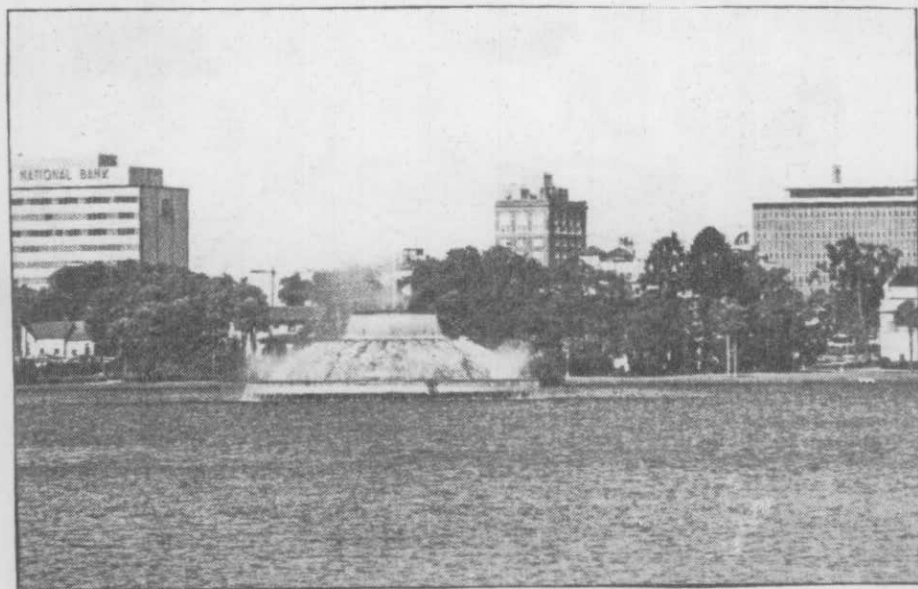


ORLANDO SECTION NOTES



VOLUME 61, NUMBER 1

SEPTEMBER 1975



ORLANDO FLORIDA

Picturesque home of the Orlando Section is fast becoming a popular site for the vacation/conventions.

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

We're with you all the way.

If you move or expand, or have a fire. If some part of **your** telephone system breaks down, you simply call Southern Bell and what needs to be done is done.

The dependable maintenance and repair service that you have come to expect from Southern Bell is just one of the reasons you'll find that when it comes to business communications, **nobody talks business like Southern Bell.**



Southern Bell

WELCOME! New members to the Orlando Section of the IEEE.

Thomas D. Brown
David W. Coleman
Wayne H. Mc Candless
William G. Murphey
P. M. Perry
George E. Spoon
George F. Guth
Anthony K Wong

Donald E. Heiney
Herbert D. James
Lawerence W. Kakritz
Miles I Kussner
Donald H. Lambing
Paul E. Andberg
Karen J. Fletcher

William E. Griggs
Winifred K. horne
Theodore T. Jenkins
Roger L. Meador
Elliot Ring
Benjamin I. Thomas
Ellsworth M. Wilson, Jr.

Chairman's Corner

The new Executive Committee is off to a good start with all chairmanships filled. We look forward to a very productive year for the Orlando Section. All of our groups have enthusiastic chairmen and officers for the coming

year and meetings are already scheduled for September.

The Barbecue is scheduled for October this year. See the October Notes for details and make plans to attend.

Our congratulations to Mr. Jim Walter for receiving the Man of the Year Award. It was well deserved.

Thanks is also in order to Dr. Jim Wiltse and the Executive Committee for last year's attainments.

H. E. Downing
Chairman

YOUR VOTE IS EXTRA IMPORTANT THIS YEAR

The IEEE Board of Directors recently reduced the signatures required to place a candidate on the ballot for IEEE president. Now only one percent of the voting members can put a name on the ballot. This is about 15000 signatures.

This may be the first time that we have a contested election in the IEEE. This is not necessarily bad because it gives the opposition a chance to voice their views, and present a candidate supporting their views. The democratic process rarely fails.

On the other hand it can fail if the electorate is either uninformed or apathetic. Usually about 40,000 members, out of 150,000 eligible, bother to cast a ballot. This means a very small minority of only 20,000 can elect the top officers of the Institute who influence the direction that our professional society moves.

Your responsibility as a voting member of IEEE is to be informed about the candidates. Review what they have done for the IEEE. Review their experience that would help them lead IEEE. Evaluate the value of their own careers in providing IEEE with the leadership it needs. Finally your duty is to cast your ballot for the candidate of your choice.

VEHICULAR TECHNOLOGY GROUP
NEWSLETTER

The Orlando VTG chapter voted unanimously to invite the National VTG to hold its Annual Vehicular Technology Conference in Orlando in March, 1977, with the local chapter as hosts. This invitation has been relayed to the president and secretary of the VTG Administrative Committee, and to the National Meetings chairman, Fred Link. It will be taken up at the AdCom meeting in San Francisco on June 17, during the International Conference on Communications (ICC-75).

It is expected that the invitation will be accepted, since we have been informed by Mr. Link that no other bids have been received for the 1977 conference. Attendance is expected to run about 250. Detailed planning will commence after formal acceptance of our invitation is received.

Officers for the 1975-1976 season have been elected for the Orlando VTG Chapter. Elected were:

Chairman	Melvin Kelch 3118 Ivel Drive Orlando, Florida 32806 (305) 859-3414 home, (305) 843-8484 (Repco)
Vice-Chairman	Herbert J. Zwarra 119 Tarry Town Trail Longwood, Florida 32750 (305) 339-1894 home, (305) 352-2353 (Martin Marietta)
Secretary	J. Richard Endicott 1125 Druid Road Maitland, Florida 32751 (305) 831-0269 home, (305) 352-4346 (Martin Marietta)

SUPPLY AND DEMAND OF ENGINEERS AND SCIENTISTS, WASHINGTON NEWS-LETTER OF THE IEEE

Nearly 528,000 scientists and engineers were employed on a full time equivalent basis on R&D activities in 1974, up 1% from 1973 but still below every other year since 1966, according to the National Science Foundation. About 20% of R&D scientists and engineers in 1973 held a doctorate. In this group 38,000 were physical scientists, 30,000 were life scientists, 20,000 were engineers, 11,000 were social scientists and 4,000 were mathematicians. More than 60% of these doctorates were engaged in basic and applied research with another 30% in administration and management of R&D and the remainder in development. In engineering, research activities accounted for fewer workers than did development and administration combined.

COMPUTER SOCIETY NEWS

The ninth meeting of the Orlando Computer Society was held on May 8, 1975, and featured Dr. Richard E. Merwin, a Distinguished Visitor Speaker. Twenty-two attended the meeting to hear the talk on "Estimating Software Development Schedules and Cost". The 1975-1976 officers were also elected at this meeting.

Russ Theisen has been appointed Southeastern Area Committee Chairman for the 1975-1976 year.

Mr. Theisen has also been active on the national level. He recently attended the National Computer Society's NCC in Anaheim, California May 18-23, and participated in the Governing Board meeting and various workshops held. While there, Mr. Theisen missed being elected to the Governing Board on the third tie-breaking ballot.

The new officers for 1975-1976 are:

- | | |
|---|--|
| Chairman | Russel E. Theisen
General Dynamics (305-834-1000x288)
2667 Fitzhugh Road
Winter Park, Florida 32789
Home phone 305-671-4139 |
| Vice-Chairman
Programs | Dr. Benjamin W. Patz
Florida Technological University (275-2816)
E. E. C. S. Dept.
P. O. Box 25000
Orlando, Florida 32816
Home phone 305-855-3685 |
| Vice-Chairman
Membership &
Attendance | Ravindra H. Shah
Martin Marietta Corp. (352-3726)
P. O. Box 13283
Orlando, Florida 32809
Home phone 859-9044 |
| Secretary | Dr. Bhagwati P. Agrawal
General Dynamics (305-834-1000x360)
156 Saddle Blvd.
Orlando, Florida 32807
Home phone 275-6947 |

FALL 1975 SCHEDULE

PFX	NO.	Qtr Hrs	Course Title	SORC Time
<u>COLLEGE OF BUSINESS ADMINISTRATION</u>				
BADM	371	3	Legal Enviorment of Business	18-2050T
MGMT	311	3	Human Behavior & Interpers'r Rel	18-2050W
<u>COLLEGE OF EDUCATION</u>				
EDEL	482	3	Drug Abuse Education	18-2050R(Cont. Ed.)
EDGU	612	4	Vocational Career Development	18-2150T(Cont. Ed.)
EDPE	660	3	School Recreation	18-2050R(Cont. Ed.)
EDVE	421	4	Curriculum Planning Voc. Educ.	18-2050M(Cont. Ed.)
EDTA	480	3	Overview of Education	18-2050T
<u>COLLEGE OF HUMANITIES & FINE ARTS</u>				
ENG	301	3	Professional Report Writing I	19-2150T
<u>COLLEGE OF SOCIAL SCIENCES</u>				
LES	304	4	Law & the Paraprofessional	18-2150R
<p>Most of the above -listed courses apply toward a General Studies Degree, which can now be earned at this Center. To be sure, check with your advisor before registering. A 3-year program will be announced before the Winter, 1976, quarter.</p>				
Lecture on TV Tape		<u>COLLEGE OF ENGINEERING</u>		
CEES	501	3	Enviormental Engineering Chem I	19-1950W
CEES	501		Lab	9-1150 Sat.
CEES	411	4	Enviormental Engr Wastewater	20-2150MW
CEES	415	3	Atmospheric Pollution Control	21-2150T;20-2150R
CEES	503	3	Enviormental Impact Assessment	18-1850M;17-1850W
CEES	615	3	Atmospheric Pollution Control	21-2150T;20-2150R
EECS	513	3	Pulse Circuits	18-1950M19-1950W
EECS	543	3	Coherent Optics Applications	19-2050T;20-2050R
EECS	551	3	Signal & Systems Analysis	16-1650T;16-1750R
EECS	553	3	Random Processes	18-1850T;18-1950R
EECS	623	3	Modern Analog Computers	12-1350T;13-1350R
EECS	662	3	Amplifier Design	16-1650M;16-1750W
EMCS	471	3	Engineering Mathematics Anal.	19-2050M;19-1950W
EMCS	491	4	Engr Applications & Comp. Methods	17-1850TR
EMMS	541	4	Intermed. Mech. of Materials	19-2050TR
IEMS	502	3	Probability for Engineers	19-2050T;19-1950R
IEMS	602	3	Engineering Economic Analysis	17-1850M;18-1850W
IEMS	624	3	Operations Research I	20-2150M;21-2150W
IEMS	626	4	Linear Programing	20-2150TR
IEMS	640	4	Systems Dynamics	16-1750TR
MEAS	653	3	Advanced Engineering Instrumen.	18-1950M;19-2050W
MEAS	680	3	Classical Thermodynamics	17-1750M;17-1850W
MEAS	685	3	Conduction Heat Transfer	17-1850T;18-1850R

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS

FTU FALL SCHEDULE CONT.

After contacting your advisor you may process your registration at SORC only if:

1. Your total FTU course load is SORC courses;
 - or 2. Your total FTU course load is SORC and Main Campus engineering courses;
 - or 3. Your total FTU course load is Main Campus graduate engineering courses.
- Otherwise you must register at the Main campus for both SORC and Main Campus courses. Previously admitted students may register at SORC by TELEPHONE TO SORC (excluding Continuing Education) subject to the above cited rules. Students registering for Continuing Education (Cont.Ed.) courses must register in person beginning July 28, but no later than the first night of class.

- Aug 11 REGULAR REGISTRATION AT SORC 11:00AM-5:00PM, subject to rules cited above. Registration after this date must be done
- Sept 12 at the Main Campus, 9-17, 18. Fee statements may be picked up at the Center beginning 9-17-75.
- Sept 2 After this date \$25 LATE FEE CHARGED for Readmissions and Temporary Admissions.
- Sept 15 DROP, ADD, WITHDRAW AT SORC with full refund. After these dates thru DROP-ADD must be accomplished on Main Campus at times shown:
- Sept 19 9-23 9:00-11:00 AM, 9-24 1:00-4:00 PM,
9-25 9:00-11:00 AM, 9-26 1:00-3:00 PM.
- Sept 22 CLASSES BEGIN
- Sept 24 LAST DAY TO ACCEPT READMISSION AND TEMPORARY ADMISSION forms at Main Campus.
- Sept 26 LATE REGISTRATION 4:00-6:00PM Main Campus Only. No late registration at SORC.
- Sept 26 FEES DUE IN CASHIER'S OFFICE. Midnight postmark accepted.
-

MEETING NOTICE

COMMUNICATIONS SOCIETY

Program for Thursday, September 11, 1975

- Speaker: Mr. R. S. Harden
Southern Bell - Orlando, Florida
- Topic: Lightning, What is It?
A comprehensive review of causes and effects of the phenomenon of lightning.
- Location: Monty's Pub - Winter Park Mall
- Schedule: Social Hour 6:30 PM
Dinner 7:00 PM
Program 8:00 PM
- Reservations: Call Miss Susan Ching, 898-9098, on or before September 8, 1975.

