-1166	830-8853
	Mbr. V. Chmn.	Jorge Medina	834-9600	277-8929
Electron Dev.	Chmn.	Ralph M. Mindock	862-8182	862-7764
	Mbr. V. Chmn.	Donald C. Malocha	275-2414	862-5693
	Prog. V. Chmn.	Dick Zanowick	356-2914	645-0831
AP/MTT	Chmn.	Fred Wilcox	356-2328	857-0098
PE/IA	Chmn.	Michael V. Haddad	281-2393	851-3719
	V. Chmn.	Avelino Gonzalez	281-2982	365-6812
	Secy.	Sally M. Merry		629-1901
Student Section	Chmn.	Steve McKenna	275-2786	277-1396
Student Comp.	Chmn.	Ron Krauskopf		677-4213
Chapter	Treas.	Don Vincent		678-4603

The Executive Committee meets the first Tuesday of each month, except July, at AUTOMATION INTELLIGENCE, INC., 1200 W. COLONIAL DRIVE (corner of 441 and Colonial), at 5:30 p.m. All IEEE members are welcome to attend.

ORLANDO SECTION  
I.E.E.E.  
ORLANDO, FLORIDA

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VOLUME XX  
NUMBER 6  
FEBRUARY 1985

## **FEBRUARY ACTIVITIES**

**5th Executive Committee Meeting at  
Automation Intelligence, 5:30 P.M.**

**16th Awards Banquet - See page 10**

**19th Power Engineering Society  
Industrial Application Society  
Meeting - See page 12**

**PUBLISHED BY ORLANDO SECTION  
INSTITUTE OF  
ELECTRICAL AND ELECTRONIC ENGINEERS**

## CHAIRMAN'S CORNER

### SURVEY

This issue of the Section Notes contains a survey form. If your first reaction to survey forms is the same as mine — "I can't waste my time with this" — please reconsider. This survey is different. It is not to help a manufacturer find a market niche. It is to benefit yourself and all engineers in the Orlando Section, by providing guidance for the future programs and services the Section offers. Please take a couple of minutes to complete the survey. Feel free to add comments and suggestions on any topic.

### THANKS GEORGE

All of our Section activities are planned, coordinated and carried out by volunteers. As Program Chairman for about a year and a half, one of these volunteers, George Taack, has arranged speakers and dinner meetings for the Section that have been outstanding. Six months ago, he was elected to the Vice Chairman's position in the Section. In addition to those duties, George continued carrying the ball as Program Chairman until our new Chairman recently came on board. Last November, our PACE chairman was unable to attend a PACE conference in Charleston. George volunteered a weekend to represent our Section at this conference and brought back important information on professional activities in Region 3. For these examples and many others, I appreciate George's generosity with his time and his support of IEEE.

### GET INVOLVED

We are fortunate to have many volunteers like George Taack in our Section. If you glance at the Executive Committee roster in the Section Notes however, you will see that many are wearing two or three hats. Also, most of the committees are not very deep, consisting only of a Chairman. There are many opportunities for you to get involved in the Section. We are now about midway in our fiscal year. A new Section Chairman will take over in July. This is an ideal time for you to apply a few hours a month to professional involvement. You can learn what goes on in an operating Section without a long time commitment. The rewards are intangible, but they are there. Try it, call me at (305) 843-7030.

Frank Fluet  
Chairman, Orlando Section

## IEEE EXECUTIVE COMMITTEE MEETING ORLANDO SECTION

**Date:** January 8, 1985

**Location:** Automation Intelligence, 1200 W. Colonial Dr., Orlando.

**Attendees:**

Frank Fluet

Don Malocha

Joe Massett

Madjid Belkerdid

Geoff Dick

Steve Forsythe

Carl Schunemann

John Gilbert

Ben Abbot

Ed Ellis

Conrad Blankenzee

Woody Carter

George McClure

Jorge Medina

Mike Haddad

Larry Hull

### MINUTES:

1. Meeting called to order at 6:05 pm by Frank Fluet, Chairman. The necessary quorum was present.

2. The December 1984 minutes were reviewed by attendees. A motion was made to accept the minutes and was seconded. Motion passed.

#### 3. **Treasurer's Report - Carl Schunemann:**

Treasurer's report dated Jan. 8, 1985 is attached. A motion was made to accept the treasurer's report and was seconded. Motion passed.

#### 4. **Chairman's Report - Geoffrey Dick:**

No report. See Calendar for events. **Urgent!!!** Please get in meeting announcements immediately!!

#### 5. **Programs - George Taack/Conrad Blankenzee:**

A section members survey has been prepared for distribution to all Orlando members. After some discussion, it was voted to allow the survey to be prepared solely by the committee. Comments and suggestions should be addressed to the members.

#### 6. **Public Relations - George McClure:**

Need to find the IEEE slides concerning Energy and Perspective. Whoever has these, please contact George.

#### 7. **Publications - Alex Marton:**

No report. Need to check mailing label status.

#### 8. **Advertising - John Gilbert/Victor Alas:**

One new advertiser: EMSCO.

#### 9. **Awards - Ben Patz:**

Outstanding Engineering Award nominations for 1985 from each Chapter are due by Jan. 15. See Dec. section notes for details.

Nominations to Region 3 and Florida Council will be made by the Section for:

Outstanding Service

Engineer of the Year

Educator of the Year

**10. Florida Engineering Society Liason - R.C. Harden:**

No Report.

**11. PACE - John Gilbert:**

Harb Hayre will speak on PACE on April 24 or 26. Conrad Blankenzee will make arrangements and John Gilbert will coordinate the meeting.

**12. Education - Fred Simons: Absent****13. Student Activities - Don Malocha:**

Harris Corporation has donated a TVRO satellite system to the students, who will use it as a test bed for their system. The dish and LNA sections are making good progress. Malocha will work with the Programs Committee to draft a proposal for a continuing fund to support the student branch. The funds will be solicited from local industry.

**14. Membership Development - Woody Carter: Report attached.****15. By-Laws - George McClure: No Report.****16. Historian - Russ Theisen: Absent. No Report.****17. Member at Large - Joe Massett:**

Joe has agreed to work to establish a Conference Committee. The purpose will be to coordinate and solicit IEEE conferences in Orlando. The benefit is for service to IEEE and to obtain revenue for the Section.

### CHAPTER REPORTS

**18. AEES - Dave Flinchbaugh: Absent. No Report.****19. Communication - Madjid Belkerdid:**

Meeting planned for Jan. 28 as follows:

Speaker: Chuck Atwater

Topic: Cellular Radio

Place: Stromberg Carlson, Lake Mary

Time: Monday, Jan. 28, 1985, 7:30 pm.

Because of limited seating, reserv. reqd. by Jan. 21.

The IEEE Sonics & Ultrasonics National Lecturer, Art Ballato, will speak on Mar. 19. A dinner is planned and details will follow.

**20. Computer Society - Steve Forsythe: No Report.****21. Electron Device Society - Ralph M. Mindock: No Report.****22. MTT/AP - Fred Wilcox: No Report.****23. PES/IAS - Mike Haddad:**

A meeting is planned for Feb. 20 at the Westinghouse Plant. The topic is the Status of Superconducting Generators. Contact Mike for further information. (See announcement this issue. Ed.)

**24. Student Branch IEEE - Steve McKenna: No report.****25. Student Chapter, Computer Society - Ron Krauskopf: No Report.****26. Unfinished Business: None.****27. New Business:**

See Chairman's Notes. The Chapter would like to start at least one new local IEEE chapter. See attachment for details.

**28. Meeting adjourned at 8:00 p.m.****29. Time/Place of next meeting:**

Feb. 5, Tue., 5:30 p.m.

Automation Intelligence (AI)

1200 W. Colonial Drive

(west of I-4 on Colonial Drive)



## IEEE ORLANDO SECTION TREASURER'S REPORT JANUARY 8, 1985

Checking Account Balance  
December 4, 1984 Treasurer's Report \$2,966.62

**Deposits:**

12/31/84 Southeastcon '83 \$12.84  
Centrust Cashier's Check #26-007167  
Dated 12/12/84 (Revised Final Settlement)  
12/31/84 University of Central Florida \$150.00  
Check #219863, Dated 11/15/84  
(Section Notes Advertising)

**Total Deposits** **\$162.84**

**Disbursements:**

#1167 Woody Carter \$20.00  
Membership Development Postage  
#1168 George B. Taack, Jr. \$30.56  
Vice Chairman Postage & Misc.  
Per 12/4/84 Statement  
#1169 Ed Ellis \$4.66  
Postage and UPS for Centennial  
Notes November Mailing  
#1170 Fred Wilcox \$11.40  
MTT/AP 11/15/84 Speaker's Dinner  
#1171 Alex Marton \$52.00  
Newsletter Permit  
Imprint Deposit, 11/30/84  
#1172 Frank Fluet \$6.48  
12/4/84 Exec. Committee  
Meeting Refreshments  
#1173 Don Malocha, Secretary \$6.00  
Mailing, Minutes (November)  
Barnett Bank Charges:  
12/10/84 Returned Check #165 \$19.24  
Dated 10/21/84  
Southeastcon '83  
Previously Deposited 12/1/84  
12/10/84 Check Return Fee \$5.00

**Total Disbursements and Charges** **\$155.34**

**Summary:**

Checking Account, 12/4/84 Report	\$2,966.62
Plus Deposits	162.84
	<hr/>
<b>Sub Total</b>	<b>\$3,129.46</b>
Less Disbursements and Charges	155.34
	<hr/>
Checking Account Balance, 1/8/85	\$2,974.12
Plus Dreyfus Fund Balance, 1/3/85	3,498.99
	<hr/>
<b>Total Funds</b>	<b>\$6,473.11</b>

Respectfully submitted,  
Carl F. Schunemann  
Treasurer

---

**ORLANDO SECTION, INSTITUTE OF ELECTRICAL AND ELECTRONIC  
ENGINEERS, 96 SWEETBRIAR BRANCH, LONGWOOD, FL 32750**

---

**ADVERTISING RATES**

	1-2 Insertions	3-10
1/4 page	\$45	\$35
1/3 page	55	45
1/2 page	65	55
2/3 page	75	65
3/4 page	85	75
1 page	100	85

---

**NON-MEMBER SUBSCRIPTIONS: \$15.00/YEAR.**  
**SAMPLE ISSUE: \$1.50.**

## FORMING A NEW CHAPTER

One of our Section goals for 1985 is to start at least one more local chapter of an IEEE SOCIETY, if there is sufficient interest. We are soliciting the membership for 'interest' via the Section Survey. We may need a "patron" or "flag-bearer" to start the process moving and to select officers. Attached are the requirements and a PETITION form.

