

IEEE

THE ORLANDO SECTION MONTHLY

Volume XXVIII, Number 1



The Newsletter of the Orlando Section of the IEEE

August 1994

1994 IEEE Orlando Section Installation Banquet

by Dr. Ali Atashroo, Awards Chairman

The annual IEEE Orlando Section installation banquet was held on June 12th at Lee's Lakeside Restaurant on Lake Eola in downtown Orlando. **Dr. Parveen Wahid**, the Programs Chair was responsible for the banquet arrangements and had invited **Ms. Sandra Quinn**, Director of the Orlando Science Center to be the speaker for the evening. Ms. Quinn gave an interesting and informative presentation on the plans for the expansion of the Center. There appears to be many science projects planned where Section members could volunteer their time and expertise.

Dr. Ali Atashroo presented four Section awards at the banquet based on the selection made by the Awards Committee. The Awards Committee is comprised of the Awards Chairman, The Section Chairman, Vice Chairman, Treasurer and Secretary.

The *Outstanding Corporate Award* was presented to **Hewlett-Packard, Orlando** in recognition of their continued support of the Section. The Executive Committee meetings are held monthly at Hewlett-Packard and in addition to allowing us to use their facilities, Hewlett-Packard also provides members with refreshments! The award was accepted by **Ron Miller** of Hewlett-Packard who is the Section Membership Development Chairman.

The *Outstanding Service Award* was presented to **Dr. Issa Batarseh** from the Electrical and Computer Engineering Depart-



Laurie Dunn (left, for Walter Arceneaux) Outstanding Chapter; Ron Miller, Outstanding Corporate Award; Jorge Medina, Outstanding Entrepreneur Award, and Dr. Issa Batarseh, Outstanding Service Award.

ment of the University of Central Florida. Dr. Batarseh served as the Section Conference Chairman, the Interim Chair for the PE/IA chapter and was the Chairman for SouthCon '94 held in Orlando in March. He organized a large number of technical sessions at SouthCon on topics of current interest in addition to having a high level of participation by companies at the technical exhibition.

The *Outstanding Entrepreneur Award* was given to **Jorge Medina**. Jorge is solely responsible for forming the Consultants Network Working Group. In a short period of time he has built up a strong and active group and has organized several meetings over the year. This is another example of Jorge's dedi-



Outgoing Executive Board: Dave King, Treasurer (left); Jackie Hines, Chairman; Dr. Parveen Wahid, Vice Chairman; Dr. Kalpathy Sundaram, and Laurie Dunn, Chapters Chairman.

cation and capability and he has added another important dimension to the Sections activities.

The *Outstanding Chapter Award* was presented to the AP/MTT Chapter whose Chairman was **Walter Arceneaux**. The Chapter was voted outstanding based on a formula which takes into account the number of meetings held during the year, the number of attendees and the numbers in the chapter.

The Awards Chairman also presented *Certificates of Appreciation* to the Chapter Officers and the Committee Chairmen for their services to the Section. **Jackie Hines**, the outgoing Section Chairman presented Certificates of Appreciation to the Section Officers and thanked them for their support



Incoming Executive Board: Dr. Parveen Wahid, Chairman (left); Dave King, Vice Chairman; Dr. Kalpathy Sundaram, Treasurer; Michael Germain, Secretary (not shown), and Laurie Dunn, Chapters Chairman.

during her tenure as the Chairman. Jackie then turned over the gavel to the incoming chairman, **Dr. Parveen Wahid** and presented her with the Section Chairman's pin. Dr. Wahid introduced the new Section officers: **David King**, Vice Chairman, **Dr. Kalpathy Sundaram**, Treasurer, **Michael Germain**, Secretary, **Laurie Dunn**, Chapters Chairman. She thanked the members for this opportunity to serve the Section and bid farewell to all.

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Region 03 Council 05 Section 51

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Dr. Parveen Wahid, Section Chairman
CHAIRMAN'S CORNER

It is my pleasure to serve as the IEEE Orlando Section Chairman this year. The Executive Committee members are **David King, Dr. Kalpathy Sundaram, Mike Germain, and Laurie Dunn** who will serve as the Vice'Chairman, Treasurer, Secretary and Chapters Chair respectively. All of them have been active members of the Section for many years and we are all looking forward to an exciting year for the Section.

Our Section has many achievements to be proud of. We have won the IEEE Exemplary Section award and we have sponsored and helped with successful conferences such as the GlobeCom and the World Congress on Computational Intelligence. Our successful establishment of the video library has been praised by the national IEEE headquarters. All this has been possible because of the active and dedicated participation of our Section officers and members over the years.

The Strategic Planning Committee headed by **Dave King** needs volunteers and suggestions for involvement with local communities and ways to utilize the Section's financial resources to benefit our members. The Section is sponsoring the National Telesystems Conference in May 1995 and the National Industry Applications Society Conference in October 1995. There is a tremendous amount of work involved in their organizing and planning. Members interested in helping with these, please contact the Conference Chair, **Dr. Issa Batarseh**. **Jorge Medina** has upgraded our Voice Mail system and **Dr. Ali Atashroo** has set up the Bulletin Board System (BBS) for the Section which should be fully operational soon. Look for details on the BBS to be published in the Section Newsletter in the near future.

Be sure to check your Section Newsletter for the calendar of events for each month. A reminder to all the Chapter Chairs that the chapters are required to have four meetings per year to remain valid chapters. The Chapters Chair, **Laurie Dunn** can assist you in organizing your meetings or in scheduling joint chapter meetings.