STUDENT CHAPTER NEWS

The F. T. U. Student Chapter held four meetings during the Summer Quarter. Featured were two student speakers and a demonstration of an electronic synthesizer was also included. Both students and faculty were in attendance at these meetings which were held in conjunction with the regular business meetings.

We have had several students express an interest in joining IEEE and they will soon be student members. We are sorry to say that we have lost five active members when they graduated in August of this year. Graduating were:

David L. Trimble, M. S. E.

David is interested in micro and mini- computer systems.

David Bruna, B. S. E.

David is interested in digital systems and is going to graduate school at F. T. U.

John Dowdle, B. S. E.

John is interested in control theory and is going to graduate school at U. F.

Frank Kapr, B. S. E.

Frank is interested in digital systems and power.

Harry W. C. Lo, B. S. E.

Harry is interested in analog and digital systems and is going to graduate school at F. T. U.

We wish them the best of luck.

The student chapter held a social get-together on the beach at New Smyrna on Sunday, August third. There was a good turn out of 15 people and all had a great time.

The first meeting of the Fall Quarter will be held September 25, 1975 at 11:00AM in room 305 of the engineering building. We will have a slide-cassette presentation entitled "The Role of Electric Power and Power Engineers in Meeting Energy Needs". This presentation will be furnished to us by the Power Engineering Society, and we welcome anyone to attend.

Leo A. Mallette

Student Chapter Chairman

GET YOUR MESSAGE TO 600 ENGINEERS IN THE CENTRAL FLORIDA AREA

*** ADVERTISE IN THE ORLANDO SECTION NOTES ***

For more information contact Charles Curley, 6655 Durango Court, Orlando, Florida 32809. or call 352-2471.

NATIONAL AND INTERNATIONAL SYMPOSIUMS, WORKSHOPS, & CONFERENCES

More and more the Central and South Florida resort areas are being considered as attractive sites for national and international conferences. The attractions are weighted not only by the pleasant climate but also by the side benefits of the family vacation opportunities almost year around. In addition, the vacation kingdoms have given these areas a large capacity for hotel and motel accomodations with conference facilities. As this trend continues, the Orlando Section members and societies may benefit greatly as local hosts as many of the California sections have done in the past.

Two such conferences taking place in the near future in or near our area are described below.

EIGHTH QUALITY CONTROL CIRCLE TEAM OF UNION OF JAPANESE SCIENTISTS
AND ENGINEERS

JOINT MEETING- IEEE, ASQC, SOLE

TUESDAY, OCTOBER 14, 1975

HOWARD JOHNSON'S (I4 & Kirkman Road)

SOCIAL HOUR 6:00PM

DINNER 7:00PM

PROGRAM 8:00PM

Pre-Meeting Clinic 6:00PM by Texas Instruments "Applications
of Hand Held Calculators"

LADIES AND GUESTS INVITED

CONTACT JIM HICKS 352-3802

ISHM '75

INTERNATIONAL SYMPOSIUM ON MICROELECTRONICS

OCTOBER 27-29

SHERATON - TOWERS CONVENTION CENTER, ORLANDO

THEME - "NEW TECHNOLOGIES - NEW CHALLENGES"

Fifteen technical sessions have been scheduled for the three day event and more than 80 technical papers from seven countries have been approved for presentation.

In addition to an outstanding technical program, more than 100 of the world's leading hybrid companies are expected to be on hand to display the latest developments in equipment, components, and materials. Further details on the conference may be obtained by writing to ISHM, PO Box 3255, Montgomery, Alabama 36109.

ORLANDO SECTION NOTES

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

Published monthly by the Orlando Section except during the months of July and August.

Inquiries concerning advertising and/or announcements should be forwarded to Mr. Charles R. Curley, 6655 Durango Ct., Orlando, Florida 32809.

1975 - 1976 Executive Committee

		Business	Residence
* Chairman	Harold Downing	351-9962	628-0676
* Vice Chairman	Dr. Ed McCarter	275-2548	647-0134
* Secretary	Bill Rhoden	859-2900	671-3469
* Treasurer	John Boyton	423-0555	339-8077
* Group Chapter Rep.	Russel E. Theisen	834-1000x288	671-4139
Jr. Past Chairman	Dr. Jim Wiltse	352-2887	876-2561
Sr. Past Chairman	Karl Lohman	628-3442	644-1144
Program	Jim Walters	898-9033	339-2071
Publicity	Dr. Fred Simons, Jr.	275-2786	299-3857
Membership	Richard McCoy	352-2707	628-4181
Arrangements	C. Hunter "Bubba" Smith	859-2900	862-5663
Student Activities	Dr. Richard C. Harden	855-0881	855-5775
Publications	Charles Curley	352-2471	855-6972
Barbeque	Ted Stefanik	352-2049	671-4240
Awards	Dr. Bruce Mathews	275-2786	645-0549
Student Chapter	Leo Mallete		568-4586
IEEE-FES Liaison	Dr. Ernest E. Erickson	275-2414	671-5026
Member At Large	Homer Wilson	644-4040	855-0934
Member At Large	Gene Dashiell	859-2900	859-2497
Area 4 Chairman	Joe Pullara	352-4516	339-1327
PAC Chairman	Ted Stefanik	352-2049	671-4240
Area 4 PAC Chairman	Ted Stefanik	352-2049	671-4240
AES Chairman	Walt Delashmit	352-4693	656-7879
CS Chairman	Russell E. Theisen	834-1000x288	671-4139
VTG Chairman	Melvin C. Kelch	843-8484	859-1833
PS&IGA Chairman	Bill Cram	841-9015	647-4123
MTT Chairman	Jim Ashwell	352-3842	647-1968
COMSOC Chairman	Dick Bergen	898-9013	862-0347

* Members of the Executive Board

REMINDER! The Executive Committee meets the first Tuesday of the month.

This is an open meeting and all members are invited to attend. The meeting is held at the Southern Bell Telephone Bldg. on Sand Lake Rd. and begins at 5:30PM.

A cost-effective communicator... anywhere! Martin Marietta's 15 GHz (AN/GRC-200) solid state microwave.

Our tactical microwave radio operates in the 14.4 to 15.25 GHz frequency band, has solid state circuits for improved reliability, lower power consumption.

Rugged, compact and readily relocatable (it can be mounted on a vehicle), it is designed for tactical down the hill, intra-base or tail circuit applications.

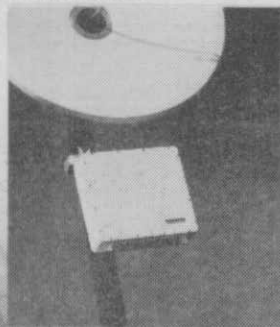
It is compatible with:

- TD-976 (96 channel super group multiplexers and digital master group multiplexers).

- TD-660, TD-754, TD-204, TD-352, TD-968, TD-202, AN/GSC-24(v).
- 2.4, 8, 12, and 16 T-1 carrier lines
- UCC-4, FCC-17 and other FDM equipment

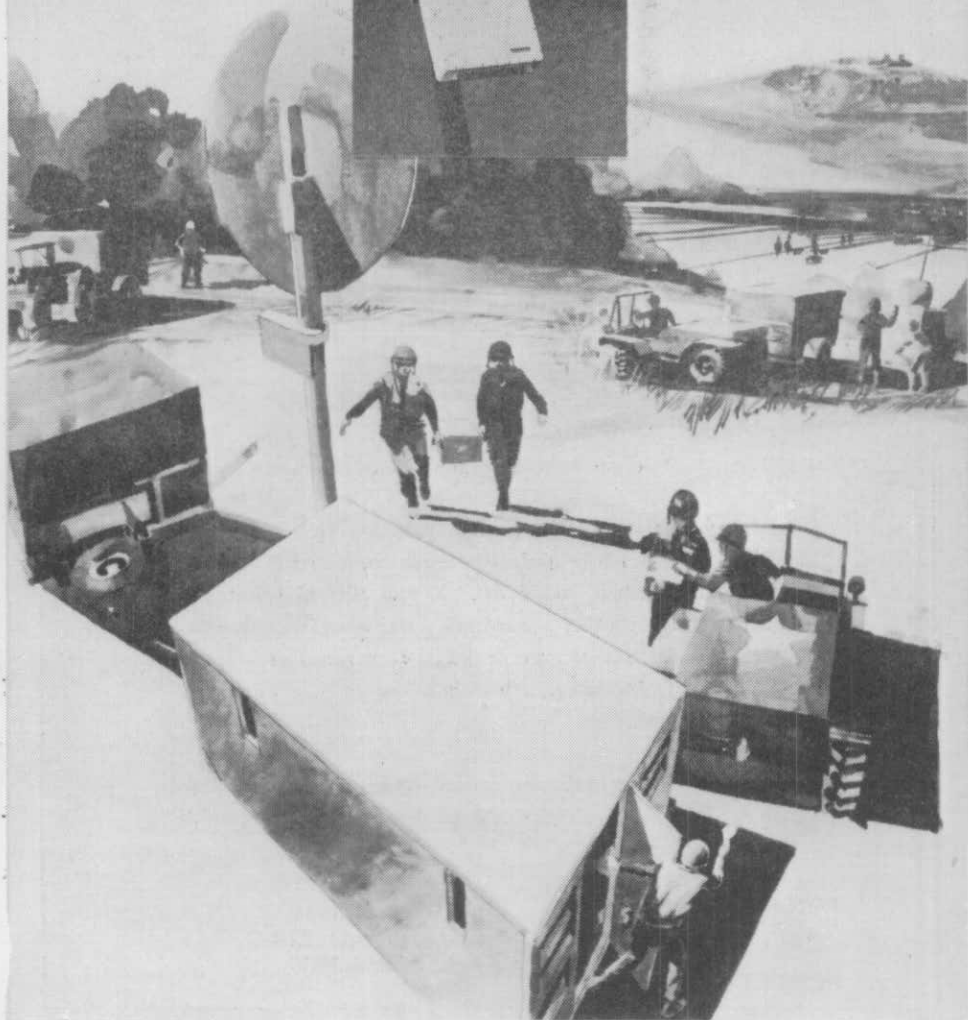
The TLD-15 is furnished in an outdoor weather-protected housing and is suitable for mast or shelter mounting.

For more information, write or call: Martin Marietta Communications and Electronics, Box 5837 Orlando, Florida 32805, phone (305) 855-6100 ext. 3451



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Communications and Electronics

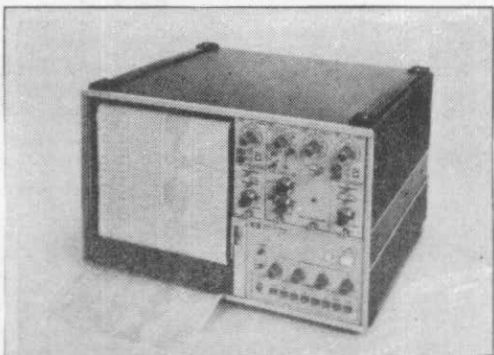


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**NEW FOUR-CHANNEL OSCILLOGRAPHIC RECORDER
FEATURES LONG-LIFE PENS, INSTANT-DRY INK**

Four-channel ink-writing recorder is first with standard 60:1 speed reducer, first with four event markers and first with flip-of-a-switch change from four channels to two double-width channels.

Using plug-in signal conditioners, this new Hewlett-Packard Model 7404A Oscillographic Recorder comes with 12 chart speeds as standard: 5, 10, 25, 50, 100 and 200 millimeters per second and millimeters per minute. All are remotely controllable by contact closure or TTL. Four remotely-controlled event markers, including a left-hand event marker/timer are also standard.

Four analog channels can be recorded simultaneously. For a wider record, the two right or left channels can be combined easily by the operator.

**FOR INFORMATION
CALL OR WRITE
HEWLETT PACKARD**

**P.O. Box 13910
Orlando, Florida 32809
Phone 859-2900**

ORLANDO SECTION NOTES



VOLUME 61, NUMBER 5

JANUARY 1976

1776 TO 1976

"American Ingenuity: 200 Years of Engineering"

The above theme was adopted by the National Society of Professional Engineers for National Engineers Week, 1976. The Orlando Section of the I. E. E. E. will participate in the Annual Engineers Week Banquet, sponsored by the Florida Engineering Society-Central Florida Chapter.

