



**ORLANDO
SECTION
NOTES**

Volume XV
Number 1
September 1980

MTT SEMINAR



**Doren W. Hess, Scientific Atlanta, Inc.
will speak on "Microcomputer-Based
Spherical Near-Field Measurements".
at the September 10th MTT meeting.**

(Details inside)

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

IEEE-488

1720A

Instrument Controller

Computation and control
dedicated to
test and measurement automation.



John Fluke Mfg. Co., Inc.

940 N. Fern Creek Avenue
Orlando, FL 32803
(305) 896 4881



Bill Wightman
Field Engineer

John A. Mulvey
Technical Editor

John Fluke Mfg. Co., Inc.

John Fluke Mfg. Co., Inc.

940 N. Fern Creek Avenue
Orlando, FL 32803
(305) 896 4881
TWX 810 850 0185

PO Box 43210
Mountlake Terrace WA 98043
(206) 774 2211
Direct: 774 2323

CHAIRMAN'S CORNER

As the only point of contact between many Orlando members and the IEEE, the Orlando Section recognizes a special responsibility to serve its members in ways that the national organization cannot. We are all aware of the extensive technical information role played by IEEE, as the world's largest producer of technical publications and the sponsor of hundreds of technical conferences each year. The Section also serves, through local technical meetings, the development of conferences of interest to local members (such as the Mini/Micro and Eclectic conferences), through membership development, and through its awards program recognizing the contributions of its members.

Plans for the upcoming year include five technical meetings and a social function for the Section, in addition to a full program of society chapter meetings. A new chapter of the Electron Devices Society is awaiting final approval now and expects to develop a program this year, under Dr. Deen Khandelwal, its organizer. There are plans to enlist support for the establishment of a chapter of the Electromagnetic Compatibility Society this year.

Membership development includes upgrading the membership grade in recognition of members' achievements. Many of our members are now qualified for elevation to Senior Member, and are encouraged to complete the application. The requirements include ten years' practice in engineering, five years' significant performance, and three Senior Members references familiar with your background.

There are opportunities for you to contribute to the leadership and programs of the Section, through service on its committees. See the inside back cover for the time and place of meetings of the Executive Committee and plan to attend; all are invited. For further information, telephone any of the officers at the numbers shown.

George F. McClure

FLORIDA COUNCIL OF IEEE

In order to provide Orlando Section members with a better understanding of the Florida Council and its value to the engineer, Vern Powers, Chairman of the Florida Council, describes below the purpose, basis, and objectives of that organization.

Purpose

The council shall provide a strong centralized organization of participating Sections within the State of Florida as required by the unique geographical, technical and professional problems of that area.

Basis

Council formed under IEEE Bylaws Section 403.

Objective

- Further the aims and objectives of the IEEE.
- Coordinate the inter-sectional technical activities of the constituent sections.
- Coordinate the inter-sectional professional activities of the constituent sections.
- Provide an effective IEEE representative and presence in the activities of the Florida Council of Engineering Societies (FCES).
- Promote statewide activities for the benefit of its members.
- Provide supervision, support and approval of all statewide IEEE activities.

Professional activities supported by the Florida Council of the IEEE are pension, patents, age discrimination, registration and ethics. The above activities are as important to the working engineer as the institutes technical activities when job bias effects his or her career.

Technical activities hosted by the Florida Council are Eclectic, Autotestcon "81", Southcon "82", Southeastcon "83" and numerous short courses. All activities are supported by volunteer manpower comprised of members of the Florida Council's twelve sections.

ADVANCED MEETING NOTICE
COMPUTER SOCIETY

October 15, 1980

Location: Orlando Public Library
10 N. Rosalin Ave.
Downtown Orlando

Time: 7:00 — 8:30 p.m.

Program: Details of technical presentation will be in the next issue.
IEEE members, guests, and wives welcome.

PROMOTING ELEVATION TO SENIOR MEMBER GRADE

We're halfway through "The Year of the Senior Member" and are experiencing an increasing level of awareness and interest in the program. Sections and Societies are urged to continue to publicize in their newsletters that those members who are "senior" in the profession should also be shown as being "senior" in the IEEE.

Personal contact is one of the most successful methods of encouraging application for elevation to Senior Member grade. All Senior Members should be asked to contact those among their colleagues who reflect that special standard of professional excellence of the Senior Member. Senior Members have an implied responsibility to assure that this standard is easily recognizable by all in the profession.

DATES TO REMEMBER

THE QUARTERLY CALENDER

SEPTEMBER

2	Executive Committee Meeting
10	MTT Chapter Meeting
20	Florida Council of IEEE Meeting

7	Executive Committee Meeting
15	Computer Society Meeting
25	Orlando Section BAR-B-Q

Nov. 8

NOVEMBER

4	Executive Committee Meeting
20	Orlando Section Meeting Electromagnetic Compatibility Topic

It's never too early to plan or get involved.

AUTOTESTCON '81

Scheduled for 19-21 October 1981 at the Orlando Hyatt House, this conference is listed in the new IEEE Technical Activities Guide for July. Co-sponsors are the Orlando Section, AES-S, and IM-S. A sponsorship agreement will be prepared shortly for signature of all three entities, showing that surplus/loss sharing will be in the same proportion as advance funding, anticipated to be \$1,000 per share.

SOUTHCON '82

Scheduled for 19-21 January 1982 at the Orlando Convention Center, this conference must move to the Orlando Exposition Center because the Convention Center will not be completed in time. The steering committee will be here on Monday to tour the facilities. The Sheraton Twin Towers is being considered as a backup.

SOUTHEASTCON '83

Scheduled for 10-13 April 1983 at the Sheraton Twin Towers. Mrs. Dale Encinosa, convention sales, is the contact at the Sheraton.

OTHER CONFERENCES SCHEDULED IN ORLANDO

- 5-7 November 1980 - Nuclear Power Systems Symposium, Sheraton Twin Towers (NPS)
- March 1981 - Orlando Tutorial Week (C, Orl. Section)
- 7-9 April 1981 - Reliability Physics Symposium, Sheraton Twin Towers (R, ED)

MTT SOCIETY SEMINAR**Minicomputer - Based Spherical
Near - Field Measurements**

Featuring Mr. Doren W. Hess of Scientific Atlanta, Inc.

September 10, 1980

Court of Flags
Pennant Room, Bldg. 4
5715 Major Blvd.
(near the intersection of Kirkman Road and I-4)
Courtesy Bar 7:00 — 8:00 p.m.
Hosted by Scientific Atlanta, Inc.

Abstract

An instrument for measuring far-field radiation patterns utilizing the technique of spherical near-field scanning and based on a dedicated minicomputer has been constructed. This instrument will be described and results showing comparison against directly measured far-field patterns will be presented.

The advantage of the technique will be contrasted with the compact range method of pattern measurement; data from an evaluation of the performance of the compact range at millimeter wave frequencies will be shown.

By way of background and interest the history of the work in near-field antenna measurements at Scientific-Atlanta will be reviewed.

About the Speaker

Doren Hess is a Staff Engineer with the Microwave Instrumentation Division of Scientific-Atlanta. His work with Scientific-Atlanta has been centered on applications of near-field antenna measurement techniques. He was responsible for final development work on the compact range product and he is currently engaged in development of instrumentation for near-field scanning.

Dr. Hess received his Bachelor of Science Degree from Duke University in 1965 and his Ph.D. from the University of North Carolina at Chapel Hill in 1973.

His professional affiliations include membership in IEEE, the American Physical Society and the American Association of the Advancement of Science.

Demonstration

Prior to and after our IEEE meeting, the Scientific Atlanta Mobile Showroom will be available for Demonstrating the newest innovation in antenna test measurement, i.e. spherical near field. Onboard the Mobile Showroom will be a Model 2022 Spherical Near Field Antenna Analyzer. The Model 2022 is comprised of a complete instrumentation and software package designed for the antenna engineer and programmed to automatically perform spherical near field measurements as well as most other commonly made antenna measurements.

Because of space limitation within the Mobile Showroom, demonstrations will have to be limited to five persons at a time. However, Scientific Atlanta personnel will continue to provide demonstrations until all interested persons have had an opportunity to observe the Model 2022 in action.



CALL FOR PIONEER AWARD NOMINATIONS

One of the traditions of the Aerospace and Electronic Systems Society and its predecessor groups of the IEEE is the annual "Pioneer Award," established in 1949.

The formal announcement of the award traditionally takes place at the banquet of NAECON in Dayton, Ohio, early in May. A handsome cast bronze plaque is presented at that occasion. Naming of the award winner is the function of the Pioneer Awards Committee of AESS, currently chaired by Dr. George F. Smith.

Nominations should be accompanied by substantiating information to justify consideration. Contributions by more than a single individual can be recognized by a joint award. Nominations, once received, are carried over to succeeding years for continued consideration. Nominations can be submitted on a Pioneer Award Nomination Form available by writing or calling Mr. J.L. Wittles, AESS Awards Chairman, The Aerospace Corporation, P.O. Box 92957, Los Angeles, CA 90009, telephone (213) 648-5652.

The guidelines followed by the Pioneer Awards Committee are that the award winner must have "contributed significantly to bringing into being systems that are in existence." These systems should be within the specific areas of interest of AESS, that is, aerospace or electronic systems. The contributions for which the award is given should have occurred at least 20 years prior to the year of the award; this guideline is to ensure proper historical perspective for evaluation of the contribution. "Significant contribution," of a specific nature, is the key criterion. Nationality, residence, membership in AESS, IEEE, or any other organization are not factors. **All nominations should be submitted by December 1, 1980, for consideration for the 1981 award.**

IEEE ENGINEERS WEEK AWARDS PROGRAM**DEADLINE: DECEMBER 15, 1980****CALL FOR NOMINATIONS**

As part of the Section meeting during National Engineer's Week in February '81, the Orlando Section will announce Engineer's-of-the-Year for all Chapters providing a nominee. From these, a Central Florida Electrical Engineer-of-the-Year will be chosen. All local Groups and Society chapters (including the Professional Activities Comm. and the FTU Student Chapter) are urged to submit nominees. Those Section members desiring to present additional nominees may nominate by petitions signed by 8 or more Orlando Section members.

QUALIFICATIONS

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

FORM OR NOMINATION AND SELECTION CRITERIA

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 has been chosen as the Chapter Engineer-of-the-Year and Section Nominee. Nominations should be addressed to the Awards Committee Chairman and are due to be received no later than December 15, 1980. The Awards Committee will be pleased to answer any questions that arise.

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 and in various activities of benefit to the Community and Society in general. (10)

PRESENTATION OF CANDIDATES AND AWARDS

Each nomination entity will provide a three minute introduction of their candidate. Each Chapter nominee will receive a framed certificate as Chapter Engineer-of-the-Year. The candidate selected as Central Florida Electrical Engineer of the Year will receive a plaque. No other plaques will be presented at this meeting.

William C. Cram
Chairman, Awards Comm.
971 Palmer Avenue
Winter Park, Fla. 32789

IEEE STUDENT ACTIVITIES

Projected Fall Quarter Activities

(Dates to be announced)

- Annual IEEE Student Membership Party
- Speaker on Laser Technology and possible tour.

Proposed Projects

- Student Newsletter
- TV Display for Engineering Bldg. lobby.

Immediate Goals of the Student Chapter

- Growth of our membership.
- Better Faculty - Student Interaction.
 1. Student Projects directed by Faculty.
 2. More Faculty involvement at meetings and aiding in the advancement of our student branch.
- Better Student - "Real World" Interaction.
 1. Speakers from local businesses.
 2. Tour of local facilities.

Future Planned Projects

- Statewide Student gathering at U.C.F.
- IEEE Convention attendance by some of our students.

IEEE members interested in assisting the UCF IEEE Student Chapter (tours, speakers, information, etc.), please contact our Chairmen, Recording, or Corresponding Secretary at the following numbers.

IEEE STUDENT BRANCH • UNIVERSITY OF CENTRAL FLORIDA
NEW OFFICERS

- Chairman:** Gerald Becker, 267-43-1976, 7962-A Shoals Dr., Orlando, FL 32817, 305/677-7621
- Vice Chairman:** Michael Robitaille, 045-44-7508, 1026 Plantation Dr., Apt. B-13, Kissimmee, FL 32741, 305/847-0909
- Recording Secretary:** Cecilia A. Goff, 267-39-7093, 1520 Lyndale Blvd., Maitland, FL 32751, 305/644-4832
- Corresponding Secretary:** Sam Richie, 406-76-7359, 7962-A Shoals Dr., Orlando, FL 32817, 305/677-7621
- Treasurer:** Theresa Rowan, 263-86-2938, 885 Orange Ave. Oviedo, FL 32765, 305/365-6730

IEEE STUDENT COMPUTER SOCIETY
UNIVERSITY OF CENTRAL FLORIDA
NEW OFFICERS

- Chairman:** Tom Toor, 518-62-0449, 305/282-6359
- Vice Chairman:** Alfredo Ruiz, 267-33-8667, 305/275-7481
- Secretary/Treasurer:** Patty Wilburn

EXECUTIVE BOARD

Chairman	George F. McClure	352-3782	647-5092
Vice Chairman	Benjamin W. Patz	275-2816	855-3685
Secretary	David Flinchbaugh	273-3073	859-4855
Treasurer	Mannie Connell	671-0470	273-8588

COMMITTEE CHAIRMEN

<i>looking for programs for section meetings</i> Jr. Past Chairman	Ernest E. Erickson	275-2310	365-5560
Sr. Past Chairman	Russell E. Theisen	352-3177	671-4139
Programs	Herb Towle	275-2610	671-0265
Publications	Charles R. Curley	352-3839	351-1328
Awards	William C. Cram		647-4123
Student Act. Comm.	Benjamin W. Patz	275-2816	855-3685
Education	Fred O. Simons	275-2786	678-1796

SPECIAL COMMITTEES

Barbeque	Clark M. Hay	339-1600	677-0446
Southcon Conferences	Bruce E. Mathews	275-2156	645-0549
Historian	Russell E. Theisen	352-3177	671-4139
Section Notes Adv.Mgr.	Bill Kownacki	843-8484	365-5818

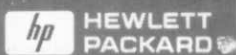
SOCIETY CHAPTER OFFICERS

AES	Chmn. Everett Hales		644-3770
	V.Chmn.		
	Secy.		
Comm.	Chmn. Don Mendorf	339-1600	869-7435
	V.Chmn. Bob Amend	322-9060	834-4379
	Secy. George B. Taack, Jr.	339-1600	321-0319
Computer-	Chmn. Joe Massett	352-4014	834-3448
Pgm.	V.Chmn. Bill Towles	352-4779	876-2447
Mbr.	V.Chmn. Gerry White	646-4437	678-3621
	Secy. George Kirby	273-2351	862-9892
PE & IA-	Chmn. Geoffrey E. Dick	352-4427	678-0979
	V.Chmn. Joseph R. Miller	646-8233	644-7049
	Secy. Roger D. Bowman	646-8222	275-7208
MicThTec-	Chmn. Carl F. Schunemann	352-4366	647-4992
	V.Chmn. Al Fowler	892-4776	
	Secy.		
Student Br.	Chmn. Gerry Becker		677-7621
	V.Chmn. Michael Robitaille		847-0909
	Recordg.Secy. Cecilia Goff		644-4832
	Corresp.Secy. Sam Richie		275-9416
	Treas. Ms. Terry Rowan		365-6730
Stu. Cmpt.	Chmn. Tom Toor		282-6359
	V.Chmn. Alfredo Ruiz		275-7481
	Secy./Treas. Patty Wilburn		
Electron Devices-	Chmn. Deen Khandelwal	352-2483	277-5959

The Executive Committee meets 1st Tuesday of the month at UCF South Orlando Campus, 7300 Lake Ellenor Dr., Rm. 104 at 5:30 p.m. Members are welcome to attend.

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

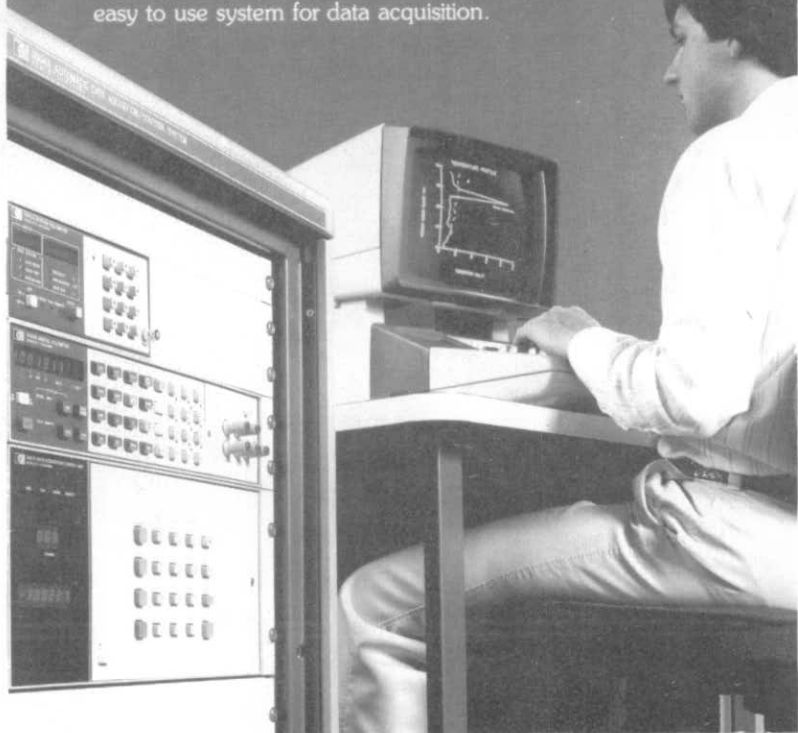
U.S. POSTAGE
PAID 3.5
Permit No. 3492
Orlando, Florida
Non-Profit
Organization



3054A
Automatic
Data Acquisition/Control System

TECHNICAL DATA 15 MAY 80

A precise, flexible, and
easy to use system for data acquisition.



Call your HEWLETT PACKARD Representative at 859-2900.



ORLANDO SECTION NOTES

Volume XV
Number 2
October 1980

CONGRATULATIONS!



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

by this Certificate commemorates the
formation of the

Electron Devices Chapter of the Orlando Section

subject to the IEEE Constitution, Bylaws and
Standing Rules



Formed on August 25, 1980

Leo Young
M. O. L.
Secretary

ANNUAL BAR-B-Q

November 8th

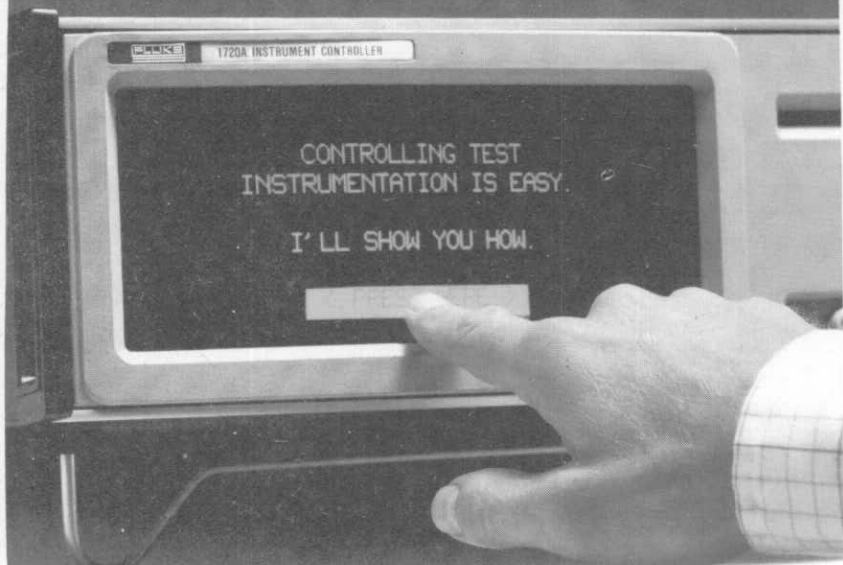
(Details inside)

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

1720A

Instrument Controller

Computation and control
dedicated to
test and measurement automation.

**John Fluke Mfg. Co., Inc.**

940 N. Fern Creek Avenue
Orlando, FL 32803
(305) 896 4881

Bill Wightman

Field Engineer

John Fluke Mfg. Co., Inc.

940 N. Fern Creek Avenue
Orlando, FL 32803
(305) 896 4881
TWX 810 850 0185

**John A. Mulvey**

Technical Editor

John Fluke Mfg. Co., Inc.

PO Box 43210
Mountlake Terrace WA 98043
(206) 774 2211
Direct: 774 2323

THE CHAIRMAN'S CORNER

Mark your calendar for November 8, the date for the annual Orlando Section Barbeque and Square Dance. No experience is required for the square dancing, with instructions starting at the neophyte level offered to all. In addition, the good food and fellowship make it an enjoyable evening for all. Tickets will be available from members of the Executive Committee, listed on the inside back cover.

Ballots have been mailed out for the annual IEEE election. Your participation in shaping the policies of the Institute by voting is encouraged. Historically, only about 30 percent of the members vote. Please mark your ballot and return it now, while you are thinking about it. The deadline is at the end of October. If you do not receive a ballot, contact Brenda Smith, Independent Election Corporation of America, 110 Wall Street, New York, NY 10005, or telephone 212-422-1261.

The Orlando Section Executive Committee has openings for interested section members to serve on the Membership Development and Facilities and Arrangements committees. If you would be interested in expanding your horizons, meeting new people, and in having a hand in the programs and activities of the section, please contact George McClure, at 352-3782.

The Energy Committee of the Technical Activities Board is preparing a slide talk and script to be made available to sections and chapters for use in presentations to civic and other non-technical groups. This material sketches out the dimensions of the problem and the recommended steps for dealing with it. As could be expected, the near term prescription is for greater reliance on coal and nuclear energy sources. The package will be available to section members through Ed Ellis, our PAC Chairman.

IEEE members are entitled to discounts on rentals of Avis automobiles in the U.S. of 30 percent of the time and mileage charges. A 10 percent discount is in effect in Canada and international zones. The IEEE/Avis identification number, A/V606000, must be used to get this benefit.