The Executive Committee meetings are held on the first Tuesday of each month at 5:30 P.M. at Hewlett-Packard, 6177 Lake Ellenor Drive. The Section officers are strongly encouraged to attend these meetings. Your participation and help is needed to enable us to succeed in our endeavor to serve our Section members.

Orlando Section Monthly Advertisement Rates

The Orlando Section of the IEEE encourages placement of technical, professional, promotional, and commercial advertisement in the Orlando Section Monthly. This newsletter, read by more than 1,400 members and over 200 key area industries, is published 11 times a year, August through June. The due date for the receipt of the camera ready ad and payment is the 1st Tuesday of the month preceding the month of publication.

Ad Size	Rate	Discounted Rate (more than one issue)
Two-Page	\$450	\$390
Full Page	\$300	\$255
3/4 Page	\$255	\$225
2/3 Page	\$225	\$195
Half Page	\$195	\$165
1/3 Page	\$165	\$135
1/4 Page	\$135	\$105
1/6 Page	\$80	\$72
Business Card	\$50	\$35
2 Page Preprinted Insert	\$292	\$252
Full Page Preprinted Insert	\$195	\$165

Please call the IEEE Orlando Voice Information Center to place your ads or mail your camera ready material and payment to:

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Meeting Announcements

Unless otherwise stated, non-IEEE members are welcome to attend the meetings listed here. Members are encouraged to invite and bring guests to these events.

CONSULTANT'S NETWORK

*Simple Things You Can Do Today
To Increase Your Business Tomorrow*

Abstract: This seminar will cover:

1. How to write ads and direct mail letters that pull significant responses.
2. How to convert one shot sales into repeat customers.
3. Creative ideas to get appointments with people who are difficult to reach.
4. The most powerful marketing system a consultant can use to get more business.
5. Question and answer session.

All attendees are encouraged to bring samples of letters, flyers, and any other promotional material. Suggestions will be offered right then and there!

Speakers: Mr. & Mrs. Kent Lindemann, The Home Office and Small Business Association, Inc. The Lindemann's have been in the marketing business for almost five years and have had substantial success increasing the sales of their clients, most of whom are small companies or home-based businesses. For example, they increased one client's sales volume by \$2.5 million over two years...with another they increased their sales by 300% in one month...and with yet another independent businessman, they increased his income for one quarter by \$100,000 in less than one year.

Date: Tuesday, August 9th, 1994

Time: 6:00 PM Meeting,
6:30 PM Seminar

Location: Orlando Public Library,
3rd. Floor

Contact: Please RSVP to Jorge Medina
at (407) 260-1676, ext. 400.

Consultants' Workshop A Success

Recognizing the importance of its educational mission, IEEE-USA's Alliance of IEEE Consultant's Networks held its first workshop on April 23 in Anaheim, California. The event attracted more than 100 consultants from all parts of the United States.

The workshop was divided into four panel sessions, covering such issues as marketing, legal and tax considerations, client referral systems, and ideas for starting and running a consulting business. In each session, panelist gave brief presentations followed by questions from attendees and discussion.

Linda Resnick, author of *A Big Splash In A Small Pond - Finding A Great Job In A Small Company*, spoke at the marketing session. Mel Kaufmann, who leads seminars that teach businesspeople how to network effectively, was the luncheon speaker. Both he and Resnick emphasized that networking - the development of relationships or mutual benefit - is the key to consulting success.

The workshop featured quality speakers, and attendees showed great interest and involvement. Annual workshops are planned, to be held on both the east and the west coasts. Watch for announcements of dates and locations. For more information, contact the IEEE consultant's network. ♦

Engineering Employment Guides Available

As part of its employment assistance efforts for members, IEEE-USA has reprinted both editions of its popular two-volume *Employment Guide for Engineers and Scientists*. Subtitled "A Practical Job Hunter's Manual," the Guide covers all aspects of finding or changing employment.

One edition is written specifically for engineers and scientists who have employment experience. An alternate edition is written for students and contains basic information about how to conduct a job search. The companion volume to both editions is a *Directory of Employers of Engineers*. Listing hundreds of companies by state, including phone numbers and contact persons.

IEEE-USA provides complimentary copies of the Guide to unemployed U.S. members above student grade. These publications are

also sold through IEEE's Service Center at a cost of \$14.95 to members and \$19.95 to non-members, plus tax and shipping, for either edition. To order, call (800) 678-IEEE and request IEEE Catalog No. UH0186-7 for the experienced engineer edition or UH0188-3 for the student edition. ♦

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EVENTS CALENDAR

For the latest information call the IEEE Orlando Voice Information Center (407) 260-1676 or BBS (407) 539-0084