JANUARY MEETINGS

- Vehicular Technology Group --- Thursday, January 22, Holiday Inn-South
Communications Society ----- Joint meeting with the VTG (above)
Power Engineering Society ----- Tuesday, January 13, FTU Eng. Bldg.
& Industrial Applications Society
Aerospace & Electronic Sys. Soc. --- Tuesday, January 20, Westinghouse,
1200 W. Colonial Dr.
Computer Society ----- Joint meeting with Aero. & Elect. Sys. Soc.
(above)
Support the Orlando Section by attending these relevant and informative
programs sponsored your local I. E. E. E. groups and societies.

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INSTITUTE OF
ELECTRICAL AND ELECTRONICS ENGINEERS**

First step toward a cost-effective teleprocessing system: Choose the right team to create it.

To build a functional structure requires the guidance of an experienced architect. And creating a cost-effective teleprocessing system requires similar guidance from competent systems engineers.

Martin Marietta's systems engineering team has specialized experience that ranges from hardware and software—such as real-time data collection and reduction

systems—to complex theoretical and analytical evaluations to define the teleprocessing needs and equipment requirements of the future. Responsibilities have included systems analysis of tactical communications as well as operational test requirements and evaluation of defense systems.

For specific information on how Martin Marietta's experience in teleprocessing

systems engineering and integration can help you solve your problems, write or call: Marketing Director, Martin Marietta Communications & Electronics, M.P.4, P.O. Box 5837, Orlando, Florida 32805;

MARTIN MARIETTA

Communications and Electronics





Chairman's Corner

Be sure to keep in mind our Engineer's Week Banquet in February, 1976. The Section needs your support and attendance. Watch the notes for time and location.

There will be a workshop for all Group and Society Officers on January 17, 1976. We hope all members of the Executive Committee also will attend. We will discuss time and location at the January Executive Committee meeting.

The 1976 IEEE Budget will propose a 50% increase for Section Rebate on each member. This should increase our total section rebate by approximately 23%.

H. E. Downing
Section Chairman

NATIONAL ENGINEERS WEEK

FEBRUARY 22-28, 1976

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS
FLORIDA ENGINEERING SOCIETY - CENTRAL FLORIDA CHAPTER

Roxy Howse, General Chairman of 1976 Engineers Week, advises that the 1976 Engineers Week Committee has approved the Annual Engineers Week Banquet to be held at the Carlton House on February 27, 1976. Secretary of State Bruce Smathers has confirmed that he will be the keynote speaker. Roxy also advises that arrangements are being made for some rather unusual entertainment for the banquet, so please mark your calendar. More information will be announced next month.

JOINT MEETING OF
THE IEEE
VEHICULAR TECHNOLOGY GROUP
COMMUNICATIONS SOCIETY

A DINNER MEETING FOR THURSDAY, JANUARY 22, 1976

Topic of the Evening: "LITTLE KNOWN FACTS ABOUT TWO-WAY RADIO HISTORY"

Guest Speaker: Mr. Fred M. Link

Notes about the speaker: Mr. Link is a fellow in the IEEE
Current Chairman of the VTG Ad-Com
Conference Committee, President of
the Radio Club of America, just to
name a few. . . .

Mr. Link founded Link Radio Corporation and served as President for many years. Today he follows this field as a Consultant for many communication and radio manufacturing firms throughout the United States.

Schedule for the evening will be: Cost: \$5.75/person
(no charge for Program only)

6:30 PM	Social	
7:00 PM	Dinner	Place: Holiday Inn, South
8:00 PM	Program	4049 S. Orange Blossom Trail

HAVE A LAUGH AND LEARN SOME HISTORY TOO!

For reservations: Please contact Bud Simciak at Repco - 423-5508
at home - 831-6624 or
Mel Kelch at Repco - 843-8484
at home - 859-1533

ORLANDO SECTION MEMBERSHIP STATISTICS

		Fellow	Senior Member	Member	Assoc. Member	Student	Total
Active membership 10-31-75	12	89	441	37	22	601	
Active membership 10-31-74	12	94	459	37	14	616	

JOINT MEETING
 AEROSPACE AND ELECTRONIC SYSTEMS SOCIETY
 COMPUTER SOCIETY

Tuesday January 20, 1976

Meeting Location: Westinghouse
 Computer and Instrumentation Division
 1200 W. Colonial Drive

Time: 8:00 PM

Speaker: Ed Silcott
 Manager
 Digital Products Department
 Westinghouse Computer and Instrumentation
 Division
 Orlando Plant

Program: COMPUTERS AND INSTRUMENTATION
 IN THE PROCESS CONTROL INDUSTRY

General Discussion, Specific
 Applications, Plant tour

Dinner: 6:30 PM
 Italian Fisherman - 912 W. Colonial Dr.
 (order from menu)

For Information Contact: Walt Delashmit 352-4693
 Russ Theisen 834-1000 ex288
 Ross Beasley 352-2479
 Dick McCoy 352-2718

IEEE POWER ENGINEERING SOCIETY

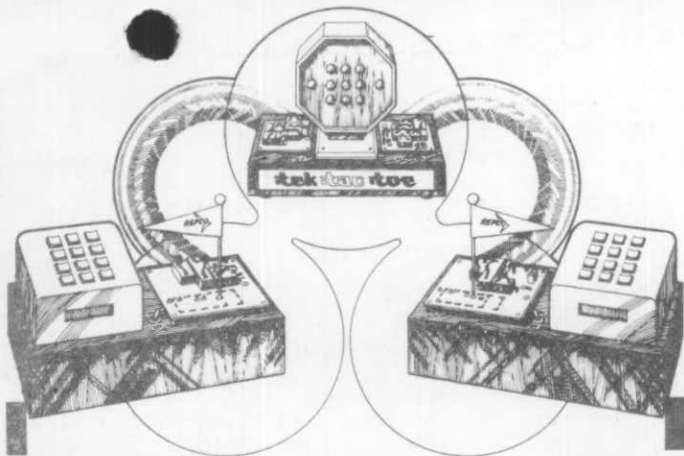
IEEE INDUSTRIAL APPLICATIONS SOCIETY

Meeting: January 13, 1976, 8:00 PM, FTU Engineering Building, Room 203

Subject: U.S. Energy Resources and Demands
 Up to date information on the energy situation. Participation in
 energy-environment simulator projections for the future.

Speaker: Dr. Bruce Nimmo, Ph. D. in Mechanical Engineering, Stanford.

Experience: Brookhaven Laboratory (AEC), Clarkson and Florida Technological
 Universities. Lecturer with the Energy Workshop Programs for the
 AEC and the Energy Research and Development Administration
 (ERDA).



Undiscovered genius contest.

The slightly zany, yet fully workable idea illustrated is an RF link-controlled tic-tac-toe game using Repco's modular RF links. It was developed by our engineers to demonstrate the potential and versatility of our RF links. We figured, since creativity is widespread, other design engineers could come up with even more clever ideas.

And the Undiscovered Genius Contest was born.

Sure, there are limitless practical applications for Repco's RF links. But one of the characteristics of creative engineers is to develop commercial applications while jiving around with off-the-wall ideas.

We'd like you to enter our Undiscovered Genius Contest. The payoff is 12 fantastic prizes for our 6 winners and 6 runners-up.

If you're one of the six winners, you'll receive a Texas Instruments SR51 calculator — retail value \$149.95. Six runners-up win Texas Instruments SR50 calculators — retail value \$99.95.

But just for entering, we'll send you a bright button which identifies you as an Undiscovered Genius. It also makes a neat, semi-deadly frisbee on days there's nothing much doing around the lab.

Just draw a quick sketch or diagram illustrating your clever (but workable) idea incorporating Repco's RF links on an 8½" x 11" sheet of paper and sign it. We **absolutely** will not appropriate or use your idea in any way except for advertising purposes. Your entry constitutes permission for us to use your drawing in our advertising.

Please send your entry directly to Repco, and for further information and contest details pull reply card in this magazine. Contest expires April 30, 1976.

• decision of judges is final • limit one entry per person • void where prohibited by law, or where taxed • all entrants will be notified of winners • employees of Repco, Scope, Inc., or their advertising agency are not eligible (damn) • and all prizes will be awarded.

Don't delay . . . enter now, and become an undiscovered genius!

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ORLANDO SECTION NOT

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

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* Treasurer	John Boyton	423-0555	339-8077
* Group Chapter Rep.	Russel E. Theisen	834-1000x288	671-4139
Jr. Past Chairman	Dr. Jim Wiltse	352-2887	876-2561
Sr. Past Chairman	Karl Lohman	628-3442	644-1144
Program	Jim Walter	898-9033	339-2071
Publicity	Dr. Fred Simons, Jr.	275-2786	299-3857
Membership	Richard McCoy	352-2707	628-4181
Arrangements	C. Hunter "Bubba" Smith	859-2900	862-5663
Student Activities	Dr. Richard C. Harden	855-0881	855-5775
Publications	Charles Curley	352-2471	855-6972
Barbeque	Ted Stefanik	352-2049	671-4240
Awards	Dr. Bruce Mathews	275-2786	645-0549
Student Chapter	Leo Mallette		568-4586
IEEE-FES Liaison	Dr. Ernest E. Erickson	275-2414	671-5026
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Member At Large	Gene Dashiell	859-2900	859-2497
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VTG Chairman	Melvin C. Kelch	843-8484	859-1533
PSEIGA Chairman	Bill Cram	841-9015	647-4123
MTT Chairman	Jim Ashwell	352-3842	647-1968
COMSOC Chairman	Dick Bergen	898-9013	862-0347

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* Members of the Executive Board

REMINDER! The Executive Committee meets the first Tuesday of the month. This is an open meeting and all members are invited to attend. The meeting is held at the Southern Bell Telephone Bldg. on Sand Lake Rd., and begins at 5:30PM.

ORLANDO SECTION
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ORLANDO, FLA.

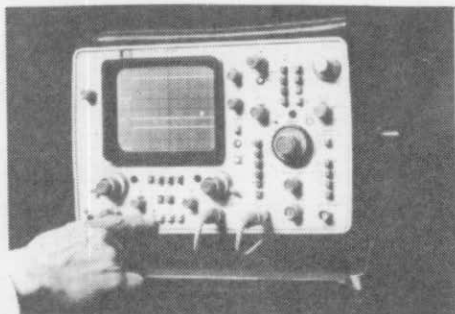
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Orlando, Florida
Non-Profit
Organization

Hewlett-Packard
Model 1740A
Oscilloscope



NEW
PRODUCT
INFORMATION

New logic state analyzers for the data domain reveal functional relations in data signals. Concurrent real-time display of the actual (not reconstructed) signals aid analysis. A new HP time-domain oscilloscope is cast especially for the role.

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ORLANDO SECTION NOTES



VOLUME 61, NUMBER 6

FEBRUARY 1976

NATIONAL ENGINEER'S WEEK FEBRUARY 22 to 28

1976 THEME
"American Ingenuity: 200 Years of Engineering"

ENGINEERS WEEK BANQUET
February 27, 1976
Carlton House

IEEE CENTRAL FLORIDA ANNUAL AWARDS BANQUET

Friday, February 20, 1976
Ramada Inn South
Roast Beef Dinner

Dr. James Ragusa will speak on "Earth Resources Satellite Solving Problems Today for Our Future"

Tickets available from Executive Committee members

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

Code 2 makes other pagers obsolete

The Martin Marietta pager is like having two pagers in one.

If missed phone calls cost you money, you'll never have to miss an important call again.

Martin Marietta's Code 2 makes all other paging systems obsolete.

Why? Because Code 2's dual address system gives you two pagers in one. Now you can be reached by any two locations you choose. There's practically no limit to the number of ways you can use Code 2 to communicate with the people you need to reach.

Martin Marietta's Code 2 is the perfect pocket pager for anyone who spends part of each working day away from his place of business.



MARTIN MARIETTA



Chairman's Corner

Our sympathy is extended to the Jim Walter family in the loss of their son, Doug. The Orlando Section has sent a memorial gift of \$25.00 to the Seminole YMCA.

The June Banquet is tentatively set for June 4, 1976. A nominating committee for section officers was appointed composed of Drs. Jim Wiltse, Ernest Erickson and Mr. Gene Dashiell. Contact one of these members for your suggestions on future officers.

We have received a nice letter from Mr. W. L. Sullivan commending Mr. Joe Pullara for an excellent year as Area 4 Chairman.

The Awards Committee has selected as our nominees for Region III as follows:

Outstanding Engineer - Dr. Ed McCarter
Service Award - Mr. Joe Pullara

Congratulations to them!