Strong, Potential SOCIETIES and (Number of members in Orlando):

ASSP-01 ACOUSTICS, SPEECH & SIGNAL PROCESSING (43)

CAS-04 CIRCUITS & SYSTEMS (28)

CE-08 CONSUMER ELECTRONICS (20)

EM-14 ENGINEERING MANAGEMENT (33)

SU-20 SONICS & ULTRASONICS (24)

CS-23 CONTROL SYSTEMS (22)

(It is also possible to form a 'joint' chapter covering two or more Societies). Anyone who wants to start a petition for any of the above Societies please contact Frank Fluet, 843-7030.

### REQUIREMENTS TO FORM A CHAPTER OF AN IEEE SOCIETY

A petition, signed by not less than twelve (12) Section members, above Student grade, who are members of the Society shall be submitted to the Section Executive Committee, via the Section Secretary, for approval.

The petition shall specify:

- The name of the Section
- The name of the Society
- The name and address of the Chapter Organizer

With the written approval of the Section Executive Committee, the petition shall be mailed to:

IEEE - Field Services Department

445 Hoes Lane

Piscataway, New Jersey, 08854

The Chapter shall be considered established after the Field Services Department has ascertained that the Regional Director and the Society President have no objections to the formation of the Chapter.

Following approval, the Section Chairman, the Chapter Organizer, the Regional Director and the President of the Society will be so notified.

\* \* \* \* \*

It is suggested more than twelve names be included to speed the processing of the petition.

## PETITION FOR THE ESTABLISHMENT OF AN IEEE SOCIETY CHAPTER

Date. \_\_\_\_\_

Name of IEEE Society \_\_\_\_\_

Name of IEEE Section \_\_\_\_\_

We, the undersigned, who are members of the above Society and Section hereby petition for approval to form a Chapter in the Section indicated above.

Signature of Petitioner	Membership Grade and Number	Printed Name
1) _____		
2) _____		
3) _____		
4) _____		
5) _____		
6) _____		
7) _____		
8) _____		
9) _____		
10) _____		
11) _____		
12) _____		
13) _____		
14) _____		
15) _____		
16) _____		
17) _____		
18) _____		
19) _____		
20) _____		

(Minimum of twelve signatures required)

This action has the approval of the Section Executive Committee

The following individual is serving as the Organizer of the Chapter:

\_\_\_\_\_  
Name\_\_\_\_\_  
Street\_\_\_\_\_  
City State/Country\_\_\_\_\_  
Signature of Section Officer\_\_\_\_\_  
Section Office Held

# UNIVERSITY OF CENTRAL FLORIDA COLLEGE OF EXTENDED STUDIES AND THE ORLANDO SECTION IEEE ANNOUNCE THE

## IEEE 9th VIDEOCONFERENCE

FEBRUARY 27, 1985

11:00 A.M. - 4:00 P.M.  
EASTERN TIME

SEMINARS VIA SATELLITE

# ROBOT DYNAMICS AND CONTROL

### KEY SEMINAR ELEMENTS

- Overview of the Technology and the Process
- Presentations of the State-of-the-Art
- Discussion of Future Trends
- Live Interaction with the Presenters

This videoconference will emphasize various dynamic methods for control of general purpose robotic manipulators. It will examine several different strategies for accomplishing accurate robot arm control in a practical environment. This includes coarse sensing and finite sensing through several techniques in a constantly changing environment. You will see where the technology is today and where the design issues are going.

### SUPPORTING DOCUMENTATION -

#### A Complete Set of Notes

- Charts
- Graphs
- Bibliographies
- Presenters' Biographies

### INTENDED AUDIENCE:

This course was designed for graduate engineers preferably with some background in Control Theory. A prerequisite for students would be a course in Modern Control Theory.

### PROGRAM OUTLINE

**Dr. Alan Desrochers**  
Overview of the Program  
• Dynamic Equations of Motion  
• Problems in Control and Assembly

**Dr. Richard P. Paul**  
Modern Manipulator Task Description  
• Motion Trajectories  
• Manipulator Kinematics

**Dr. Steven Dubowsky**  
Advanced Control Concepts  
• Adaptive Control  
• Optimal Control

**Dr. Daniel Whitney**  
Robot Feedback  
• Robot Contact Feedback  
• Sensor Design  
• Sensing Algorithm Design  
• Contact Sensing Tasks  
• Relation Between Active Sensing and Passive Compliance Techniques  
• Pertaining Theory

**Dr. Wayne Book**  
Control of Flexible Manipulators  
• Need for Compliance  
• Effects of Compliance on Design, Control and Application  
• Lighter Arms and the Resulting Compliance  
• Dynamic Models of Flexible Arm Behavior  
• Control Algorithms and the Way Compliance Affects Them  
• Strategies for Using Lightweight Arms

Panel Discussion

All

### TECHNICAL CONSULTANT

**Dr. Alan A. Desrochers**  
School of Engineering  
Rensselaer Polytechnic Institute

### PRESENTERS

**Dr. Wayne J. Book, Director**  
Computer Integrated Manufacturing  
Systems Program  
Georgia Institute of Technology

**Professor Richard P. Paul**  
Dept. Computer and Information Science  
Moore School, University of Pennsylvania

**Dr. Steven Dubowsky**  
Department of Mechanical Engineering  
Massachusetts Institute of Technology

**Dr. Daniel E. Whitney**  
Charles Stark Draper Labs

### LOCAL INFORMATION

• Location University of Central Florida

• Time 11:00am-4:00pm EST

• Fees Members \$60.00 - Nonmembers \$90.00 -  
Students \$10.00

• Contact for Details V. Amico at College of Extended Studies  
(305) 275-2121

### REGISTRATION FORM

Please register me for the "Robot Dynamics and Control" videoconference on February 27, 1985

Name \_\_\_\_\_

Title \_\_\_\_\_

Company Name \_\_\_\_\_

Company Address \_\_\_\_\_

\_\_\_\_\_ Zip \_\_\_\_\_

Company Phone \_\_\_\_\_ Home Phone \_\_\_\_\_

IEEE Member Number \_\_\_\_\_ Fee Enclosed \_\_\_\_\_

☐ Please bill me. ☐ Mail to: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

• 1985 TOPICS •  
Design for Manufacturability  
May 16  
Fiber Optics  
September 16  
Expert Systems  
December 4

## AWARDS BANQUET

**DATE:** Saturday, February 16, 1985

**TIME:** Cash Bar & Socializing 6:45 pm  
Dinner 7:30 pm

**PROGRAM:** Warmup - Dr. Tom Hyrosky

**AWARDS - Features the Engineer of the Year  
for the Orlando Section**

**Main Speaker - Mr. Lou Kompare**

General Manager, Management Information Systems  
Walt Disney World

### Topic - Advanced Technology at EPCOT Center

Mr. Kompare will give a audio-slide presentation on the state-of-the-art technology that is used at EPCOT. It will cover computer systems and control systems. There will also be a question and answer session following the presentation. If you are familiar with Disney productions, you should find this an excellent program.

**COST:** \$15.00

**MEAL:** Prime Rib, baked potato, carrots, tossed green salad, and dessert.

(If reservations are received by Tuesday, June 12, it may be possible to substitute a seafood entree for the prime rib. A vegetable plate will also be available for those who cannot eat meat.)

**RESERVATIONS:** Please call in reservations by February 14th to:

George Taack - 849-3000 ext. 1389

Ed Ellis - 849-3000 ext. 1203

Due to the cost involved, a reservation will be the same as a ticket sale. The person making the reservation will be responsible for payment unless the commitment is withdrawn prior to the Section providing the guaranteed count on February 14th.

\*\*\*\*\*

## ADDENDUM & CORRIGENDUM

On page 7 of the January 1985 issue of the Section Notes, a free offer to *unemployed* IEEE members for an "Employment Guide" was described, but no address was given. The address to write for this offer is:

IEEE - Washington Office

1111 19th Street, N.W.

Washington, D.C. 20036

Be sure to include your membership number.