- | | |
|-----------|---|
| Aug 2 | IEEE Orlando Section - EXCOM - Hewlett-Packard, P. Wahid, (O) 823-2610, (H) 677-0571 |
| Aug 9 | IEEE CN - Simple Things You Can Do Today To Increase Your Business Tomorrow - OPL, 3rd Floor, J. Medina, (O) 260-167 |
| Sep 2 | SOUTHCON '95 - Call For Sessions and Papers Deadline - Electronic Conventions Management (800) 877-2668 ext. 250 |
| Sep 6 | IEEE Orlando Section - EXCOM - Hewlett-Packard, P. Wahid, (O) 823-2610, (H) 677-0571 |
| Sep 13 | IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676 |
| Oct 3-5 | WirelessWorld Conference & Exhibition - The Stouffer Orlando Resort, Orlando, S. Hanaway (913) 967-1856 |
| Oct 4 | IEEE Orlando Section - EXCOM - Hewlett-Packard, P. Wahid, (O) 823-2610, (H) 677-0571 |
| Oct 11 | IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676 |
| Oct 17-20 | ICALEO '94 - The Laser Applications Conference and Exhibit - Orlando Airport Marriott, Laser Inst. of America (407) 380-1553 |
| Nov 1 | IEEE Orlando Section - EXCOM - Hewlett-Packard, P. Wahid, (O) 823-2610, (H) 677-0571 |
| Nov 8 | IEEE CN - TBA - OPL, 3rd Floor, J. Medina, (O) 260-1676 |
| Dec 5-9 | IEEE C - 10th Computer Security Applications Conf. - Orlando, G. Smith (703) 734-5611 |
| Dec 6 | IEEE Orlando Section - EXCOM - Hewlett-Packard, P. Wahid, (O) 823-2610, (H) 677-0571 |
| Dec 13 | IEEE CN - TBA - OPL, 3rd Floor, J. Medina, (O) 260-1676 |
| Dec 14-16 | IEEE CSS - The 33rd IEEE Conference on Decision and Control - Lake Buena Vista, M. Masten, 214-462-3433 |

NEED ANY ASSISTANCE?

The Referral Service of the IEEE CONSULTANTS NETWORK OF ORLANDO has over 60 engineering, technical and managerial consulting professionals available to help you with your particular problem. The Network's ethical code ensures the highest professional standards. There is no charge for referrals.

Tel: (407) 260-1676, FAX: (407) 260-1636
P.O. BOX 521917, LONGWOOD, FLORIDA 32750

ORLANDO MEMBERS! USE THE IEEE PROFESSIONAL ASSISTANT NETWORK

We offer unemployed Orlando Section members an opportunity to run a **FREE** position wanted ad in the Orlando Section Monthly. Write your own ad copy and mail or fax it to the Orlando Section Monthly editorial office. Your ad will appear in the next available issue.

ICALEO '94

The Laser Applications Conference and Exhibit
Oct. 17 - 20, 1994 • Orlando Airport Marriott

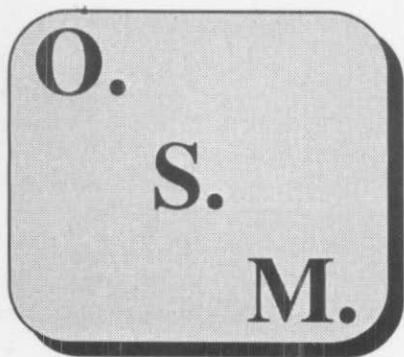
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407-380-1553

Call Laser Institute of America for more information.
Ask for an Advanced Program and a free exhibit pass.

POSITION WANTED

Electrical Engineer seeking entry-level engineering position in Orlando, Florida area. MS Electrical Engineering (Circuits Concentration) Boston University, BA Economics and Mathematics. Course work and experience including Lasers and Optics, Integrated Circuit Fabrication Technology, VLSI Circuit Design, and Digital Signal Processing. Extensive computer experience, programming (C, Assembly), circuit design, layout, and construction. Excellent verbal and written skills, outgoing, and hard working. Call Douglas (407) 677-6892.



IEEE

THE ORLANDO SECTION MONTHLY

Volume XXVIII, Number 2



The Newsletter of the Orlando Section of the IEEE

September 1994

Meeting Announcements

Unless otherwise stated, non-IEEE members are welcome to attend the meetings listed here.
Members are encouraged to invite and bring guests to these events.

CONSULTANTS' NETWORK

Artificial Neural Systems

Program : This is a two-hour video technical tutorial seminar.

Date: Tuesday, September 13, 1994

Time: 6:00 PM Meeting,
6:30 PM Seminar

Location: Orlando Public Library,
3rd. Floor

Contact: Please RSVP to Jorge Medina
at (407) 260-1676, ext. 400.

POWER ENGINEERING/ INDUSTRY APPLICATIONS/ POWER ELECTRONICS

*Power Electronics Applications in
Transmission and Distribution:
Flexible AC TRansmission Systems
(FACTS) and Customer Power*

Date: Tuesday, September 20, 1994

Time: 6:00 PM Dinner,
7:00 PM Technical Meeting

Location: Steak & Ale located at 828
N. Semoran Blvd. (Intersec-
tion of SR 50 and SR 436)

Contact: Bob Gray 281-3269
Gary Engemann 240-9013

SIGNAL PROCESSING

Multirate DSP

Speaker : Dr. T. Kasparis

Date: Wednesday, September 21, 1994

Time: 5:30 PM Meeting,

Location: University of Central Florida,
Room 407

Contact: Dr. T. Kasparis 823-5913 (O),
671-2491 (H).