Don't forget our Awards Banquet on February 22, 1976.

H. E. Downing
Section Chairman

FTU IEEE STUDENT BRANCH

January 1, 1976 the student branch installed its new slate of officers. They are Art Hollows, Chairman; Bruce Fitzgerald, Vice Chairman; Charles Ward, Secretary; Win Horne, Treasurer.

Our immediate plans revolve around the Engineer's Week projects. Leo Mallette plans to demonstrate a microwave project. Our distant plans include projects to attempt to raise funds for our treasury, projects for next year's Engineer's Week, and an awards system for those graduating seniors who have contributed their time and efforts to the IEEE.

NATIONAL ENGINEERS WEEK BANQUET

Friday, February 27, 1976

Carlton House Resort Inn, International Drive

Beef Prime Rib Dinner

Speaker: Honorable Bruce Smathers, Secretary of State

Annual Awards Presentation: Engineer of the Year Award

Engineering Technician of the Year Award

Outstanding Organization of the Year Award

Program: Social Hour - 6:00 PM - Special Entertainment Provided

Dinner - 7:00 PM - Beef Prime Rib Dinner

Dance band following the Dinner Program

The Ladies Auxiliary of FES are providing decorations and door prizes

Tickets: Tickets and/or table reservations may be obtained by contacting the Ticket and Reservations Chairman, Bert Gerber - Home Phone 425-7333, Office Phone 423-4474

IEEE HONORS 112 ENGINEERS WITH ELECTION TO FELLOW GRADE

The Institute of Electrical and Electronic Engineers, Inc. , has elected 112 of its most distinguished members to the grade of Fellow, the Institute's highest membership grade. This honor, recognizing unusual professional distinction, is conferred only by invitation of the Board of Directors.

In announcing the names of the new fellows, IEEE President Arthur Stern noted that each person had been elected because they had demonstrated outstanding and extraordinary qualifications and experience as well as having made important individual contributions to the profession.

Elected in the state of Florida was Professor Donald G. Childers, Gainesville, Florida, for contributions to electroencephalography.

IEEE CENTRAL FLORIDA ANNUAL AWARDS BANQUET

Friday, February 20, 1976

Ramada Inn South, 8700 S. Orange Blossom Trail

Roast Beef Dinner

Speaker: Dr. James M. Ragusa
Chief, Operations & Analysis, Earth Resources
Technology
NASA, Cape Kennedy Space Center

Topic: "Earth Resources Satellites: Solving Problems Today for Our Future"

Color slides illustrating current activities in remote sensing affecting our everyday life in areas of agriculture, urban planning, pollution monitoring, resources identification and development and medicine.

Program: Social - 6:30 PM
Dinner - 7:00 PM
Program - 8:00 PM

Tickets: \$6.25 Per Person

Tickets will be available from Executive Committee Members
(Listed in the back of this issue)

VTG NATIONAL CONFERENCE IN 1977 (Orlando)

Plans are progressing for the conference under the direction of George McClure, Conference Chairman.

George currently has recruited Herb Zwarra and Mel Kelch as members of his committee with others to be added as the need requires.

10 YEARS ENGINEERING EXPERIENCE? You may be eligible for Senior Member grade in I.E.E.E. For more information contact your Section Membership Chairman, Dick McCoy at 352-2707 business, or 628-4181 home.

MEETING NOTICE

IEEE AEROSPACE AND ELECTRONIC SYSTEMS SOCIETY

Tuesday February 10, 1976

Meeting Location: John Young Museum and Planetarium
810 E. Rollins Street

Time: 6:45 PM

Program: IS ANYBODY OUT THERE
Show, tour, exhibits
Wives and guests invited

Dinner: 5:30 PM
Italian Fisherman - 912 W. Colonial Drive
(Order from menu)

For Information Contact: Walt Delashmit 352-4693
Dick McCoy 352-2718
Russ Mills 352-3856

COMPUTER SOCIETY OF IEEE & ACM

Date: Wednesday, February 18, 1976

Place: Sweden House, 841 Lee Road

Speaker: Dr. Taylor L. Booth
Professor of Electrical Engineering & Computer
Science, and Associate Head - Computer Science
at the University of Connecticut

Subject: Modeling of Software Systems

Time: Social - 6:00 PM
Dinner - 7:00 PM
Program - 8:00 PM

Menu: Smorgasbord
Ticket - \$5.50

For Information contact: B. W. Patz 275-2816
Russ Theisen 834-1000 Ext. 288

ORLANDO SECTION NOTES

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

Published monthly by the Orlando Section except during the months of July and August.

Inquiries concerning advertising and/or announcements should be forwarded to Mr. Charles R. Curley, 6655 Durango Ct., Orlando, Florida 32809.

1975 - 1976 Executive Committee

		Business	Residence
* Chairman	Harold Downing	351-9962	628-0676
* Vice Chairman	Dr. Ed McCarter	275-2548	647-0134
* Secretary	Bill Rhoden	859-2900	671-3469
* Treasurer	John Boyton	423-0555	339-8077
* Group Chapter Rep.	Russel E. Theisen	834-1000x288	671-4139
Jr. Past Chairman	Dr. Jim Wiltse	352-2887	876-2561
Sr. Past Chairman	Karl Lohman	628-3442	644-1144
Program	Dr. Dave Flinchbaugh	831-2788x325	859-4855
Publicity	Dr. Fred Simons, Jr.	275-2786	299-3857
Membership	Richard McCoy	352-2707	628-4181
Arrangements	C. Hunter "Bubba" Smith	859-2900	862-5663
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Awards	Dr. Bruce Mathews	275-2786	645-0549
Student Chapter	Art Hollows		273-7559
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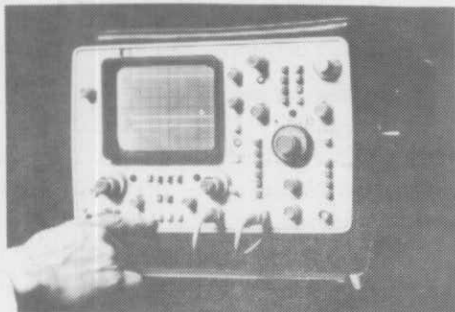
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ORLANDO SECTION NOTES



VOLUME 61, NUMBER 7

MARCH, 1976



Mr. Harlan Howe, Jr. - Technical Director, Microwave Associates, Inc., will address the Microwave Theory and Techniques Group at their March 24 meeting on the subject of "Multi-Media Packaging Techniques"

Several dozen sub-assemblies will be described to illustrate the achievement of packaging goals using waveguide, coaxial, lines, microstrip and multi-media combinations.

MARCH MEETINGS

Microwave Theory and Techniques---Wednesday, March 24
Power Engineering & Industrial Engineering Societies---Tuesday, March 9
Communications Society---Thursday, March 11
Computer Society---Tuesday, March 16

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INSTITUTE OF
ELECTRICAL AND ELECTRONICS ENGINEERS**

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MARTIN MARIETTA



Chairman's Corner

The nominating committee appointed to select the slate of officers for the Orlando Section for the year 1976-1977 has submitted the following list of candidates:

Chairman-----Dr. Ed McCarter
Vice Chairman --- Mr. John Boynton
Secretary ----- Mr. Russ Theisen
Treasurer ----- Mr. Bill Rhoden

My thanks go to nominating committee members, Dr. Jim Wiltse (Chairman), Mr. Gene Dashiell, and Dr. Ernest Erickson.

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

FTU IEEE STUDENT BRANCH NEWSLETTER

This month I would like to talk about an idea brought up at the Section Workshop in January. The suggestion was made to investigate the possibility of creating an Engineer/Student Program. Under the program an interested student member (usually a Senior) would spend an hour or so of his time each week working with an engineer in industry. This idea was appealing to a number of those present at the workshop.

A program of this nature could be advantageous to both student and engineer. From the student's point of view he gets a chance to see what it is really like outside the ivy covered walls. The student may also find that the discipline that he wished to work in is not really that appealing to him. For both his and his employer's benefit, this last point is best found out before he begins his career in industry.

For those interested call either Art Hollows or Dr. Richard Harden, or write:

Electrical Engineering Dept.
Florida Tech. Univ.
P. O. Box 25000
Orlando, Florida 32816

Attn: Art Hollows, Chairman IEEE Student Branch

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

CANDIDATES FOR SECTION OFFICERS
JULY 1976 to JUNE 1977

CHAIRMAN - Dr. Ed McCarter received the B. S., M. S. and PhD in Electrical Engineering from Oklahoma State University. He is a senior member in IEEE, has held the office of Chairman in the Orlando AES group, was Treasurer and Vice Chairman of the Section, and in 1975 was selected as the Orlando Section IEEE Engineer of the Year. He has served as Faculty Counselor for the Florida Technological University IEEE Student Group. Dr. McCarter is presently Professor, Electrical Engineering at FTU and is a registered Professional Engineer in Florida and Okalahoma.

VICE

CHAIRMAN- John H. Boynton attended the University of Georgia, the University of Washington, Seattle, Montana State School of Mines, and received his Master's degree from Rollins College. He had 15 years of employment with General Electric Company in Engineering and Management. Since 1964 he has been with Orlando Armature Works. Mr. Boynton is currently Southeastern Regional Manager for McGraw Edison Company.

John has been a member of AIEE and IEEE since 1947. He is also a member of the National Society of Professional Engineers, Florida Engineering Society, North Carolina Society of Engineers, Mason Master, and Rotary Club of Orlando. He is a registered Professional Engineer in the State of Florida and was awarded the 1974 IEEE Electrical Engineer of the Year Award for Central Florida.

TREASURER- William Rhoden was born in Moultrie, Georgia and received his BEE degree from Georgia Tech in 1963. He received his MCS degree from Rollins College in 1972. He has been employed by Hewlett Packard Company as a field engineer for nine years. He was formerly with Martin Marietta and served two years as an Army officer.

Bill has been a member of IEEE since 1966. He has served the Orlando Section as Facilities and Arrangements Chairman for three years, Exhibits Chairman for SouthEastCon '74, Chairman of the MTT Chapter and as Group Chapter Representative to the Executive Committee. He is presently the Section Secretary.

SECRETARY-Russell Theisen is a project engineer at General Dynamics Electronics Division where he is responsible for automatic tests systems for satellite projects. His prior positions include 9 years in test engineering at Martin Marietta. Earlier he was plant manager for Compton Industries and service manager for Master Crafts Electronics. Mr. Theisen received his Electrical Engineering degree from the Old Dominion University in 1962. He is a member of the Institute of Environmental Sciences, the A. C. M., and the IEEE and is listed in Who's Who in North American in 1976. He was nominated as IEEE Engineer of the Year in 1975, Orlando Computer Society.

SECRETARY (Contd.) Mr. Theisen has been active in IEEE at local and national levels; he is the Section Group Chapter Representative, Chapter Chairman, Vice Chairman, and Secretary of the IEEE Computer Society; National Computer Societies, Southeastern Area Committee Chairman, Educational Committee; and National IEEE Computer Society governing board nominee in 1974. He is also chairman of the Orlando Microprocessor tutorial Sections for 1975. Locally Mr. Theisen has served as Orange County Library Service Advisory Board Member for 1968 thru 1976, director and president of the Winter Park Pines Community Association, member of the Martin Marietta Management and General Dynamics Orlando Management Clubs.

ORLANDO SECTION VEHICULAR TECHNOLOGY GROUP NEWSLETTER

The National Vehicular Technology Group will hold its National Conference for 1976 in Washington, D. C. on March 24, 25 and 26. Also on Thursday evening of this same week the Radio Club of America will hold its semi-annual banquet. Anyone needing more details about these two events may contact Mel Kelch at 843-8484 (office) or 859-1533 (home).

The National VTG for 1977 will be held in Orlando under the leadership of Mr. George McClure, Conference Chairman. George has filled many of the Conference Executive Committee positions but is seeking dedicated workers. Should there be volunteers, contact George at 352-3782.

One of the first key speakers to confirm the March 1977 Conference is Mr. Charles Higginbotham, Chief of the Safety and Special Radio Service Bureau, Federal Communications Commission.

The next Orlando VTG meeting will be held in April, details forthcoming in future issues of the Orlando Section Notes.

Melvin C. Kelch, VTG Chairman

DON'T WASTE YOUR TIME!

You could be getting your message to the people that count. An advertisement in the Orlando Section Notes reaches 600 engineers in the Central Florida area. For information contact Charles Curley, 6655 Durango Court, Orlando, Fla. 32809.