George F. McClure

THE ENGINEERING FOUNDATION ANNOUNCES ENGINEERING RESEARCH INITIATION GRANTS

Up to three grants of \$14,000 each will be awarded on a competitive basis to members of each Founder Society for proposed research projects in fields of mutual interest to the Founder Society and to the Engineering Foundation. Proposals must be received at IEEE Headquarters by December 1, 1980 and may be mailed directly to Dr. Irving Engelson,, Acting Staff Director, IEEE Technical Activities, 345 East 47th Street, New York, NY 10017.

COMPUTER SOCIETY

MEETING NOTICE

October 15, 1980

Topic: Development of a Military Microcomputer

Speaker: Peter Miller, Martin Marietta

Abstract

The talk will present a bit-slice microcomputer application to a high speed control processor for a pulsed laser target acquisition system. Discussed will be unique architectural highlights such as the decision to employ a custom serial data link and the evolution of a special form of direct memory access. The talk will close with practical design considerations such as ability to isolate faults and some design problems experienced.

About the Speaker

Mr. Miller graduated with a B.S.E.E. from University of Florida in 1963 and has been a computer designer for fifteen years. Employed at Martin Marietta since 1971, he is currently task leader of an ongoing guidance computer project.

Location: Orlando Public Library

10 N. Rosalind Ave.

Downtown Orlando

Time: 7:00 - 8:30 P.M.

FLORIDA COUNCIL OF IEEE MEETING NOTICE

DATE: Saturday, October 25, 1980

LOCATION: Sheraton Intl. Airport Inn, Orlando

To provide Orlando Section members with a better understanding of the Florida Council and its value to the engineer. Vern Powers, Chairman, describes the purpose and the basis of the organization:

Purpose:

The Council shall provide a strong centralized organization of participating sections within the State of Florida as required by the unique geographical, technical and professional problems of that area.

Basis:

Council formed under IEEE Bylaws Section 403.

ANNUAL BARBEQUE

SATURDAY, NOVEMBER 8, 1980

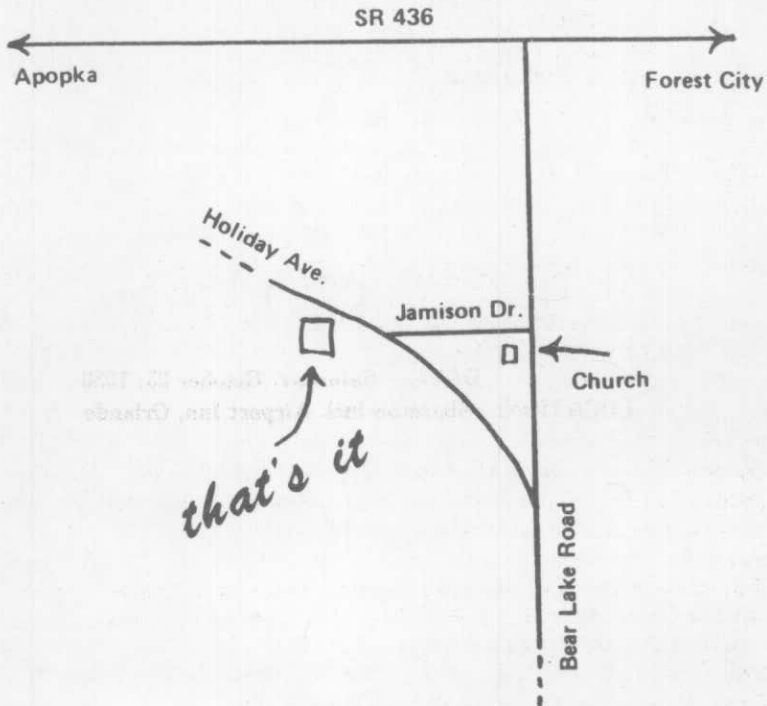
- DINNER:** 6:30 P.M.
- DANCE:** 8:00 P.M.
- LOCATION:** Florida Power Bear Lake Recreational Facility
- PRICE:** \$9.00 per person (\$8.00 for students)

Dinner begins with a tossed salad, followed by steak with mushrooms, beans, rolls, vegetables and baked potato. Iced tea and coffee will be served. Beer and softdrinks available from the cash bar.

Following dinner, square dancing lessons for both pro's and neophytes will be given.

Tickets now available from members of the Executive Committee (page 7). Seating is limited so get your tickets now!

STEAK DINNER! SQUARE DANCING! DOOR PRIZES!



COMMUNICATIONS SOCIETY

MEETING NOTICE

- Date:** Wednesday, October 22, 1980
Location: FAA Flight Service Center, Herndon Airport (west end of Terminal Building). Enter from Hwy 50.
Topic: Tour of FAA Flight Service and Approach Control Facilities
Time: 7:30 P.M.
For reservations contact: Stromberg Carlson 339-1600
Adult Guests Welcome!
-
-

MTT SOCIETY

MEETING NOTICE

Wednesday, October 22, 1980

- Subject:** Tracking Data Relay Satellite System
Place: UCF, South Orlando, Room 104, 7300 Lake Ellenor Drive, Orlando
Speaker: Ted Hart, Harris Corporation
Pre-Meeting Dinner: 5:30 p.m., Gary's Duck Inn
3974 South Orange Blossom Trail

Abstract

The Tracking Data Relay Satellite System (TDRSS) is one of the largest programs ever undertaken by the Harris Corp. with total funding of approximately \$100,000,000. The program was divided into ground and space segments with significant technology advances being made in both segments. The space segment included thirteen lightweight deployable antennas operating at S/K_U-Bands. The ground segment included three 60-ft. Ku-Band antennas, Forward Services Equipment, Multiple Access Beam Forming Equipment, S- and K_U-Band Single Access Return Equipment, Ground Based Simulation Set, and Calibration Equipment.

This program should provide insight into the overall system operation as well as some of the technological challenges in both segments.

About the Speaker

Ted Hart of the Harris Corporation in Melbourne, Florida, is intimately familiar with both the space and ground segments of the program. Ted is manager of Systems Management for TDRSS group.

**IEEE ORLANDO SECTION EXECUTIVE COMMITTEE
EXECUTIVE BOARD**

		Business	Home
Chairman	George F. McClure	352-3782	647-5092
Vice Chairman	Benjamin W. Patz	275-2816	855-3685
Secretary	David Flinchbaugh	412/273-3073	859-4855
Treasurer	Mannie Connell	671-0470	273-8588

STANDING COMMITTEE CHAIRMEN

Jr. Past Chairman	Ernest E. Erickson	275-2310	365-5560
Sr. Past Chairman	Russell E. Theisen	352-3177	671-4139
Programs	Herb Towle	275-2610	671-0265
Publicity	David George	859-5120	644-1009
Publications	Charles R. Curley	352-3548	351-1328
Awards	William C. Cram	894-3351	647-4123
FES Liaison	Richard C. Harden	855-0881	855-5775
Prof. Act. Committee	T. E. (Ed) Ellis	339-1600	834-3319
Student Act. Comm.	Benjamin W. Patz	275-2816	855-3685
Education	Fred O. Simons	275-2786	678-1796

SPECIAL COMMITTEES

Constitution & Bylaws	Joseph C. Pullara	325-4516	339-1327
Barbeque	Clark M. Hay	339-1600	677-0246
Southcon	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	William A. Kownacki	843-8484	365-5818
Historian	Russell E. Theisen	352-3177	671-4139

SOCIETY CHAPTER OFFICERS

AES	Chmn. Everett Hales		644-3770
Comm.	Chmn. Don Mendorf	339-1600	869-7435
	V.Chmn. Bob Amend (Sanford)	322-9060	834-4379
	Secy. George B. Taack, Jr.	339-1600	321-0319
Computer-	Chmn. Joe Massett	352-4014	834-3448
	Pgm. V.Chmn. Bill Towles	855-6100	876-2447
	Mbr. V.Chmn. Gerry White	646-4437	678-3621
	Secy. George Kirby	273-2351	862-9892
PE & IA-	Chmn. Geoffrey E. Dick	352-4427	678-0979
	V.Chmn. Joseph R. Miller	646-8233	644-7049
	Secy. Roger D. Bowman	646-8222	275-7208
MicThTec-	Chmn. Carl F. Schunemann	352-4366	647-4992
	V.Chmn. Al Fowler (St. Cloud)	892-4776	
Student Br.	Chmn. Gerry Becker		677-7621
	V.Chmn. Michael Robitaille (Kissimmee)		847-0909
	Recordg.Secy. Cecilia Goff		644-4832
	Corresp.Secy. Sam Richie		275-9416
	Treas. Ms. Terry Rowan		365-6730
Stu. Cmptr.	Chmn. Tom Toor		282-6359
	V.Chmn. Alfredo Ruiz		275-7481
	Secy./Treas. Patty Wilburn		
Electron Devices-Chmn.	Deen Khandelwal (Organizer)	352-2483	277-5959
	Chmn. Ralph M. Mindock	352-2776	862-7764

The Executive Committee meets 1st Tuesday of the month at UCF South Orlando Campus, 7300 Lake Ellenor Dr., Rm. 104 at 5:30 p.m. Members are welcome to attend.

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

U.S. POSTAGE
PAID 3.5
Permit No. 3492
Orlando, Florida
Non-Profit
Organization

TIME
VALUE
MAIL



HEWLETT
PACKARD

3586C SELECTIVE LEVEL METER
50 Hz TO 32.5 MHz



3336C SYNTHESIZER / LEVEL GENERATOR
10 Hz TO 20.9 MHz

TECHNICAL DATA NOVEMBER 1979

PRECISE WAVE ANALYSIS 50 Hz TO 32.5 MHz

- .1 Hz and .01 dB Resolution
- High Selectivity, $\pm .2$ dB Accuracy
- HP-IB for Remote Programming
- Tracking Companion Synthesizer

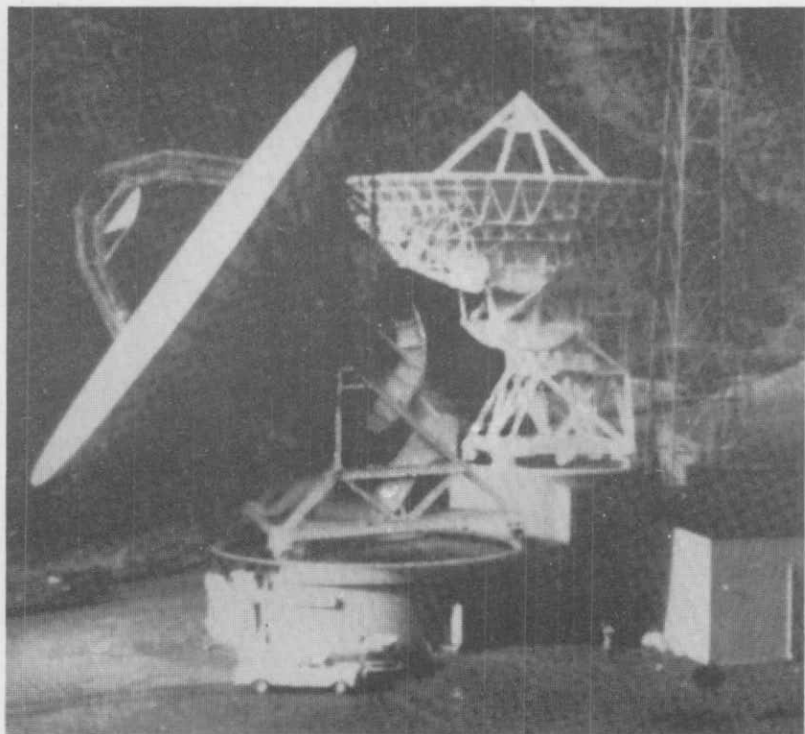


Call your HEWLETT PACKARD Representative at 859-2900.



ORLANDO SECTION NOTES

VOLUME XV
NUMBER 3
NOVEMBER 1980



EARTH STATION SATELLITE RECEIVERS

Join the November tours and see how satellite communications are helping to print newspapers and provide cable television programming.

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

← 488-488

1720A

Instrument Controller

Computation and control
dedicated to
test and measurement automation.

**John Fluke Mfg. Co., Inc.**

940 N. Fern Creek Avenue
Orlando, FL 32803
(305) 896 4881



Bill Wightman
Field Engineer

John A. Mulvey
Technical Editor

John Fluke Mfg. Co., Inc.

940 N. Fern Creek Avenue
Orlando, FL 32803
(305) 896 4881
TWX 810 850 0185

John Fluke Mfg. Co., Inc.

PO Box 43210
Mountlake Terrace WA 98043
(206) 774 2211
Direct: 774 2323

THE CHAIRMAN'S CORNER

We are fortunate to have the IEEE 1980 Nuclear Science Symposium in Orlando, at the Sheraton-Twin Towers, on November 5-7. Two one-day short courses, on CAMAC Instrumentation Systems and Fiber Optics Introduction, will be held before the conference, on November 4. A Symposium on Nuclear Power Systems will be held concurrently. Further information is available from Geof Dick or George McClure, and a \$10.00 registration is available for students.

The 1980 IEEE Member Opinion Survey produced some interesting findings. There were 6948 responses at the cutoff date in July, representing 55.7% of the sample size. Slightly more of the respondents (36.1%) thought that IEEE seldom takes the views of the general membership into account in developing public statements and positions, than thought (35.4%) that it often does. Other choices were: Always (2.4%), Never (2.8%) and Not Sure (23.4%). IEEE members tend to recognize their professional responsibilities; the percent voting in IEEE presidential elections was 57.9% in 1977, 63.1% in 1978, and 61.0% in 1979. The IEEE should take pro or con stands on issues, thought 87.1%; 87.9% thought that IEEE stands on technical issues affecting the public interest and with engineers may be particularly familiar were appropriate. At the high end, a stand on U.S. technological leadership was favored by 87.9%, while only 37.0% favored a stand on the 1934 Communications Act (which would be replaced by the van Deerlin bill or similar legislation). Only 27.9% of the respondents were registered professional engineers, while the highest degree held was a BS for 50.2%, a MS for 30.1%, a professional degree for 2.4%, and a doctoral degree for 12.8%. By occupation, 44.5% considered themselves engineers, 31.8% engineering managers, and 4.8% academicians (others were self-employed, retired, or unemployed, aside from 5.8% who were in non-engineering management).

Membership in an IEEE Group or Society was reported by 63.1%, compared to nearly 50% for the Orlando Section. Over three-fourths-- 78.2%-- reported that they had never held any office or committee position in IEEE. Since the IEEE is an organization run largely by volunteers, there are ways in which many of those in that 78.2% could serve the Institute while working to assure that their own goals and desires were given visibility. Perhaps many are willing, but are never asked to serve in a specific capacity.

The Orlando Section needs to tap this reservoir of skill and experience. If you would like to get better acquainted with your fellow engineers on the local level, make yourself available for a committee assignment. The pay is low, but the hours are short, and a variety of assignments are available to match various interests. To see where you might fit into things, call George McClure and outline your interests so that you can be offered appropriate choices.

With AUTOTESTCON'81 and SOUTHCON'82 coming up in Orlando, there are many opportunities available to produce and promote technical conferences and expositions, in addition to openings on standing section committees.

George McClure

IEEE 1980 NUCLEAR SCIENCE SYMPOSIUM

NOVEMBER 5-7, 1980
SHERATON-TWIN TOWERS
ORLANDO, FLORIDA

SPONSORS

Institute of Electrical and Electronics Engineers, Nuclear
and Plasma Sciences Society
Oak Ridge National Laboratory
U. S. Department of Energy
National Aeronautics and Space Administration
National Bureau of Standards

SYMPOSIUM REGISTRATION FEES

	At Symposium
IEEE Members	\$50
Non-Members	\$65
Students	\$10
Luncheon (November 5)	\$ 8
Exhibits Only	No Charge

REGISTRATION AT SYMPOSIUM

Registration and information facilities will be available in the Sheraton-Twin Towers Hotel Convention Center Lobby during the following hours:

Tuesday, Nov. 4	5:00 p.m.—9:00 p.m.
Wednesday, Nov. 5	7:30 a.m.—4:00 p.m.
Thursday, Nov. 6	8:00 a.m.—4:00 p.m.
Friday, Nov. 7	8:00 a.m.—2:00 p.m.

EXHIBITS

Commercial and technical exhibits will be held in the Exhibition Hall adjacent to the Convention Center. A partial list of exhibitors is listed on the inside back cover. Exhibits will be open:

Wednesday	9:30 a.m.—6:00 p.m.
Thursday	9:30 a.m.—6:00 p.m.
Friday	9:00 a.m.—12:00 noon

Registration is not required, and no fee is charged for admission to the exhibit area.

For more information contact: Geoffrey Dick 352-4427.

IEEE ENGINEERS WEEK AWARDS PROGRAM**DEADLINE: DECEMBER 15, 1980****CALL FOR NOMINATIONS**

As part of the Section meeting during National Engineer's Week in February '81, the Orlando Section will announce Engineer's-of-the-Year for all Chapters providing a nominee. From these, a Central Florida Electrical Engineer-of-the-Year will be chosen. All local Groups and Society chapters (including the Professional Activities Comm. and the FTU Student Chapter) are urged to submit nominees. Those Section members desiring to present additional nominees may nominate by petitions signed by 8 or more Orlando Section members.

QUALIFICATIONS

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

FORM OR NOMINATION AND SELECTION CRITERIA

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 has been chosen as the Chapter Engineer-of-the-Year and Section Nominee. Nominations should be addressed to the Awards Committee Chairman and are due to be received no later than December 15, 1980. The Awards Committee will be pleased to answer any questions that arise.

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 and in various activities of benefit to the Community and Society in general. (10)

PRESENTATION OF CANDIDATES AND AWARDS

Each nomination entity will provide a three minute introduction of their candidate. Each Chapter nominee will receive a framed certificate as Chapter Engineer-of-the-Year. The candidate selected as Central Florida Electrical Engineer of the Year will receive a plaque. No other plaques will be presented at this meeting.

William C. Cram
Chairman, Awards Comm.
971 Palmer Avenue
Winter Park, Fla. 32789

MICROWAVE THEORY AND TECHNIQUES SOCIETY MEETING NOTICE

DATE: November 12, 1980
TIME: 7:30 P.M.
PLACE: Orange Cablevision Head End site, east end of Palmer Dr.,
Winter Park, Fla.
TOUR: Guy Walker and Dale Hoki,
CONDUCTORS: Orange Cablevision

This will be a tour of the Orange Cablevision facilities to be held at the Orange Cablevision head end site in Winter Park.

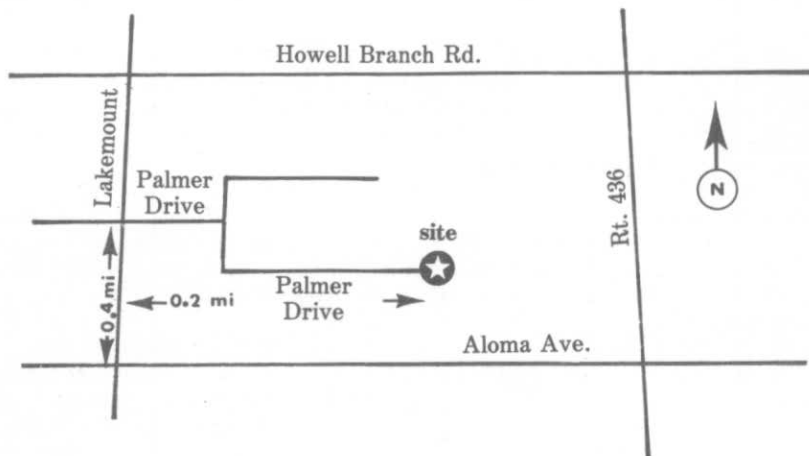
The site is at the east end of Palmer Drive in Winter Park. Palmer Drive is 0.4 mile north on Lakemont from Aloma and Lakemont in Winter Park, proceed east on Palmer 0.2 mile to the site (the east end of Palmer is just south of the first dead-end east-bound, look for the antenna tower and dirt road into the site).

Meeting will start at 7:30 P.M. at the site. The tour will be conducted by Guy Walker and Dale Hoki of Orange Cablevision.

Orange Cablevision's system features up-to-date inovative approaches to cable technology, including availability of 48 possible chanel via satelite.

The cable system has multi-chanel capability to 24 chanel, and also features chanel for transmit/receive applications.

The satelite receive earth station is located at the site. A description of its operation will be given and questions answered concerning satelite terminal operation.



COMPUTER SOCIETY MEETING NOTICE

DATE: November 12, 1980
LOCATION: Orlando Public Library, 10 N. Rosalind Ave.,
Downtown Orlando
TIME: 7:00 - 8:30 P.M.

TOPIC: Central Data Processor for ATLAS Pod
SPEAKERS: Dr. Donald W. Kelly and Alberto Fernandez,
Martin Marietta

ABSTRACT: The Central Data Processor (CDP) in the ATLAS (Automatic Tracking Laser Illumination System) is a general purpose microcomputer which provides control of the pod electronics and interfaces with the aircraft avionics. Dr. Kelly will present an overview of the system and how it is controlled by the CDP. Mr. Fernandez will present the computer's architecture, memory organization, and I/O complement. A short film on the flight test of the ATLAS system will be shown.

ABOUT THE SPEAKERS: Dr. Kelly received his BSEE and MSEE from Mississippi State University, an MS in Physics from Rollins College and a PHD in Electrical Engineering from Auburn University. In his eleven years in Systems Engineering with Martin Marietta, Dr. Kelly has been associated with the SPRINT, ASALM, ATLAS and Advanced Ballistic Missile Defense programs. He is currently System Engineering Manager in the LANTIRN Program.

Mr. Fernandez graduated with a BSEE from Fairleigh Dickinson University, N.J. in 1971. In the nine years in Computer Design Engineering with Singer-Kearfott and Martin Marietta, he has been responsible for the design and development of various military microcomputers utilizing both bit-slices and microprocessor chips.

ORLANDO SECTION TOUR

FIELD TRIP TO CAPE KENNEDY TOUR.

DATE: December 5th

TIME: Leave - 9:45 a.m.