## FELLOW MEMBERS

In last year's Centennial Souvenir issue of the Orlando Section Notes, we introduced the IEEE Fellows who were members of the Orlando Section. Another IEEE Fellow joined our Section in 1984: Orrin W. Towner.

Orrin Towner received the Fellow award in 1958 "for his contribution to wartime electronics". This outstanding work was performed during the period from 1942 to 1945, while he was Associate Director, and later Director of Airborne Instruments Laboratories (AIL) at Columbia University and Alhambra, CA. His fields of work included anti-submarine detection and radio jamming equipment. He also received the Presidential Certificate of Merit in recognition of his wartime contributions.

Mr. Towner was born in 1903 and received his BS and EE degrees from the University of Kansas. He worked for Bell Laboratories on Radio Broadcast Transmitters from 1927 to 1937. From 1937 to 1968 was Director of Engineering for commercial radio and television stations in Louisville, KY, working with AM, FM, Fax shortwave and TV systems. Since he "retired", he has worked as a consultant in Saudi Arabia, Colombia, and the Dominican Republic. He is a licensed PE in New York and Kentucky.

Mr. Towner was one of the co-organizers of the Louisville section of the IRE, and served three years as Section Chairman. He has served on a number of FCC advisory committees and has been active in professional activities as a member of the Society of Motion Picture and Television Engineers and the National Association of Broadcasters.

\*\*\*\*\*

## MEMBERSHIP DEVELOPMENT COMMITTEE REPORT FOR DECEMBER 1984

An IEEE table was supported the evening of December 5 at the Central Florida Council for High Technology Get Acquainted meeting. About 10 membership applications and 20 centennial magazines were distributed.

Letters of welcome were sent to the 'A' and 'E' categories below. Letters of concern were sent to the 'K' category below.

The following statistics are derived from the "Membership Changes and Additions" for the indicated month:

CODE	REASON	11-30-84
A	New Election to Membership	13
B	Reinstatement to Membership	0
C	Arrears Paid	2
D	Address Change, Within Section	19
E	Moving Into Section	20
H	Transfer In Member Grade	4
I	Moving Out Of Section	6
K	Went Into Dues Arrears	0
M	Deceased	1
N	Change in Group or Society	41

W. C. Carter

Membership Development Chairman

## POWER ENGINEERING SOCIETY INDUSTRY APPLICATION SOCIETY

- DATE:** Wednesday, February 19, 1985
- TIME:** 6:00 PM for dinner with the speaker  
7:30 PM for technical presentation
- PLACE:** **Dinner:** at Michael's Restaurant & Pizza,  
just east of Alafaya Trail  
12309 E. Colonial Drive located  
**Meeting:** at Westinghouse Electric Corporation  
located at Alafaya Trail and University Blvd.
- TITLE:** Superconductivity in Electric Power Generation and Use
- PROGRAM:** Use of superconductors in electric power devices offers great improvements in efficiency and in other characteristics. The talk will explain and illustrate the "why and how".
- SPEAKER:** **Mr. Carl Flick**, an IEEE Fellow, is an Advisory Engineer with the Westinghouse Power Generation Headquarters in Orlando. With more than 30 years experience in generator design, he has given technical guidance to development of large superconducting generators.
- RESERVATIONS:** FOR DINNER OR MEETING RESERVATIONS CALL ANY OF THE FOLLOWING BY FRIDAY, FEBRUARY 18:  
Mike Haddad, 281-2393, Avelino Gonzalez, 281-2982, or Sally Merry, 629-1901.

\*\*\*\*\*

## SCIENCE FOUNDATION PREDICTS ENGINEER SHORTAGE BY 1987

By 1987, a shortage of qualified computer specialists and electrical and electronics engineers is expected to develop in the United States, according to a recently released report from the National Science Foundation.

The projected shortage of computer specialists by 1987 ranges from 15 to 30 percent of the supply, or from 115,000 to 140,000 workers. For EEs, the corresponding estimate is 10 percent, or 30,000 workers.

The report also forecasts a potential short supply of aeronautical, mechanical, and industrial engineers. (The study defines a shortage of workers as when the projected demand exceeds the supply of new graduates by at least 5 percent.)

Copies of the report, *Projected Response of the Science, Engineering, and Technical Labor Market to Defense and Nondefense Needs: 1982-1987*, are available from the Division of Science Resources Studies, National Science Foundation, 1800 G St., N.W., Washington, D.C. 20550.



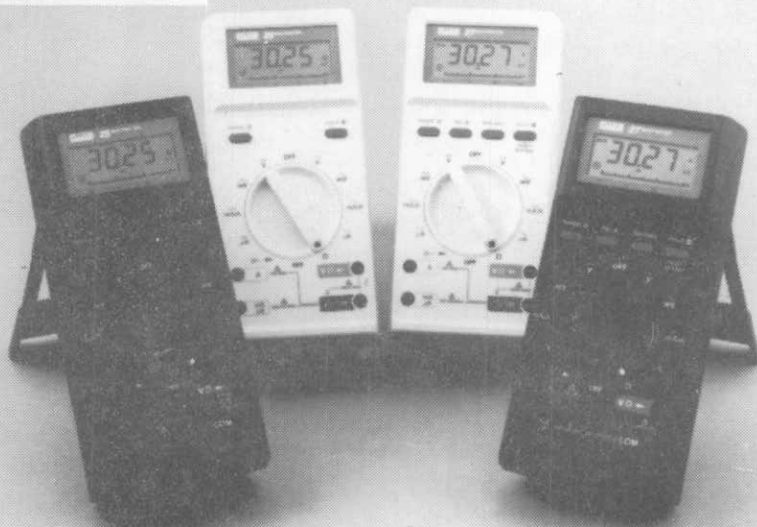
## IEEE COMPUTER SOCIETY

The Computer Society needs new officers to serve during the next year starting in the fall of 1985. We have positions open for Chairman, Program Vice Chairman and possibly others. Please contact Steve Forsythe (work 244-1166, home 886-2231) or Jorge Medina (work 834-9600, home 277-8929) for details if you are interested in holding an office.

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The price is \$100 for IEEE members and \$190 for non-members.

**MOS Switched Capacitor Filters: Analysis and Design** is a volume in the IEEE Press Selected Reprint Series, prepared under the sponsorship of the IEEE Circuits and Systems Society. The Editor, George S. Moschytz, is Professor of Electrical Engineering and Director of the Institute for Telecommunications at the Swiss Federal Institute of Technology (ETH).

Emphasis is placed on basic principles, analysis, design and actual filter implementation as opposed to material of a network theoretical nature.

The price is \$40.15 for IEEE members and \$66.95 for nonmembers.

**Microwave and Millimeter-Wave Mixers** is another volume in the IEEE Press Selected Reprint Series. Editor of this volume, Erik L. Kollberg, is a professor in the Department of Electron Physics at Chalmers University of Technology (Gothenburg, Sweden) and leader of a group which is responsible for the development of low-noise microwave and millimeter-wave receivers at the Onsala Space Observatory.

This state-of-the-art discussion of microwave and millimeter-wave mixers provides an extensive overview of modern mixer theory and techniques. The book consists of 71 carefully selected papers that cover a variety of mixers and practical circuits.

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# IEEE ORLANDO EXECUTIVE COMMITTEE EXECUTIVE BOARD

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	V. Chmn.	Avelino Gonzalez	281-2982	365-6812
	Secy.	Sally M. Merry		629-1901
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Student Comp.	Chmn.	Ron Krauskopf		677-4213
Chapter	Treas.	Don Vincent		678-4603

The Executive Committee meets the first Tuesday of each month, except July, at AUTOMATION INTELLIGENCE, INC., 1200 W. COLONIAL DRIVE (corner of 441 and Colonial), at 5:30 p.m. All IEEE members are welcome to attend.

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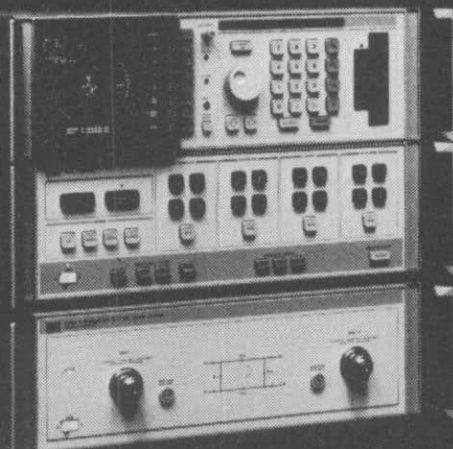
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A CENTURY OF ELECTRICAL PROGRESS

VOLUME XX  
NUMBER 7  
MARCH 1985

## MARCH ACTIVITIES

5th Executive Committee Meeting at 5:30 P.M.  
at Automation Intelligence, Inc.

19th Communication Society Meeting  
Arthur Ballato, Speaker, at Gary's Duck Inn

READ DETAILS ON PAGE 3

PUBLISHED BY ORLANDO SECTION  
INSTITUTE OF  
ELECTRICAL AND ELECTRONIC ENGINEERS

## CHAIRMAN'S CORNER

### SECTION SERVICES

We all benefit from an active Section. For the many among us who cannot attend conferences regularly, the Section serves to fill the gap with multiple meetings each month and local Chapters of special-interest groups (Societies). These meetings bring us national lecturers, plant tours, social events, professional topics, tutorials, etc., to help us keep up to date in a fast-changing profession.