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

FTU-South Orlando Resident Center
 Director: Dr. Richard C. Harden, P.E.
 Telephone: 305-855-0881

7300 Lake Ellenor Drive
 (Orlando Central Park)
 Orlando, Florida 32809

SPRING 1976 SCHEDULE

<u>Reg Key</u>	<u>PFX</u>	<u>No.</u>	<u>Qtr. Hrs.</u>	<u>Course Title</u>	<u>SORC Time</u>
<u>COLLEGE OF BUSINESS ADMINISTRATION</u>					
MGMT		311	3	Human Behavior & Interpers. Rel.	18-2050T
MKTG		301	5	Marketing	18-2050M;18-1950W
<u>COLLEGE OF EDUCATION</u>					
EDVE		422	4	Eval. of Occupational Instruction	18-2150M (Cont. Ed)
EDVE		423	4	Anal. of Learning Applied to VocEd	18-2150M " "
EDVE		482	4	School & Comm. Devel. in Voc. Ed	18-2150W " "
		460			
EDEL		560	4	Prin. & Prog. in Early Child. Ed.	17-2050T " "
EDEX		611	4	Home. in Soc Lrng Skls, Ment Rtrd	17-2050W " "
EDEX		641	4	Behavioral Disord. in Schools	17-2050W " "
EDBE		614	3	Coop. Office Business Education	18-2050T " "
<u>COLLEGE OF SOCIAL SCIENCES</u>					
SOC		331	4	Social Problems	18-2150T
<u>COLLEGE OF HUMANITIES & FINE ARTS</u>					
ENG		301	3	Professional Writing	18-2050R
Most of the above-listed courses apply toward a GENERAL STUDIES DEGREE, which can now be earned at this Center. To be sure, check with your advisor before registering. A 3-year program will be announced soon.					
<u>COLLEGE OF ENGINEERING</u>					
T = Lecture on TV Tape					
T	CEES	414	3	Water & Wastewater Sys. Design	17-1750M;17-1850W
		614			
T	CEES	417	4	Environmental Health	19-2050MW
T	CEES	471	3	Urban Planning	17-1850T;17-1750R
T	CEES	601	4	Unit Operations & Proc, San Engr	20-2150TR
T	CEES	614	3	Water & Wastewater Sys. Design	17-1750M;17-1850W
T	EECS	535	3	Elect. Power Gen. & Distribution	17-1850T;18-1850R
T	EECS	621	3	Digital Computer Systems	17-1750M;17-1850W
T	EECS	632	3	Optimal Control Systems	20-2050T; 19-2050R
T	EECS	644	3	Optical Communication Theory	19-1950M; 19-2050W
T	EMCS	574	4	Analytical Methods in Engr.	19-2050MW
T	EMMS	646	3	Elastic Stability	18-1950T;18-1850R
T	IEMS	532	4	Management Information Systems	16-1750MW
T	IEMS	628	4	Dynamic Programming	18-1950TR
T	MEAS	638	3	Environmental Thermodynamics	19-2050T;19-1950R
T	MEAS	643	3	Mechanical Design	19-1950M;18-1950W
T	MEAS	689	4	Solar Energy Systems	16-1750TR
	MEAS	691	3	Acoustical Field Theory	18-2050W

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

- Feb. 23 DEADLINE FOR RECEIPT OF APPLICATION FOR ADMISSION OR REACTIVATION. There will be no Temporary Applications accepted this term.
- Feb. 11 REGULAR REGISTRATION AT SORC. 11:00 AM-6:00PM. After
thru contacting your advisor you may process your registration at SORC
Mar. 18 only if:
1. Your total FTU course load is SORC courses;
 - or 2. Your total FTU course load is SORC and Main Campus engineering courses;
 - or 3. Your total FTU course load is Main Campus graduate engineering courses. Otherwise you must register at the Main Campus for both SORC and Main Campus courses. Previously admitted students may register at SORC by TELEPHONE TO SORC (excluding Continuing Education) subject to the above cited rules. Students registering for Continuing Education (Cont. Ed) courses must register in person beginning February 11, but no later than the first night of class. Registration after the March 18 date must be done at the Main Campus, beginning March 23, 1976. Fee Statements must be picked up at the Center beginning March 23.
- Mar. 08 LAST DAY TO SUBMIT READMISSION APPLICATIONS. No late Readmission Applications will be accepted this quarter.
- Mar. 30 DROP, ADD, WITHDRAW AT SORC with full refund. After this date DROP-ADD must be accomplished on the Main Campus at the following times:
- Mar. 31: 9:00AM-4:00PM Apr. 01: 9:00AM-11:00AM
Apr. 02: 1:00PM-3:00PM
- Mar. 29 CLASSES BEGIN
- Apr. 02 LATE REGISTRATION 4:30-5:30, MAIN CAMPUS ONLY.
\$25 Late Fee charged.
- Apr. 02 FEES DUE IN CASHIER'S OFFICE. Midnight postmark accepted.
-

MEETING NOTICE
IEEE POWER ENGINEERING SOCIETY
IEEE INDUSTRIAL APPLICATIONS SOCIETY

- Meeting: Tuesday, March 9, 1976, 8:00 P. M., Gould Industrial Battery Division, 11331 Satellite Boulevard, Regency Industrial Park 17-92 Highway. Eight miles south of I-4 on the east side. Satellite Blvd. is the first street on the right after entering Regency Park.
- Subject: Batteries --- Past, Present and Future. All you've wanted to know about batteries but didn't know who to ask.
- Speaker: Mr. Joe O'Dell, Quality Control Engineer
Plant Tour: Mr. Ed Yarian

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

JOINT MEETING NOTICE
IEEE COMPUTER SOCIETY AND ACM

Program: Tuesday, March 16, 1976

Speaker: Dr. Earl Joseph
IEEE Computer Society "DISTINGUISHED VISITOR"
Staff Scientist
Sperry Univac Computer Systems Division
St. Paul, Minnesota

Dr. Joseph has had published over 100 of his papers on the subject of computer architecture. He has recently returned from a European speaking tour

Topic: Future Computer Architecture

Place: Sweden House - 841 Lee Road

Menu: Smorgasbord
Ticket - \$5.50

Information: Contact B. W. Paty 275-2816
or Russ Theisen 834-1000 Ext. 288

* Remember, this is a Tuesday meeting this month

MEETING NOTICE
COMMUNICATIONS SOCIETY

Meeting: Thursday, March 11, 1976

Place: Monte's Pub, Winter Park (17-92 & Lee Road)

Speaker: Bill Kahn
Martin-Marietta Corp.
Communications & Electronics Division

Subject: "Modern Mobile Telephone Communications Systems"
Past, Present & Future Mobile Systems.

Time: Social 6:30 P. M.
Dinner 7:00 P. M.
Program 8:00 P. M.

Reservations: Call Miss Susan Ching at 898-9093 on or before Monday, March 8

Price - \$7.50 includes tax and tip
Menu - Roast Sirloin of Beef

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

MEETING NOTICE

IEEE MICROWAVE THEORY AND TECHNIQUES GROUP

Date: Wednesday, March 24, 1976
Location: Hewlett Packard Building
6177 Lake Ellenor Drive
Time: 7:30 P. M.
Speaker: Harlan Howe, Jr.
Technical Director, Microwave Associates, Inc.
Subject: Multi-Media Packaging Techniques

In many microwave packaging applications, combinations of technologies are appropriate. Several dozen sub-assemblies will be described to illustrate the achievement of packaging goals using waveguide, coaxial lines, microstrip and multi-media combinations.

Social: 5:30 P. M.
Dinner: 6:00 P. M.
Location: Gary's Duck Inn, S. O. B. T.
For Information Contact: Jim Ashwell 352-3842
Dean Bowyer 352-2483

ADVANCED MEETING NOTICE
IEEE COMPUTER SOCIETY

Meeting: Wednesday, April 14, 1976
Topic: "Relationship of Programming Languages to Other Topics
In Computing"
Speaker: Ms. Jean E. Sammet
Manager, Boston Programming Center
IBM, Cambridge, Mass.
President of the Association for Computing Machinery (ACM)
Ms. Sammet received the IBM "Outstanding Contribution Award"
for development of FORMAC.
Place: Sweden House, 841 Lee Road

ORLANDO SECTION WORKSHOP GETS GOOD RESPONSE

A workshop was held January 17th for Executive Committee members and officers of the Orlando Section chapters of the IEEE groups and societies. The purpose of the workshop was to acquaint the present and future leaders of the Orlando Section with the structure and operation of the IEEE organization.

Specific areas covered in the workshop were: National Headquarters-its organization and how to best use it, Regional structure, and finally the Sectional responsibilities and their importance to the individual members. In addition, open discussions were held on the following topics: PAC projects, membership development, continuing education, student/ young engineer involvement, and technical programs.

As a result of the above discussions the following goals were set for the coming year for the Orlando Section:

1. Student / Engineer Buddys
2. Workshops
3. Membership Upgrades
4. Public Relations
5. Spouse / Family Participation
6. More Communication between Section Executive Committee/Chapters
7. More One Day (short course) Seminars/Continuing Education
8. More Committee Workers

The workshop was well attended with 21 IEEE members present. Contributing to the success of the workshop were the excelent arrangements. It was held at the Hewlett Packard building in Orlando Central Park. Coffee and doughnuts were served during the breaks and as a special bonus, the attendees were treated to a luncheon at the Holiday House Restruant.

ORLANDO SECTION NOTE

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

Published monthly by the Orlando Section except during the months of July and August.

Inquiries concerning advertising and/or announcements should be forwarded to Mr. Charles R. Curley, 6655 Durango Ct., Orlando, Florida 32809.

1975 - 1976 Executive Committee

		Business	Residence
* Chairman	Harold Downing	351-9962	628-0676
* Vice Chairman	Dr. Ed McCarter	275-2548	647-0134
* Secretary	Bill Rhoden	859-2900	671-3469
* Treasurer	John Boyton	423-0555	339-8077
* Group Chapter Rep.	Russel E. Theisen	834-1000x288	671-4139
Jr. Past Chairman	Dr. Jim Wiltse	352-2887	876-2561
Sr. Past Chairman	Karl Lohman	628-3442	644-1144
Program	Dr. Dave Flinchbaugh	831-2788x325	859-4855
Publicity	Dr. Fred Simons, Jr.	275-2786	299-3857
Membership	Richard McCoy	352-2707	628-4181
Arrangements	C. Hunter "Bubba" Smith	859-2900	862-5663
Student Activities	Dr. Richard C. Harden	855-0881	855-5775
Publications	Charles Curley	352-3397	855-6972
Barbeque	Ted Stefanik	352-2049	671-4240
Awards	Dr. Bruce Mathews	275-2786	645-0549
Student Chapter	Art Hollows		273-7559
IEEE-FES Liaison	Dr. Ernest E. Erickson	275-2414	671-5026
Member At Large	Homer Wilson	646-8230	855-0934
Member At Large	Gene Dashiell	859-2900	859-2497
Area 4 Chairman	Jim Walter	898-9033	339-2071
PAC Chairman	Ted Stefanik	352-2049	671-4240
Area 4 PAC Chairman	Joe Pullara	352-4516	339-1327
AES Chairman	Walt Delashmit	352-4693	656-7879
CS Chairman	Russell E. Theisen	834-1000x288	671-4139
VTG Chairman	Melvin C. Kelch	843-8484	859-1533
PSEIGA Chairman	Bill Cram	841-9015	647-4123
MTT Chairman	Jim Ashwell	352-3842	647-1968
COMSOC Chairman	Dick Bergen	898-9013	862-0347

* Members of the Executive Board

REMINDER! The Executive Committee meets the first Tuesday of the month.

This is an open meeting and all members are invited to attend. The meeting is held at the Southern Bell Telephone Bldg. on Sand Lake Rd. and begins at 5:30PM.

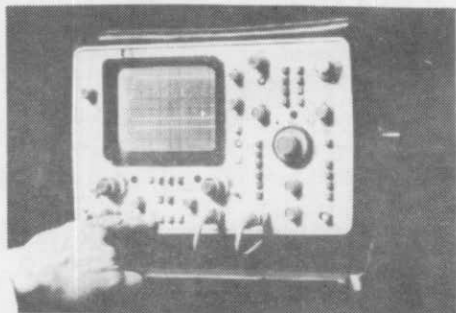
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Orlando, Florida
Non-Profit
Organization

Hewlett-Packard
Model 1740A
Oscilloscope



NEW
PRODUCT
INFORMATION

New logic state analyzers for the data domain reveal functional relations in data signals. Concurrent real-time display of the actual (not reconstructed) signals aid analysis. A new HP time-domain oscilloscope is cast especially for the role.