Return - 5:30 p.m.

Same tour as IEEE Board of Directors - limited space.

RESERVATIONS: Contact Herb Towle, 275-2610

More information available with reservations.

STUDENT COMPUTER SOCIETY CHAPTER MEETING NOTICE

NOVEMBER 6, 1980

TOUR: Wall Street Journal Production Facility
FEATURES: Earth Station Satellite Receiver and Printing Facilities
TIME: 8:00 p.m.
LOCATION: 2301 Presidents Drive (off Sandlake Road near Sunshine Parkway overpass)
RESERVATIONS: Call Don Mendorff's secretary 339-1600



Electronic Show and Convention/January 13-15
Georgia World Congress Center/Atlanta

ATLANTA, GA....Southern manufacturers, engineers, and scientists will get a first hand look at the latest developments in the electronics industry when they gather for Southcon/81, in January of 1981 at the Georgia World Congress Center in Atlanta.

Southcon is two events: A three-day exhibition for manufacturers and suppliers of electronic and electronically related products, systems, and services; and a professional program with presentations on state-of-the-art technology by engineers and scientists directly involved in pure and indirect electronics usage.

Exhibit sales opened in June, and by mid-July, the maximum number of exhibit booth spaces had been sold. When the first Southcon show opens on Tuesday, January 13, 1981, there will be 470 quality electronics exhibits in place, many organized by ERA and IEEE members.

ERA Dixie, Sunshine, and Piedmont Chapters will be co-sponsoring the show with IEEE members of the Region 3 organization, the Atlanta Section, and the Florida Council.

CONTACT: Ray Moore/Elinor Plowden: (404) 894-3444

MEETING NOTICE MTT - GAP Melbourne Chapter

DATE: Thursday, November 13, 1980
PLACE: Holiday Inn Beach Side
A1A - between Melbourne - Eaugalie Causeway
TIME: 4:00 PM to 7:00 PM
SUBJECT: Galium Arsenide Technology Workshop
SPEAKER: T. B. Ramachadran
SPONSOR: Microwave Associates sponsor will host drinks and buffet.
Reservations call Ron Posnen - 305-724-3204.

HAND-HELD CALCULATOR CONFERENCE

JANUARY 15 & 22, 1981

4:00 P.M. - 6:00 P.M.

LOCATION: UCF TBA

OPEN TO ALL STUDENTS REGARDLESS OF MAJOR

SPONSORED BY: IEEE Student Chapter and IEEE Student Computer Society, UCF Chapters.

INSTRUCTORS: Dr. Richard C. Harden, PE Director, South Orlando Campus and Professor of Engineering.

Dr. Fred O. Simons, Jr., PE, Professor of Engineering.

Dr. Harden and Dr. Simons have extensive experience with hand-held programmable calculators and their applications. They will survey: 1) the types of hand-held calculators; 2) applications; 3) programming.

This conference will be provided to: 1) aid students in the selection of a calculator appropriate for their field of study; 2) give some specific applications of basic hand-held programming; 3) supply the student the opportunity to ask questions about their present calculator.

January 15, 1981 is open to all students.

January 22, 1981 is open to only students who attend the January 15th session.

Dr. Harden and Dr. Simons are donating their time. The cost is to cover materials to be handed out at the conference.

Take advantage of the lower cost by filling out the application and returning it before December 18, 1980.

RETURN TO: IEEE STUDENT HAND-HELD
CALCULATOR CONFERENCE
UCF ELECTRICAL ENGINEERING DEPT.
ORLANDO, FLA. 32816

<u>POSTMARKED:</u>	BEFORE	AFTER
	DEC. 18, 1980	DEC. 18, 1980
IEEE MEMERS:	\$3.00	\$4.00
NON-MEMBERS:	\$4.00	\$5.00

NAME _____

ADDRESS _____

PHONE _____

S.S# _____

MAJOR _____

**IEEE ORLANDO SECTION EXECUTIVE COMMITTEE
EXECUTIVE BOARD**

		Business	Home
Chairman	George F. McClure	352-3782	647-5092
Vice Chairman	Benjamin W. Patz	275-2816	855-3685
Secretary	David Flinchbaugh	412/256-7800	859-4855
Treasurer	Mannie Connell	671-0470	273-8588

STANDING COMMITTEE CHAIRMEN

Jr. Past Chairman	Ernest E. Erickson	275-2310	365-5560
Sr. Past Chairman	Russell E. Theisen	352-3177	671-4139
Programs	Herb Towle	275-2610	671-0265
Publicity	David George	859-5120	644-1009
Publications	Charles R. Curley	352-3548	351-1328
Awards	William C. Cram	894-3351	647-4123
FES Liaison	Richard C. Harden	855-0881	855-5775
Prof. Act. Committee	T. E. (Ed) Ellis	339-1600	834-3319
Student Act. Comm.	Richard Miller	275-2816	855-3685
Education	Fred O. Simons	275-2786	678-1796

SPECIAL COMMITTEES

Constitution & Bylaws	Joseph C. Pullara	325-4516	339-1327
Barbeque	Clark M. Hay	339-1600	677-0246
Southcon	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	William A. Kownacki	843-8484	365-5818
Historian	Russell E. Theisen	352-3177	671-4139

SOCIETY CHAPTER OFFICERS

AES	Chmn. Everett Hales		644-3770
Comm.	Chmn. Don Mendorf	339-1600	869-7435
	V.Chmn. Bob Amend (Sanford)	322-9060	834-4379
	Secy. George B. Taack, Jr.	339-1600	321-0319
Computer-	Chmn. Joe Massett	352-4014	834-3448
	Pgm. V.Chmn. Bill Towles	855-4779	876-2447
	Mbr. V.Chmn. Gerry White	646-4437	678-3621
	Secy. George Kirby	273-2351	862-9892
PE & IA-	Chmn. Geoffrey E. Dick	352-4427	678-0979
	V.Chmn. Joseph R. Miller	646-8233	644-7049
	Secy. Roger D. Bowman	646-8222	275-7208
MicThTec-	Chmn. Carl F. Schunemann	352-4366	647-4992
	V.Chmn. Al Fowler (St. Cloud)	892-4776	
Student Br.	Chmn. Gerry Becker		677-7621
	V.Chmn. Michael Robitaille (Kissimmee)		847-0909
	Recordg.Secy. Cecilia Goff		644-4832
	Corresp.Secy. Sam Richie		275-9416
	Treas. Ms. Terry Rowan		365-6730
Stu. Cmptr.	Chmn. Tom Toor		282-6359
	V.Chmn. Alfredo Ruiz		275-7481
	Secy./Treas. Patty Wilburn		
Electron Devices-Chmn.	Deen Khandelwal (Organizer)	352-2583	277-5959
	Chmn. Ralph M. Mindock	352-2776	862-7764

The Executive Committee meets 1st Tuesday of the month at Stromberg Carlson training facility, US 17-92 & Lee Rd., at 5:30 p.m. Members are welcome to attend.

* The Executive Committee will meet the second Tuesday in November due to elections.

0875211 SM
G F MC CLURE
1730 SHILOH LN
WINTER PARK

I01 OCT 1
FL 32789

U.S. POSTAGE
PAID 3.5
Permit No. 3492
Orlando, Florida
Non-Profit
Organization

**TIME
VALUE
MAIL**



HEWLETT
PACKARD

3456A Digital Voltmeter

TECHNICAL DATA MAY 1980

**HP 3456A...
for flexibility
and precision in
systems and bench applications**



Call your HEWLETT PACKARD Representative at 859-2900.

LOCATION

Rocky Point Beach Resort
Courtney Campbell Causeway
(Highway 60)
Tampa, Florida

REGISTRATION

Further information on registration can be obtained by contacting one of the people below. The seminars are free and class size will be limited to maximize the benefit to each attendee.

For Registration information, contact:

TAMPA: Twila Reeder
(813) 872-0900

ORLANDO: Joel Sater
(305) 859-2900

PRESENTED BY

TOM POTTS — FIELD ENGINEER

HEWLETT—PACKARD
110 S. Hoover Boulevard, Suite 120
Tampa, Florida 33609

(813) 872-0900

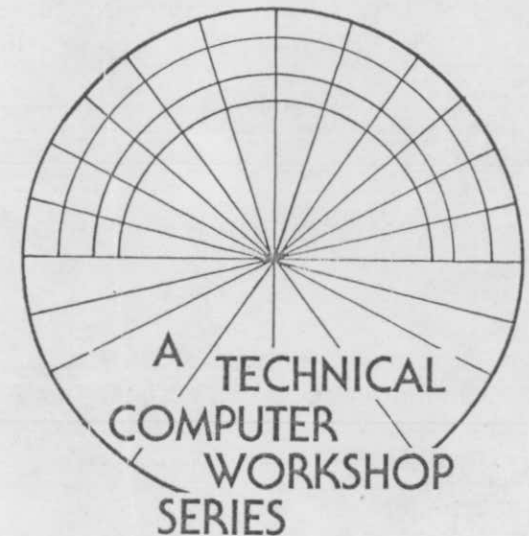
DOUG LYDA — FIELD ENGINEER

HEWLETT—PACKARD
6177 Lake Ellenor Drive
Orlando, Florida 32809

(305) 859-2900

HEWLETT—PACKARD

presents



Learn how technical computers can solve problems in:

- * Data acquisition
- * Graphics
- * Data Capture
- * Distributed Systems
- * Microwave Analysis and Design

SERIES OVERVIEW

The Hewlett-Packard Computer Workshop Series is a three-day introduction to various applications. Attendees will gain:

- Insight into the wide range of measurement and control solutions offered by HP Computer/Instrumentation products.
- A thorough, practical understanding of how Computer Graphics can be used to aid Managers and Designers.
- Understanding of the latest advances in Distributed Computer Data Management Networks.
- A working knowledge of how Factory Management Data Capture can be used to track personnel and material flow.
- Appreciation as to how Microwave Design and Analysis can be accomplished using a specific software package.

CASE STUDIES

To bridge the gap between theory and your applications, numerous case histories and hands-on demonstrations will be studied.

WHO SHOULD ATTEND

Managers and technicians involved with the application areas mentioned, will benefit from the seminar series. The seminars will emphasize practical, problem-solving techniques. You may attend one or more of the individual seminars.

AGENDA

Tuesday, November 11, 1980

Morning

Technical Computer Applications
General Purpose Data Acquisition Systems
Hands-On Session

Afternoon

Instrumentation Case Studies

- Measurement/Control System
- Multitasking System
- Distributed System

Open Discussion

Wednesday, November 12, 1980

Morning

Graphics Applications
Graphics Workshop Session
Hands—On Session

Afternoon

Technical Database Management Application
Distributed Processing
Open Discussion

Thursday, November 13, 1980

Morning

Factory Management Data Capture
Data-Capture Implementations
Hands-On Session

Afternoon

Microwave Design and Analysis
using Desktop Computers
(Compact Engineering, Inc.)
Open Discussion

Morning Sessions from 8:30 - 12:00

Afternoon Sessions from 1:00 - 4:00

VOLUME XV
NUMBER 4
DECEMBER 1980



ORLANDO
SECTION
NOTES

SYSTEMS ENGINEERING

C
A
L
I
B
R
A
T
I
O
N

TESTABILITY

UUT/INTERFACES

A T E

SYSTEM SOFTWARE

IN-CIRCUIT TESTING

T
E
S
T
A
N
D
A
N
D
P
R
E
P
A
R
A
T
I
O
N
A
N
D
A
N
A
L
Y
S
I

ATG

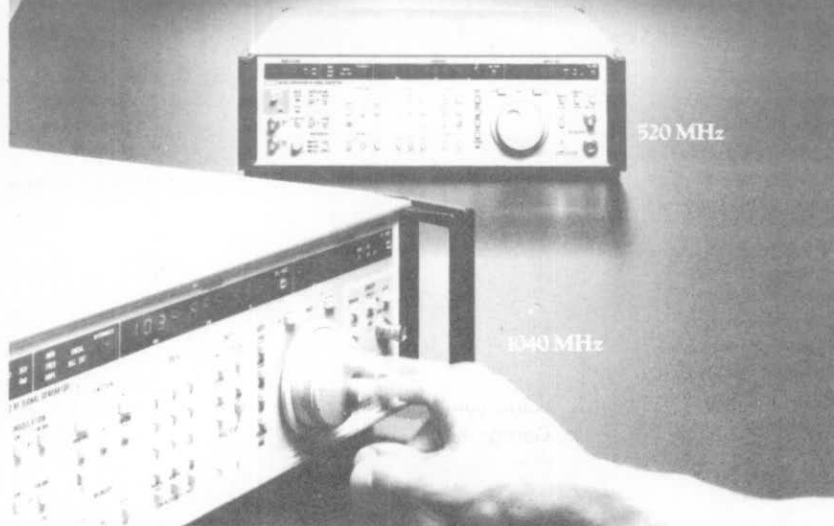
AUTOTESTCON '81

DETAILS WITHIN

PUBLISHED BY ORLANDO SECTION
INSTITUTE OF
ELECTRICAL AND ELECTRONICS ENGINEERS

Fluke 6070A and 6071A synthesized signal generators

\$25,000 performance...
at an affordable price



John Fluke Mfg. Co., Inc.

940 N. Fern Creek Avenue
Orlando, FL 32803
(305) 896 4881

Bill Wightman
Field Engineer

John Fluke Mfg. Co., Inc.

940 N. Fern Creek Avenue
Orlando, FL 32803
(305) 896 4881
TWX 810 850 0185

FLUKE

John A. Mulvey
Technical Editor

John Fluke Mfg. Co., Inc.

PO Box 43210
Mountlake Terrace WA 98043
(206) 774 2211
Direct: 774 2323

THE CHAIRMAN'S CORNER

The annual barbeque and square dance was enjoyed by all who attended, and our thanks go to Clark Hay for a job well done in producing this affair. The social event next year will be held in October and suggestions for other formats will be welcomed by Clark Hay. Suggestions offered thus far are an afternoon picnic or a casino night. Phone Clark with your suggestion---it might be a winner!

A provocative talk was given at AUTOTESTCON '80 in Washington, D.C. last month by Dr. Robert Frosch, currently the NASA administrator and soon to be the new head of the American Association of Engineering Societies. Looking at the prospects for energy and materials shortages, Dr. Frosch has postulated robots weighing between 10 and 100 tons that have capabilities for materials refining and manufacture, so that they are fully capable of replicating themselves from ores found on earth or the moon. Since mining operations on the moon would not be attractive as sources of employment for earthlings, Dr. Frosch carried out calculations to determine how rapidly a corps of robots could be built on the moon from one landed there initially. In a decade, he figured that more than a million could be in operation, if they were suitably spaced that they did not cannibalize each other. When not reproducing themselves, they could be refining materials for shipment to earth. This could be done with today's technologies, Dr. Frosch maintains.

The Orlando Section welcomes the Winter Simulation Conference, being held at the Orlando Marriott on December 3-5. IEEE sponsors are the Computer Society and the Systems & Cybernetics Society.

The 1982 International Semiconductor Power Converter Conference will be held in Orlando. Some 40 technical papers will be presented dealing with static inverters, motor drives, and power semiconductor devices. This conference is held once every five years and brings together leading experts from all countries to assess technical progress and to identify future trends in the technology of using solid state devices in power conversion and control.

It is a pleasure to welcome Frank Fluet as Membership Development Chairman on the Section Executive Committee. Frank is with the Westinghouse Industrial Automation Department. He will appreciate your suggestions on bringing the advantages of IEEE membership to new prospects.

George F. McClure



AUTOTESTCON '81

1981 IEEE INTERNATIONAL AUTOMATIC TESTING CONFERENCE CALL FOR PAPERS

"AUTOMATIC TESTING - KEY TO PRODUCTIVITY"

AUTOTESTCON '81 will highlight progress and problems in technology, acquisition support, and management for automatic testing. Both formal technical sessions and workshops will be presented. Formal papers are required for the technical sessions while short position papers are required from workshop panel members.

Original technical papers are invited for the following technical sessions:

- Automatic Test Generation
- Design for Testability
- Machinery/Vehicle Testing
- Test Analysis and Preparation Techniques
- Test Program Sets
- ATE/UUT Interfaces
- Field Calibration of ATE Systems
- Education and Training
- ATE Language Standardization
- System Software
- ATE Systems Engineering
- Maintenance Planning and Concepts
- Software Verification & Validation
- ATE Benefits Analysis
- Acquisition Support
- Unique ATE Applications
- Report on JLC
- Management of ATE Resources
- Case Studies: Factory to Field Vertical Commonality
- In Circuit Component Testing

Workshops are planned for the following topics:

- Problems in ATE Development Today
- Control of Test Program Set Development
- The Challenges Ahead

Those interested in being a workshop panel member should contact the Program Committee.

ABSTRACTS should include:

- Title of proposed paper
- Author's name, address, affiliation, and telephone number
- A 35-50 word synopsis and a 300-500 word summary of the material to be developed in the proposed paper
- Author's biographical information with list of papers published

DUE DATES:

- Abstracts are due March 2, 1981
- Authors will be notified by May 4, 1981
- Complete papers are due by June 15, 1981

SEND five copies of abstract to:

Dr. Fred Simons, Jr., Dept. of Electrical Engineering, University of Central Florida,
P.O. Box 25000, Orlando, Florida 32816

SPONSORED BY

- THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
- IEEE ORLANDO SECTION
- IEEE AEROSPACE AND ELECTRONIC SYSTEMS SOCIETY
- IEEE INSTRUMENTATION AND MEASUREMENT SOCIETY

COMPUTER SOCIETY MEETING NOTICE

- DATE:** December 10, 1980
- LOCATION:** Orlando Public Library, 10 N. Rosalind Ave.,
Downtown Orlando
- TIME:** 7:00 — 8:30 P.M.
- TOPIC:** High-level Programming Constructs for Loosely-coupled
Systems
- SPEAKER:** Professor Jerome A. Feldman, Chairman
Computer Science Department, University of Rochester

ABSTRACT: For a number of intellectual and technological reasons there is an increasing interest in loosely-coupled computations. Loosely-coupled computation is an inherent property of networks, will be required in VLSI technology, and appears to be the key to reliable software. We present a formalism for loosely-coupled computation in terms of a proposed set of additions to conventional programming languages. Consideration will be given to the use of these constructs in designing and analyzing complex systems and to possible implications for computer architecture.

ABOUT THE SPEAKER: Professor Feldman received a B.A. in Physics from the University of Rochester in 1960 and a Ph.D. in Computer Science from Carnegie-Mellon in 1964. He was at the Lincoln Laboratory of M.I.T. until 1966 when he joined the Computer Science Dept. at Stanford University. At Stanford he was an Associate Professor of Computer Science and Associate Director of the Artificial Intelligence Laboratory. In 1974, Professor Feldman came to the University of Rochester where he is Professor of Computer Science and Electrical Engineering and Chairman of the Computer Science Department. He is working in several areas of computer science including programming languages, distributed computing, and artificial intelligence.

IEEE ELECTION DEVICES SOCIETY MEETING NOTICE

- DATE:** Thursday, December 11, 1980
PLACE: Orlando Public Library - Auditorium
10 N. Rosalind Ave.
TIME: 7:00 p.m.
TOPIC: Solar Photovoltaics: An Overview
SPEAKER: Mr. Art Litka
Manager, Photovoltaic Applications Program
Florida Solar Energy Center

Mr. Litka is manager of the Photovoltaic Applications Program of the Florida Solar Energy Center. He is involved with many experimental programs to apply photovoltaic technology to power generation ranging from a full size experimental photovoltaic house capable of providing 5000 watts to stand alone systems for remote applications such as battery charging. Many of these activities are aimed at potential residential use of photovoltaics. Mr. Litka has been with the Florida Solar Energy Center since June of 1977.

1981 ALFRED NOBLE INTERSOCIETY PRIZE

Now is the time to start giving consideration to a nomination for the 1981 Alfred Noble Intersociety Prize. This award is presented for a technical paper of exceptional merit. The paper must be issued in any IEEE publication during the 1980 calendar year by a single IEEE author under 31 years of age. The deadline for nomination submissions is December 31, 1980.

HAND-HELD CALCULATOR CONFERENCE

JANUARY 15 & 22, 1981

4:00 P.M. - 6:00 P.M.

LOCATION: UCF TBA

OPEN TO ALL STUDENTS REGARDLESS OF MAJOR

SPONSORED BY: IEEE Student Chapter and IEEE Student Computer Society, UCF Chapters.

INSTRUCTORS: Dr. Richard C. Harden, PE Director, South Orlando Campus and Professor of Engineering.

Dr. Fred O. Simons, Jr., PE, Professor of Engineering.

Dr. Harden and Dr. Simons have extensive experience with hand-held programmable calculators and their applications. They will survey: 1) the types of hand-held calculators; 2) applications; 3) programming.

This conference will be provided to: 1) aid students in the selection of a calculator appropriate for their field of study; 2) give some specific applications of basic hand-held programming; 3) supply the student the opportunity to ask questions about their present calculator.

January 15, 1981 is open to all students.

January 22, 1981 is open to only students who attend the January 15th session.

Dr. Harden and Dr. Simons are donating their time. The cost is to cover materials to be handed out at the conference.

Take advantage of the lower cost by filling out the application and returning it before December 18, 1980.

RETURN TO: IEEE STUDENT HAND-HELD
CALCULATOR CONFERENCE
UCF ELECTRICAL ENGINEERING DEPT.
ORLANDO, FLA. 32816

<u>POSTMARKED:</u>	BEFORE DEC. 18, 1980	AFTER DEC. 18, 1980
IEEE MEMERS:	\$3.00	\$4.00
NON-MEMBERS:	\$4.00	\$5.00

NAME _____

ADDRESS _____

PHONE _____

S.S# _____

MAJOR _____

MICROWAVE THEORY AND TECHNIQUES SOCIETY MEETING NOTICE

- DATE:** December 10, 1980
- TIME AND LOCATION:** Pre-meeting Dinner: 5:30 p.m. at Gary's Duck Inn
Meeting: 7:15 p.m. - Hewlett Packard, 6177 Lake Ellenor Dr.
Orlando Central Park (please use south entrance)
- TOPIC:** Advances in Microwave Diversity Receiver Combining
- SPEAKER:** Paul Gruber
Director, Research and Development, REL Incorporated

ABSTRACT: This presentation will deal with combining techniques for diversity receivers as applicable to wideband microwave communication.