ORLANDO SECTION AND CONSULTANTS' NETWORK JOINT SEMINAR

The Engineer and the Courts

GENERAL DESCRIPTION OF SEMINAR
This seminar will overview the various relationships that the engineer has with the legal system. The program outline follows:

BENEFITS OF PROGRAM

This program can benefit the participant in the following ways:

- 1) Provide a general background in legal procedures and attorney maneuvers both in and out of the courtroom
- 2) Provide guidelines for giving depositions and courtroom testimony
- 3) Present typical legal traps that tend to

make engineers look foolish or otherwise neutralize their testimony

- 4) Provide guidelines for executing forensic investigations, and
- 5) Provide acceptable methods for legal documentation for project notes and design documents

WHO SHOULD ATTEND

- Design engineers
- Managers of design engineers
- Engineers who serve as expert witnesses
- Engineers who may be called as a witness on a technical issue
- Code and safety inspectors and investigators
- Claims representatives responsible for hiring technical consultants

ABOUT THE SPEAKER

David A. Conner, a Registered Professional Engineer in four states, has specialized in teaching engineers proper design techniques. In addition, he has extensive experience as a consultant to the legal profession in the preparation of cases for litigation. Dr. Conner holds bachelor's and master's degrees in electrical engineering from Auburn University and a doctorate in electrical engineering from the Georgia Institute of Technology. He is a Past Director of IEEE.

See The Engineer and the Courts, page 3

IEEE ORLANDO SECTION

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SRC: Eunice Conde, UCF, (H) 240-3234

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Dr. Parveen Wahid, Section Chairman
CHAIRMAN'S CORNER

The first executive committee meeting for the year was held on August 2. **Jorge Medina** informed the committee that the Consultants' Network can now operate as a Chapter. There are 60 members in our Orlando Consultants' Network. A national conference of all the Consultants' Network chapters is currently being planned. The section needs a Chairman for the PACE committee. **Laurie Dunn** has written up guidelines for all the Chapter Chairs to help them carry out their activities for the year. Unfortunately, many chapter chairs were not present at the meeting. A proposal for the annual budgets for the chapters has to be presented at the September 5 meeting, so please attend the meeting or send in your budget to Dr. Sundaram before the meeting.

Dr. Ratan Guha reported that the World Congress on Computational Intelligence held in Orlando in June was a big success. There were 1,700 participants and about 400 volunteers at the conference. He thanked the section for its support and the members who volunteered their time. A portion of the profit comes to our section - the exact amount will be known as soon as the accounts are completed.

The Strategic Planning Committee has decided to utilize the bulletin board system to interact with the members. This will reduce the need to hold meetings. The committee welcomes inputs and suggestions from all the section members.

The annual Family Fun Day will be held at Wet'n Wild and is scheduled for October 15. Please mark your calendars and look for details in the next issue of the newsletter.

The next Executive Committee meeting will be held on September 5 at Hewlett Packard, 6177 Lake Ellenor Drive at 5:30 p.m. Please join us!

JOB BANK USA

IEEE-USA, in conjunction with Job Bank USA is offering members a new, inexpensive job referral service. Job Bank USA is one of the premier employment data base companies in the country. Their "Career Advancement Service" is an all-purpose employment resource with a state-of-the-art computerized data base of prospective employees in all technical and professional fields, at all skill and management levels, across all industries, and in all regions of the country. For more information, please have your members contact the voice mail system at (800)296-1USA or (703)847-1706 to leave a name and address so that the enrollment form can be mailed to them.

Orlando Section Monthly Advertisement Rates

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1/4 Page	\$135	\$105
1/6 Page	\$80	\$72
Business Card	\$50	\$35
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The Engineer and the Courts

Orlando Section and Consultants' Network Joint Seminar Presentation by David A. Conner

- A. Role and Scope of the Technical Consultant/Expert Witness
 - Functions of the technical consultant/expert witness
 - Work for the plaintiff
 - Work for the defendant
- B. Beginning as a technical consultant/expert witness
 - Getting started as a consultant/expert witness
 - What to do when you get a case
 - Some of the issues of concern when investigating an accident
 - General comments
- C. A "Big Picture" of the legal system from the viewpoint of the technical consultant/expert witness
 - Order of discovery (pre-trial activities)
 - Court proceedings
 - Areas where significant help can be given in developing a case in the "discovery" phase
 - Types of witnesses
 - Questioning of a technical/expert witness during trial
 - Rules for questioning
- D. Testimony of the technical/expert witness
 - Pre-deposition activities
 - At the deposition
 - When you review your deposition for signature
 - At the trial
 - Be prepared for
 - Quotations from...
 - A good reference

DATE: Saturday, November 12, 1994
 TIME: 9:00 AM to 1:00 PM
 LOCATION: Univ. of Central Florida
 COST: Free to IEEE members; \$100 to non-IEEE members (includes IEEE membership for 1 year)
 RESERVATIONS:
 Jorge Medina 260-1676,
 Dr. Parveen Wahid
 823-2610 (O), 677-0571 (H)

AUTO RESPONSE FILE

Several pages of information about employment assistance available from IEEE-USA can be accessed on an Internet auto response file. To use this service you only need mail capability. Send a message to: info.ieeeusa.employ@ieee.org and a message will be sent back with the information (an excellent handout for unemployed members).