To relate the timing of events in a pulse system accurately to one another and to the triggering event, external trigger is displayed not as a substitute for one of the two channels but as a third trace. Center screen is always the trigger threshold so the viewer can always see what portion of the triggering signal is initiating the sweep. The time relation between the external trigger and the vertical signals is held steadily at 2.5 ± 1 ns.

For clearest comparison of cause and effect, an optional gold button instantly exchanges displays, alternately calling up on the 1740A screen its time-domain picture of the same signal, triggered on a unique word in the data stream and formatted in 0's and 1's by an associated HP logic state analyzer (Model 1607A). The switching circuitry preserves all preset adjustments of both instruments while alternating the view.

The 1704A is suited not only to the laboratory and the computer room, but also to the more rugged situations common with communications and process control equipment. The oscilloscope's case is closed, without fan or holes. Yet specified frequency response is not confined to a narrow temperature range but is maintained from 0deg. to a full 55deg. C. The instrument is usable everywhere in almost every situation; its power line voltage selector may be set at 100, 120, 220, or 240 volts ($\pm 10\%$), and line frequency may be from 48 to 440 Hz.

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ORLANDO SECTION NOTES



VOLUME 61, NUMBER 8

APRIL, 1976



IEEE CENTRAL FLORIDA ENGINEER OF THE YEAR -

Dr. Richard C. Harden (right) is honored with this award, presented by Mr. Harold Downing, Orlando Section Chairman, at the Annual Awards Banquet.

**** APRIL MEETINGS ****

Computer Society & ACM -- Wednesday, April 14

Aerospace & Electronic Systems -- Tuesday, April 13

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

CLGP

Makes every artilleryman a sharpshooter.

CLGP, the Army's cannon-launched guided projectile, makes it possible for artillery to destroy a tank from miles beyond the front line with a single round.

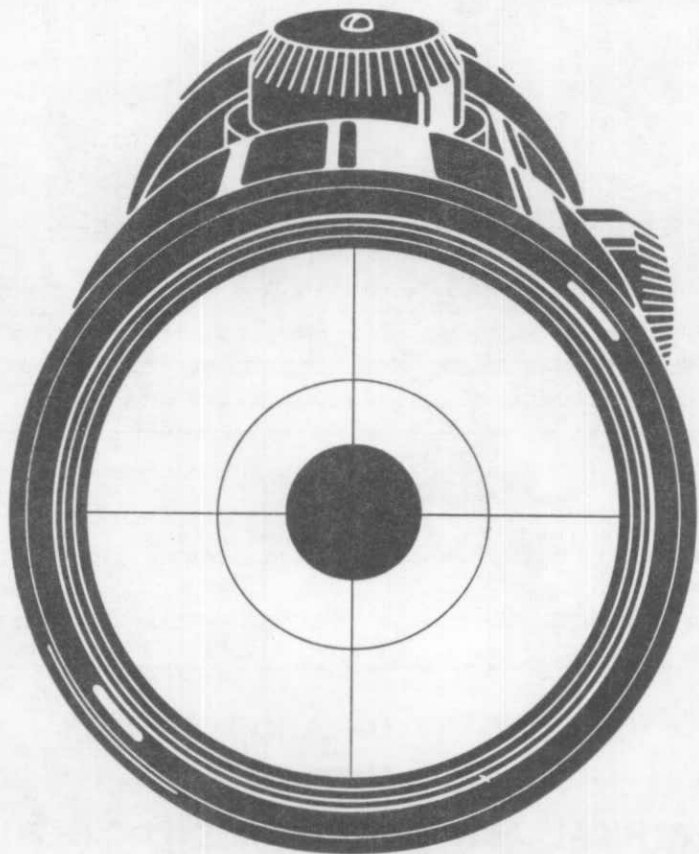
That's cost effectiveness. And no special launching equipment is needed. It's fired from a 155 mm piece just like any other round—by crews with no special training. Every single round in the highly successful prototype test program was fired by Army artillery gunners.

Once the target has been marked by a forward observer or a remotely piloted vehicle equipped with a laser designator, CLGP is fired like any

other round from a rear staging area. It homes in on the target with pinpoint accuracy, seeking it out even in marginal weather and low cloud ceiling conditions.

CLGP is now in engineering development at the Orlando division of Martin Marietta Aerospace under the direction of the U. S. Army Armament Command. It promises to increase significantly the deterrent capability of our combat forces with unusual cost effectiveness.

MARTIN MARIETTA





Chairman's Corner

Please keep in mind our June Banquet scheduled for June 4th. The May Notes will carry full details.

Our Awards Banquet was well attended. Dr. Richard Harden was selected as IEEE Engineer of the Year. At the Banquet on February 27, with all societies and F.E.S. represented, IEEE's Organization of the Year,

Florida Technological University was the winner.

Dr. Ed McCarter, Section Vice-Chairman, will represent the Orlando Section at the Region III Southeastcon at Clemson, South Carolina in early April.

Our congragulations to Jim Walter, new Area 4 Chairman, and to Joe Pullara, new Region III Professional Activities Committee Chairman, for their appointments.

Harold Downing

MEMBERSHIP DEVELOPMENT

IEEE GROWTH -- The IEEE is the largest professional engineering society in the world. The present growth rate tends to maintain this lead. The growth in the past two years is tabulated below.

DATE	TOTAL MEMBERSHIP	% INCREASE
December 31, 1973	167,796	
December 31, 1974	173,523	3.4%
December 31, 1975	179,816	3.6%

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS

"CENTRAL FLORIDA IEEE ENGINEERS HONORED"

The Orlando section Annual Awards Banquet in March celebrated National Engineer's Week by honoring several of its members for outstanding contributions to the profession and to IEEE. The highlight of the evening was the presentation of the IEEE Central Florida Engineer of the Year Award to Dr. Richard C. Harden. Dr. Harden, a Professor at Florida Technological University, had been nominated by the Student Branch at FTU for his contributions to education through excellent teaching, numerous publications, and his administrative duties as Director of the South Orlando Resident Center.

Other Group and Society Chapter Awards were:

COMPUTER SOCIETY- Engineer of the Year, Dr. Benjamin Patz
Dr. Patz was cited for his service to the Computer Society as Program Chairman and his development of undergraduate and graduate courses in computer engineering at FTU where he is an Associate Professor of Engineering.

VEHICULAR TECHNOLOGY GROUP - Engineer of the Year, Mr. Herb
Zwarra

Mr. Zwarra was honored for his service to the VTG as a charter member and officer. His outstanding contributions in switching, microwave, radio, carrier and wire line line transmission systems were cited. Mr. zwarra is a consulting engineer.

MICROWAVE THEORY AND TECHNOLOGY GROUP - Engineer of the
Year, Mr. William H. Rhoden

Mr. Rhoden was cited for his outstanding service to the MTT Society and to the Orlando Section of IEEE. He was also honored for his professional work in the areas of microwave instrumentation applications and user education. Mr. Rhoden is a field sales engineer for Hewlett-Packard.

COMMUNICATIONS SOCIETY - Engineer of the Year, Mr. James
L. Layne

Mr. Layne was honored for his many years of service to the telephone industry and many contributions to this industry during its extensive growth period in the Central Florida

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS

area. Mr. Layne was also honored for his leadership in AIEE and the AIEE-IRE merger. Mr. Layne is Division Engineer for Southern Bell.

AEROSPACE and ELECTRONIC SYSTEMS SOCIETY - Engineer of the Year, Dr. Robert F. Weber

Dr. Weber was cited for his outstanding work on optimal control, correlation guidance, pattern recognition, and coherent optical processing. Dr. Weber is a Senior Member of the Professional Staff at Martin Marietta Corporation.

POWER GROUP - Engineer of the Year, Mr. Homer D. Wilson
Mr. Wilson was honored for his long service to IEEE as Chairman of the Power Group and member of Orlando Section Executive Committee. His many contributions to the power industry were also cited. Mr. Wilson is a District Engineer with the Florida Power Corporation.

FTU - Outstanding Student Awards

The annual Outstanding Graduate Student Award went to Mr. Ernest D. Baker, and the Outstanding Senior Award went to Mr. Stephen O. Saltsaman. Both students were cited for their outstanding academic record and exceptional personal qualities.

REGION III CITATION

Mr. Joseph Pullara was presented a certificate from Headquarters, Region III, for his outstanding two year service as Area 4 Chairman.

NATIONAL ENGINEERS WEEK

The Orlando Section IEEE nominated Dr. Richard C. Harden for the Central Florida Engineer of the Year Award and the College of Engineering, Florida Technological University, as Outstanding Organization of the Year. At the annual banquet sponsored by F.E.S., the Engineer's Week Awards Committee announced the selection of the College of Engineering, FTU, for the Central Florida Award as Outstanding Organization of the Year. That organization was cited for its leadership in developing a Professional College of Engineering.

--- MEETING NOTICE ---

AEROSPACE AND ELECTRONIC SYSTEMS SOCIETY

Program for Tuesday, April 13, 1976

Topic: "HP Fourier Analyzer" Discussion and demonstration of data processing techniques

Location: Martin Marietta Plant

Time: 4:30 P.M.

Arrangements: Please contact Walt Delashmit, AES Chairman at 352-4693 or 565-7879 since staggered groups of ten people at a time will be used to allow a better demonstration of the data processing/spectral analysis techniques used in the equipment.

--- MEETING NOTICE ---

COMPUTER SOCIETY and ACM

Program for Wednesday, April 14, 1976

Speaker: Ms. Jean E. Sammet
Manager, IBM Boston Programming Center
President, Association for Computing Mach.

Topic: "Relationship of Programming Languages to Other Topics in Computing"

Location: Orlando Public Library, Auditorium
10 N. Rosalind Ave. (near Lake Eola)

Time: 7:30 P.M.

Proposed slate of officers for the IEEE, Orlando Section,
Computer Society: President- Walter Steele, Martin Marietta.

Secretary- Ed Griffin, Martin Marietta, Membership Chairman- Don Mendorf, TRW Financial Systems, Program Chairman- Ben Patz, FTU, Announcements Chairman- John Booker, NTEC, Arrangements Chairman- Allen Sullivan, General Dynamics.

ORLANDO SECTION NOTES

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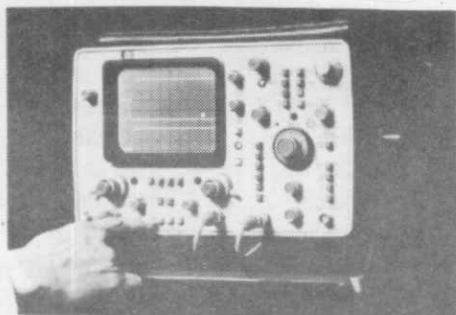
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Hewlett-Packard
Model 1740A
Oscilloscope



NEW
PRODUCT
INFORMATION

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**ORLANDO
SECTION
NOTES**



VOLUME 61, NUMBER 9

MAY, 1976

Annual Awards Banquet
FRIDAY, JUNE 4, 1976
WALT DISNEY WORLD
CONTEMPORARY HOTEL



SIDEWHEEL STEAMER SOCIAL HOUR

Come early, 6:30 p.m., and enjoy the leisurely cruise around the Disney World Lakes. The boat ride is included in the Banquet ticket and will feature a cash bar.

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

COPPERHEAD (CLGP)

Until it's fired, it's just another round.

COPPERHEAD (CLGP), the Army's cannon-launched guided projectile, is handled and fired just like any other 155 mm round by gun crews with no special training. (In the highly successful prototype test program, every round was fired by an Army test crew using standard artillery loading procedures.)

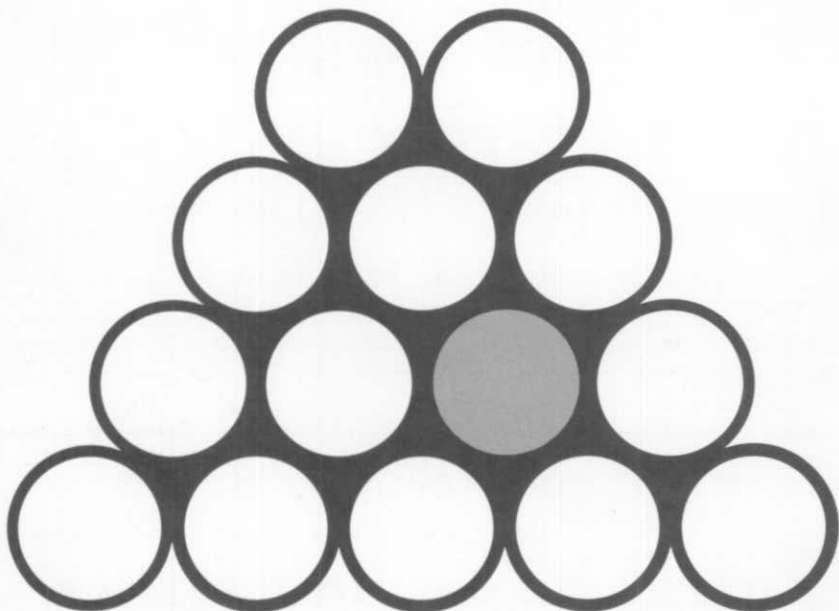
Once fired, it gives artillery something it's never had before—the capability of destroying a moving tank from miles behind the front lines with a single round.