A brief historical review will discuss switching, baseband and phaselock pre-detection combining. Due to limitations of these early methods the phase stripping technology was introduced. This will be discussed in detail, including its use by the U.S. Air Force in its world wide troposcatter terminals.

In addition to design and operating theory, dealing with coherent I.F. addition, frequency stability, C/N improvement, signal to noise and application to digital transmission, examples of application will be given.

The presentation will be documented via a more detailed paper and available at the meeting.

ABOUT THE SPEAKER: Mr. Paul Gruber has been a member of the REL Incorporated Engineering staff since 1950. As Chief Engineer and Director of Engineering, he directed REL's Microwave technology and, in particular, REL's Troposcatter development. His current position is Director of Research and Development.

Mr. Gruber received a BSEE from Brooklyn Polytechnic Institute of Brooklyn and his M.S. from Adelphi University, Garden City, Long Island.

Mr. Gruber is a senior member of the IEEE and the Vice Chairman of the Palm Beach IEEE section.

INTERNATIONAL SEMICONDUCTOR POWER CONVERTER CONFERENCE NOTICE

The 1982 International Semiconductor Power Converter Conference will be held May 24-27 in Orlando, Florida. Mr. D.W. Borst, Chairman of the Industrial Power Conversion Systems Department of the IEEE Industry Applications Society, made this announcement following the selection of the Florida site. Some 40 technical papers will be presented on subjects of static power converters, motor drives, and power semiconductor devices. This conference is held once every five years and brings together leading experts from all countries to assess technical progress and to identify future trends in the technology of using solid state devices in power conversion and control.

Although concentrating on basic device application, circuit, and system aspects of the technology, the end applications of semiconductor power conversion technology include motor drives, uninterruptible power supplies, converters for alternative energy sources, and electric traction.

The 1982 International Semiconductor Power Converter Conference, under the general chairmanship of Mr. E.E. Von Zastrow, will cover the technical areas represented by its three sponsoring committees: Industrial Drives, Power Semiconductor, and Static Power Converter.

A first call for papers by the Technical Program Committee, under the Chairmanship of Dr. P.F. Pittman, has been issued.

For further information contact J.E. Mungenast, Publicity Chairman, 1982 International Semiconductor Power Converter Conference, c/o Power Semiconductors, Inc., P.O. Box 2-248, Devon, CT 06460.

IEEE HISTORY CENTER NOW IN OPERATION

The Center for the History of Electrical Engineering began operations at headquarters on August 11. Under the guidance of the History Committee, the Center has been established to promote and assist all activities related to the history of electrical science and technology, serving engineers, historians and the public.

For IEEE entities, the Center will be both a source of information and support for local history projects and a resource center providing materials for meetings, publications and exhibits.

The Center's archival program is concerned with locating and preserving (primarily in local repositories) collections of documents that may be of value in recording the history of electrical engineering. Assistance will be sought from all IEEE entities in identifying sources of documents (correspondence, lab notes, drawings, proposals, etc.), artifacts, and photographs and bringing them to the Center's attention. The alertness of members will be especially important in the effort to save materials that are in danger of destruction or disposal.

Other activities of the Center include an oral history program, exhibits and the publication of an occasional newsletter.

ENGINEER'S WEEK BANQUET ADVANCE NOTICE

- DATE:** Saturday, February 21, 1981
TIME: 6:30 p.m. (cash bar)
LOCATION: Lord Chumley's
600 E. Altamonte Dr.(Rt. 436), Altamonte Springs
TOPIC: An Assessment of Solar Energy
SPEAKER: Dr. David L. Block
Director, Florida Solar Energy Center

**IEEE ORLANDO SECTION EXECUTIVE COMMITTEE
EXECUTIVE BOARD**

		Business	Home
Chairman	George F. McClure	352-3782	647-5092
Vice Chairman	Benjamin W. Patz	275-2816	855-3685
Secretary	David Flinchbaugh	412/256-7974	859-4855
Treasurer	Mannie Connell	671-0470	273-8588

STANDING COMMITTEE CHAIRMEN

Jr. Past Chairman	Ernest E. Erickson	275-2310	365-5560
Sr. Past Chairman	Russell E. Theisen	352-3177	671-4139
Programs	Herb Towle	275-2610	671-0265
Publicity	David George	859-5120	644-1009
Publications	Charles R. Curley	352-3548	351-1328
Awards	William C. Cram	894-3351	647-4123
FES Liaison	Richard C. Harden	855-0881	855-5775
Prof. Act. Committee	T. E. (Ed) Ellis	339-1600	834-3319
Student Act. Comm.	Richard Miller	275-2816	855-3685
Education	Fred O. Simons	275-2786	678-1796

SPECIAL COMMITTEES

Constitution & Bylaws	Joseph C. Pullara	325-4516	339-1327
Barbeque	Clark M. Hay	339-1600	677-0246
Southcon	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	William A. Kownacki	843-8484	365-5818
Historian	Russell E. Theisen	352-3177	671-4139

SOCIETY CHAPTER OFFICERS

AES	Chmn. Everett Hales		644-3770
Comm.	Chmn. Don Mendorf	339-1600	869-7435
	V.Chmn. Bob Amend (Sanford)	322-9060	834-4379
	Secy. George B. Taack, Jr.	339-1600	321-0319
Computer-	Chmn. Joe Massett	352-4014	834-3448
	Pgm. V.Chmn. Bill Towles	855-4779	876-2447
	Mbr. V.Chmn. Gerry White	646-4437	678-3621
	Secy. George Kirby	273-2351	862-9892
PE & IA-	Chmn. Geoffrey E. Dick	352-4427	678-0979
	V.Chmn. Joseph R. Miller	646-8233	644-7049
	Secy. Roger D. Bowman	646-8222	275-7208
MicThTec-	Chmn. Carl F. Schunemann	352-4366	647-4992
	V.Chmn. Al Fowler (St. Cloud)	892-4776	
Student Br.	Chmn. Gerry Becker		677-7621
	V.Chmn. Michael Robitaille (Kissimmee)		847-0909
	Recordg.Secy. Cecilia Goff		644-4832
	Corresp.Secy. Sam Richie		275-9416
	Treas. David Olivo		282-0855
Stu. Cmptr.	Chmn. Tom Toor		282-6359
	V.Chmn. Alfredo Ruiz		275-7481
	Secy./Treas. Patty Wilburn		
Electron Devices-	Chmn. Deen Khandelwal (Organizer)	352-2583	277-5959
	Chmn. Ralph M. Mindock	352-2776	862-7764

The Executive Committee meets 1st Tuesday of the month at Stromberg Carlson training facility, US 17-92 & Lee Rd., at 5:30 p.m. Members are welcome to attend.

0875211 SM
G F MC CLURE
1730 SHILOH LN
WINTER PARK

I01 OCT22
FL 32789

U.S. POSTAGE
PAID 3.5
Permit No. 3492
Orlando, Florida
Non-Profit
Organization

**TIME
VALUE
MAIL**



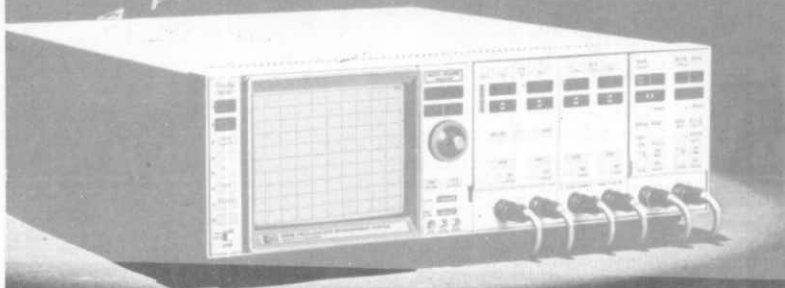
HEWLETT
PACKARD

OSCILLOSCOPE MEASUREMENT SYSTEM

Model
1980A/B

TECHNICAL DATA 15 SEP 80

▶ CALIBRATE & UTILITIES
▶ DELAY SELF-CAL
▶ BALANCE SELF-CAL
▶ BAL & DELAY SELF-CAL
▶ UTILITIES
▶ FRONT PANEL CAL 1980A/B
▶ FRONT PANEL CAL 1950A
▶ PREVIOUS MENU



Call your HEWLETT PACKARD Representative at 859-2900.



**ORLANDO
SECTION
NOTES**

**VOLUME XV
NUMBER 5
JANUARY 1981**



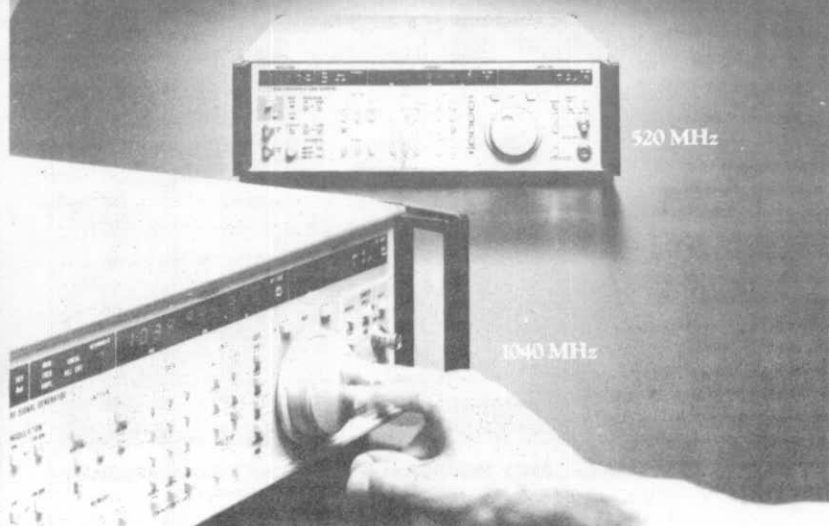
EMERGENCY NUMBER FOR FIRE, POLICE OR AMBULANCE

**DETAILS ON INVITATION TO TOUR
EMERGENCY COMMUNICATIONS SERVICE**

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

Fluke 6070A and 6071A synthesized signal generators

\$25,000 performance...
at an affordable price



FLUKE
®

Bill Wightman
Field Engineer

John A. Mulvey
Technical Editor

John Fluke Mfg. Co., Inc.

940 N. Fern Creek Avenue
Orlando, FL 32803
(305) 896 4881
TWX 810 850 0185

John Fluke Mfg. Co., Inc.

PO Box 43210
Mountlake Terrace WA 98043
(206) 774 2211
Direct: 774 2323

THE CHAIRMAN'S CORNER

Southcon/81 is here! The first large-scale electronics exposition in the southeast is being held this month in Atlanta. Over 300 leading suppliers of electronic products will be represented in over 470 exhibit booths in the Georgia World Congress Center, on January 13, 14, and 15. Concurrently, over 120 technical papers and seminars will be presented in some 30 technical sessions. Four technical workshops will also be presented. Mark your calendar.

As a member of the Orlando Section, you can offer a prospective new member a deal he will find hard to refuse. When a new member application is forwarded to our Membership Development chairman with a check for the basic membership, the Orlando Section will underwrite the cost of a membership for the first year in any one IEEE group or society selected by the new member. Add this special offer to your list of advantages in becoming an IEEE member now, when talking with prospects.

Many of our current members are ready and qualified for elevation to Senior Member. If you fit that category, I encourage you to complete an application. The Senior Member is the highest professional grade for which application may be made and requires experience reflecting professional maturity. To qualify, you must be an engineer, scientist, educator, technical executive, or originator in the fields of electrical or electronics engineering and science, radio, allied branches of engineering, or related arts and sciences.

Active professional practice for at least ten years is required, with significant performance shown over a period of at least five of those years, including one or more of the following:

- a. Publication of engineering or scientific papers, books, or inventions, or
- b. Technical direction with evidence of accomplishment of important scientific or engineering work, or
- c. Recognized contributions to the welfare of the scientific or engineering profession, or
- d. Development or furtherance of important scientific or engineering courses in a school of recognized standing, or
- e. Contributions equivalent to those cited above in areas such as technical editing, patent prosecution, or patent law, provided these contributions serve to advance progress in the fields of electrical or electronics engineering or related arts and sciences.

A Senior Member application packet, including resume and reference forms, is available from the Membership Development chairman, Frank Fluet (office telephone 843-7030), upon request. References are required from three current Senior Members or Fellows. To assist applicants, the Section Notes will be carrying a listing over the next several issues of the names of Fellows and Senior Members in the Orlando Section.

George McClure

COMPUTER SOCIETY MEETING NOTICE

DATE: January 21, 1981
LOCATION: Orlando Public Library
101 N. Rosalind Ave., Downtown Orlando
TIME: 7:00 - 8:30 p.m.
TOPIC: High Performance Technologies and Uniprocessors
SPEAKER: Dr. Tilak Agerwala

ABSTRACT: Technology and packaging advances are providing increasingly powerful components to the computer system designer. Though the potential of high levels of integration in the design of massively parallel processors is clear, the best way to design uniprocessors is not obvious. For various reasons, high performance uni's (whether stand-alone or as part of parallel systems) will continue to be important in the foreseeable future. The performance of a uni is dependent both on cycle time and cycles/instruction. This talk will present technology trends and discuss various cycle time issues such as pin to logic ratio, partitioning, packaging, chip density vs. logic depth per chip, on-chip vs. off-chip delays, cooling and I noise. Some major cycle/I issues will also be discussed. The talk will be illustrated with examples from machines such as the Hitachi M200H, the IBM 4300, the CRAY-1, the IBM 370/168 and the IBM 370/3033.

The talk will be primarily tutorial in nature.

ABOUT THE SPEAKER: Dr. Agerwala received a B.Tech. in Electrical Engineering from the Indian Institute of Technology, Kanpur, India in 1971 and a Ph.D. in Electrical Engineering from The Johns Hopkins University, Baltimore, Maryland in 1975. From 1975 to 1979 he was an Assistant Professor in the departments of Electrical Engineering and Computer Sciences at the University of Texas at Austin and a Faculty Affiliate of the Electronics Research Center. During the summer of '77 he was a Member of Technical Staff at Bell Telephone Labs, Murray Hill, New Jersey. In January 1979 Dr. Agerwala joined the IBM T. J. Watson Research Center as a Research Staff Member and is currently Manager of Future and Exploratory System Design. He is active in the IEEE Computer Society as Chairman of the Technical Committee on Computer Architecture. Dr. Agerwala's research interests are in the areas of Computer Architecture, High Performance Processors, and Parallel and Distributed Systems.

COMMUNICATIONS SOCIETY MEETING NOTICE**INVITATION TO TOUR 911 EMERGENCY
COMMUNICATIONS SERVICE FACILITIES****DATE:** January 26, 1981**LOCATION:** Meet at the double doors of the Orange County Sheriff's Office,
Orange County Court House just outside the complaint desk.

Reservations can be made by calling the Stromberg-Carlson operator: 339-1600

IEEE VIDEOTAPE SHORT COURSES BEING OFFERED

Videotape Short Courses, offered by the IEEE Educational Activities Board have been developed by such experts as Colorado State University, MIT, and Texas Instruments covering a broad range of timely engineering subjects. They are available on a first-come, first-serve rental basis. It is recommended that a schedule be planned to offer the entire course in a four-week period. In some instances where a course is longer, rental will be extended to six or eight weeks. A six week lead-time is requested. Each course consists of five or more color videotape cassettes averaging 30 to 60 minutes on either 3/4" Sony Unimatic, 1/2" VHS or 1/2" Betamax. The recommended textbooks may be purchased separately from the publisher or local bookstore.

The courses being offered are: 90178 Manufacturing Quality Control; 90278 Engineering Economy; 90378 Cooling of Electronic Equipment; 90479 The Frequency Domain; 90579 Operational Amplifier; 90679 Active Filters; 90779 Designing with Microprocessors; 90879 Microprocessors; 90979 Integrated Optics; 91079 MCT: System Analysis; 91179 MCT: Deterministic Optimal Control; 91279-MCT: Deterministic Optimal Linear Feedback; 91379-MCT: Stochastic Estimation; 91479 MCT: Stochastic Control; 91579 Management of Technological Innovation; 91679 Energy Auditing and Conservation; 91779 Solar Energy; 91879 Systems Engineering and Systems Management.

Videotape Short Course order forms may be obtained by writing to the IEEE Educational Registrar, 345 East 47th Street, New York, NY 10017.

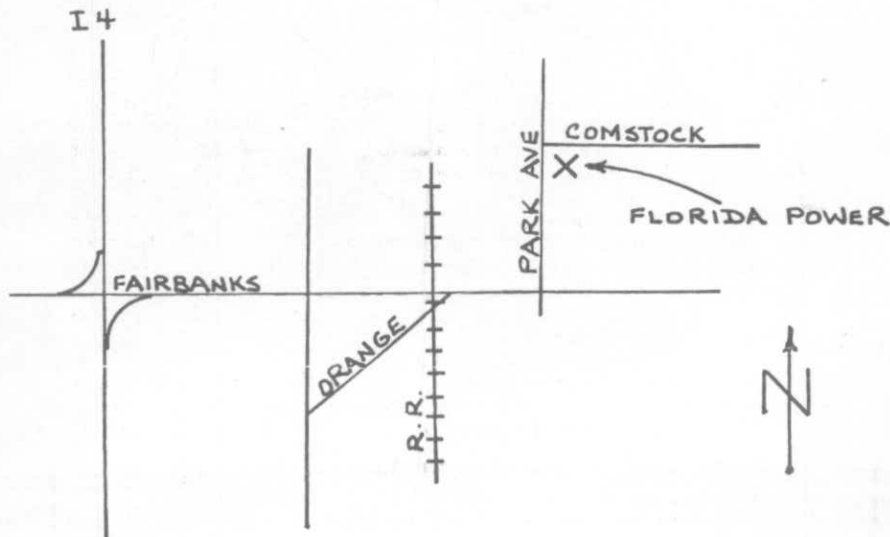
POWER ENGINEERING SOCIETY AND INDUSTRIAL APPLICATIONS GROUP MEETING NOTICE

DATE: Tuesday, January 20, 1981
TIME: 7:30 p.m.
LOCATION: Presentation Room
Florida Power Corporation
510 S. Park Ave.,
Winter Park, Florida
TOPIC: Energy Resources
SPEAKER: Mr. William McCord

ABSTRACT: The discussion will cover areas such as known reserves and rates of consumption for various fuels utilized (oil, coal, etc.) for power generation and general consumption.

ABOUT THE SPEAKER: A Professor at Valencia Community College, Mr. McCord has presented discussions in the area of energy at engineering meetings at the University of Central Florida, the Zeta Chi Chapter of Eta Kappa Nu, etc., and has done considerable investigation in the area of energy reserves.

For additional information contact: Roger Bowman 275-7208.



ERICKON

Cueley

351 1328

412-856-6806

IEEE ORLANDO SECTION EXECUTIVE COMMITTEE
EXECUTIVE BOARD

PATZ
CONNELL
CLARK HAY
CUELEY
STIMMONS

		Business	Home
Chairman	George F. McClure	352-3782	647-5092
Vice Chairman	Benjamin W. Patz	275-2816	855-3685
Secretary	David Flinchbaugh	412/256-7974	859-4855
Treasurer	Mannie Connill	671-0470	273-8588

813-885-7481
621-2057

STANDING COMMITTEE CHAIRMEN

Jr. Past Chairman	Ernest E. Erickson	275-2310	365-5560
Sr. Past Chairman	Russell E. Theisen	352-3177	671-4139
Programs	Herb Towle	275-2610	671-0265
Publicity	David George	859-5120	644-1009
Publications	Jerry Kopensky	352-3846	851-2879
Awards	William C. Cram	894-3351	647-4123
FES Liaison	Richard C. Harden	855-0881	855-5775
Prof. Act. Committee	T. E. (Ed) Ellis	339-1600	834-3319
Student Act. Comm.	Richard Miller	275-2816	855-3685
Education	Fred O. Simons	275-2786	678-1796

SPECIAL COMMITTEES

Constitution & Bylaws	Joseph C. Pullara	325-4516	339-1327
Barbeque	Clark M. Hay	339-1600	677-0246
Southcon	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	William A. Kownacki	843-8484	365-5818
Historian	Russell E. Theisen	352-3177	671-4139

SOCIETY CHAPTER OFFICERS

AES Comm.	Chmn.	Everett Hales		644-3770
	Chmn.	Don Mendorf	339-1600	869-7435
	V.Chmn.	Bob Amend (Sanford)	322-9060	834-4379
Computer-	Secy.	George B. Taack, Jr.	339-1600	321-0319
	Chmn.	Joe Massett	352-4014	834-3448
	Pgm. V.Chmn.	Bill Towles	ext. 4779 855-6100	876-2447
	Mbr. V.Chmn.	Gerry White	646-4437	678-3621
PE & IA-	Secy.	George Kirby	273-2351	862-9892
	Chmn.	Geoffrey E. Dick	352-4427	678-0979
	V.Chmn.	Joseph R. Miller	646-8233	644-7049
MicThTec-	Secy.	Roger D. Bowman	646-8222	275-7208
	Chmn.	Carl F. Schunemann	352-4366	647-4992
	V.Chmn.	Al Fowler (St. Cloud)	892-4776	
Student Br.	Chmn.	Gerry Becker		677-7621
	V.Chmn.	Michael Robitaille (Kissimmee)		847-0909
	Recordg.Secy.	Cecilia Goff		644-4832
	Corresp.Secy.	Sam Richie		275-9416
Stu. Cmptr.	Treas.	David Olivo		282-0855
	Chmn.	Tom Toor		282-6359
	V.Chmn.	Alfredo Ruiz		275-7481
Electron Devices-	Secy./Treas.	Patty Wilburn		
	Chmn.	Deen Khandelwal (Organizer)	352-2583	277-5959
	Chmn.	Ralph M. Mindock	352-2776	862-7764

3158

4312

The Executive Committee meets 1st Tuesday of the month at Stromberg Carlson training facility, US 17-92 & Lee Rd., at 5:30 p.m. Members are welcome to attend.