KINKO'S COPY CENTER DISCOUNTS

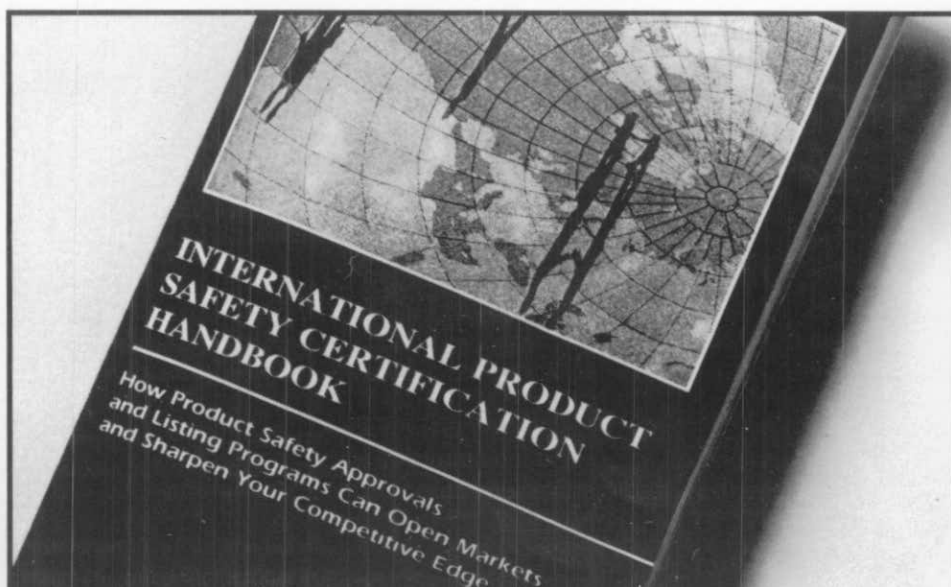
With the assistance of the IEEE-USA Employment Assistance Committee, IEEE has signed an agreement with Kinko's Copy Centers to provide a 10% discount to IEEE members. This discount applies in any Kinko's Copy Center and covers most services, including data processing, laser printing, resume creation, FAX, color copies, binding, counter service, self-service, stationery and supplies. Check with the manager of the Kinko's near you for exact details. Call (800) 743-COPY for the location of the nearest Kinko's.

CONSULTANTS' NATIONAL REFERRAL SERVICE BEGINS THIS MONTH

The AICN Consultants' National Referral Service (CNRS) with no client cost and 24-hour turn-around will begin operations this month. Located at IEEE-USA's Washington Office with a toll-free 800 number, it will provide clients access to IEEE private practitioner member services.

This month IEEE consultants will be mailed an offer to join the CNRS and a detailed Professional Data Input Request Form. A replay via 3-1/2 inch disk DOS format media to reduce the cost of database entry is encouraged. The form will contain instructions with examples to help private practitioners to describe their engineering skills without ambiguity.


All IEEE members who decide to list their services with the CNRS must agree to: (1) abide by the AICN CNRS Code of Ethics, (2) conform to all pertinent State licensing regulations, and (3) keep the service informed of their availability.



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- | | |
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| Sep 2 | SOUTHCON '95 - Call For Sessions and Papers Deadline -Electronic Conventions Management (800) 877-2668 ext. 250 |
| Sep 6 | IEEE Orlando Section - EXCOM - Hewlett-Packard, P. Wahid, (O) 823-2610, (H) 677-0571 |
| Sep 13 | IEEE CN - Artificial Neural Systems - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676 |
| Sep 20 | IEEE PE/IA/PEL - Power Electronics Applications - Steak & Ale, SR50 & SR 436, B. Gray (O) 281-3269 |
| Sep 21 | IEEE SP - Multirate DSP - UCF, Room 407, T. Kasparis (O) 823-5913, (H) 671-2491 |
| Oct 3-5 | WirelessWorld Conference & Exhibition - The Stouffer Orlando Resort, Orlando, S. Hanaway (913) 967-1856 |
| Oct 4 | IEEE Orlando Section - EXCOM - Hewlett-Packard, P. Wahid, (O) 823-2610, (H) 677-0571 |
| Oct 11 | IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676 |
| Oct 15 | IEEE Orlando Section - Family Fun Day - Wet'n Wild, D. King, (O) 862-9094, (H) 628-4462 |
| Oct 17-20 | ICALEO '94 - The Laser Applications Conference and Exhibit - Orlando Airport Marriott, Laser Inst. Of America (407) 380-1553 |
| Nov 1 | IEEE Orlando Section - EXCOM - Hewlett-Packard, P. Wahid, (O) 823-2610, (H) 677-0571 |
| Nov 8 | IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676 |
| Nov 12 | IEEE Orlando Section/CN - The Engineer and the Courts - UCF, J. Medina, (O) 260-1676, P. Wahid, (O) 823-2610, (H) 677-0571 |
| Dec 5-9 | IEEE C - 10th Computer Security Applications Conf. - Orlando, G. Smith (703) 734-5611 |
| Dec 6 | IEEE Orlando Section - EXCOM - Hewlett-Packard, P. Wahid, (O) 823-2610, (H) 677-0571 |

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We offer unemployed Orlando Section members and local IEEE oriented firms an opportunity to run a **FREE** position wanted and position available ads, respectively, in the Orlando Section Monthly. Write your own ad copy and mail or fax it to the Orlando Section Monthly editorial office. Please include your membership number. Your ad will appear in the next available issue.