The vitality of our Section depends on a steady flow of volunteers moving through the offices of the Executive Committee.

### JOIN US

Volunteering to serve our Section is an opportunity for personal and professional growth. A chance to associate with fellow engineers from various disciplines and to take part in managing a Section. I encourage all IEEE members to join us on the Executive Committee and especially the retired engineers among us. Changing demographics (in 1983, people over 65 outnumbered teenagers for the first time in U.S. history) indicate that many more older engineers should be available to support the Section. I also urge all present chairman and committee members to make it a personal goal to bring another engineer into his/her committee or to observe an Executive Committee meeting. These engineers will benefit and so will the Section.

### COMPANY CONTACTS

George McClure, P.R. Chairman, is putting together a list of contacts in the various companies in the Orlando Section area (Lake, Sumter, Osceola, Seminole and Orange Counties). If you would like to act as a focal point for meeting announcements to be distributed in your company, or if you have a company newsletter, please pass the information to George - 356-3782.

### SURVEY

Don't forget to fill out and send in the survey form in the February issue of the Section Notes. We need your feedback.

Frank Fluet  
Chairman, Orlando Section

---

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1/2 page	65	55
2/3 page	75	65
3/4 page	85	75
1 page	100	85

---

NON-MEMBER SUBSCRIPTIONS: \$15.00/YEAR.  
SAMPLE ISSUE: \$1.50.

## IEEE EXECUTIVE COMMITTEE MEETING ORLANDO SECTION

**Date:** February 5, 1985

**Location:** Automation Intelligence, 1200 W. Colonial Dr., Orlando.

**Attendees:**

Frank Fluet

Norman Lawton

Joe Massett

Dave Flinchbaugh

Geoff Dick

George Taack

Carl Schunemann

John Gilbert

Sally Merry

Ed Ellis

Conrad Blankenzee

Ben Patz

George McClure

Frank San Filippo

Alex Marton

Larry Hull

### MINUTES:

1. Meeting called to order by Frank Fluet, Chairman. The necessary quorum was present.

2. The January minutes were reviewed by attendees. It was noted that the minutes showed the correct date for the PE/IA meeting in February but the section notes (Pg. 12) were incorrect. A motion was made to accept the minutes and was seconded. Motion passed.

#### 3. Treasurer's Report - Carl Schunemann:

Treasurer's report dated February 5, 1985 is attached. A motion was made to accept the treasurer's report and was seconded. Motion passed.

#### 4. Chairman's Report - Geoffrey Dick:

March/April meeting notices have started to arrive. Please send all others ASAP. Send to:

Geoff Dick MP 1156E, Box 7

Martin Marietta

PO Box 5837

Orlando, FL 32855

#### 5. Programs - George Taack/Conrad Blankenzee:

A discussion of upcoming banquets was held. The awards dinner was discussed and program responsibilities were assigned. April meeting of PACE activities is planned with Harb Hayre.

#### 6. Public Relations - George McClure:

Presented plans for Harb Hayre April talk. See attached report.

#### 7. Publications - Alex Marton:

PE/IA meeting date was changed at the request of the speaker.

#### 8. Advertising - John Gilbert/Victor Alas:

Still attempting to increase the number of advertisers.

**9. Awards - Ben Patz:**

Awards banquet is Saturday, Feb. 16.

Section nominations for officers:

Chairman - George Taack

Vice-Chairman - Don Malocha

Secretary - Geoff Dick

Treasurer - Carl Schuenemann

**10. Florida Engineering Society Liason - R.C. Harden:**

Don Malocha plans to attend FES Engineers week dinner, February 23. Steve Mellich of Schemmer Associates is contact (896-0961). Other meetings are:

3/19 - Legislative report.

4/16 - Interaction of landscape Architects & CE's.

5/21 - Engineering for the Grand Cypress Project.

**11. PACE - John Gilbert:**

Harb Hayre may be scheduled for April 25 rather than April 26.

**12. Education - Fred Simons: Absent****13. Student Activities - Don Malocha: Absent.****14. Membership Development - Woody Carter: Report attached.****15. By-Laws - George McClure: No Report.****16. Historian - Russ Theisen: Absent.****17. Member at Large - Joe Massett: No report.**

## CHAPTER REPORTS

**18. AEES - Dave Flinchbaugh:**

Bob Gunter spoke of the newly established Space Station Office at the January 24 meeting in which 30 people attended. Meeting was held at York Steak House and was a satisfactory meeting location.

**19. Communication - Madjid Belkerdid:**

Absent. Report was provided. Meeting on January 28 was attended by 14 people. Bryan Osmun of Astronet gave the talk on cellular radio. A tour of one Lake Mary cell site was conducted.

**20. Computer Society - Steve Forsythe:**

Absent. Report of meetings to be held:

March 12 - Computer Aided Engineering

April 9 - LAN's

**21. Electron Device Society - Ralph M. Mindock:**

Absent. January 24 meeting was economic break-even as reported by Dick Zanowick to Carl Schuenemann.

**22. MTT/AP - Fred Wilcox:**

Absent. February meeting expected to be delayed.

**23. PES/IAS - Mike Haddad:**

Next meeting is Tuesday, February 19. March 19 meeting on Patents is planned. This is in conflict with Comm. Section meeting.



24. **Student Branch IEEE - Steve McKenna:** No report.  
 25. **Student Chapter, Computer Society - Ron Krauskopf:** No Report.  
 26. **Unfinished Business:** None.  
 27. **New Business:**

George McClure reported on USAB operations committee in Orlando:

- a) Asked if section had input, none given.
- b) Southcon expected to outgrow convention center in a couple of years. Mini/Micro showing poorly.
- c) There is poor response locally to satellite courses.
- d) Ramada Inn promotes teleconferencing which may be a way to get programs locally.
- e) Career Management Conferences have 1-1.5 day programs that are available to the section.
- f) Discussion of DOD restriction of engineering presentations on technologies have possible impact on national security.

Frank Fluet reported Centennial Issue Section Notes were commended by USAB.

Ed Ellis suggested we need better handle as to company affiliation of section members.

28. Meeting adjourned

29. Time/Place of next meeting:

March 5, Tue., 5:30 pm.

Automation Intelligence (AI)

1200 W. Colonial Drive

(west of I-4 on Colonial Drive)

\*\*\*\*\*

## IEEE ORLANDO SECTION TREASURER'S REPORT FEBRUARY 5, 1985

Checking Account Balance

January 8, 1985 Treasurer's Report

\$2,974.12

**Deposits:**

1-19-85 E.D. Society Dinner Mtg.

\$50.00

(1-14-85) Receipts, 5 Checks @ \$10

11-23-84 Deposit by George Taack,

\$438.00

Not Previously Recorded,

11-1-84 Dinner Mtg., Ticket Receipts.

2-2-85 Hammond Electronics, Check

\$65.00

#32497 Dated 1-23-85, Newsletter Advt.

2-2-85 UCF Check #223355, Newsletter Advt.

\$75.00

**Total Deposits**

\$628.00

**Disbursements:**

#1174	Don Malocha	\$14.00
	Dec. Section Mailing (35 @ 20¢)	
	E.D. Society Mailing (35 @ 20¢)	
#1175	John Gilbert	\$4.00
	Mailing of Newsletter Advt. Invoices	
#1176	Orlando Airport Marriott	\$15.95
	Unpaid Balance, 11-1-84, Dinner Mtg.	
#1177	Altamonte Data Proddessing	\$37.03
	Invoice #16154, Dated 1-4-85	
	Newsletter Labeling, Sort, Bag,	
	Delivery to Post Office	
#1178	Alex Marton	\$100.00
	1985 Bulk Mail Fee, \$40.00	
	Bulk Mail Fee, \$60.00	
#1179	Seminole House Printers	\$707.43
	January Section Notes,	
	Invoice #7922 of 1-11-85	
#1180	Altamonte Data Processing	\$37.89
	Invoice #16101 of 12-5-84,	
	Not Previously Paid, Newsletter	
	Labeling and Mailing Services	
#1181	Seminole House Printers	\$660.19
	February Section Notes,	
	Invoice #8083 of 1-31-85	
	Barnett Bank Charge,	\$14.80
	New Checkbook, 12-23-84	

**Total Disbursements:** \$1,591.29

**Summary:**

Checking Account, 1-8-85 Report	\$2,974.12
Plus Deposits	628.00

**Sub Total** \$3,602.12

Less Disbursements \$1,591.29

Checking Account Balance, 2-5-85	\$2,010.83
Plus Dreyfus Fund Balance, 2-1-85	3,523.84

**Total Funds** \$5,534.67

Respectfully submitted,  
Carl F. Schunemann  
Treasurer

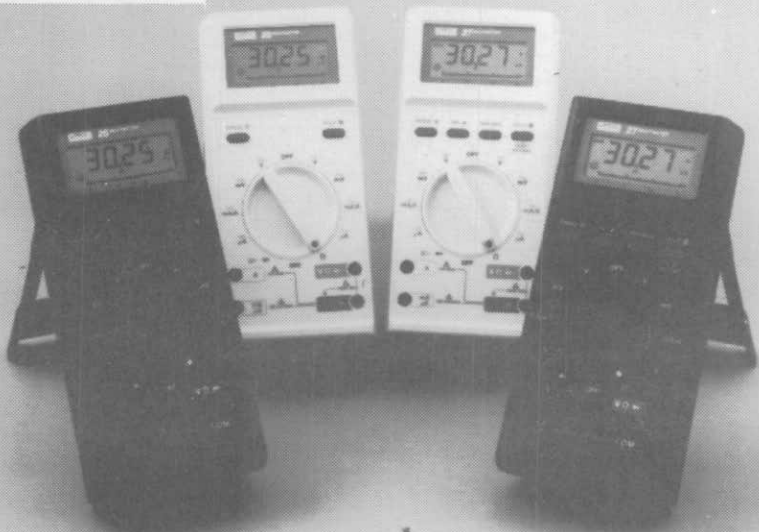
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\*\*\*\*\*



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## MEMBERSHIP DEVELOPMENT COMMITTEE REPORT FOR JANUARY 1985

Letters of welcome were sent to the 'A' and 'E' categories below. Letters of concern were sent to the 'K' category below.