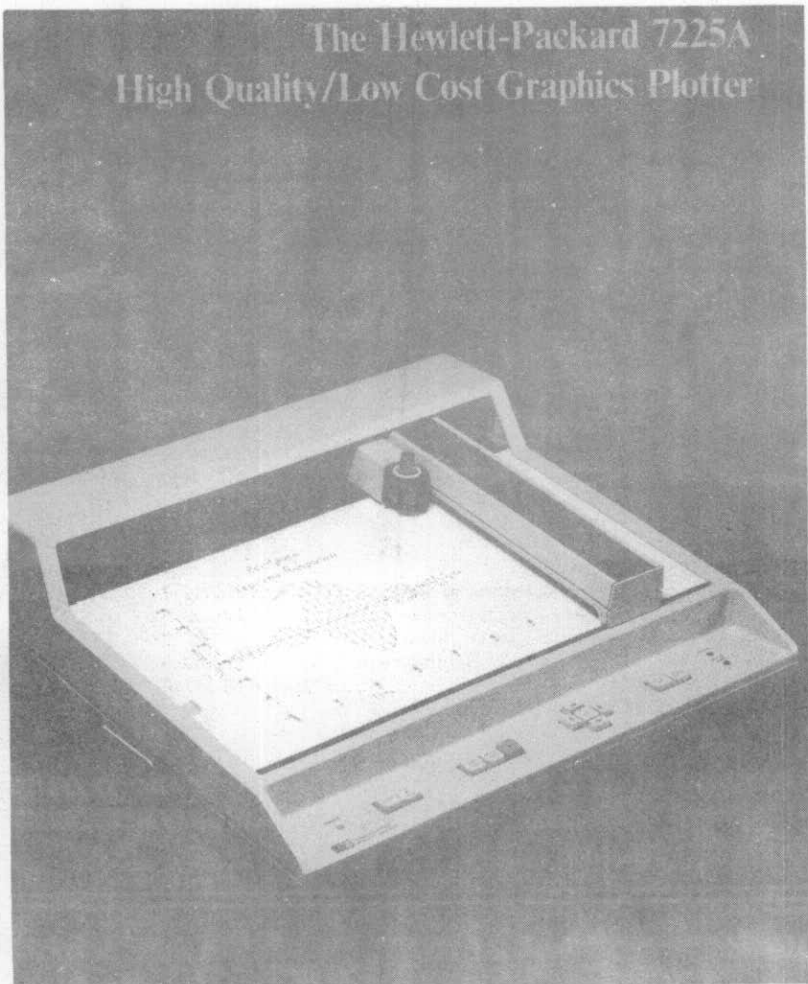
ORLANDO SECTION
I.E.E.E.
ORLANDO, FLORIDA

U.S. POSTAGE
PAID 3.5
Permit No. 3492
Orlando, Florida
Non-Profit
Organization

6355655 SM I01 DEC19
RUSSELL E THEISEN
MARTIN MARIETTA CORP
2667 FITZHUGH RD
WINTER PARK FL 32792

TIME
VALUE
MAIL

The Hewlett-Packard 7225A
High Quality/Low Cost Graphics Plotter



Call your HEWLETT PACKARD Representative at 859-2900.

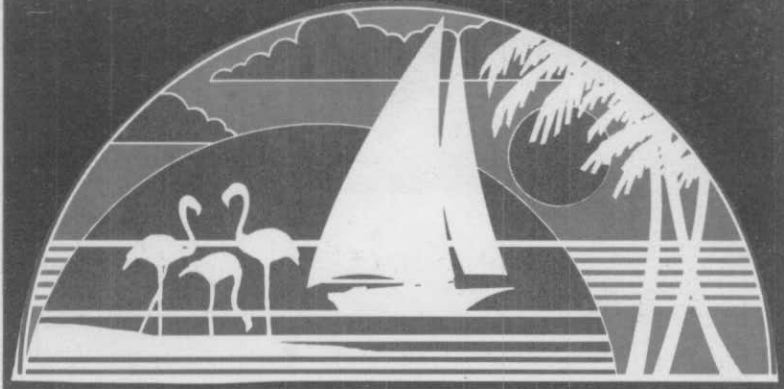


**ORLANDO
SECTION
NOTES**

**VOLUME XV
NUMBER 6
FEBRUARY 1981**

**Tutorial Week 8
⊕ EAST 8**

Final Program



TO BE HELD IN ORLANDO

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

Fluke 6070A and 6071A synthesized signal generators

\$25,000 performance...
at an affordable price



John Fluke Mfg. Co., Inc.
(305) 896-4881

FLUKE

Chairman's Corner

It is fitting that our observance of Engineer's Week in February coincides with the birthday of George Washington, the United States' First Engineer. As the popularity of the "limits to growth" syndrome wanes, the importance of engineers in shaping technology to meet the needs of humanity becomes increasingly evident. We invite your attendance at our February 21 meeting of the Orlando Section at which recognition will be given to engineers within the Section for their achievements. The program will include an interesting talk on the development and exploitation of solar energy in Florida.



Applications are being accepted through April 30 for the IEEE Congressional Fellowship program. Two IEEE members will be selected competitively to serve one-year terms on the personal staff of individual Senators or Representatives, or on the professional staff of Congressional Committees. The purpose of this program, funded by IEEE, is to make practical contributions to more effective use of scientific and technical knowledge in government, to educate the scientific communities regarding the public policy process, and to broaden the perspective of both the scientific and governmental communities regarding the value of their interaction. Applicants must be U.S. citizens and have been an IEEE member for at least four years. Further information is available from Tom Suttle in the IEEE Washington office, telephone (202) 785-0017.

The Orlando Section includes 218 members who have satisfied the 10-year professional practice requirement to be considered for appointment to the grade of Senior Member, but who have not yet taken the necessary step of completing an application. There are 86 active Fellows or Senior Members in the Section who can be contacted to provide the necessary references on applications. Frank Fluet, our Membership Development Chairman, points out that the forms have been simplified, and is ready to help any member interested in upgrading his membership. Frank's office telephone is 843-7030.

Region 3, the southeastern U.S. IEEE membership area, led the Institute last year in the number of members upgraded to Senior Member. It is fitting that, as we celebrate Engineer's Week, we emphasize this aspect of recognizing the work performed by our members in the Orlando Section.

George F. McClure

COMPUTER SOCIETY MEETING NOTICE

DATE: February 19, 1981 (Thursday)
LOCATION: Orlando Public Library, 10 N. Rosalind Ave.,
Downtown Orlando
TIME: 7:00 - 8:30 P.M.
TOPIC: Electronic Mail
SPEAKER: Dr. J. L. Divilbiss, Associate Professor, University of
Illinois Graduate School of Library Science, and
Principal Research Engineer in the Coordinated
Science Library.

ABSTRACT: It has been projected that in 1980 some two billion messages will be delivered by electronic mail. By 1985, the Postal Service estimates that one quarter of all first class mail will be transmitted electronically. The dramatic growth of the various technologies that are collectively known as electronic mail is having great impact on the design of networks, terminals and word processing equipment.

ABOUT THE SPEAKER: Dr. Divilbiss received a Ph.D. in Electrical Engineering from the University of Illinois in 1962. He worked at Bell Telephone Laboratories from 1962 until 1965 at which time he returned to the University of Illinois to head the engineering team for the Illiac III computer. Since 1970 he has been principal Research Engineer in the Coordinated Science Laboratory and Associate Professor in the Graduate School of Library Science.

COMMUNICATIONS SOCIETY MEETING NOTICE**QUIP SYSTEMS TOUR**

DATE: Wednesday, February 25, 1981
TIME: 7:30 P.M.
LOCATION: Quip Systems Tour
927 Fern St., Altamonte Springs, Fla.

Use S.R. 427 from S.R. 436 north approximately 2 blocks to First St. Make right onto Sanford Ave., proceeding to the end to intersect with Fern St.

ENGINEER'S WEEK MEETING

DATE: February 21, 1981
LOCATION: Lord Chumley's Pub, 600 E. Altamonte Dr.
(Route 436, Altamonte Springs)
TIME: 6:30 P.M.; Tickets \$9.75 (\$8.75 for students)
TOPIC: An Assessment of Solar Energy
SPEAKER: Gerard G. Ventre, Ph.D., P.E.
Director, Technology Transfer Division

OUTLINE OF TALK:

- I. Solar Heating and Cooling of Buildings (Active and Passive)
 - A. Solar Domestic Hot Water
 - B. Solar Swimming Pool Heating
 - C. Solar Space Heating and Cooling
- II. Solar Electric Power Generation
 - A. Photovoltaics
 - B. Ocean Thermal Energy Conversion
 - C. Solar Thermal Electric Generation
 - D. Wind Electric Generation
- III. Agricultural and Industrial Process Heat
 - A. High Temperature Collection
 - B. Applications

ABOUT THE SPEAKER: Dr. Gerard G. Ventre, director of the Technology Transfer Division at the Florida Solar Energy Center is a registered professional engineer in the State of Florida. He is a graduate and former faculty member of the University of Cincinnati, with degrees in aerospace engineering and applied mechanics. Prior to joining the Center, he was an associate professor of engineering at Florida Technological University and a recipient of the College of Engineering Outstanding Professor Award. He has had industrial experience in the design and analysis of advanced jet engine components with the General Electric Company, and has done research and consulting for the Federal Aviation Administration, NASA, and the U.S. Department of Energy.

Advance Announcement

Tutorial Week 81

Φ EAST



General Chairman: Oscar Garcia, University of South Florida

Program Chairman: Russell E. Theisen, Martin Marietta

Local Arrangements: Joseph Massett, Martin Marietta
Donald Mandorf, Stronberg-Carlson
William Towles, Martin Marietta

Publicity: Louis Smith, General Telephone and Electronics
Jonathan Orlick, E Systems

Treasurer: Harry Hayman, IEEE Computer Society
(301) 589-3386

A solid week of tutorials in 3 tracks • April 6-10, 1981

Attendance limited to 100 per tutorial. Advance registration only: deadline — March 9, 1981.

MONDAY, 4/6

①

VLSI from a User's
Perspective

Rex Rice

TUESDAY, 4/7

②

Microcomputer System
Design and Techniques

Carol A. Ogdin

WEDNESDAY, 4/8

③

Microprocessor
Interfacing Techniques

G. Jack Lipovski

THURSDAY, 4/9

④

Interactive Computer
Graphics

Herbert Freeman

FRIDAY, 4/10

⑤

Computer-Assisted
Design and
Engineering

Stephen R. Levine

**Overview of
Computer Networks and
Distributed Processing**
Burt H. Liebowitz

**Computer
Communications
Protocols**
David C. Wood

Computer Networks
Ira W. Cotton

**A Pragmatic View of
Distributed Processing
Systems**
Harvey A. Freeman

**Local Computer
Networks**
Harvey A. Freeman

11

**Models and Metrics for
Software Management
and Engineering**
Victor R. Basili

12

**Modern Programming
Language Design**
Anthony I. Wasserman

13

**System Analysis and
Requirements
Specification**
Raymond T. Yeh

14

**Software Testing and
Validation**
Edward Miller

15

**Software System
Design**
Jack C. Wileden

ORLANDO MARRIOTT INN, ORLANDO, FLORIDA

Attendance limited to 100. Register NOW!
Select up to one tutorial per individual per day.

	Per Tutorial	All Week
FEES: Members	\$85	\$400
Nonmembers	\$100	\$475

Includes bound tutorial text and luncheon.
There will be a no-host reception Monday
night.

HOTEL ACCOMMODATIONS:

Reserve your room at the Marriott Inn
now. Write to:

Orlando Marriott Inn
6700 Sand Lake Road
Orlando, FL 32807
Attn.: IEEE Tutorial Week

RATES: Single or Double: \$50.00
with kitchen: \$60.00

Mail to: Tutorial Week 81 East, Box 639, Silver Spring, MD 20901
(301) 589-3386

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):

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

Check enclosed VISA/BankAmericard Master Charge

Card No. _____ Exp. Date _____ Signature _____

Name _____ IEEE or IEEE-CS Membership No. _____

Street Address _____

City/State/Zip _____

I.E.E.E. ORLANDO FELLOW & SENIOR MEMBERS

R.S. Adhav	David E. Flinchbaugh	Warren D. Peele
C. F. W. Anderson	Milton L. Fluker	H. G. Portz
I. C. Armistead	R. J. Fortin	Bernard Raboy
Henry D. Arnett	Kerry R. Fox	John C. Redmond
James R. Ashwell	James L. Gay	Frank W. Richard
C. R. Barrett	Paul Gheorghiu-Sigma	H. Rosenblum
John W. Barrett	J. E. Gleason	C. W. Schisler
Wm. F. Bartlett	Quentin J. Goss	Vernon A. Schneider
Warren A. Birge	H. W. Grossman	C. F. Schunemann
R. B. Blanning	George F. Guth	William A. Seegers Jr.
J. R. Bogard	Peter Halpern	G. S. Smith
Richard A. Branham	D. J. Hamman	R. C. Smythe
Barrie Brightman	Joseph A. Hartman	C. Forrest Summer Jr.
John T. Cates Jr.	Clark M. Hay	Russell E. Theisen
David F. Ciccolella	Leonard D. Healy	Frank J. Thomas
M. A. Clement	John H. Hickey	R. W. Tipton
William C. Cram	Wm. H. Horton	L. R. Toothman
Ian D. Crawford	E. O. Houseman Jr.	H. C. Towle
George C. Dannals	F. H. Inderwiesen	William B. Towles
E. V. Dashiell	Sidney M. Kaplan	Edmond J. Tyberghein
Albert L. Duke	Lloyd K. Keys	R. N. Underwood
J. N. Dunlop Jr.	Deen D. Khandelwal	James M. Walter Jr.
James S. Duva	R. L. Layburn	R. L. Weber
George Elliott	J. L. Layne	G. A. Whittington
T. E. Ellis	John M. Legare	Hugh M. Williams
W. W. Everett Jr.	K. L. Lohman	Eric H. Winkler
E. C. Fehner	J. H. Lowry Jr.	E. J. Winslow
J. D. Ferguson	G. F. McClure	Rabun M. Woco Jr.
R. W. Ferguson	K. Ozone	Arville L. Woolridge
D. First	J. G. Pearce	G. E. Ziegler

MEMBERS OF AT LEAST TEN YEARS

D. S. Amberntson	P. J. Brennan Jr.	M. J. Cooper
R. N. Amend	R. K. Brodersen	Paul B. Cram
Warren J. Anderson	David W. Brown	Walter F. Currie
E. P. Augustin	Lee R. Brown	W. Daman
R. C. Ausec	R. F. Bruna	J. E. Davids
Frank M. Barnett Jr.	James F. Buchan	Earl E. Deimund
D. D. Baxter	Stanley P. Buchanan	Harold Dessau
Herbert Berke	W. E. Bushor	Geoffrey E. Dick
Robert L. Bevier	Alfred B. Calabrese	W. A. Dixon Jr.
H. H. Bevis	Arthur G. Cannon Jr.	Robert L. Dold
G. Birutis	Charles L. Carter	H. E. Downing
Robert P. Bishop	W. C. Carter	Carl R. Driskell
Thomas M. Bishop Jr.	J. S. Casalese	John R. Endicott
Andrew Blake	Harold T. Cates	E. E. Erickson
Michael A. Boehly	Edward H. Cepull Jr.	M. C. Fairall Jr.
J. C. Bowling	Walter S. Chambers	A. G. Fitch
J. H. Boynton Jr.	Tien W. Chu	C. D. Flanagan
G. W. Bracey	Philip J. Cole	C. H. Fletcher
Charles F. Brady	David Conley	E. G. Forkner

- A. Fowler
 Paul W. Freuck
 W. M. Furlow Jr.
 T. C. Galvin
 J. T. Garrard
 R. A. Gaskill
 R. Glennon
 A. C. Golubiewski
 Edward H. Grace Jr.
 A. C. Graham
 George M. Green
 E. L. Griffin
 Nicholas P. Guarriello
 L. G. Guthrie
 H. S. Hagerty
 E. B. Hales
 Hugh Halpin
 R. C. Harden
 J. M. Hardenerook
 J. L. Hart Jr.
 J. H. Hartley
 S. Haselwood
 W. H. Haynes
 Ronald M. Hays
 H. K. Hazel
 C. A. Helton
 Allen E. Herbeck
 C. D. Herman
 F. Herold
 Robert E. Hilton Jr.
 David L. Hinshaw
 Ronald Hofer
 R. N. Hokkanen
 Donald L. Hornak
 W. M. Jamieson
 F. I. Johnson
 L. M. Johnson
 John C. Jonas
 E. J. Jungbluth
 F. H. Kaltenbach
 G. P. Kefalas
 C. J. Kersch
 R. F. Kidder
 C. S. Kimbrough
 B. C. King Jr.
 George T. Kirby
 Delmar F. Kittendorf Jr.
 Bruce E. Mathews
 Benjamin J. Klaasen
 O. G. Koppius
 Anton G. Kuhn
 H. L. Kuhn
 Donald H. Lambing
 Bruce W. Larsen
 D. H. Lazarus
 F. W. LeFevre
 Walter Lemann
- D. V. Leppert
 Larry L. Lester
 Alvin J. Levy
 Charles E. Lindahl
 Edward A. Lobnitz
 Jack M. Longfellow
 Charles R. Losh
 Frederick H. Lund
 Albert G. Lutz
 Roy A. Lyda
 Thac P. Mac
 W. A. MacLean
 R. E. Mallison
 Ronald J. Marini
 J. T. McGuire
 Richard D. McCoy
 Donald R. Mendorf
 Morris G. Middleton
 Leon A. Miller
 C. A. Mills
 Clyde A. Miltenberger
 Ralph M. Mindock
 J. H. Mitchell
 W. H. Morris
 Thomas M. Munday
 Dallas J. Myers
 John Nestler
 R. A. Newell
 F. Nieritit
 C. R. Oberdoerster
 M. Oleyar Jr.
 John T. Oriel
 Robert G. Palmer Sr.
 B. George Paulin
 J. M. Phillips Jr.
 John S. Pohl
 K. B. Porter
 T. K. Preddy Jr.
 Edwin E. Prevatt
 J. C. Pullara
 C. W. Putney
 H. R. Quick
 H. W. Ramsey
 Roy D. Ray
 Richard M. Reeves
 J-D D. Reid
 W. H. Rhoden
 J. F. Rhodes
 Richard H. Riebe
 Joses J. Richter
 Charles L. Riley Jr.
 E. L. Roberts
 Bernard H. Robinson Jr.
 Maurice E. Roch
 G. H. Fogers
 David E. Rothar
 W. G. Russell
 Julius W. Ryals
- M. S. Salamy
 E. Salkind
 F. A. San Filippo
 H. E. Scharfenberg
 Robert C. Schickofke
 Richard K. Schroeder
 William G. Schwab
 John E. Seyller III
 A. C. Silva
 R. L. Simonds
 F. O. Simons Jr.
 G. L. Smallwood
 L. L. Smiley
 D. A. Smith
 L. G. Smith
 Paul J. Smith
 J. Sobel
 Richard A. Spaulding
 S. S. Spiegel
 C. H. Stanton
 W. L. Steele
 Theodore M. Stefanik
 F. P. Stein
 La Rue H. Stelene Jr.
 Kurt Sterner
 G. L. Stimmel 3rd
 F. W. Stone
 R. L. Stratton
 K. L. Stuckey
 Roger M. Sullivan
 E. Robert Taglauer
 J. Tambert
 James F. Terry
 J. R. Thornton
 C. H. Tindal
 John E. Tracy
 William V. Tyrlick
 R. S. Van De Houten
 Alvin Van Every
 R. H. Voss
 J. T. Wallace
 W. B. Wallenfels
 E. J. Waters Jr.
 Robert F. Webber
 R. D. Webner
 Richard Webster
 Charles M. Weems Jr.
 Gerry C. White
 C. D. Whitescarver
 C. B. Whitmore
 C. L. Wilkerson Jr.
 R. E. Wilson
 Sterling V. Wilson
 W. E. Wilson
 Richard C. Winfield
 Chester A. Winsor
 E. Wollin
 J. A. Wyndle

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
Announces the 9th Annual Competition for
1981-1982
CONGRESSIONAL FELLOWSHIPS
A Congressional Internship for Members of IEEE

PROGRAM: Electrical and Electronics Engineers and Allied Scientists are competitively selected to serve a one-year term on the personal staff of individual Senators or Representatives or on the professional staff of Congressional Committees. The program includes an orientation session with other Science-Engineering Fellows sponsored by the American Association for the Advancement of Science (AAAS).

PURPOSE: To make practical contributions to more effective use of scientific and technical knowledge in government, to educate the scientific communities regarding the public policy process, and to broaden the perspective of both the scientific and governmental communities regarding the value of such science-government interaction.

CRITERIA: Fellows shall be selected based on technical competence, on ability to serve in a public environment and on evidence of service to the Institute and the profession. Specifically *excluded* as selection criteria shall be age, sex, creed, race, ethnic background, and partisan political affiliations. However, the Fellow must be a U.S. citizen at the time of selection and must have been in the IEEE at Member grade or higher for at least four years. Additional criteria may be established by the selection committee.

AWARDS: IEEE plans to award at least two Congressional Fellowships for the 1981-1982 term. Additional funding sources may permit expansion awards.

APPLICATION: Further information and application forms can be obtained by calling W. Thomas Suttle (202) 785-0017 at the IEEE Washington, D.C. Office or by writing:

Secretary, Congressional Fellows Program
The Institute of Electrical and Electronics Engineers, Inc.
1111 Nineteenth St., N.W.
Suite 608
Washington, D.C. 20036

Applications must be postmarked no later than April 30, 1981 to be eligible for consideration.