ICALEO '94

The Laser Applications Conference and Exhibit
Oct. 17 - 20, 1994 • Orlando Airport Marriott

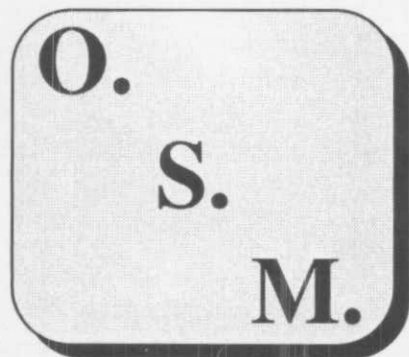
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IEEE

THE ORLANDO SECTION MONTHLY

Volume XXVIII, Number 3



The Newsletter of the Orlando Section of the IEEE

October 1994

Meeting Announcements

Unless otherwise stated, non-IEEE members are welcome to attend the meetings listed here.
Members are encouraged to invite and bring guests to these events.

CONSULTANTS' NETWORK

*Neural Networks:
Adaptive Pattern Recognition*

Program: This is a two-hour video technical tutorial that overviews neural networks from early linear models to some current systems that can solve real-world problems. Various learning systems from the Perceptron to Back Propagation and multiple-RCE networks are discussed as well as relaxation networks such as Hopfield model. A multiple RCE neural network system that can efficiently and rapidly learn to separate enormously complex decision spaces and coordinate many neural networks, each a specialist in dividing a portion of the decision space, is discussed in some detail.

Speaker: Mr. Leon Cooper, Department of Physics and Center for Neural Sciences, Brown University.

Date: Tuesday, November 8, 1994

Time: 6:00 PM Meeting
6:30 PM Video Tutorial

Location: Orlando Public Library,
3rd. Floor, Magnolia Room

Contact: Please RSVP to Jorge Medina at (407) 260-1676, ext. 400, or Peter Hoyles at (904) 737-9686

POWER ENGINEERING/ INDUSTRY APPLICATIONS/ POWER ELECTRONICS

*Photovoltaics:
A Viable Generating Option*

Speaker: Mr. Edward Sabisky

Date: Tuesday, October 18, 1994

Time: 6:00 PM Dinner

7:00 PM Technical Meeting

Location: Morrison's on Colonial Dr.

Contact: Bob Gray 281-3269

Gary Engemann 240-9013

ORLANDO SECTION AND CONSULTANTS' NETWORK JOINT SEMINAR

The Engineer and the Courts

GENERAL DESCRIPTION OF SEMINAR
This seminar will overview the various relationships that the engineer has with the legal system. The program outline follows:

BENEFITS OF PROGRAM

This program can benefit the participant in the following ways:

- 1) Provide a general background in legal procedures and attorney maneuvers both in and out of the courtroom
- 2) Provide guidelines for giving depositions and courtroom testimony
- 3) Present typical legal traps that tend to

make engineers look foolish or otherwise neutralize their testimony

- 4) Provide guidelines for executing forensic investigations, and
- 5) Provide acceptable methods for legal documentation for project notes and design documents

WHO SHOULD ATTEND

- Design engineers
- Managers of design engineers
- Engineers who serve as expert witnesses
- Engineers who may be called as a witness on a technical issue
- Code and safety inspectors and investigators
- Claims representatives responsible for hiring technical consultants

ABOUT THE SPEAKER

David A. Conner, a Registered Professional Engineer in four states, has specialized in teaching engineers proper design techniques. In addition, he has extensive experience as a consultant to the legal profession in the preparation of cases for litigation. Dr. Conner holds bachelor's and master's degrees in electrical engineering from Auburn University and a doctorate in electrical engineering from the Georgia Institute of Technology. He is a Past Director of IEEE.

See The Engineer and the Courts, page 3

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Dr. Parveen Wahid, Section Chairman

CHAIRMAN'S CORNER

I am happy to announce that **Dr. Ratan Guha** has agreed to be our **PACE** Chairman and **Dr. Mark Goudreau** has signed up to be the Computer Chapter Chair. Both are from the UCF Computer Science Department - welcome aboard! **Jorge Medina** has upgraded the voice mail system so that members listed in the Consultant's Network directory can have access to the system. This can be used as a referral system for consultants. A sub bulletin board has been established for the Strategic Planning Committee. Members are encouraged to log in to check inputs and share ideas with other members. To log in, dial 539-0884, select 'Conferences' and then J (for joining) and finally SIG for the Special Internet Group, this should get you into the sub bulletin board.

Arrangements have been made for **David Conner** to have his seminar on *The Engineer and the Courts* at UCF in the Health and Physics building (HPB), room 260 on November 12 from 9:00 A.M. to 1:00 P.M. Look for details in the section newsletter.

The Chapter budgets for the coming year have to be voted on at the October meeting. Chapter Chairs who have not submitted their budgets, please send them in to **Dr. Sundaram** as soon as possible or, be sure to bring them to our next meeting.

Our annual *Family Fun Day* has been set for October 15, at Wet'n Wild. **Dave King**, Programs Chair, has made all the arrangements. The tickets are available -

\$10 for adults and \$5 for children ages 3-12. The section will once again underwrite a considerable portion of the cost for this event. Check the details of the program in the insert in this newsletter. Only 200 tickets are available, so call your Chapter Chairman early to get your tickets.

At the September Executive Committee meeting it was decided to move the Section's monthly Executive Committee meetings to UCF. Please make note of this change. *The next meeting will be on Tuesday, October 4, at 6:00 P.M. at UCF in the Engineering Building, room ENGR 288.* I look forward to seeing you all at the meeting.

Orlando Section Monthly Advertisement Rates

The Orlando Section of the IEEE encourages placement of technical, professional, promotional, and commercial advertisement in the Orlando Section Monthly. This newsletter, read by more than 1,400 members and over 200 key area industries, is published 11 times a year, August through June. The due date for the receipt of the camera ready ad and payment is the 1st Tuesday of the month preceding the month of publication.