The total active membership is 1028 as of 11-30-84.

The following statistics are derived from the "Membership Changes and Additions" for the indicated month:

CODE	REASON	12-31-84
A	New Election to Membership	4
B	Reinstatement to Membership	0
C	Arrears Paid	2
E	Moving Into Section	13
H	Transfer In Member Grade	2
I	Moving Out Of Section	7
K	Went Into Dues Arrears	0
M	Deceased	0

W. C. Carter  
Membership Development Chairman

\*\*\*\*\*

## PUBLIC RELATIONS

George McClure reports that a press release is planned on Harb Hayre's talk to the Orlando Section. The subject is billed as centering on pension benefits for engineers and other initiatives being undertaken by PACE. Dr. Hayre has promised to supply a photo, biography, and description of the program to John Gilbert. The photo will be reproduced and a press release will be made for print and electronic media.

This topic should be of interest to non-members as well, so that we may have a large attendance. Efforts will be made to get notices in various company house organs of firms employing engineers.

Members are requested to provide contact information for editors of the newspapers published by their companies to George McClure, phone 356-3782, or by mail at 1730 Shiloh Lane, Winter Park, FL 32789-5847.

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Do you enjoy writing as much as engineering? Have you ever thought of a career in technical journalism? If you answered "yes" to both questions, and if you are majoring in electrical engineering, computer science, or an equivalent technical discipline and have good grades, you qualify for this contest.

To enter, simply write to Technical Editor Edward A. Torrero, *IEEE Spectrum*, 345 E. 47th St., New York, N.Y. 10017, explaining why you should be selected. Include relevant materials, such as term papers, engineering reports, college newspaper stories, and so forth, that you think strengthen your case. All entries must be postmarked no later than April 19, 1985.

\*\*\*\*\*

## NOTICE OF NOMINATION OF SECTION OFFICERS

At the February meeting of the Executive Committee, the Nominating Committee consisting of Ed Ellis (Chairman), Joe Massett, and Ben Patz presented the following slate of nominees for the elective offices of the Section's Executive Committee:

Nominees for Fiscal Year July 1, 1985 - June 30, 1986

Chairman	<b>George Taack, Jr.</b>
Vice Chairman	<b>Don Malocha</b>
Secretary	<b>Geof Dick</b>
Treasurer	<b>Carl Schunemann</b>

According to Article 43 of the Orlando Section By-Laws, "The Section membership may make additional nominations by submitting qualified petitions. A qualified petition shall meet the following conditions: a) Specify the office, b) Bear the signature of at least 15 voting Section members, c) Contain statement of nominee's consent to serve, d) State nominee's qualifications and biography, e) Be delivered to the Section Chairman on or before **1 April.**"

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**COMPUTER PROFESSIONALS:** Hardware/Software: Applications, Programmer Analysts, Program Planners, Systems, Scientific, Logic Designers, Technical Marketing, Technical Sales, Management and others.

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## CHAIRMAN'S MESSAGE



The theme of the **Twenty-Second Space Congress** is **Space and Society — Progress and Promise**. This is appropriate for the maturity of world wide space activities as well as descriptive of the planned program.

Congressman Don Fuqua, Chairman, Committee on Science & Technology will present the keynote address followed by a high level DOD Panel describing multi-service space activities. Today's space program will be further discussed in sessions covering Space Shuttle Operational Efficiency, Spacelab Missions, Getaway Specials, and International Space Programs.

Society is not only more aware but also becoming directly active in Space through Getaway Specials on Shuttle as well as the advent of major activities to be covered in a panel on Commercialization. Other near term new initiatives are covered in panels on Space Defense Initiative and Space Station Plans & Development. More futuristic endeavors are presented in paper sessions on Remote Operations in Space & Robotics, Space Station Technology, and Advanced Missions & Transportation. In addition, Contracts & Management, Productivity and Energy are special interest sessions scheduled.

This four day meeting will include the **Meet The Astronauts** event for the first time at the Kennedy Space Center new IMAX Theater. In addition to the traditional Banquet and Luncheon there is an added Golf Tournament on the final day.

Please join us to share an outstanding program covering Space — a growing frontier which continually changes our perspective and the way we do business on earth.

Fred W. Haise  
General Chairman  
Twenty-Second Space Congress

## REGISTRATION

Registration will be set up in the Dolphin Room of the Holiday Inn. Sessions will be held in the Manatee Rooms of the Holiday Inn and at the Beach Theater. Fill out form on reverse side to pre-register by mail. Register early to assure Banquet tickets. Registration also available for partial attendance at \$5.00 per session.

## EXHIBITS

Exhibits will include displays of the Space Shuttle, Shuttle payloads, and communication satellites. The Exhibit hall will be open to the public Tuesday through Thursday in the Crossway Inn.

## STUDENT DISCOUNT

Students may attend individual panels or paper sessions at a special rate of \$2.00 per session payable at the registration desk.

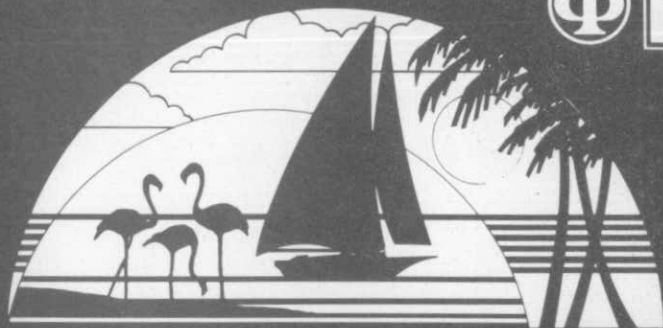
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The **TWENTY-SECOND SPACE CONGRESS** is sponsored by the Canaveral Council of Technical Societies (CCTS). The council is composed of the Cape Canaveral area affiliates of 24 national, technical, and professional societies and an advisory group. Included in the group are Brevard Community College, The Brevard Economic Development Council, Florida Institute of Technology, and the Florida Solar Energy Center. CCTS Societies:

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American Institute of Architects  
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American Meteorological Society  
American Society of Civil Engineers  
American Society of Heating, Refrig. & A/C Engineers  
American Society for Industrial Security  
American Society of Mechanical Engineers  
American Society for Quality Control  
American Society of Safety Engineers  
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Advance Announcement

# Tutorial Week $\Phi$ EAST 85



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Program Chairman  
Committee

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Kenneth Berg, IBM Corporation  
Murali Varanasi, Univ. of So. Florida  
Ratan Guha, Univ. of Central Florida  
Russ Theisen, Martin Marietta  
Ed Galizzi, Lockheed Martin  
Harry Hayman, IEEE Computer Society

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Attendance limited to 100 per tutorial. Advance registration discount deadline: March 15, 1985

MONDAY, MARCH 25

TUESDAY, MARCH 26

WEDNESDAY, MARCH 27

THURSDAY, MARCH 28

FRIDAY, MARCH 29

①

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Overview  
Kamran Parsaye

②

Microcomputer  
Overview  
Margaret Eggers

③

Design  
for  
Testability  
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④

VLSI Technologies  
and  
Computer Graphics  
Henry Fuchs

⑤

Computer Graphics  
John Staudhammer

6

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Productivity:  
Issues for the 80's  
Capers Jones

7

Software Management  
Donald J. Reifer

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Automated Tools  
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Edward Miller

10

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Edward Miller

11

The C Programming  
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Winsor Brown

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Prolog  
Doug De Groot

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Per Tutorial	\$150	\$185
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## IEEE COMMUNICATION SOCIETY MEETING ANNOUNCEMENT

- DATE:** March 19, 1985
- TIME:** 5 - 6 PM Cash Bar  
6 - 7 PM Dinner (\$9.50, Beef or Seafood)  
7 PM - Guest Speaker
- PLACE:** GARY'S DUCK INN on S.O.B.T.
- SPEAKER:** Arthur Ballato, IEEE Sonics and Ultrasonics Group National Lecturer
- TOPICS:** Frequency and Time Sources -  
Past, present, and future
- FOR RESERVATIONS:** Call *before* March 10, 1985  
Madjid Belkerdid at (Work) 275-2324  
(Home) 699-4890

**ARTHUR BALLATO** (S'55-M'59-SM'71-F'81) received the S.B. degree in electrical engineering from the Massachusetts Institute of Technology, Cambridge, in 1958, the M.S. degree in electrical engineering from Rutgers University, New Brunswick, NJ, in 1962, and the Ph.D. degree in electrophysics from the Polytechnic Institute of New York, Brooklyn, in 1972.