**IEEE ORLANDO SECTION EXECUTIVE COMMITTEE
EXECUTIVE BOARD**

		Business	Home
Chairman	George F. McClure	352-3782	647-5092
Vice Chairman	Benjamin W. Patz	275-2816	855-3685
Secretary	David Flinchbaugh	412/256-7974	859-4855
	Deen Khandelwal (Acting Secy.)		
Treasurer	Mannie Connell	671-0470	273-8588

STANDING COMMITTEE CHAIRMEN

Jr. Past Chairman	Ernest E. Erickson	275-2310	365-5560
Sr. Past Chairman	Russell E. Theisen	352-3177	671-4139
Programs	Herb Towle	275-2610	671-0265
Publicity	David George	859-5120	644-1009
Publications	Jerry Kopensky	352-3846	851-2879
Awards	William C. Cram	894-3351	647-4123
FES Liaison	Richard C. Harden	855-0881	855-5775
Prof. Act. Committee	T. E. (Ed) Ellis	339-1600	834-3319
Student Act. Comm.	Richard Miller	275-2816	855-3685
Education	Fred O. Simons	275-2786	678-1796

SPECIAL COMMITTEES

Constitution & Bylaws	Joseph C. Pullara	325-4516	339-1327
Barbeque	Clark M. Hay	339-1600	677-0246
Southcon	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	William A. Kownacki	843-8484	365-5818
Historian	Russell E. Theisen	352-3177	671-4139
Membership Develop.	Frank Fluet	843-7030	339-8905

SOCIETY CHAPTER OFFICERS

AES	Chmn. Everett Hales		644-3770
Comm.	Chmn. Don Mendorf	339-1600	869-7435
	V.Chmn. Bob Amend (Sanford)	322-9060	834-4379
	Secy. George B. Taack, Jr.	339-1600	321-0319
Computer-	Chmn. Joe Massett	352-4014	834-3448
	Pgm. V.Chmn. Bill Towles	ext. 4779 855-6100	876-2447
	Mbr. V.Chmn. Gerry White	646-4437	678-3621
	Secy. George Kirby	273-2351	862-9892
PE & IA-	Chmn. Geoffrey E. Dick	352-4427	678-0979
	V.Chmn. Joseph R. Miller	646-8233	644-7049
	Secy. Roger D. Bowman	646-8222	275-7208
MicThTec-	Chmn. Carl F. Schunemann	352-4366	647-4992
	V.Chmn. Al Fowler (St. Cloud)	892-4776	
Student Br.	Chmn. Gerry Becker		677-7621
	V.Chmn. Michael Robitaille (Kissimmee)		847-0909
	Recordg.Secy. Cecilia Goff		644-4832
	Corresp.Secy. Sam Richie		275-9416
	Treas. David Olivo		282-0855
Stu. Cmpt.	Chmn. Tom Toor		282-6359
	V.Chmn. Alfredo Ruiz		275-7481
	Secy./Treas. Patty Wilburn		
Electron Devices-	Chmn. Deen Khandelwal (Organizer)	352-2583	277-5959
	Chmn. Ralph M. Mindock	352-2776	862-7764

The Executive Committee meets 1st Tuesday of the month at Stromberg Carlson training facility, US 17-92 & Lee Rd., at 5:30 p.m. Members are welcome to attend.

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

U.S. POSTAGE
PAID 3.5
Permit No. 3492
Orlando, Florida
Non-Profit
Organization


TIME
VALUE
MAIL

0230276 SM I01 NOV21
T E ELLIS
902 RED BIRD LN
ALTAMONTE SPRINGS FL 32701

HP 8350A SWEEP OSCILLATOR



Unprecedented capability
in an RF/Microwave Swept Signal Source

 HEWLETT
PACKARD

Call your HEWLETT PACKARD Representative at 859-2900.

Volume XV
Number 7
March 1981



ORLANDO
SECTION
NOTES

SYSTEM ANALYSIS
COMPUTER NETWORKS

MODELS AND METRICS
MODERN SOFTWARE DESIGN

**TUTORIAL WEEK
EAST 81**

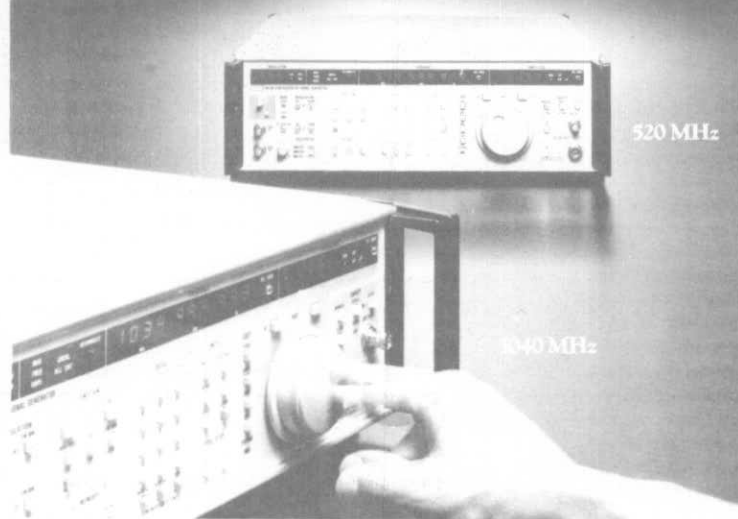
VLSI
COMPUTER AIDED DESIGN

MICROPROCESSOR INTERFACING
COMPUTER GRAPHICS

PUBLISHED BY ORLANDO SECTION
INSTITUTE OF
ELECTRICAL AND ELECTRONICS ENGINEERS

Fluke 6070A and 6071A synthesized signal generators

\$25,000 performance...
at an affordable price



John Fluke Mfg. Co., Inc.
(305) 896-4881

FLUKE[®]

Chairman's Corner

The first SOUTHCON, held in Atlanta in January, was a large success. Some 10,000 attendees enjoyed the technical program as well as the more than 400 exhibits. SOUTHCON'82 will be held in Orlando, March 21-23. Dr. Bruce Mathews of the University of Central Florida will be the Convention Director, and Charles Tindal will be the Show Director. Volunteers from the Orlando Section are sought to assist in the production and management of this exposition, the first occurrence of a large-scale electronics convention in Florida. If you are interested in assisting, or in getting further information about the plans for SOUTHCON'82, call Dr. Mathews at 275-2156.



SOUTHEASTCON'81 is fast approaching. To be held in Huntsville this year, this annual Region Conference will be featuring twice as many papers as last year: 243 technical papers to be presented. Exhibits will be in the Von Braun Exhibit Hall, and two short courses will be offered, on Power Engineering and Engineering Consulting. Industrial plant tours will also be available. Mark your calendar for the dates, April 6-8, 1981.

Planning is underway for a 2-day seminar to be held in Orlando early in June on the subject of signal processing applications for the Intel 2920. Dr. Fred Simons is organizing this seminar and can be reached for further information at 275-2786.

Other conferences planned for Florida during the next year include:

14th Annual Simulation Symposium	March 17-20, 1981	Tampa
Tutorial Week East (Computer Society)	April 6-10, 1981	Orlando
Reliability Physics Symposium	April 7-9, 1981	Orlando
Photovoltaic Specialists Conference	May 11-15, 1981	Orlando
AUTOTESTCON'81	October 19-21, 1981	Orlando
Infrared & Millimeter Waves Conference	December 7-11, 1981	Miami Beach
SOUTHEASTCON'82	April 5-7, 1982	Fort Walton Beach
International Semiconductor Power Converter Conference	May 24-27, 1982	Orlando

A word of explanation is in order for our 13 Life Fellows in the Orlando Section whose names were not included in the list of Fellows and Senior

(Continued on next page)

Members published last month. The published list was prepared by IEEE Headquarters and included only active-status members. No oversight was intended. Our Life Fellows are: George Baughman, William Fifer, Claude Hines, W. V. Lovell, John Morrison, Harold McCreary, R. Paxton, Hamilton Powell, David Rau, Orrin Towner, Hugh Webber, Hanns Wolff, and John Woods. Our section is indeed fortunate to have these distinguished members among us.

George F. McClure

COMPUTER SOCIETY MEETING NOTICE

- Date:** March 18, 1981
Location: Orlando Public Library, 10 N. Rosalind Ave., Downtown Orlando
Time: 7:00 - 8:30 PM
Topic: Software-Intense Trainers: A Step Forward in Automated Software Support
Speakers: **Dr. Roger W. Johnson**, Software Systems Department, Grumman Aerospace Corporation, Bethpage, N.Y.
John R. Ruckstuhl, P.E., Engineering Change Support Branch, Naval Training Equipment Center, Orlando, Florida

Abstract: A Software Support Facility (SSF) designed initially for the A-6E Weapon Systems Trainer (WST) and located at the Naval Training Equipment Center (NAVTRAEQUIPCEN), Orlando, is seen as a significant advance in capability for updating software-intense trainers. This paper describes a software support environment that facilitates the modification, testing, and baseline configuration management of software used in sophisticated trainers.

The software support environment consolidates a variety of techniques into an effective capability for managing the implementation of modifications. Baseline configuration management is founded on the implementation of operational procedures that make it easy to adhere to configuration guidelines but difficult to get changes into the system by other means. Automated identification of global symbol generation and usage greatly reduces risk of unforeseen change impact on other routines. A trainer software structure is described that permits modification of source code without patches and without the normal complete link-edit procedure. A communication link facilitates rapid turn around in the modification and test cycle.

Potential support of trainers with different computers is identified. Further, the SSF reality makes possible the overall integrated environment of "man" and "machine" for management, control and visibility for software support.

About the Speakers: Dr. Roger W. Johnson is the Director of Field Operations, Software Systems Department at Grumman Aerospace Corporation. He is presently manager of the Software Support Facility for Grumman, under contract with the Navy. Two years prior to this assignment, he was the Director of NASA Space Programs for Grumman. Before this he served in the USAF as Director of Computer Services at Vandenberg AFB and Deputy for Advanced Space Programs at SAMSO, L.A. Dr. Johnson received his B.S. at

the U.S. Naval Academy, M.S. at Massachusetts Institute of Technology and, PhD at the University of California, Los Angeles. Dr. Johnson is a Senior Member of the IEEE and an Associate Fellow of the AIAA.

John R. Ruckstuhl is Program Manager for the Software Support Facility within the Engineering Change Support Branch of the Modification and Maintenance Engineering Division, NAVTRAEQUIPCEN. He has been active in various aspects of software support since 1976. Previously he was involved in research concerning simulation using software models. Before joining NAVTRAEQUIPCEN in 1970, he was a Project Officer with the U.S. Army Training Device Agency, now called PM TRADE. Mr. Ruckstuhl received the degrees of B.S. in EE and M.S. from the University of Southwestern Louisiana in 1966 and 1968, respectively. He is also registered as a Professional Engineer. Mr. Ruckstuhl is a member of the IEEE and the IEEE Computer Society.

COMMUNICATIONS SOCIETY MEETING NOTICE

Time: 7:30 p.m.

Topic: Tour of the Southern Bell Number 4 E.S.S. Digital Switch.

There is a limitation on the number of attendees to fifteen per tour. Rendition of tours will happen on the following dates:

Monday 3/30/81

Tuesday 3/31/81

Wednesday 4/1/81

For specific location information, call the operator at Stromberg-Carlson: 339-1600. Also, provide date preference, name, telephone number, and number in your party.

The number 4 E.S.S. Digital Switch is an electronic, digital computer controlled toll switch; the most advanced of Bell's switching equipment.

OFFICER NOMINATIONS

The Nominating Committee has submitted the following slate of nominees for officers of the Orlando Section for the 1981-1982 year:

Chairman	Benjamin W. Patz
Vice Chairman	Mannie R. Connell
Secretary	T. E. (Ed) Ellis
Treasurer	Joseph L. Massett

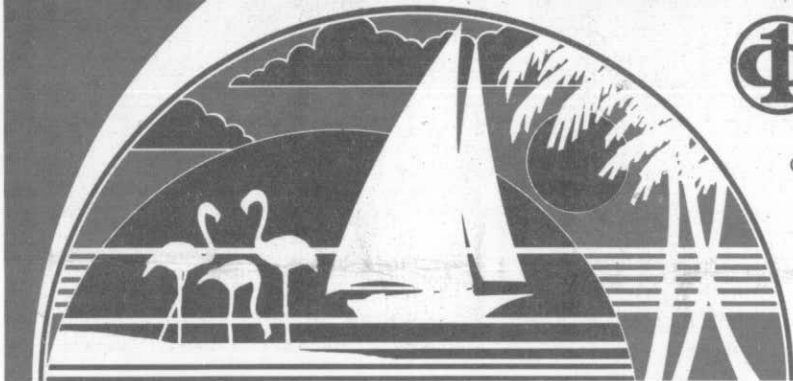
The Nominating Committee consisted of Russell Theisen, Chairman, Ernest Erickson, and William Cram.

Section members may make additional nominations by petition. A qualified petition requires the signatures of at least 15 voting Section members, specifies the office sought and the nominee's qualifications, and contains a statement by the nominee of his consent to serve if elected. The petition must be delivered to the Section Chairman on or before April 1, 1981.

Advance Announcement . . .

Tutorial Week 81

Φ EAST



General Chairman: Oscar Garcia, University of South Florida

Program Chairman: Russell E. Thiesen, Martin Marietta

Local Arrangements: Joseph Massett, Martin Marietta
Donald Mendorf, Stromberg-Carlson
William Towles, Martin Marietta

Publicity: Louis Smith, General Telephone and Electronics
Jonathan Orlick, E Systems

Treasurer: Harry Hayman, IEEE Computer Society
(301) 589-3386

A solid week of tutorials in 3 tracks • April 6-10, 1981

Attendance limited to 100 per tutorial. Advance registration only: deadline — March 9, 1981.

MONDAY, 4/6

TUESDAY, 4/7

WEDNESDAY, 4/8

THURSDAY, 4/9

FRIDAY, 4/10

①

VLSI from a User's
Perspective
Rex Rice

②

Microcomputer System
Design and Techniques
Carol A. Ogden

③

Microprocessor
Interfacing Techniques
G. Jack Lipovski

④

Interactive Computer
Graphics
Herbert Freeman

⑤

Computer-Assisted
Design and
Engineering
Stephen R. Levine

70
An Overview of
Networks and
Distributed Processing

Burt H. Liebowitz

71
Computer
Communications
Protocols

David C. Wood

Computer Networks

Ira W. Cotton

72
A Pragmatic View of
Distributed Processing
Systems

Harvey A. Freeman

73
Local Computer
Networks

Harvey A. Freeman

11 50

Models and Metrics for
Software Management
and Engineering

Victor R. Basili

12 47

Modern Programming
Language Design

Anthony I. Wasserman

13 51

System Analysis and
Requirements
Specification

Raymond T. Yeh

14 50

Software Testing and
Validation

Edward Miller

15 60

Software System
Design

Jack C. Wileden

143

161

105

161 (173)

(145)

ORLANDO MARRIOTT INN, ORLANDO, FLORIDA

Attendance limited to 100. Register NOW!
Select up to one tutorial per individual per day.

Per Tutorial All Week

FEES: Members \$85 \$400
Nonmembers \$100 \$475

Includes bound tutorial text and luncheon.
There will be a no-host reception Monday
night.

HOTEL ACCOMMODATIONS:

Reserve your room at the Marriott Inn
now. Write to:

Orlando Marriott Inn
6700 Sand Lake Road
Orlando, FL 32807
Attn.: IEEE Tutorial Week

RATES: Single or Double: \$50.00
with kitchen: \$60.00

Mail to: Tutorial Week 81 East, Box 639, Silver Spring, MD 20901
(301) 589-3386

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):

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

Check enclosed VISA/BankAmericard Master Charge

Card No. _____ Exp. Date _____ Signature _____

Name _____ IEEE or IEEE-CS
Membership No. _____

Street Address _____

City/State/Zip _____



POWER ENGINEERING AND INDUSTRIAL APPLICATIONS GROUP MEETING NOTICE

Date: Tuesday, March 17, 1981

Time: 7:00 p.m.

Place: Gould - Brown Boveri, 201 Hickman Dr., Sanford, Fla.

Topic: Mr. Ray Liggins will conduct a tour and have a discussion associated with Switchgear for the Miami high-speed transit system. Going North on Interstate 4, exit on S.R. 46 right turn, turn left behind Days Inn. Gould location is inside I-4 Industrial Park (yellow building).

TUTORIAL WEEK: FURTHER INFORMATION

A full week of tutorials -- 15 one-day courses organized in three tracks over five days -- has been scheduled for April 6-10, 1981, at the Orlando Marriott Inn, in Orlando, Florida. The meeting is designed to provide an East Coast equivalent to the popular "Tutorial Week-West," also sponsored by the IEEE Computer Society, and held annually in December in San Diego.

Co-Chairmen for the Tutorial Week-East are Oscar N. Garcia of the University of South Florida, and Russell E. Theisen of Martin Marietta.

Covering a wide-range of topics of interest to computer scientists, programmers, and software engineers and designers, the three tracks of tutorials are: (1) VLSI and Microprocessors and Graphics, (2) Software Engineering Methodology and Testing, and (3) Distributed Computing and Networks.

Individuals may take up to five tutorials for the full-week registration fee of \$400 (IEEE members), or \$475 (non-members). Registration fees for individual tutorials are \$85 for IEEE members, \$100 for non-members. Each one-day registration includes a bound copy of the tutorial text plus luncheon.

Registrations for each tutorial are limited to 100, and all registrations must be made in advance by March 15, 1981.

For registration information and a program for the event, contact Tutorial Week East, P.O. Box 639, Silver Spring, MD 20901.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.
Announces the 9th Annual Competition for
1981-1982
CONGRESSIONAL FELLOWSHIPS
A Congressional Internship for Members of IEEE

PROGRAM: Electrical and Electronics Engineers and Allied Scientists are competitively selected to serve a one-year term on the personal staff of individual Senators or Representatives or on the professional staff of Congressional Committees. The program includes an orientation session with other Science-Engineering Fellows sponsored by the American Association for the Advancement of Science (AAAS).

PURPOSE: To make practical contributions to more effective use of scientific and technical knowledge in government, to educate the scientific communities regarding the public policy process, and to broaden the perspective of both the scientific and governmental communities regarding the value of such science-government interaction.

CRITERIA: Fellows shall be selected based on technical competence, on ability to serve in a public environment and on evidence of service to the Institute and the profession. Specifically *excluded* as selection criteria shall be age, sex, creed, race, ethnic background, and partisan political affiliations. However, the Fellow must be a U.S. citizen at the time of selection and must have been in the IEEE at Member grade or higher for at least four years. Additional criteria may be established by the selection committee.

AWARDS: IEEE plans to award at least two Congressional Fellowships for the 1981-1982 term. Additional funding sources may permit expansion awards.

APPLICATION: Further information and application forms can be obtained by calling W. Thomas Suttle (202) 785-0017 at the IEEE Washington, D.C. Office or by writing:

Secretary, Congressional Fellows Program
The Institute of Electrical and Electronics Engineers, Inc.
1111 Nineteenth St., N.W.
Suite 608
Washington, D.C. 20036

Applications must be postmarked no later than April 30, 1981 to be eligible for consideration.

13th ANNUAL SOUTHEASTERN SYMPOSIUM ON SYSTEM THEORY

March 26-27, 1981
University of Central Florida
Orlando, Florida

Papers will be presented on theoretical, applied, and design topics in such areas as microcomputer systems, computer graphics and image processing, computer programming, modern controls, energy systems, industrial systems applications, signal and spectral analysis and electromagnetic systems.

A special session on computer utilization and curricula in engineering will be cosponsored by Computers in Engineering Education Division of ASEE.