Ad Size	Rate	Discounted Rate (more than one issue)
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The Engineer and the Courts

Orlando Section and Consultants' Network Joint Seminar Presentation by David A. Conner

- A. Role and scope of the technical consultant/expert witness
 - Functions of the technical consultant/expert witness
 - Work for the plaintiff
 - Work for the defendant
- B. Beginning as a technical consultant/expert witness
 - Getting started as a consultant/expert witness
 - What to do when you get a case
 - Some of the issues of concern when investigating an accident
 - General comments
- C. A "Big Picture" of the legal system from the viewpoint of the technical consultant/expert witness
 - Order of discovery (pre-trial activities)
 - Court proceedings
 - Areas where significant help can be given in developing a case in the "discovery" phase
 - Types of witnesses
 - Questioning of a technical/expert witness during trial
 - Rules for questioning
- D. Testimony of the technical/expert witness
 - Pre-deposition activities
 - At the deposition
 - When you review your deposition for signature
 - At the trial
 - Be prepared for
 - Quotations from...
 - A good reference

DATE: Saturday, November 12, 1994

TIME: 9:00 AM to 1:00 PM

LOCATION: UCF, Health & Physics
Building, Room 260

COST: Free to IEEE members; \$100 to
non-IEEE members (includes
IEEE membership for 1 year)

RSVP: Jorge Medina 260-1676,
Dr. Parveen Wahid
823-2610 (O), 677-0571 (H)

◆
WELCOME!

**New Senior Members
in the IEEE Orlando Section**

J. Ronald Jarvis
Walter W. Buchanan

IEEE UNITED STATES ACTIVITIES 1995 EXECUTIVE FELLOWSHIPS CALL FOR APPLICATIONS

NOTICE: IEEE-USA and its U.S.A. Competitiveness Committee seek candidates for one-year Executive Fellowships beginning in January 1995. Executive Fellows will assist the Under Secretary of Commerce for Technology in the U.S. Department of Commerce's Technology Administration. The Under Secretary will determine the Fellows' specific responsibilities.

PURPOSE: The program, supported in part by the Alfred P. Sloan Foundation, seeks to make practical contributions to U.S. competitiveness. The Executive Fellows provide a resource of industrial experience and scientific and technical knowledge to key government policymakers, and help to broaden the perspectives of both the professional and governmental communities on the value of such interaction.

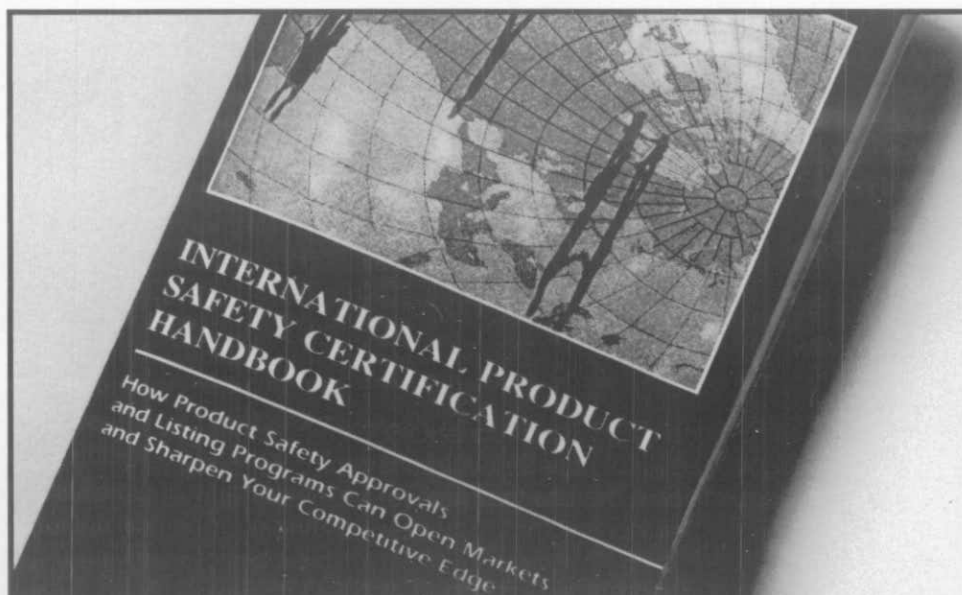
CRITERIA: Applicants must demonstrate the following:

- U.S. citizenship, and IEEE membership at Member Grade or higher for at least four years;
- Technical competence and senior management experience in industrial R&D, electronics, manufacturing technologies or related fields;
- Strong interest and experience in applying technical knowledge to the formulation of policies that enhance U.S. technological competitiveness;
- A history of service to the profession.

STIPEND: The Executive Fellowship will provide a stipend of \$24,000 for living and moving expenses during the fellowship term. Fellows, or their employers, will be responsible for salaries and all other expenses.

APPLICATION: For further information and application forms, contact Chris J. Brantley at 202-785-0017, fax 202-785-0835 or c.brantley@ieee.org (e-mail); or write to the Secretary, Executive Fellowship Program, IEEE USA, 1828 L S. NW, Suite 1202, Washington, DC 20036-5104.