In 1958 he joined what was the Army Signal Corps R&D Labs and is now the U.S. Army Electronics R&D Command, Fort Monmouth, NJ. Since that time he has worked on analytical and experimental aspects of frequency control and selection. Specific areas of interest include evaluation of material constants of quartz and other piezoelectric substances, development of equivalent networks for bulk and SAW resonators, filter crystal and crystal filter design, measurement of circuit parameters of signal processing devices and precision resonators, development of crystal parameter measurement equipment, and growth of high-purity quartz. Most recently, he has investigated the properties of stress- and thermal-transient-compensated resonators and high frequency, stable sources. These results have been presented at the Ultra-sonics, Frequency Control, Microwave, Circuits and Systems, and other symposia, and published in over 100 articles and patents.

Dr. Ballato is a member of the American Physical Society and Sigma Xi, and is a Chartered Engineer of the Institution of Electrical Engineers (London). He was recipient of the 1978 C. B. Sawyer Memorial Award "for contributions in the field of piezoelectric

crystals such as: stacked filters, electric circuit analogs and stress effects in doubly rotated plates," and received the U.S. Army Research & Development Achievement Award for 1980. This is the highest R&D award bestowed by the U.S. Army, and was given "in recognition of major contributions to the state-of-the-art of high precision frequency control."

Dr. Ballato serves on the Technical Program Committee of the Annual Frequency Control Symposium, and was Chairman in 1982. He is a member of the Administrative Committee of the IEEE Sonics and Ultrasonics Group, and is its Technical Activities Chairman. He is also a member of the Technical Advisory Group TC-49 (Piezoelectric Crystals) of the International Electrotechnical Commission.

\*\*\*\*\*

## NEW BOOKS FROM IEEE PRESS

**"THE SPACE STATION: AN IDEA WHOSE TIME HAS COME"** The book is edited by Theodore R. Simpson, Project Leader at the think-tank ANSER. During 1981, he served as a Congressional Fellow on the Staff of the Senate Subcommittee on Science, Technology and Space. This timely book is the first and only publication on the space station since President Reagan's 1984 State of the Union directive to NASA to construct a continuously manned space station by the early 1990s.

Through his close association with the space program, Mr. Simpson has assembled a group of space policy leaders from Government, industry, and academia who were directly involved in the decision to build the space station, and who are currently engaged in its development. The volume contains a wealth of information, published here for the first time, on America's space program for the 21st Century, and will be an invaluable addition to the library of every space enthusiast.

Organized into five parts, **THE SPACE STATION: AN IDEA WHOSE TIME HAS COME** first reviews the history of U.S. and Soviet manned space flight. An examination of the political decision to build the space station follows. The third section of **THE SPACE STATION** describes the possible and probable designs, uses, and impacts of the space station. And finally, the long term potential of permanently manned exploration of the solar system is discussed, from space industrialization to eventual space colonization.

**THE SPACE STATION** has over 30 photos and illustrations, providing a definitive description of America's space program. It is priced at \$17.95 for IEEE members and \$19.95 for nonmembers. The book contains 320 pages, is 6"x9", casebound and jacketed, and can be ordered postpaid from the IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. A \$2.00 billing charge is added to all non-prepaid orders.

**1985 IEEE U.S. MEMBERSHIP SALARY & FRINGE BENEFIT SURVEY REPORT:** The report is being prepared under the direction and guidance of the IEEE United States Activities Board (USAB) Survey Task Force for publication on May 11, 1985.

The Survey report is based on information gathered from a questionnaire mailed in early January 1985 to an N-6 sample of the IEEE U.S. membership -- Fellows, Senior Members, Members and Associates. No students, retirees or unemployed persons were included in the Survey. Thirty thousand questionnaires were mailed out via first class mail. Data abstracted from the returns can be applied to the full non-student membership of over 170,000 with a 95% degree of confidence. The high response rate in prior years has given the Survey's results a notable degree of credibility with industry, government and academe. Survey questionnaire design, processing, analysis of responses and the final report have been prepared by Abbot, Langer & Associates under contract to the IEEE.

The 1985 Salary Survey report will contain the most up-to-date information available on salaries and fringe benefits of electrical, electronics, and computer engineers and scientists in the U.S. as they relate to job function, supervisory responsibility, type of employer, company size, years of experience, level of education, geographic area, level of responsibility, plus many other variables.

The Survey report will also contain an entire section on fringe benefits. Responses in this section are analyzed with regard to: pension coverage; vesting requirements and supplementary retirement plans; employer contributions to life, health, accident and major medical insurance for employees and dependants. Vacation benefits and employer contributions to professional society activities will also be covered.

The **IEEE 1985 U.S. Membership Salary & Fringe Benefit Survey (UH01685)** will be published on May 11, 1985. A special pre-publication price is being offered with a \$20.00 saving on all orders postmarked on or before May 10, 1985. Prices are \$29.95 for IEEE members; \$49.95 for nonmembers. After May 10, prices will be \$49.95 for members; \$69.95 for nonmembers. The IEEE 1985 Salary Survey can be ordered postpaid from the IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. A \$2.00 billing charge is added to all non-prepaid orders of under \$100.00.

# IEEE ORLANDO EXECUTIVE COMMITTEE EXECUTIVE BOARD

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The Executive Committee meets the first Tuesday of each month, except July, at AUTOMATION INTELLIGENCE, INC., 1200 W. COLONIAL DRIVE (corner of 441 and Colonial), at 5:30 p.m. All IEEE members are welcome to attend.

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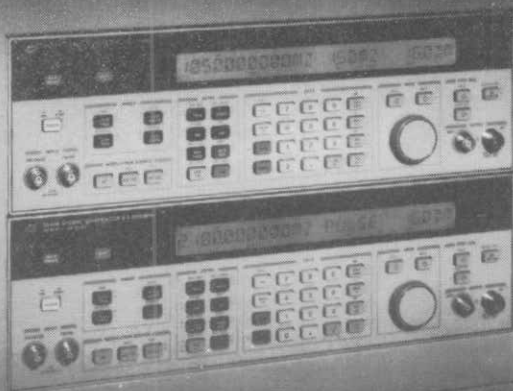
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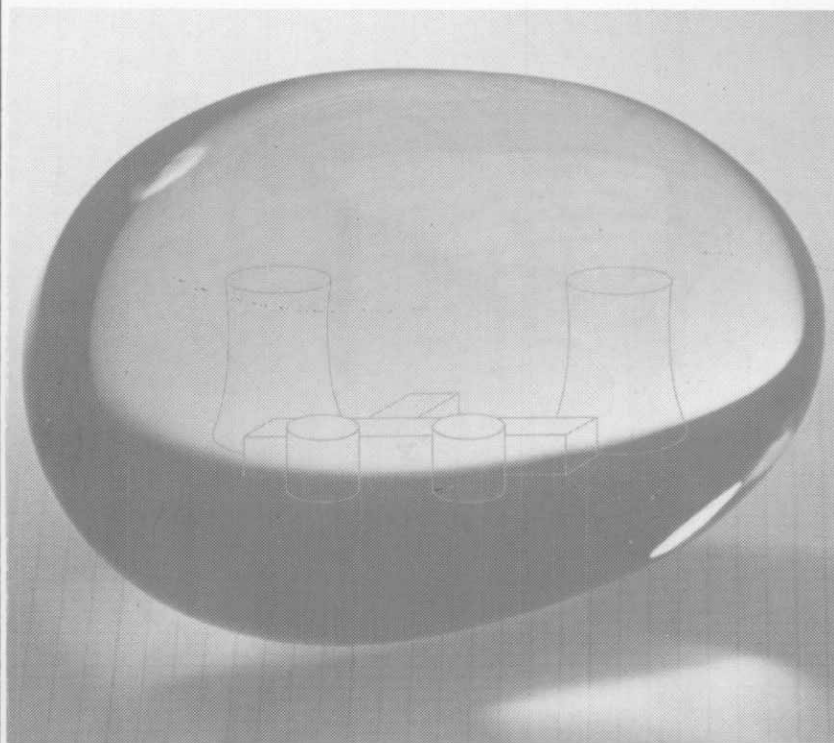
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MAY 1985

# Orlando Section Notes

VOLUME XX  
NUMBER 9



May Calendar on page 6.

# CHAIRMAN'S CORNER

## A NEW CHAPTER

A Chapter of the IEEE Acoustics, Speech and Signal Processing (ASSP) Society is now forming in the Orlando Section. Through the diligence of our Section Secretary, Don Malocha, a petition has been completed and sent to the Regional office for approval. The ASSP Society's special interest is the Digital/Optical/Acoustical transmission, recording, reproduction and processing of signals. Forty-three (43) Orlando Section members are also members of the ASSP Society. This new Chapter will especially benefit them as well as the entire Section. In addition to a wider scope of technical meetings, we can expect to hear nationally recognized lecturers and to have a local forum for meeting others of the same discipline. These functions can fill a void between major technical conferences.

In the past, some Orlando Chapters have died off because of lack of interest or support from the membership. Don has gotten the ball rolling by forming this new Chapter; however, he will need your help for the next step. After approval, the Chapter offices must be filled. An ASSP Chapter chairman, Vice-Chairman, Secretary, Program Chairman, etc., will be needed. Please call him or me if you are interested in supporting this new group in any way. You and the entire Section will benefit.