For program and registration information contact:

College of Extended Studies
University of Central Florida
Orlando, Florida 32816

Phone (305) 275-21233

FAST FINDER MARCH MEETING

March 17, 1981: Power Engineering and Industrial Applications Group

March 18, 1981: Computer Society

March 26-17, 1981: System Theory Symposium

March 30-31, 1981

April 1, 1981: Communications Society

April 1, 1981: Petitions for Officer Nominations due to Section Chairman

**IEEE ORLANDO SECTION EXECUTIVE COMMITTEE
EXECUTIVE BOARD**

		Business	Home
Chairman	George F. McClure	352-3782	647-5092
Vice Chairman	Benjamin W. Patz	275-2816	855-3685
Secretary	David Flinchbaugh	412/856-6472	859-4855
	Deen Khandelwal(ActingSecy.)	352-2583	277-5959
Treasurer	Mannie Connell	671-2057	273-8588
Chapter Chmn. Rep.	Joe Massett	352-2808	834-3448

STANDING COMMITTEE CHAIRMEN

Jr. Past Chairman	Ernest E. Erickson	275-2310	365-5560
Sr. Past Chairman	Russell E. Theisen	352-3177	671-4139
Programs	Herb Towle	275-2610	671-0265
Publicity	David George	859-5120	644-1009
Publications	Jerry Kopensky	352-3846	851-2879
Awards	William C. Cram	894-3351	647-4123
FES Liaison	Richard C. Harden	855-0881	855-5775
Prof. Act. Committee	T. E. (Ed) Ellis	339-1600	834-3319
Student Act. Comm.	Richard Miller	275-2816	855-3685
Education	Fred O. Simons	275-2786	678-1796
Membership Develop.	Frank Fluet	843-7030	339-8905

SPECIAL COMMITTEES

Barbeque	Clark M. Hay	339-1600	677-0246
Southcon	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	William A. Kownacki	843-8484	365-5818
Historian	Russell E. Theisen	352-3177	671-4139

SOCIETY CHAPTER OFFICERS

AES	Chmn. Everett Hales		644-3770
Comm.	Chmn. Don Mendorf	339-1600	869-7435
	V.Chmn. Bob Amend (Sanford)	322-9060	834-4379
	Secy. George B. Taack, Jr.	339-1600	321-0319
Computer-	Chmn. Joe Massett	352-2808	834-3448
	Pgm. V.Chmn. Bill Towles	ext. 4779 855-6100	876-2447
	Mbr. V.Chmn. Gerry White	646-4437	678-3621
	Secy. George Kirby	273-2351	862-9892
PE & IA-	Chmn. Geoffrey E. Dick	352-3587	678-0979
	V.Chmn. Joseph R. Miller	646-8233	644-7049
	Secy. Roger D. Bowman	646-8222	275-7208
MicThTec-	Chmn. Carl F. Schunemann	352-4366	647-4992
	V.Chmn. Al Fowler (St. Cloud)	892-4776	
Student Br.	Chmn. Gerry Becker		677-7621
	V.Chmn. Michael Robitaille (Kissimmee)		847-0909
	Recordg.Secy. Cecilia Goff		644-4832
	Corresp.Secy. Sam Richie		275-9416
	Treas. David Olivo		282-0855
Stu. Cmptr.	Chmn. Tom Toor		282-6359
	V.Chmn. Alfredo Ruiz		275-7481
	Secy./Treas. Patty Wilburn		
Electron Devices-Chmn.	Deen Khandelwal (Organizer)	352-2583	277-5959
	Chmn. Ralph M. Mindock	352-2776	862-7764
	V.Chmn. Jim Crouch	352-3966	857-3788

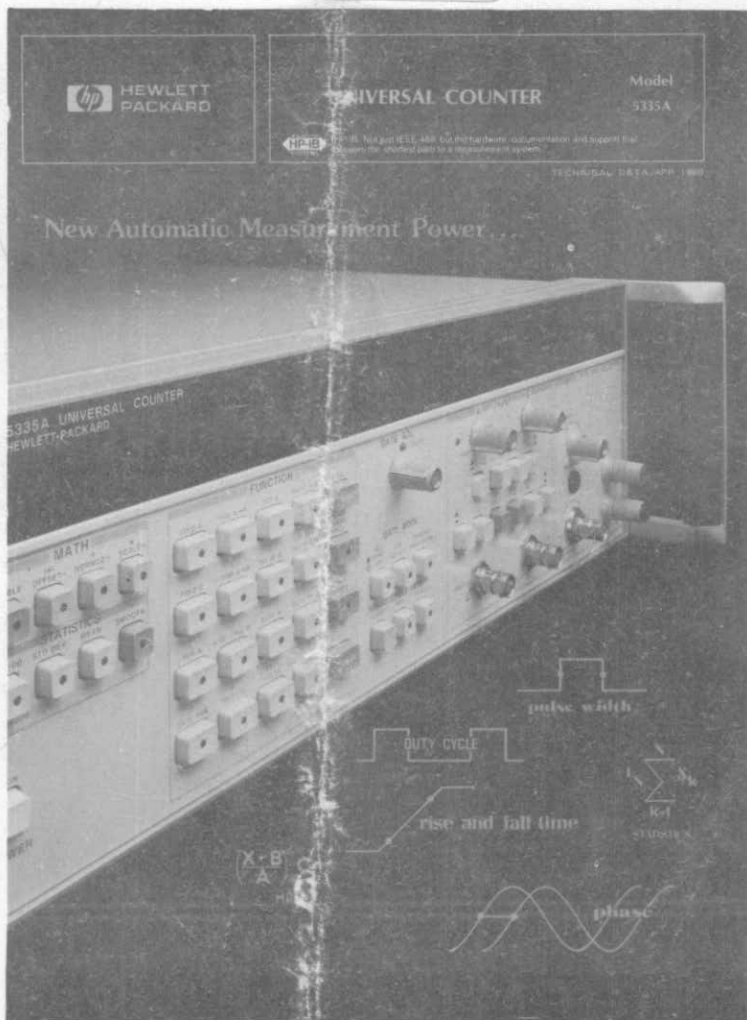
The Executive Committee meets 1st Tuesday of the month at Stromberg Carlson training facility, US 17-92 & Lee Rd., at 5:30 p.m. Members are welcome to attend.

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

U.S. POSTAGE
PAID 3.5
Permit No. 3492
Orlando, Florida
Non-Profit
Organization

6355655 SM I01 JAN29
RUSSELL E. THEISEN
MARTIN MARIETTA CORP
2667 FITZHUGH RD
WINTER PARK FL 32792

TIME
VALUE
MAIL



Call your HEWLETT PACKARD Representative at 859-2900.

**VOLUME XV
NUMBER 8
APRIL 1981**



**ORLANDO
SECTION
NOTES**

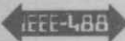
Digital Signal Processing

**PROPOSED WORKSHOP
FEATURING**


- **Analog Filters**
- **Sampling Techniques**
- **Digital Filter Design**
- **FFT Algorithms**
- **Microprocessor Interfacing**
- **Modeling Techniques**

DETAILS WITHIN. . .

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

7405A 

Automated Calibration System
for instruments that measure
**VOLTAGE-CURRENT-RESISTANCE-TIME-
FREQUENCY**



The 7405A is engineered to increase your Cal Lab productivity and throughout. Call us for more information.

John Fluke Mfg. Co., Inc.
(305) 896-4881

FLUKE[®]

THE CHAIRMAN'S CORNER

Two conferences fast approaching Orlando are AUTOTESTCON '81, co-sponsored by the Orlando Section, and SOUTHCON '82, co-sponsored by the Florida Council of IEEE. Volunteers are sought from within the Section membership to assist with both conferences. For AUTOTESTCON'81, openings exist in registration, hospitality, exhibit coordination, and other areas. For SOUTHCON'82, assistance is sought on the following committees: Transportation, Host, Public Relations, and Program. To express your interest in working with either of these conferences, call George McClure at 352-3782. This is a



good way to expand your acquaintance among fellow engineers in the Section, to learn more about conference coordination, and to make a personal contribution toward the work of the Section.

The Orlando Section continues to grow. In January we had 817 active members, up 8.35% from a year ago. Our thanks go to Frank Fluet for the fine work he is doing as Membership Development chairman. Remember, the Section will underwrite the cost for the first year's membership in any single chosen Society or Group, for any non-member who joins IEEE through the Orlando Section. Frank Fluet has the details.

Chapter awards for Engineer-of-the-Year were made at the February banquet to Ed Ellis (Communications Society), Everett Hales (Aerospace & Electronic Systems Society), and Don Mendorf (Computer Society). The Section award for Engineer-of-the-Year was presented to Don Mendorf.

The trade press has recently carried an editorial critical of the decision by IEEE's Board of Directors to join the American Association of Engineering Societies, without consulting with the membership. Expressions of opinion on this subject-- pro or con-- will be welcomed, and will be presented to the Executive Committee of the Orlando Section. If you wish to go on record on this issue drop a note to George McClure, 1730 Shiloh Lane, Winter Park, FL 32789. If you don't have time to write, phone at 352-3782 (office), to leave your position (favor or oppose), name and phone number. These will be tallied, and you will be contacted in return, if time permits.

Remember to attend the Section meeting on 22 April, to hear a discussion of the new research park being developed as an adjunct to the University of Central Florida. See the meeting notice in this issue. This is not a dinner meeting.

George F. McClure

COMPUTER SOCIETY MEETING NOTICE

DATE: April 15, 1981
LOCATION: Orlando Public Library, 10 N. Rosalind Ave.
TIME: 7:00 - 8:30 P.M.
TOPIC: High Performance Pipeline Processors
SPEAKER: Dr. Jacques Losq, Research Staff Member, T.J. Watson
Research Center, Yorktown Heights, NY

ABSTRACT

Today large commercial/scientific processors, like the IBM/3033, the CRAY-I etc..., have very different internal organization. Still, performance is achieved by the same techniques: rich data paths, pipelining, concurrency. This talk focuses how performance can be obtained through pipelining, what are pipeline biggest limitations and how they can be overcome. Caches, branch prediction loop mode and vector features will be addressed.

ABOUT THE SPEAKER:

Jacques Losq is a Research Staff Member at the T. J. Watson Research Center, working in the area of high performance processor design. Dr. Losq was a Research Associate at the Digital Systems Laboratory, Stanford University, from 1975 to 1978. He received the Ingenieur Degree from Ecole Supérieure d'Electricité, Paris, France in 1971 and the M.S. and Ph.D. from Stanford University, Stanford, California, in 1972 and 1975 respectively. His main interests are processor design, reliability and testing.

OPTICAL ENGINEERING AT UCF

The Electrical Engineering and Communication Sciences Department offers an option in their Master's degree program in Electro-Optics and Optical Communication engineering. The core courses in the program are: Coherent Optics, Opto-electronics, Fourier Optics and Fiber Optics. In addition to these courses in devices, communications, electromagnetics and applied mathematics are required. Students will be required to write a Research Report as part of their program. A student's research project will normally be in the area of the on-going research programs in the EECS Department or it could be performed jointly in industry and the EECS Department.

The research program in electro-optics currently consists of five faculty from three different UCF departments. Currently funded projects range from optical scattering from surfaces to fiber optics and speckle interferometry. The work is being carried out in two laboratories dedicated to electro-optics and part of a third. The laboratories are complete with equipment including a computer dedicated to optics research and optical components ranging from watt Argon lasers to photon counters.

For more information contact Dr. Ronald L. Phillips, at the EECS Department, University of Central Florida, or phone (305) 275-2786.

DIGITAL WORKSHOP**PROPOSED WORKSHOP
ON
DIGITAL SIGNAL PROCESSING**

TIME: Two days, Friday & Saturday 9 - 12; 1:30 - 4:30
TBA for June

HANDOUT MATERIAL:

1. Text: 2920 Analog Signal Processor Design Handbook
2. Notes: Discrete Modeling and Difference Equations
3. Papers: Discrete Model and Digital Filter Hand-Held Computer Program Aids

SUBJECTS:

1. Review of Continuous Models.
2. Intro to $H(z)$, Discrete, Models and Difference Eqs.
3. Review of Analog Filters
4. Sampling and Conversion Concepts and Techniques
5. Digital Filter and/or Controller Design and Synthesis - Including hardware implementation.
6. Introduction to FFT algorithms.

SPECIAL FEATURES:

1. A complete filter design, from specification to implementation with the Intel 2920, a single chip processor.
2. Specialized hand-held computer programs that serve as $H(z)$ (discrete system) model analysis tools or as aids to signal processor designs.

INSTRUCTORS: 1. Dr. Fred O. Simons, Jr.; PE
2. Dr. Richard C. Harden; PE

Professors of Engineering for UCF

LOCATION: UCF SOC in Orlando Central Park

FEE: \$195.00 per registrant (Discounts for Multiple Registrants).

SPONSORS: UCF & IEEE

CONTACT: Mail Registrant checks to: UCF-College of Extended Studies
Enrollment will be limited. Orlando, FL 32816
(305) 275-2123

SECTION MEETING NOTICE

Wednesday

April 22, 1981

Location: Public Library, 7:30 PM

Topic: University of Central Florida Research Park**Time:** 7:30 P.M.**Speaker:** Dr. Ralph D. Gunter

Ralph Gunter is Acting Director of the Central Florida Research Park. A former Navy pilot, he has a wide range of management experience. From 1971 to 1980 he served as Director of the Division of Sponsored Research at the University of Central Florida. For three years during this period, he also served as Director of the Division of Continuing Education.

He has been instrumental in the establishment of a research park alongside the University of Central Florida, and his talk will explore more fully this exciting addition to the Central Florida Scene.

PERSONAL FINANCIAL PLANNING

A 20-hour self-study course offered by IEEE in its Successful Management Series, *Personal Financial Planning* is designed for middle to upper income level engineers. It shows how to create a financial plan geared to your particular family circumstances and objectives. You will learn how to

- create a personal balance sheet - the starting point of financial planning
- develop income-producing spending plans
- analyze purchases in terms of alternative consumption possibilities
- evaluate investments in terms of three major objectives and four major risk categories
- create a tax-minimizing estate plan
- build a sound personal portfolio
- select compensation devices that put more after-tax dollars in your pocket

The fee is \$65 for IEEE members, \$80 for non-members. Order from IEEE Service Center, Dept. CP, 445 Hoes Lane, Piscataway, NJ 08854. IEEE members include your member number with the order. There is a two-week return privilege for full refund. For further information, request the course brochure from Piscataway.

5948 Silver Star Rd #231
Orlando 32808

IEEE ORLANDO SECTION EXECUTIVE COMMITTEE
EXECUTIVE BOARD

		Business	Home
Chairman	George F. McClure	352-3782	647-5092
Vice Chairman	Benjamin W. Patz	275-2816	855-3685
Secretary	David Flinchbaugh	412/856-6472	859-4855
	Deen Khandelwal(ActingSecy.)	352-2583	277-5959
Treasurer	Mannie Connell	351-4691	273-8588
Chapter Chmn. Rep.	Joe Massett	352-2808	834-3448

STANDING COMMITTEE CHAIRMEN

Jr. Past Chairman	Ernest E. Erickson	275-2310	365-5560
Sr. Past Chairman	Russell E. Theisen	352-3177	671-4139
Programs	Herb Towle	275-2610	671-0265
Publicity	David George	859-5120	644-1009
Publications	Jerry Kopensky	352-3846	851-2879
Awards	William C. Cram	894-3351	647-4123
FES Liaison	Richard C. Harden	855-0881	855-5775
Prof. Act. Committee	T. E. (Ed) Ellis	339-1600	834-3319
Student Act. Comm.	Richard Miller	275-2816	855-3685
Education	Fred O. Simons	275-2786	678-1796
Membership Develop.	Frank Fluet	843-7030	339-8905

5451

SPECIAL COMMITTEES

Barbeque	Clark M. Hay	339-1600	677-0246
Southcon	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	William A. Kownacki	843-8484	365-5818
Historian	Russell E. Theisen	352-3177	671-4139

SOCIETY CHAPTER OFFICERS

AES	Chmn. Everett Hales		644-3770
Comm.	Chmn. Don Mendorf	339-1600	869-7435
	V.Chmn. Bob Amend (Sanford)	322-9060	834-4379
	Secy. George B. Taack, Jr.	339-1600	321-0319
Computer-	Chmn. Joe Massett	352-2808	834-3448
	Pgm. V.Chmn. Bill Towles	ext. 4779 855-6100	876-2447
	Mbr. V.Chmn. Gerry White	646-4437	678-3621
	Secy. George Kirby	273-2351	862-9892
PE & IA-	Chmn. Geoffrey E. Dick	352-3587	678-0979
	V.Chmn. Joseph R. Miller	646-8233	644-7049
	Secy. Roger D. Bowman	646-8222	275-7208
MicThTec-	Chmn. Carl F. Schunemann	352-4366	647-4992
	V.Chmn. Al Fowler (St. Cloud)	892-4776	
Student Br.	Chmn. Gerry Becker		677-7621
	V.Chmn. Michael Robitaille (Kissimmee)		847-0909
	Recordg.Secy. Cecilia Goff		644-4832
	Corresp.Secy. Sam Richie		275-9416
	Treas. David Olivo		282-0855
Stu. Cmptr.	Chmn. Tom Toor		282-6359
	V.Chmn. Alfredo Ruiz		275-7481
	Secy./Treas. Patty Wilburn		
Electron Devices-Chmn.	Deen Khandelwal (Organizer)	352-2583	277-5959
	Chmn. Ralph M. Mindock	352-2776	862-7764
	V.Chmn. Jim Crouch	352-3966	857-3788

The Executive Committee meets 1st Tuesday of the month at Stromberg Carlson training facility, US 17-92 & Lee Rd., at 5:30 p.m. Members are welcome to attend.

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

U.S. POSTAGE
PAID 3.5
Permit No. 3492
Orlando, Florida
Non-Profit
Organization

0230276 SM I 01 FEB 18
T E ELLIS
902 RED BIRD LN
ALAMONTE SPRINGS FL 32701

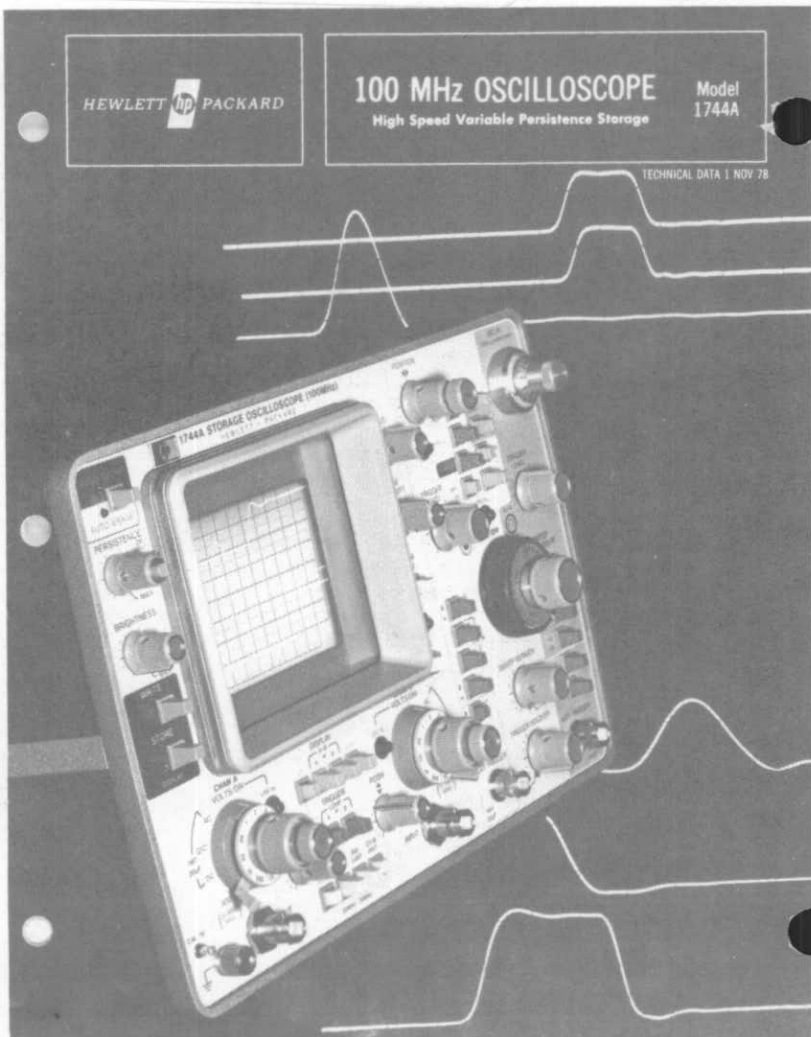
TIME
VALUE
MAIL

HEWLETT  PACKARD

100 MHz OSCILLOSCOPE
High Speed Variable Persistence Storage

Model
1744A

TECHNICAL DATA 1 NOV 78



Call your HEWLETT PACKARD Representative at 859-2900.

VOLUME XV
NUMBER 9
MAY 1981



ORLANDO
SECTION
NOTES

**DIGITAL
ANIMATION
CONTROL
SYSTEM**

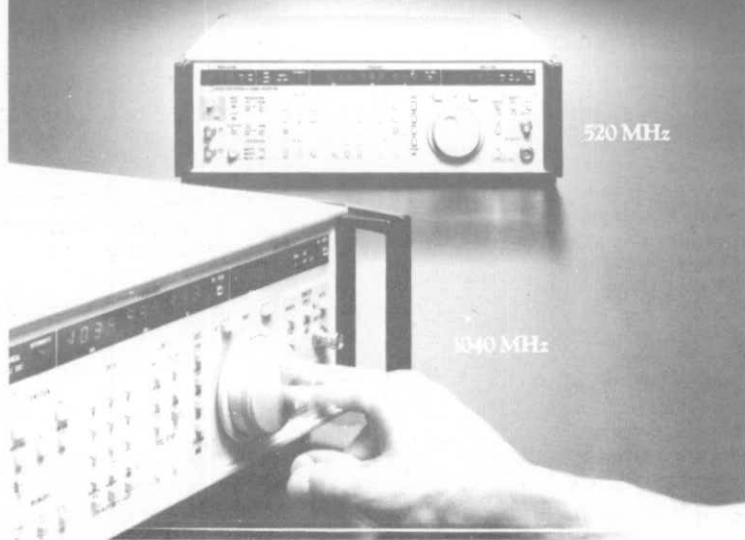
**WALT DISNEY WORLD'S
extensive use of
DIGITAL COMPUTERS.**

DETAILS WITHIN. . .

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

Fluke 6070A and 6071A synthesized signal generators

\$25,000 performance...
at an affordable price



John Fluke Mfg. Co., Inc.
(305) 896-4881

FLUKE[®]

THE CHAIRMAN'S CORNER

The new officers for the Orlando Section will be installed at the Section's annual meeting in May. They are: Benjamin W. Patz, Chairman; Mannie R. Connell, Vice Chairman; T. E. (Ed) Ellis, Secretary; and Joseph L. Massett, Treasurer. Our thanks go to the officers who guided the Section and its society chapters so ably during the year just ending; their names are listed on the inside back page of the Section Notes. Special thanks go to Deen Khandelwal who has served as acting secretary for the past few months, in the absence of David Flinchbaugh.



IEEE is an organization that is guided largely by the efforts of volunteers. If the work performed by these volunteers were included in the budget of the IEEE, over \$20 million more would have to be included in member dues (assuming 5000 volunteer members working 8 hours per week at a nominal \$10 per hour). These volunteers gain the satisfaction of contributing to their profession at the same time that they are increasing their awareness of the issues and objectives being advanced by the Institute while increasing their own circle of friends and acquaintances within the engineering profession. It is a truism that you get out of something what you put into it, and that holds true here too.

Ben Patz organizes the Executive Committee for the new year, and volunteers are welcomed. Typical openings include Section Notes Editor, Facilities and Arrangements Committee, Professional Activities Committee, Awards Committee, and as chapter officers for the Aerospace & Electronic Systems Society or Power Engineering Society chapters, and others. Offer Dr. Patz your services.

Approval has been received from the Board of Directors of the vehicular Technology Society to combine its Orlando chapter into a joint chapter, with the Communications Society; approval by the latter is expected shortly.

The Professional Activities Committee for the Section, guided by Ed Ellis, has scheduled a meeting in May to discuss advances being made in pension legislation and its effect on the engineer. The speaker will be Ron Waters, PAC Chairman for the Florida Council of IEEE. Ron has been active in PAC activities for several years including working with the annual national PAC meetings. His talk should prove very informative on a subject of concern to every engineer. Details on the meeting appear elsewhere in this issue.