How does it work? A forward observer, a remotely piloted vehicle, or a helicopter,

equipped with a laser designator, marks the target with an invisible light even under conditions of darkness. The round is fired from artillery positions miles away and homes in on the target with pinpoint accuracy.

Developed by the Orlando division of Martin Marietta Aerospace under the leadership of the U.S. Army Armament Command, COPPERHEAD (CLGP) should soon be ready for field use—providing a major deterrent to the threat of enemy armor dominance.

MARTIN MARIETTA





Chairman's Corner

Congratulations to our slate of officers for 1976-1977:

Dr. Ed McCarter — Chairman
 Mr. John Boynton — Vice Chairman
 Mr. Bill Rhoden — Treasurer
 Mr. Russ Theisen — Secretary

These members were unopposed and will assume their new office on July 1, 1976.

Don't forget our June Banquet on June 4th at the Contemporary Hotel at Walt Disney World. All Executive Committee members will have tickets after May 1, 1976.

Dr. Ed McCarter reported a good meeting at Southeastcon in Clemson, South Carolina.

Harold Downing
 Section Chairman

FTU-South Orlando Resident Center
 Director: Dr. Richard C. Harden, P.E.
 Telephone: 305-855-0881

7300 Lake Ellenor Drive
 (Orlando Central Park)
 Orlando, Florida 32809

SUMMER 1976 SCHEDULE

Reg Key	PFX	No.	Sec.	Qtr. Hrs.	SORC Room	COURSE TITLE	SORC Time	Instructor
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COLLEGE OF BUSINESS ADMINISTRATION

MGMT		301	51	3	S0205	Management & Organization Behavior	18-2050W	Staff
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COLLEGE OF ENGINEERING

T=Lecture on TV Tape

T	CEES	518	51	3	SO 108	Hydraulic Engineering	19-1950M; 19-2050W	Wanielista
T	CEES	602	51	4	SO108	Unit Opr. & Process-Sanitary Engr.	17-1850MW	Wanielista
	EECS	612	51	3	SO109	Synthesis of Electric Filters	17-1850 TR	Harden
T	EECS	641	51	3	SO108	Electromagnetic Fields	19-2050T; 19-1950W	Mathews
T	EMCS	573	51	3	SO107	Analytical Methods in Engineering	17-1750M; 17-1850W	Klee
T	IEMS	612	51	3	SO107	Systems Safety	17-1950R	Doering
T	IEMS	620	51	3	SO115	Queueing Systems	17-1850M; 17-1750W	Lin
T	IEMS	422	51	3	SO115	Network Analysis	15-1650M; 16-1650W	Lin
T	MEAS	632	51	3	SO115	Turbomachinery	17-1750T; 17-1850R	Evans

Only Business Administration and Engineering course information available at this time. Call South Orlando Resident Center for registration information after May 10, 1976.

Summer Quarter classes begin June 21, 1976.

MEETING NOTICE
 VEHICULAR TECHNOLOGY GROUP
 Program for May 20, 1976

Topic: "Regional Spectrum Management and Its Problems"

Speaker: Mr. Roger Madden
 Federal Communications Commission
 Chief Engineering Branch, Chicago Office

Location: Hilton House of Beef, West Colonial Drive

Schedule: Social 6:30 P.M.
 Dinner 7:00 P.M.
 Program 8:00 P.M.

Dinner Cost: \$5.65 per person, no charge for the meeting.

Reservations: Call Bud Simciak at 423-5508, or Mel Kelch at 843-8484.

ORLANDO SECTION
 IEEE VEHICULAR TECHNOLOGY GROUP
 1977 NATIONAL CONFERENCE

The Orlando Chapter of the Vehicular Technology Group will be host for the Twenty-seventh Annual Vehicular Technology Conference, to be held in Orlando on March 23-25, 1977. An attendance of 300-400 is projected. Equipment exhibits are a part of the conference, along with papers delivered at technical sessions.

Members of the Conference Committee thus far are:

Chairman:	George McClure	Exhibits:	Herb Zwarra
Vice Chairman:	Mel Kelch	Arrangements:	Walter (Bud) Simciak
Finance:	Dick Endicott		

Assistance has been offered by the joint Tampa chapter of VT/ComSoc, wherever their services can be employed. It is planned now to use them to assist in papers review.

A conference record will be published for the conference. There were 34 papers in the 1976 conference record, and we plan to exceed this for 1977. Two authors have already contacted us — a year in advance, and before the Call for Papers has been issued.

The Orlando Section is invited to participate in the organizing of the conference, both administratively and financially. Risk for profit/loss is normally divided in proportion to the financial backing provided. We have backing from the Administrative Committee of the Vehicular Technology Group, and welcome backing from the Section, too, in whatever proportion the Executive Committee of the Section desires — up to 50 percent. The VT AdCom has approved a preliminary advance of \$500 for postage, letterheads, and other incidental expenses in getting started. For mailings of exhibit solicitation letters, calls for papers, advance programs, etc., we would like to use the Section's bulk mailing permit, on a reimbursement basis.

Con't page 6

MEETING NOTICE
COMMUNICATIONS SOCIETY
Program for Thursday, May 13, 1976

- Subject: "Western Electric Electronic Dimension PBX"
- Speaker: Mr. R. G. Gilchrist
Sales Consultant, Western Electric
- Location: Holiday Inn South
4049 South Orange Blossom Trail
- Program: Social 6:30 P.M.
Dinner 7:00 P.M.
Program 8:00 P.M.
- Reservations: Call Miss Susan Ching at 898-9093 on or before Monday
May 10.
- Elections: The proposed slate of officers for the 1976-1977 year are
as follows: Chairman - A. J. Levey, Martin Marietta,
Vice Chairman - M. B. Bryan, Southern Bell, Secretary/
Treasurer - R. B. Kolsby, Winter Park Telephone.
The election will be held at the May meeting and additional
nominations will be accepted from the floor.

MEETING NOTICE
COMPUTER SOCIETY
Program for Thursday, May 13, 1976

This month's meeting will feature two speakers.

- First Speaker: Mr. Edward Griffin
Topic: "Central vs. Distributed Processing in the NOE Helicopter"
Mr. Griffin is an engineer working in computer systems
applications at Martin Marietta in the Guidance and Control
Department.
- Second Speaker: Dr. Benjamin Patz
Topic: "The Minicomputer and Microprocessor Program at FTU's
College of Engineering"
Dr. Patz is an Associate Professor in the College of
Engineering and has developed the minicomputer and
microprocessor facilities for the College of Engineering.
The Computer Society elected the following slate of officers,
at the April meeting, for the 1976-1977 year.
Chairman - Walt Steel, 859-2496 home, 352-4305 office
Vice-Chairman, Programs and Arrangements - Dr. Ben Patz,
855-3685 home, 275-2816 office.
Vice-Chairman, Membership and Attendance - Don Mendorf,
831-2185 home, 299-6200 office.
Secretary - Ed L. Griffin, 671-2680 home, 352-2140 office.

ANNUAL JUNE BANQUET

Friday, June 4, 1976

- Topic: IMAGE DISPLAY . . . COLOR, LARGE SCREEN, THREE-DIMENSIONAL, HOLOGRAPHIC
- Speaker: Dr. Ronald L. Phillips, Associate Professor of Electrical Engineering & Communications Sciences with assistance from Dr. David E. Flinchbaugh, P.E., Seminole Community College and Laser Optical Corp.
- Location: Walt Disney World Contemporary Hotel
- Time: 6:30 P.M.
- Arrangements: This event will start with a boat ride (pictured on the cover) with cash bar for the first hour. At 7:45 dinner will be served in one of the larger meeting rooms. The program will be lively and colorful, including discussion and demonstration of new techniques and equipment for TV projection, holography, and laser visual phenomena which assist in analyzing your own seeing ability. Join us for an evening of fun and interesting activities!
- Price: \$8.75 per person includes the sidewheel steamer ride and a complete beef stroganoff dinner with all the trimmings and dessert.

AEROSPACE AND ELECTRONIC SYSTEMS SOCIETY
IEEE, ORLANDO CHAPTER

The selected slate of candidates for AES officers for next year will consist of Walter Delashmit, Chairman; Dick McCoy, Vice Chairman; and Ross Beasley, Secretary. Additional nominations can be made by contacting Walter Delashmit by May 3, 1976.

Consideration is being given to forming a IEEE Acoustics, Speech, and Signal Processing Society in the Orlando Section. It should be noted that the range of interests of this proposed organization coincides with the interests of many members of the AES Society. Therefore, AES can cover the proposed topics if the new organization is not formed, or consideration can be given to forming a joint group.

IEEE Vehicular Technology Group Con't from page 4

Past experience indicates that this conference will normally provide a profit of \$1000 to \$1500, to be divided among its sponsors. A conference budget in the range of \$12K-15K is anticipated.

A decision on Section participation will be needed before the next meeting of the VTG AdCom, scheduled for June 1976, during the International Communications Conference in Philadelphia.

George McClure
Chairman

ORLANDO SECTION NOTES

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* Treasurer	John Boyton	423-0555	339-8077
* Group Chapter Rep.	Russel E. Theisen	834-1000x288	671-4139
Jr. Past Chairman	Dr. Jim Wiltse	352-2887	876-2561
Sr. Past Chairman	Karl Lohman	628-3442	644-1144
Program	Dr. Dave Flinchbaugh	831-2788x325	859-4855
Publicity	Dr. Fred Simons, Jr.	275-2786	299-3857
Membership	Richard McCoy	352-2707	628-4181
Arrangements	C. Hunter "Bubba" Smith	859-2900	862-5663
Student Activities	Dr. Richard C. Harden	855-0881	855-5775
Publications	Charles Curley	352-3397	855-6972
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Student Chapter	Art Hollows		273-7559
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Member At Large	Homer Wilson	646-8230	855-0934
Member At Large	Gene Dashiell	859-2900	859-2497
Area 4 Chairman	Jim Walter	898-9033	339-2071
PAC Chairman	Ted Stefanik	352-2049	671-4240
Region III			
PAC Chairman	Joe Pullara	352-4516	339-1327
AES Chairman	Walt Delashmit	352-4693	352-4201
CS Chairman	Russell E. Theisen	834-1000x288	671-4139
VTG Chairman	Melvin C. Kelch	843-8484	859-1533
PS&IGA Chairman	Bill Cram	841-9015	647-4123
MTT Chairman	Jim Ashwell	352-3842	647-1968
COMSOC Chairman	Dick Bergen	898-9013	862-0347

* Members of the Executive Board

REMINDER! The Executive Committee meets the first Tuesday of the month. This is an open meeting and all members are invited to attend. The meeting is held at the Southern Bell Telephone Bldg. on Sand Lake Rd. and begins at 5:30 PM.

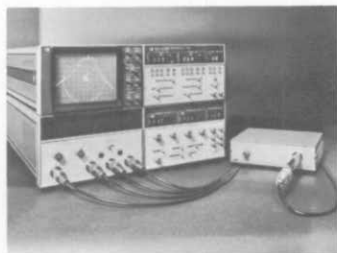
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**HEWLETT-PACKARD
MODEL 8505A
NETWORK
ANALYZER**

**WIDE-RANGE, HIGH-RESOLUTION
1.3 GHz NETWORK ANALYZER
MEASURES MAGNITUDE, PHASE,
GROUP DELAY, AND
PHASE LINEARITY**



**NEW
PRODUCT
INFORMATION**

Over a 3 1/2-decade frequency range, 500 kHz to 1.3 GHz, a new network analyzer, Model 8505A from Hewlett-Packard, measures and displays magnitude and phase of transmission and reflection properties of active or passive networks, plus group delay and deviation from linear phase. Displayed dynamic range is 100 dB, with no switching. Any two parameters may be chosen for simultaneous CRT display. The displays may be rectilinear (parameter versus frequency) or polar, or one of each at the same time. There are three identical 100-dB channels, so ratio measurements may be made without reference-channel signal-level restrictions.