## THANKS DON

The Section owes much gratitude to Don for organizing this new Chapter, yet another example of his many contributions to IEEE. Dr. Donald Malocha is a Professor of Electrical Engineering at UCF. He has, by spreading the word about the benefits of IEEE to the students, greatly expanded the student membership. We all recognize this as a key to continued strength and growth of IEEE. In addition to being our Section's Student Activity Chairman, Don serves the Section as Secretary of the Executive Committee and also as Vice-Chairman of the Electron Devices Society Chapter. I don't have room to list his many technical and professional accomplishments, but he was selected as the Orlando Section's "Outstanding Engineer of the Year" for 1984. We are proud and thankful to have him in our Section.

Frank Fluet  
Chairman  
Orlando Section



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### ADVERTISING RATES

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	1-2 Insertions	3-10 Insertions
1/4 page	\$45/issue	\$35/issue
1/3 page	55	45
1/2 page	65	55
2/3 page	75	65
3/4 page	85	75
1 page	100	85

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### SUBSCRIPTION RATES:

NON-MEMBER : \$15/YEAR.  
SAMPLE ISSUE : \$1.50

Cover photo courtesy of EPRI Journal

## EDITOR'S LAMENT

The Post Office did it. Just when you thought it was safe to schedule events early in the month ... ZAP! I thought that the one-week delay in delivery of the March issue of the Section Notes was a fluke (no pun), but the ten days it took the USPS to process the April issue was totally outrageous. I spoke with the people at the Bulk Mail Acceptance Unit and at the Mail Processing Unit, and the best they can do is to say that "it happens sometimes". Since we don't have an alternative way to deliver the Section Notes to you, two actions are in order. One is mine: I will call Mail Processing before our bundle arrives, so they can track it and insure that it doesn't get hung up anywhere. The other action is yours: you **must** get all your material for publication to me by the 15th of the month — otherwise it won't get in until the next month.

Alex Marton  
Editor



## MEMBERSHIP DEVELOPMENT COMMITTEE REPORT FOR MARCH 1985

Letters of welcome were sent to the 'A' and 'E' categories below. Letters of concern were sent to the 'K' category below.

The total active membership is 1049 as of 1-31-85.

The following statistics are derived from the "Membership Changes and Additions" for the indicated month:

CODE	REASON	1-31-85
A	New Election to Membership	7
B.	Reinstatement to Membership	0
C	Arrears Paid	1
E	Moving Into Section	11
H	Transfer In Member Grade	5
I	Moving Out Of Section	5
K	Went Into Dues Arrears	171 !
M	Deceased	1 (L.J. McKesson)

Of the 171 arrears, about 90 are members and 70 are students.

W.C. Carter  
Membership Development Chairman

## REPORT ON ANNUAL REGION 3 COMMITTEE MEETING APRIL 1, 1985 RALEIGH, NC

Region 3 consists of all Southeastern U.S. One of the 10 Regions in the world, 6 Regions in the U.S. We are the fastest growing Region in North America. We have more Sections (45) than any other Region. The Region 3 budget is approximately \$55,000 this year. Membership in the Region is now at 28,000.

This once-per-year meeting of the Regional Committee, consisting of Region Director-Chairman, all Region officers and the Chairmen of Areas, Councils and Sections normally takes place at the SOUTHEASTCON conference.

- Vernon Powers (from Florida Council) and Chuck Alexander are candidates for Vice Chairman of Region 3.
- Debbie Powers: Chairman, FL Council -  
There will be a workshop in June in Orlando for Section officers.
- Joe Biedenback: Education Chairman-  
The Last Satellite program was only the second course that hit break-even (previous one was on Robotics). This program had 131 sites (16 sites in Region 3) participating with a total of 351 engineers. Fees varied from \$25 to \$125 per attendee with an additional \$5 charge for non-IEEE members.  
He advises Sections to "shop around" for low cost receiving facilities. Try cable service companies.
- The Jamaican Section has made a request to leave Region 9 and join Region 3. The natural affiliation would be with Florida Council. There is a strong possibility that will be the case.
- The Region PACE Conference and training session will be August 30 through September 2 at Seabrooke Island (near Charlotte) NC. Spouses and children are invited and activities are planned.
- IEEE Headquarters is considering having a specific annual meeting of the institute.
- Area 4 (FLORIDA COUNCIL) may be split into two Councils to make it more "tractable".
- Atlanta SOUTHCON '85 unaudited attendance was at 16,500 with over 600 booths.
- East Tennessee Section presented a bid for SOUTHEASTCON '88 and received preliminary acceptance. (SOUTHEASTCON '86 is Richmond, '87 is Florida West Coast (Tampa)).
- Revised By-Laws for Region 3 to provide for a Secretary and a Treasurer in place of a Secretary-Treasurer.
- East Tennessee Section had an interesting "Centennial Archiving Project" report. I will copy our Section Historian for future reference.

Frank Fluet  
4/8/85

## POWER ENGINEERING SOCIETY INDUSTRY APPLICATION SOCIETY

- DATE:** Tuesday, May 14, 1985
- TIME:** 6:15 PM For Dinner with the Speaker  
7:30 PM For Technical Presentation
- PLACE:** **DINNER:** At Michaels Restaurant  
Alafaya Trail at 12309 E. Colonial Drive,  
Orlando  
**MEETING:** At Westinghouse Electric Corporation  
located at Alafaya Trail and University  
Blvd.  
enter via new applicant entrance.
- TITLE:** Everything You Wanted To Know About Patents
- PROGRAM:** This program will cover the basics of patents. Among the topics to be covered are: What is a patent, What is and is not Patentable, Inventor Rights, Procedures - Do's and Don'ts, Record-keeping, Infringement, and computer Programs and Patents. There will be a question and answer period following the talk.
- SPEAKER:** Dean Schron, a patent attorney who manages patent activity for a number of Westinghouse divisions, will be our guest speaker. Mr. Schron holds a BSEE Degree from RPI, a BA Degree from the University of Pittsburgh, and a JD Degree from George Washington University.
- RESERVATIONS:** For **Dinner** or **Meeting** Reservations call any of the following by Thursday, May 9th.  
Mike Haddad, 281-2393, Avelino Gonzalez, 281-2982, or Sally Merry, 629-1901.



## IEEE MEMBERSHIP RENEWAL PROGRAM

Frank Fluet reports results of the "Pilot Telemarketing Project", a telephone IEEE membership renewal program. In brief, 42.3% of the people contacted, renewed. Of most interest were the reasons given for not renewing:

Don't get enough out of it	30.8%
Not applicable/no longer in field	30.8%
Can't afford/justify cost	19.2%
Was not a member last year	15.4%
Not interested	3.8%

## IEEE ORLANDO SECTION INSTALLATION BANQUET

**DATE:** SATURDAY, JUNE 22, 1985  
**PLACE:** HARLEY HOTEL — ORLANDO  
**TIME:** CASH BAR & SOCIALIZING 6:45 PM  
DINNER 7:30  
**PROGRAM:** INSTALLATION OF OFFICERS FOR 1985-86 AND  
SPEAKER TO BE ANNOUNCED  
**COST:** \$15.00  
**MEAL:** ROAST BARON OF BEEF, BAKED POTATO, GREEN  
BEANS ALMONDINE, TOSSED GREEN SALAD, AND  
DESSERT.  
(IF RESERVATIONS ARE RECEIVED BY WEDNESDAY,  
JUNE 19, IT MAY BE POSSIBLE TO SUBSTITUTE A  
SEAFOOD ENTREE FOR THE BEEF ENTREE)

**RESERVATIONS** PLEASE MAKE BY JUNE 20  
BY CALLING:  
GEORGE TAACK — 244-1389  
ED ELLIS — 244-1203

**NOTE:** Due to the cost involved, a reservation will constitute the  
same as a ticket sale. The person making the reservation will  
be committed to pay for the event unless the commitment is  
withdrawn prior to the section providing the guaranteed  
count on June 20.



## MAY CALENDAR

**7th** Executive Committee meets at Automation Intelligence, 5:30 PM  
**14th** Power Engineering Society, Industry Applications Society — Dinner  
and Meeting — See announcement elsewhere in this issue.



# THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

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## CANADIAN PROGRAMMABLE CONTROL CONFERENCE and EXHIBITION

Hamilton Convention Centre - Nov. 20 and 21, 1985

CALL FOR PAPERS

Theme: 'THE PROGRAMMABLE CONTROL USER'

Authors in the programmable control user community are invited to enter paper proposals on the following topics:

(1) Programmable control applications:

- (a) Process control,
- (b) Instrumentation, data acquisition,
- (c) Machine tool control,
- (d) Robot control,
- (e) Material handling,
- (f) Power systems,

(2) Language, programming and documentation.

(3) Network, data communications.

(4) System design, installation and commissioning.

(5) Man/machine integration: interface, machine and training.

(6) Diagnostics and problem correction.

Authors are requested to submit three copies of a one page abstract for review. The abstract should identify the title of your paper, author(s) name, complete address, company affiliation and telephone number.

Deadline for abstracts is **April 30, 1985**. Notification of acceptance will be sent to authors by **May 31, 1985**.

Contents of papers are requested to be specific and concrete as much as possible, so as to promote effective applications of programmable control technology.

Authors of accepted papers will be requested to submit the following material by August 30, 1985: (1). Complete manuscript in camera ready format on supplied manuscript paper. The manuscript, should not exceed 4 pages. (2). A short biography.