It has been an honor and a privilege to serve as your chairman during the past year. Partly as a result of Orlando's location in the Sunbelt, membership

CHAIRMAN'S CORNER

in the Orlando Section has surpassed 800 and continues to climb. The Section cooperated in putting on the Computer Society's Tutorial Week East '81, last month, and will be offering a workshop on digital signal processing in June. SOUTHCAN'82 is planned for Orlando in March, while the program for AUTOTESTCON'81, the premier international forum for advances in automatic testing and maintainability, is now coming into final form for that conference's appearance in Orlando in October.

It has been a pleasure to serve with a capable and dedicated group of officers overseeing the work of your Section. To them, my thanks for the efforts you put forward on behalf of the Section during this past year. Without your support, and that of other willing volunteers in the Section, the work of the Orlando Section cannot be carried out effectively to benefit all of the membership.

ELECTRON DEVICES SOCIETY MEETING

DATE: May 14, 1981

LOCATION: Orlando Public Library, 10 N. Rosalind Ave., Orlando

TIME: 7:00 - 8:30 P.M.

TOPIC: Laser Processing for Semiconductor Material

SPEAKER: Rosa T. Young

ABSTRACT: High-power laser pulses are being used to replace conventional high-temperature furnace processing in semiconductor device fabrication. Three different approaches to p-n junction formation have been studied: (1) junction formation from laser-annealed, ion-implanted Si in which laser radiation is used to remove radiation damage and to recover the electrical activity in the implanted layer; (2) junction formation by laser-induced diffusion in which a thin film of dopant is first deposited on the substrate and then incorporated into the near-surface region by laser-induced melting of the near-surface region; and (3) laser-induced epitaxial junction formation in which a heavily doped amorphous silicon layer is deposited on a Si substrate and epitaxially regrown from the substrate layer which has been partially melted by the laser radiation. We have demonstrated that all three methods can provide suitable candidates for junction formation in highefficiency Si solar cells. These laser techniques are particularly attractive for p-n junction formation in thin-film polycrystalline material.

ABOUT THE SPEAKER: Rosa T. Young received the Ph.D. degree in solid state physics from Rensselaer Polytechnic Institute, Troy, NY, in 1971.

She held Assistant Professorships at Lincoln Memorial University, Harrogate, TN, from September 1971 to June 1973 and at Eastern Kentucky State University, Richmond, from August 1973 to June 1975. She has been in the Photovoltaic Program of the Solid State Division at Oak Ridge National Laboratory, Oak Ridge, TN, since 1975. She has worked in the areas of radiation damage and defects in semiconductors, neutron transmutation doping, infrared spectroscopy, photovoltaics, and laser annealing.

Dr. Young is a member of the American Physical Society.

IEEE Computer Society

This notice follows the call for nominations and election made at the last Computer Society meeting held on 15 April.

Nominations for the following officers for the Central Florida Computer Society are requested for the year 1981 - 1982. The election will be held during the meeting on 20 May 1981. Newly elected officers will take office immediately and serve for one year. Society meetings are normally held in the months of September - May. Floor nominations can be made on 20 May 1981, but it is preferred that you contact any of the current Computer Society officers, if you wish to serve or wish to make a nomination.

Chairman

Vice Chairman - Programs

Vice Chairman - Membership

Secretary

MEETING NOTICE

ORLANDO SECTION, IEEE PROFESSIONAL ACTIVITIES COMMITTEE

SUBJECT: PENSION ACTIVITY OF THE IEEE

TIME: May 14, 1981, 7:30 P.M.

LOCATION: Webster Adult Education Center (Webster Ave. across from Winter Park Mall)

SPEAKER: Ron Water, Harris Semiconductor, Melbourne

RESERVATIONS: 339-1600

Mr. Waters will give an overview of floating pension plans, the history of these plans, IEEE-US Activities Board Action in supporting improvements, and status of providing legislation of concern to engineers in establishing their own pension plans.

Special Program Notice

SECTION ANNUAL MEETING AND INSTALLATION OF OFFICERS

DATE: May 22, 1981

LOCATION: Gary's Duck Inn, 3974 S. Orange Blossom Trail

TIME: 6:30 - Tickets - \$11.00

TOPIC: Westinghouse steam turbine generator division headquarters in Orlando.

SPEAKER: C. R. Marcum, Manager Product Engineering

ABSTRACT: The talk will briefly describe Westinghouse Electric Corporation and give a very simplified picture of steam turbine generators. The remaining part of the talk will relate to the proposed building, plans for professional people and why Orlando was chosen.

COMPUTER SOCIETY MEETING NOTICE

- DATE:** May 20, 1981 (7:00 - 8:30 PM)
- FUNCTION:** Tour of Digital Animation Control System (DACS) Computer Center at Walt Disney World, Lake Buena Vista
- ATTENDANCE LIMITED:** Only members of the Orlando Computer Society are eligible. Phone reservations will be taken on 352-2372 (Donna) on a first-come, first-served basis.

ABSTRACT:

Perhaps the most fascinating use of the computer today is at WALT DISNEY WORLD where they are giving fantasy three dimensions. Characters once only imaginable in a cartoon created environment are dancing, talking, and moving about as if they possess the qualities of life itself.

This "New Door" as Walt Disney referred to it, is a completely new approach to entertainment involving the electronic movement of inanimate objects and is called Audio Animatronics.

Yes, creative concepts and mechanical marvels are giving fantasy "life" at Disney, and the heart of this "life" is a Honeywell 516 computer. In the Magic Kingdom, entire shows are recorded on tape and magnetic systems, then "played back" through computers located in a Central Control Room. The DACS System runs the whole show - opening doors, turning on lights, and closing curtains. But most of all, it gives voice and motion to performances ranging from Maestro Mickey leading the orchestra in the Mickey Mouse Revue, to the 38 Presidents in the Hall of Presidents.

The DACS System is divided into two "areas"; a central area and a show area. It is this two area configuration that is used during animation.

In the central area, we find only the support equipment for the animator's task:

THE COMPUTER
 INPUT/OUTPUT DEVICE
 DISCS & TAPE CONTROLLERS
 DIGITAL MAGNETIC TAPE MACHINES
 AUDIO MAGNETIC TAPE MACHINES

In the show area, we find equipment used both to move the Audio Animatronic (A.A.) figures, and to allow the animator to communicate with the figures via the computer. The basic show area equipment during animation is:

PROGRAMMER'S CONSOLE
 REMOTE TERMINAL UNIT
 AIR/HYDRAULIC CONTROL RACK
 A.A. FIGURES & LOUDSPEAKER
 AUDIO AMPLIFIER

The functions of these major pieces of hardware as they relate to animation will be discussed during the tour.

SECURITY GATE
 OFF REAMS RD.

get info
 K.B.V. info
 to Dick
 @ Room
 P.B.

**IEEE ORLANDO SECTION EXECUTIVE COMMITTEE
EXECUTIVE BOARD**

		Business	Home
Chairman	George F. McClure	352-3782	647-5092
Vice Chairman	Benjamin W. Patz	275-2816	855-3685
Secretary	David Flinchbaugh	412/856-6472	859-4855
	Deen Khandelwal(ActingSecy.)	352-2583	277-5959
Treasurer	Mannie Connell	351-4691	273-8588
Chapter Chmn. Rep.	Joe Massett	352-3858	834-3448

STANDING COMMITTEE CHAIRMEN

Jr. Past Chairman	Ernest E. Erickson	275-2310	365-5560
Sr. Past Chairman	Russell E. Theisen	352-3177	671-4139
Programs	Herb Towle	275-2610	671-0265
Publicity	David George	859-5120	644-1009
Publications	Jerry Kopensky	ext 6274 352-1300	295-8795
Awards	William C. Cram	894-3351	647-4123
FES Liaison	Richard C. Harden	855-0881	855-5775
Prof. Act. Committee	T. E. (Ed) Ellis	339-1600	834-3319
Student Act. Comm.	Richard Miller	275-2816	855-3685
Education	Fred O. Simons	275-2786	678-1796
Membership Develop.	Frank Fluet	843-7030	339-8905

SPECIAL COMMITTEES

Barbeque	Clark M. Hay	339-1600	677-0246
Southcon	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	William A. Kownacki	843-8484	365-5818
Historian	Russell E. Theisen	352-3177	671-4139

SOCIETY CHAPTER OFFICERS

AES	Chmn. Everett Hales		644-3770
Comm.	Chmn. Don Mendorf	339-1600	869-7435
	V.Chmn. Bob Amend (Sanford)	322-9060	834-4379
	Secy. George B. Taack, Jr.	339-1600	321-0319
Computer-	Chmn. Joe Massett	352-3858	834-3448
	Pgm. V.Chmn. Bill Towles	ext. 4779 855-6100	876-2447
	Mbr. V.Chmn. Gerry White	646-4437	678-3621
	Secy. George Kirby	273-2351	862-9892
PE & IA-	Chmn. Geoffrey E. Dick	352-3587	678-0979
	V.Chmn. Joseph R. Miller	646-8233	644-7049
	Secy. Roger D. Bowman	646-8222	275-7208
MicThTec-	Chmn. Carl F. Schunemann	352-4366	647-4992
	V.Chmn. Al Fowler (St. Cloud)	892-4776	
Student Br.	Chmn. Gerry Becker		677-7621
	V.Chmn. Michael Robitaille (Kissimmee)		847-0909
	Recordg.Secy. Cecilia Goff		644-4832
	Corresp.Secy. Sam Richie		275-9416
	Treas. David Olivo		282-0855
Stu. Cmpt.	Chmn. Tom Toor		282-6359
	V.Chmn. Alfredo Ruiz		275-7481
	Secy./Treas. Patty Wilburn		
Electron Devices-	Chmn. Deen Khandelwal (Organizer)	352-2583	277-5959
	Chmn. Ralph M. Mindock	352-2776	862-7764
	V.Chmn. Jim Crouch	352-3966	857-3788

The Executive Committee meets 1st Tuesday of the month at Stromberg Carlson training facility, US 17-92 & Lee Rd., at 5:30 p.m. Members are welcome to attend.

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

U.S. POSTAGE
PAID 3.5
Permit No. 3492
Orlando, Florida
Non-Profit
Organization

2632081 M I01 MAR26
FRANK A FLUET
96 SWEETBRIAR BRANCH
LONGWOOD FL 32750

TIME
VALUE
MAIL

 HEWLETT
PACKARD

UNIVERSAL COUNTERS
Models 5315A, 5315B and 5316A



TECHNICAL DATA APRIL 80

Economically Priced Counters with . . .



- The Speed and Resolution of Reciprocal Counting
- Full Universal Counter Capability
- Choice of Bench, Rack or System Models

Call your HEWLETT PACKARD Representative at 859-2900.

VOLUME XV
NUMBER 10
JUNE 1981



ORLANDO
SECTION
NOTES

**FLORIDA
STATE
ENERGY
PROGRAM**

REP. DICK BATCHELOR
On Present Status
And Future Trends

DETAILS WITHIN. . .

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

Fluke 6070A and 6071A synthesized signal generators

\$25,000 performance...
at an affordable price



John Fluke Mfg. Co., Inc.
(305) 896-4881

FLUKE[®]

THE CHAIRMAN'S CORNER

I would like to take this opportunity to thank George McClure, outgoing chairman and IEEE Fellow, on behalf of all the Section. George's leadership has been an inspiration and his disciplined energetic approach to all he undertakes will always be a model for all who know him. Fortunately, the Section is not losing George, but his able year as chairman will be difficult to follow.

Thank you all for the opportunity to serve our section and profession. I shall do my best to live up to the high standards set by those who have already served.

The coming year will see Southcon come to Orlando and this will provide an opportunity for many who would like to become involved with a major conference/exhibition.

Let me invite you all to take part in the activities of your section. By working and pulling together, we make our profession stronger and our lives more meaningful.

Our next Section officers' meeting will be held the first Tuesday in August (August 3) at the Stromberg-Carlson Education Center. The meeting is open to all IEEE members. If you would like to join us, call me at 855-3685 after 7 P.M.

Ben Patz

UNIVERSAL INDEPENDENT RETIREMENT ACCOUNTS (IRA)

The House Ways and Means Committee is once again considering legislation to liberalize IRA requirements. The chairman of the committee, Dan Rosetenkowski (D-IL), has added his support for these Savings Incentives for Retirement Savings:

- (1) IRAs: increase \$1500 limit to \$2000; increase percentage limit on earned compensation from 15% to 100%;
- (2) Universal IRA: extend IRA coverage to include persons with other pension coverage with a \$1000 limitation on contributions;
- (3) Keogh Plans: liberalize \$7500 limit to \$15,000.

This is an issue that IEEE pioneered and has been working toward for seven years. Rep. Skip Bafalis of Florida is on the House Ways and Means Committee and has actively supported expanded IRA bills in the past. IEEE points out that a truly universal IRA would require a higher limit on contributions than \$1000, such as \$1500 or \$2000. It encourages members to contact their individual Representatives and stress the importance of such legislation, urge support of a Universal IRA on the floor, and urge each Representative to personally approach Bafalis with positive inputs from constituents around the state. Local area Representatives are William McCollum, for the Fifth District, and Bill Nelson for the Ninth District. Letters to them may be addressed to the House of Representatives, Washington, D.C. 20515.

COMMUNICATIONS SOCIETY MEETING NOTICE

WHEN: Wednesday, June 3, 7:00 P.M.
WHERE: Orlando Public Library Auditorium
10 North Rosalind Avenue, Orlando
SUBJECT: Digital Subscriber Carrier System
SPEAKER: Jim Walter, Transmission Engineering
Southern Bell Telephone & Telegraph Company

ABSTRACT: Three generations of digital subscriber carrier equipment are described in this technical presentation, beginning with the Subscriber Loop Multiplex that used 24 trunks with line concentration to serve 25 to 80 subscribers, depending on traffic load, with binary PCM. This relatively costly system was succeeded by the SLC-40, a full-period subscriber line carrier using delta modulation. A simpler, less costly system, the SLC-40 was nonetheless harder to maintain. It is still found in service. The current model, SLC-96, provides full-period service with delta modulation, but with better maintainability features than the SLC-40. It is the equivalent of D3 and D4 channel banks. All three systems, their evolution and applications, will be described.

**NEW OFFICERS ELECTED BY THE
COMMUNICATION SOCIETY CHAPTER**

The following officers were elected at the April 29 meeting to serve for the 1981-82 season:

Chairman - <i>Don Mendorf</i>	339-1600
Vice Chairman - <i>George Taack, Jr.</i>	339-1600
Secretary - <i>Bill Strickland</i>	351-9960
Membership - <i>Walt Wolters</i>	351-9901

JOINT MEETING NOTICE
ORLANDO SECTION, IEEE
WITH ORLANDO CHAPTER, POWER ENGINEERING &
INDUSTRIAL APPLICATIONS SOCIETIES

WHEN: Thursday, June 18, 7:30 P.M.

WHERE: Florida Power Corporation
510 S. Park Avenue
Winter Park

SUBJECT: Florida State Energy Program

SPEAKER: Representative Dick J. Batchelor
43rd District of the State of Florida

ABSTRACT: Representative Batchelor is chairman of the House Energy Committee. He will outline the Florida Energy Program as shaped by recent legislation and describe expected trends for the future.

THIS IS NOT A DINNER MEETING

FLORIDA ENGINEERING SOCIETY SINKHOLE FUND
CONTRIBUTIONS SOUGHT

The Central Florida Chapter of the Florida Engineering Society has established a fund to assist Mrs. Mae Owens who lost her home in the Winter Park sinkhole. It was learned that Mrs. Owen's homeowner's insurance would cover only a portion of the lost home and would not provide anything for the loss of the land on which the house stood.

Gene Lent, of Jammal & Associates, who is serving as general chairman of an engineering group committee to help Mrs. Owens, has located a piece of land not very far from where Mrs. Owens use to live.

Contributions, made payable to the Mrs. Mae Owens Homesite Replacement Trust Fund, may be delivered or sent to any ComBank branch office, to the Winter Park or Orlando Chambers of Commerce, or to the Florida Engineering Society, in care of Gene Lent, P.O. Box 339, Winter Park 32790.

DIGITAL SIGNAL PROCESSING WORKSHOP

NEW DATES: JULY 17-18, 1981

Sponsored by UCF and IEEE Orlando Section

TIME: Two days, Friday & Saturday 9 - 12; 1:30 - 4:30**HANDOUT MATERIAL:**

1. Text: 2920 Analog Signal Processor Design Handbook
2. Notes: Discrete Modeling and Difference Equations
3. Papers: Discrete Model and Digital Filter Hand-Held Computer

SUBJECTS:

1. Review of Continuous Models.
2. Intro to $H(z)$, Discrete, Models and Difference Equations
3. Review of Analog Filters
4. Sampling and Conversion Concepts and Techniques
5. Digital Filter and/or Controller Design and Synthesis - Including hardware implementation.
6. Introduction to FFT algorithms.

SPECIAL FEATURES:

1. A complete filter design, from specification to implementation with the Intel 2920, a single chip processor.
2. Specialized hand-held computer programs that serve as $H(z)$ (discrete system) model analysis tools or as aids to signal processor designs.

INSTRUCTORS: 1. Dr. Fred O. Simons, Jr.; PE
2. Dr. Richard C. Harden; PE

Professors of Engineering for UCF

LOCATION:UCF South Orlando Campus in Orlando Central Park
7300 Lake Ellenor Drive**FEE:**\$195.00 for IEEE members, \$225.00 for non-members
10% discount for group registrations (2 or more)**CONTACT:**Registration information from UCF - College of Extended Studies
Orlando, FL 32816
(305) 275-2123

Enrollment will be limited.

**IEEE ORLANDO SECTION EXECUTIVE COMMITTEE
EXECUTIVE BOARD**

		Business	Home
Chairman	Benjamin W. Patz	275-2816	855-3685
Vice Chairman	Mannie Connell	351-4691	273-8588
Secretary	T. E. (Ed) Ellis	339-1600	834-3319
Treasurer	Joe Massett	352-3858	834-3448

STANDING COMMITTEE CHAIRMEN

Jr. Past Chairman	Ernest E. Erickson	275-2310	365-5560
Sr. Past Chairman	Russell E. Theisen	352-3177	671-4139
Programs	Herb Towle	275-2610	671-0265
Publicity	David George	859-5120	644-1009
Publications	Jerry Kopensky	ext 6274 352-1300	295-8795
Awards	William C. Cram	894-3351	647-4123
FES Liaison	Richard C. Harden	855-0881	855-5775
Prof. Act. Committee	T. E. (Ed) Ellis	339-1600	834-3319
Student Act. Comm.	Richard Miller	275-2816	855-3685
Education	Fred O. Simons	275-2786	678-1796
Membership Develop.	Frank Fluet	843-7030	339-8905

SPECIAL COMMITTEES

Barbeque	Clark M. Hay	339-1600	677-0246
Southcon	Bruce E. Mathews	275-2156	645-0549
Advertising Manager	William A. Kownacki	843-8484	365-5818
Historian	Russell E. Theisen	352-3177	671-4139

SOCIETY CHAPTER OFFICERS

AES	Chmn. Everett Hales		644-3770
Comm.	Chmn. Don Mendorf	339-1600	869-7435
	V.Chmn. George Taack, Jr.	339-1600	321-0319
	Secy. Bill Strickland	351-9960	
	Mbrshp. Walt Wolters	351-9901	
Computer-	Chmn. Joe Massett	352-3858	834-3448
	Pgm. V.Chmn. Bill Towles	ext. 4779 855-6100	876-2447
	Mbr. V.Chmn. Gerry White	646-4437	678-3621
	Secy. George Kirby	273-2351	862-9892
PE & IA-	Chmn. Geoffrey E. Dick	352-3587	678-0979
	V.Chmn. Joseph R. Miller	646-8233	644-7049
	Secy. Roger D. Bowman	646-8222	275-7208
MicThTec-	Chmn. Carl F. Schunemann	352-4366	647-4992
	V.Chmn. Al Fowler	(St. Cloud) 892-4776	
Student Br.	Chmn. Gerry Becker		677-7621
	V.Chmn. Michael Robitaille (Kissimmee)		847-0909
	Recordg.Secy. Cecilia Goff		644-4832
	Corresp.Secy. Sam Richie		275-9416
	Treas. David Olivo		282-0855
Stu. Cmptr.	Chmn. Tom Toor		282-6359
	V.Chmn. Alfredo Ruiz		275-7481
	Secy./Treas. Patty Wilburn		
Electron Devices-	Chmn. Deen Khandelwal (Organizer)	352-2583	277-5959
	Chmn. Ralph M. Mindock	352-2776	862-7764
	V.Chmn. Jim Crouch	352-3966	857-3788

The Executive Committee meets 1st Tuesday of the month at Stromberg Carlson training facility, US 17-92 & Lee Rd., at 5:30 p.m. Members are welcome to attend.

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

U.S. POSTAGE
PAID 3.5
Permit No. 3492
Orlando, Florida
Non-Profit
Organization

**TIME
VALUE
MAIL**

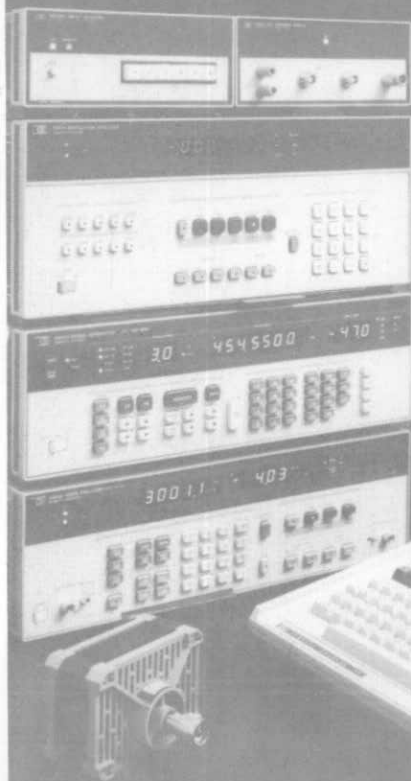
 HEWLETT
PACKARD

Semi-Automatic
Transceiver Test Set
150 kHz—990 MHz

Model
8903A-E85

 SYSTEMS

TECHNICAL DATA 1 DEC 1980



Manual or Automatic
Fast and Flexible
Accurate
Easy to Use

Call your HEWLETT PACKARD Representative at 859-2900.