Built into the analyzer is a state-of-the-art swept signal source with two independent start-stop sweeps which can be alternated for what essentially is dual sweeping. Also incorporated are five independently-settable frequency markers with a direct-counting 1300 MHz frequency counter readout. (The counter actually measures frequency during signal sweep.) Digital readout at marker frequency provides 0.01-dB magnitude resolution, 0.1° phase resolution, and 0.1-ns delay resolution.

All 8505A functions are digitally-controlled, microprocessor actuated, and programmable via the HP Interface Bus, Hewlett-Packard's implementation of IEEE Standard 488-1975. A calculator based automatic analyzer system, Model 8507A, if offered. This system claims the capability and precision associated with computer-based automatic network analyzers plus easy programming at a reasonable price. The 8505A Network Analyzer is priced in the U. S. at \$22,500. Bus interface adds \$2,950.

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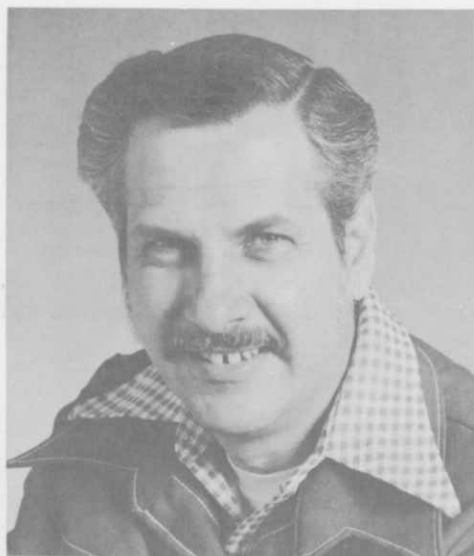
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ORLANDO SECTION NOTES



VOLUME 61, NUMBER 10

JUNE, 1976



"MAN OF THE YEAR"

MR. JOE PULLARA

The Orlando Section announced its selection of Mr. Pullara as "Man of the Year" at the Annual June Banquet. Mr. Harold Downing, Section Chairman, presented the award. Mr. Pullara was honored for his continuous contributions, since 1965, to the Orlando Section in both leadership and service.

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

COPPERHEAD (CLGP)

Until it's fired, it's just another round.

COPPERHEAD (CLGP), the Army's cannon-launched guided projectile, is handled and fired just like any other 155 mm round by gun crews with no special training. (In the highly successful prototype test program, every round was fired by an Army test crew using standard artillery loading procedures.)

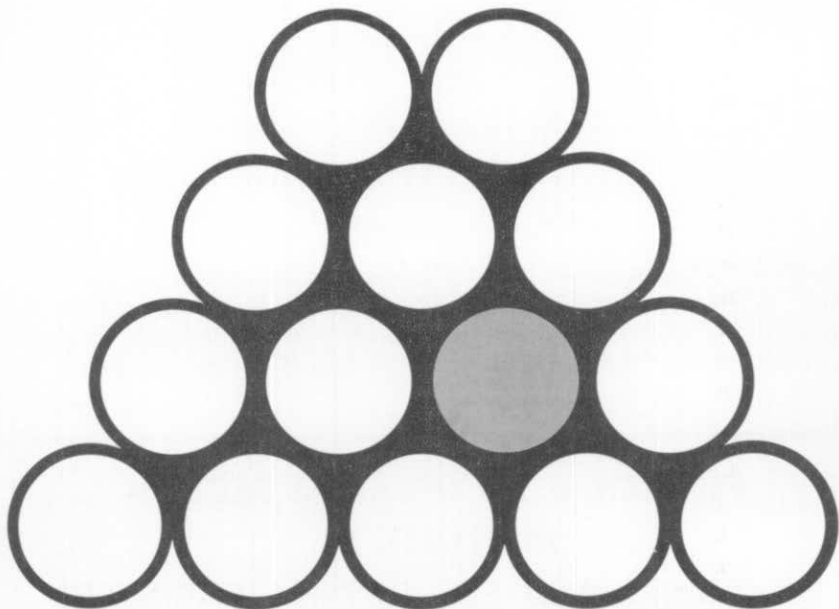
Once fired, it gives artillery something it's never had before—the capability of destroying a moving tank from miles behind the front lines with a single round.

How does it work? A forward observer, a remotely piloted vehicle, or a helicopter,

equipped with a laser designator, marks the target with an invisible light even under conditions of darkness. The round is fired from artillery positions miles away and homes in on the target with pinpoint accuracy.

Developed by the Orlando division of Martin Marietta Aerospace under the leadership of the U.S. Army Armament Command, COPPERHEAD (CLGP) should soon be ready for field use—providing a major deterrent to the threat of enemy armor dominance.

MARTIN MARIETTA



Chairman's Corner



Approximately 169 members and guests attended the Annual Banquet June 4th and had an enjoyable meeting at Walt Disney World. We look forward to next year when our June Banquet will be even larger and better.

I want to thank our Executive Committee for their work during the past year. We have had quite a productive year.

My congratulations to Mr. Joe Pullara who was selected as our "Man of the Year".

Our best wishes go to the new slate of Officers. Let's all give our assistance to them for a better Orlando Section during the next year.

I appreciate all the efforts and cooperation that each of you have given me during my tenure as Section Chairman.

Harold Downing
Section Chairman

SECTION NOTES GETS NEW EDITOR

The 1976-77 year will begin with the regular September issue and a new editor, Mr. Leo Mallette. Mr. Mallette is a graduate student at Florida Technological University. He is a Past Chairman of the Orlando IEEE Student Branch and is presently on the staff of the FTU School newspaper FUTURE. Mr. Mallette is looking forward to working with the Section in his new position and welcomes any assistance from members interested in the publication area. Mr. Mallette can be reached at 275-2786.

IEEE EDUCATIONAL TECHNOLOGY COMMITTEE SEEKS DEVELOPERS OF INNOVATIVE INSTRUCTIONAL METHODS

The IEEE Educational Technology Committee is preparing a list of active developers and users of various forms of educational technology and innovative teaching methods in classroom instruction, continuing education, and industrial training. Information is needed about programs that utilize audio tapes, slides, TV, and computers in instructional methods such as audio tutorial, individualized instruction, PSI, computer-aided education, and so forth. Please send information to:

Professor G. L. Rainey, Chairman
IEEE Educational Technology Committee
Department of Electrical Technology
Purdue University — West Lafayette, IN 47907

RECOGNITION AND JUST PLAIN THANKS . . .

The "Man of the Year" award, the Orlando Section's way of expressing its collective recognition and appreciation for an individual's outstanding service to the Orlando Section and to the community.

Eleven years of continuous outstanding service has brought the much deserved honor of "Man of the Year" to Mr. Joe Pullara. He has held all of the elective offices and many of the appointive chairmanships of the Orlando Section. Mr. Pullara has made major contributions not only to the Orlando Section but has recently served in regional activities as a SOUTH-EASTCON Chairman and is presently the Region III Area 4 Chairman.

During his term as Section Chairman, Mr. Pullara organized the Professional Activities and thus established the Orlando Section as a leader in Professional Activities. He has continued this leadership as Area 4 Chairman.

In addition to his professional activities, Mr. Pullara has been active in community and civic affairs. He has served as Parish Council President, President of the Holy Name Society, and is now Extra Ordinary Minister of the St. Magdalen Church. He has been President of the Glen Arden Community Association, and has been active in the YMCA Indian Guide Program and the Martin Marietta Management Club.

SECTION OFFICERS JULY 1976 TO JUNE 1977

Chairman	Dr. Ed McCarter Senior Member Professor, Electrical Engineering, FTU Phone (Business) 275-2548 (Residence) 647-0134
Vice Chairman:	Mr. John H. Boyton Southeastern Regional Manager, McGraw Edison Company Phone (Business) 423-0555 (Residence) 339-8077
Treasurer:	Mr. William Rhoden Field Engineer, Hewlett Packard Company Phone (Business) 859-2900 (Residence) 671-3469
Secretary:	Mr. Russell Theisen Project Engineer, General Dynamics Electronics Division Phone (Business) 834-1000 ex 288 (Residence) 671-4139

ORLANDO COMPUTER SOCIETY CHAPTER - 1976-77 OFFICERS

Chairman	Mr. Walter L. Steele Martin Marietta Corp Phone (Business) 353-4305 (Residence) 859-2496
Vice Chairman Programs & Arrangements	Dr. Ben Patz Florida Technological University Phone (Business) 275-2816 (Residence) 855-3685
Vice Chairman Membership & Announcements	Don Mendorf T.R.W. Financial Systems Phone (Business) 299-6200 (Residence) 831-2185
Secretary	Edward L. Griffin Martin Marietta Corp. Phone (Business) 352-2140 (Residence) 671-2680
Committeeman Arrangements	Allen G. Sullivan General Dynamics Phone (Business) 834-1000 (Residence) 830-8948
Committee Announcements	John L. Booker Naval Training Equipment Center Phone (Residence) 894-4238

AEROSPACE AND ELECTRONICS SYSTEMS 1976-77 OFFICERS

Chairman:	Walter Delashmit
Vice Chairman:	Dick McCoy
Secretary:	Ross Beasley

POWER SOCIETY AND IGA 1976-77 OFFICERS

Chairman:	Dr. Herbert Towle, FTU
Vice Chairman (Acting)	Mr. Jim Gay
Secretary (Acting)	Mr. Homer Wilson

MICROWAVE THEORY AND TECHNOLOGY GROUP 1976-77 OFFICERS

Chairman:	Mr. Dean Bowyer Martin Marietta Corp. Phone (Business) 352-2483 Other Officers Not Yet Elected
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COMMUNICATIONS SOCIETY 1976-77 OFFICERS

Chairman:	Mr. A. J. Levy, Martin Marietta
Vice Chairman:	Mr. M.B. Bryan Southern Bell - Winter Park
Secretary/Treas.	Mr. R. B. Kolsby Winter Park Telephone Co.

OCEANS 76 - MTS-IEEE CONFERENCE

Washington, D.C. — Economic potentials of the oceans including deep sea mining for manganese nodules, fisheries, Law of the Sea and international implications, and remote sensing of the sea by satellites and other sensors are features of the technical sessions scheduled for OCEANS 76 to be held here September 13-15.

This second annual combined conference of the Marine Technology Society and the Council on Oceanic Engineering of the Institute of Electrical and Electronic Engineers will have overtones of the U.S. Bicentennial celebration that are focused on the Nation's capital.

The 130 papers to be presented cover a wide spectrum of ocean oriented activities with strong emphasis on the development and utilization of ocean resources, environmental observation, offshore coastal activities and the associated ocean engineering and marine technology.

The focus on remote sensing will be on the upcoming SEASAT A satellite planned for launch in 1978. Papers will be given on the satellite's imaging radar, radar altimeter, scanning multichannel microwave radiometer and microwave scatterometer.

OCEANS 76 will be held in Washington's Sheraton-Park Hotel. For information write OCEANS 76, MTS, 1730 M Street, N.W., Washington, D.C. 20036. Telephone (202) 659-3251.

IEEE PLAYS KEY ROLE IN PASSAGE OF SCIENCE POLICY LEGISLATION

On Tuesday, May 11, President Gerald Ford signed into law the National Science, Engineering and Technology Policy and Priorities Act (PL 94-282), which creates an Office of Science and Technology Policy in the Office of the President. Passage of this legislation represents a victory for the engineering community. IEEE, along with other major engineering societies, played a key role in working for passage of this Bill which recreates the position of Science Adviser to the President, a position abolished several years ago by Nixon administration.

Invited to attend the bill signing ceremony in the White House Rose Garden were IEEE President, Joseph K. Dillard; IEEE Vice President, Professional Activities, James H. Mulligan, Jr., and United States Activities Board Vice Chairman, Hans C. Cherney.

ORLANDO SECTION NOTES

Published monthly by the Orlando Section except during the months of July and August. Inquiries concerning advertising and/or announcements should be forwarded to Mr. Charles R. Curley, 6655 Durange Ct., Orlando, Fla. 32809.

1975-1976 EXECUTIVE COMMITTEE

		BUSINESS	RESIDENCE
*Chairman	Harold Downing	351-9962	628-0676
*Vice Chairman	Dr. Ed McCarter	275-2548	647-0134
* Secretary	Bill Rhoden	859-2900	671-3469
* Treasurer	John Boyton	423-0555	339-8077
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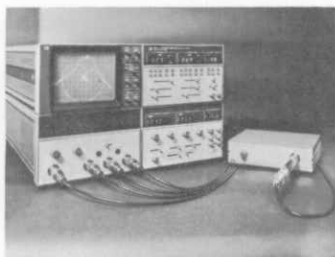
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MODEL 8505A
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