Accepted manuscripts will be published in the Conference Proceedings exactly as received

Please send abstracts to:

Dr. Gordon Chen, Conference chairman  
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## Statements by Candidates for 1986 President-Elect

The following independently written statements by the two candidates for President-Elect, Mr. Henry L. Bachman and Dr. Jose B. Cruz Jr., have been especially prepared for readers of IEEE newsletters. It is hoped that these statements will supplement the biographical sketches and other statements made by the candidates which appear elsewhere in the IEEE literature and that they will assist IEEE member voters in the election process.

### Statement by Henry L. Bachman

My objective, as President of the Institute will be to assure that the Institute will provide the basis for the health and growth of the profession and its members, for their own benefit, for the benefit of the electrotechnology industry and supporting institutions and, as a result, for the benefit of the members of society at large.

Essential to accomplishing this objective is the need to maintain the vigor of the technical societies and to see that these activities are not compromised. The professional activities of the Institute must support these technical activities by encouraging and assisting able engineers to join and to prosper in a lifelong career within the profession. These activities together, must take action to strengthen the profession's image and its contribution to public policy and, by so doing, create the environment that is necessary to enhance the strength and stature of the profession and its members.

More specifically, there is a need to derive more benefit and broaden the impact of technical activities by better application of the resources and capabilities provided by the Regional and Educational activities, particularly as to the need to increase the utilization of these resources and capabilities.

### Statement by Jose B. Cruz, Jr.

#### *Extend technical and educational services to a broader member base*

IEEE is the largest technical professional society in the world. It disseminates numerous major advances in the field through its technical publications and technical conferences throughout the world. Our publications and conferences are preeminent but we need to extend our publications and conference activities to serve a broader member base. We should have more offerings of tutorial and practice-oriented material to assist our members in their career-long professional development. We need to develop effective delivery mechanisms using our own computer/communications technology.

*Continuing education is for everyone*—Advances in computers, communications, microelectronics, electronic materials, optoelectronics, electromagnetics, systems, power and energy, and other areas have been dramatic in recent years. IEEE members must continuously learn a significant amount of new material to maintain technical viability. The nature of our profession demands that life-long learning, in its broadest sense, occupy a central place in our individual activities.

*Enhance opportunities for professional development*—The most critical factor affecting the professional development of



working, to prevent the loss of older engineers from the profession, and to be more responsive to the careers in industry with requirements for competitiveness in product cost and quality. This requires improving the ability of the Institute to deliver relevant technical information to the members, economically and effectively, both to individuals or local groups, and with emphasis on life-long learning through continuous education.

There is a need to assure the freest dissemination of technical information, as embodied in presentations or products, consistent with proprietary needs and national security, in order not to discourage the economic and intellectual pursuit of technological innovation. There is a further need to encourage the contributors of such innovation by proper recognition of their rights to intellectual property.

There is a need for the Institute to direct more attention to external affairs. With employers of engineers, for example, to further the understanding of the contribution of the Institute to all enterprises. With institutions at the local level, especially when certain member problems and concerns have more relevance and urgency regionally, than nationally, and with the media, and the public they serve, to combat the limited awareness and often, therefore, the low regard for technology, by speaking out knowledgeably about technology to the government and the public at large. The recently established Industrial Relations Committee, increased USAB interactions, through PACE, with local governments, an IEEE Annual Conference, and more media attention to Institute awards are examples of such public information programs which require more emphasis.

For growth in the work environment. IEEE should work with industry leaders to address the productivity problem through greater incentives for professional growth. We need to match our educational offerings with industrial challenges at the workplace.

*Improve communications*—We need to express our concerns and opinions to IEEE officers. Our representatives want to hear from us so that they can represent us more effectively. More communications with our local Section/Chapter officers, Society officers, and Institute officers should lead to a more effective organization.

*Forecast engineering manpower demand*—When demand exceeds supply, more high school graduates are induced to seek a career in engineering. Unfortunately, there is usually a lag of four to five years before an increase in supply is felt. This could then lead to an excess supply of engineers. We need longer term forecasts to improve stability. We must be very careful not to overestimate demand.

*Fight Age Discrimination*—IEEE should assist industry to achieve a more effective engineering manpower utilization. IEEE must assist its membership against age discrimination practices which may occur in advertising, early retirement, employment, promotion, transfer, or other forms. IEEE should support those industry leaders who create the necessary environment for employed engineers to have full and productive careers.

### *We Need Your Feedback*

Based on my conversations with numerous IEEE members throughout the world I know that we need more services for technical and professional development in our stride for greater productivity, and we deserve improvement in our social and economic status. I believe that I have broad support for my goals to improve member services and to enhance the status of the engineering profession. I urge you to express your feedback by exercising your right to vote.

## Statements by Candidates for 1986 Executive Vice President

The following independently written statements by the two candidates for Executive Vice President, Mr. Merrill W. Buckley, Jr. and Dr. Emerson W. Pugh, have been especially prepared for readers of IEEE newsletters. It is hoped that these statements will supplement the biographical sketches and other statements made by the candidates which appear elsewhere in the IEEE literature and that they will assist IEEE member voters in the election process.

### Statement by Merrill W. Buckley, Jr.

The duties of the Executive V.P. are probably the least explicit of any of the IEEE corporate officers. This has been particularly evident since the adoption of the President-Elect concept in 1982. The value of the position therefore depends in large measure on how the person who is elected approaches their term of office.

If elected, I would enthusiastically undertake the usual functions of the office which are to assist the President, to chair the Conference Committee, and to coordinate and report on the activities of the committees assigned to the Executive V.P. But I would also spend a good deal of time on other important Institute issues. The recently completed Centennial Year survey of what our membership thinks should be done to improve the IEEE would be my agenda.

Since our bylaws state that "the Executive V.P. will be responsible for broad corporate matters and may appoint such ad hoc committees as may be required to discharge his/her duties" there is a ready made mechanism available to work on key issues.

I believe we need, and would initiate, ad hoc committees of our best people to address the membership's concerns and to develop specific recommendations for Board of Directors action on such issues as:

- Enhancing our professional image
- Low cost continuing education
- Application oriented publications
- Improving the IEEE/industry relationship
- Worldwide distinguished lecture program
- An affordable dues structure
- Priority review for professional activities
- Continuing support of AAES

### Statement by Emerson W. Pugh

It is an honor to be considered for the office of Executive Vice President. If elected, I will devote myself to that position with four primary goals:

- Improve the volunteer structure of IEEE to attract our best members, to use their services wisely, and to assure that their efforts are applied to the good of all members.
- Help our members increase their technical competence through improved IEEE publications, conferences, and educational programs.
- Increase the monetary rewards and other recognition accorded to engineers through improved public awareness of their contributions and by developing broader opportunities for engineers.
- Make the international engineering community, and IEEE in particular, a force for promoting world peace and a better life for all.

In working to achieve these goals, I will seek the advice and help of as many members as possible; I will draw on my work experience in industry, government, academia, and international technology development and on my fifteen years of experience as an IEEE volunteer—including conference chairman, transactions editor, society president, Publications Board vice chairman, and member of the Board of Directors.

A specific function of the Executive Vice President is to chair the Conference Board, created last year to address a number of specific problems. As a member of that board this year, I am obtaining insights that will help me be more effective during the one-year term of the Executive Vice President.

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The Executive Committee meets the first Tuesday of each month, except July, at AUTOMATION INTELLIGENCE, INC., 1200 W. COLONIAL DRIVE (corner of 441 and Colonial), at 5:30 p.m. All IEEE members are welcome to attend.

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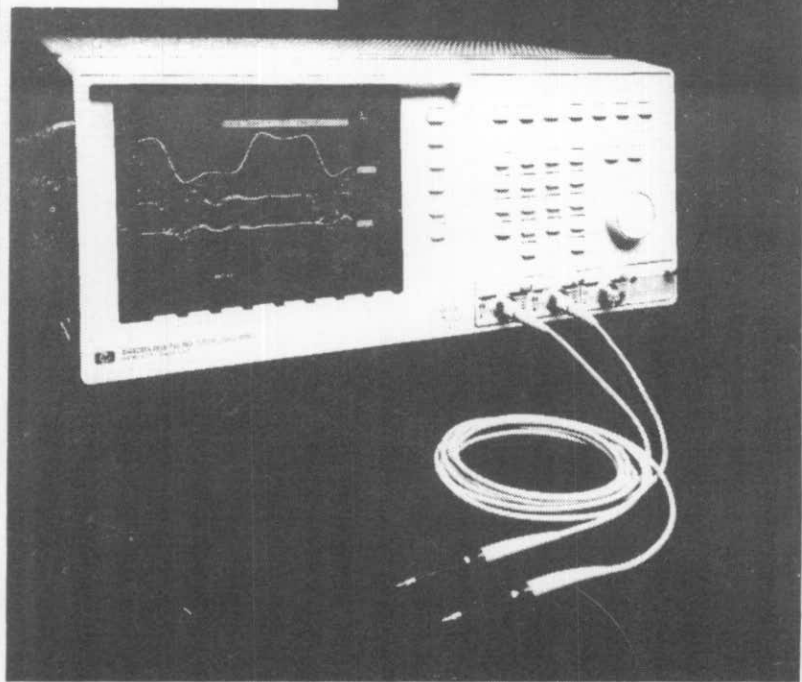
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