Application Deadline: October 3, 1994



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| Nov 15 | IEEE PE/IA/PEL - Utility Deregulation in Florida - Steak and Ale on Colonial Drive, B. Gray (O) 281-3269 |
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| Dec 13 | IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676 |
| Dec 14-16 | IEEE CSS - The 33rd IEEE Conference on Decision and Control - Lake Buena Vista, M. Masten, 214-462-3433 |
| Dec 16 | SOUTHCON '95 - Manuscripts Deadline - Electronic Conventions Management (800) 877-2668 ext. 250 |

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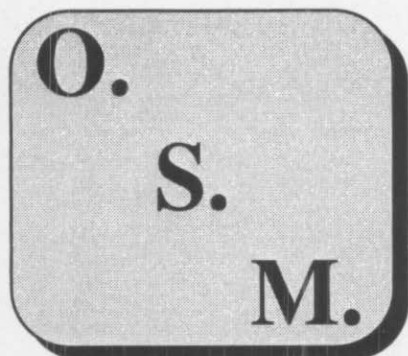
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THE ORLANDO SECTION MONTHLY

Volume XXVIII, Number 4



The Newsletter of the Orlando Section of the IEEE

November 1994

Meeting Announcements

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POWER ENGINEERING/ INDUSTRY APPLICATIONS/ POWER ELECTRONICS

Utility Deregulation in Florida

Speaker: Mr. Mark Futell, Florida
Public Service Commission

Date: Tuesday, November 15, 1994

Time: 6:00 PM Dinner

7:00 PM Technical Meeting

Location: Steak and Ale on Colonial
Dr. and Semoran Dr.

Contact: Bob Gray 281-3269
Gary Engemann 240-9013

SIGNAL PROCESSING

Design of a Machine Vision Demo

Speaker: Mr. David King, Datacube

Date: Wednesday, November 9, 1994

Time: 5:30 PM

Location: UCF, Eng. Bldg., Room 407

Contact: Dr. T. Kasparis (O) 823-
5913, (H) 671-2491

IEEE C/ STUDENT CHAPTER IEEE ORLANDO SECTION

A Tutorial on Fuzzy and Neural Models for Pattern Recognition

Speaker: Dr. Jim Bezdek, U. W. FL.

Date: Saturday, November 19, 1994

Location: UCF, Bus. Bldg., Room 119

Contact: Dr. R. Guha (O) 823-5923.

See page 3 for more information.

ORLANDO SECTION AND CONSULTANTS' NETWORK JOINT SEMINAR

The Engineer and the Courts

GENERAL DESCRIPTION OF SEMINAR

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Time: 9:00 AM to 1:00 PM

Location: UCF, Health and Physics
Building, Room 260

Cost: Free to IEEE members; \$100 to non-IEEE members (includes IEEE membership for 1 year)

RSVP: Jorge Medina 260-1676, Dr.
Parveen Wahid 823-2610 (O),
677-0571 (H).

See The Engineer and the Courts, page 3

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Dr. Parveen Wahid, Section Chairman
CHAIRMAN'S CORNER

The Executive Board members, **Jackie Hines, Dr. Ali Atashroo and Jorge Medina**, met on September 25 to formulate requirements and conditions for individual chapters in the section to maintain their own checking accounts. This resolution was voted on and passed at the October 4 Executive Committee meeting. The PE/IA/PEL chapter has requested establishing its own bank account and this was approved at the Executive Committee meeting. The proposed budgets for the chapters for 1995 was established on the basis of the number of members in the chapter and the past activity record. To reduce the expense of mailing out meeting notices, the Chapter Chairs are encouraged to plan their meetings as early as possible and use the section newsletter to advertise these meetings.

The Computer chapter is planning a tutorial on *Fuzzy and Neural Models for Pattern Recognition*. For more information, please contact **Dr. Ratan Guha (823-2956)** or **Dr. Mark Goudreau (823-2341)**.

For your information, **Dr. Madjid Belkerdid**, the section Historian has all the section minutes and treasurer's reports from the previous years. **Ron Miller**, Membership Development Chair will be resigning his position

in December. We thank Ron for his help in the section and for overseeing the section meeting arrangements at Hewlett Packard. We wish him good luck.

The next Executive Committee meeting will be held on November 1 at 6:00 PM at UCF, engineering building, room 288.



Orlando Section Monthly Advertisement Rates

The Orlando Section of the IEEE encourages placement of technical, professional, promotional, and commercial advertisement in the Orlando Section Monthly. This newsletter, read by more than 1,400 members and over 200 key area industries, is published 11 times a year, August through June. The due date for the receipt of the camera ready ad and payment is the 1st Tuesday of the month preceding the month of publication.

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A Tutorial on Fuzzy and Neural Models for Pattern Recognition

Organized by
IEEE Student Chapter
IEEE Computer Society Student Chapter
IEEE Orlando Section

Presentation by Dr. Jim Bezdek

November 19, 1994
UCF Business Building, Room 119

ABSTRACT: Fuzzy sets were introduced by Zadeh in 1965 to represent and manipulate data and information that possess non-statistical uncertainty. Computational Neural networks were first discussed by McCulloch and Pitts in 1943 as a means for imitating the power of biological systems for data and information processing. This tutorial covers the basic ideas of these two technologies-fuzzy models and computational neural networks; and their use for selected applications in pattern recognition, computer vision and control.

The first section discusses the basic theory of fuzzy sets. Section 2 defines pattern recognition problems. Section 3 includes the nearest neighbor, nearest prototype classifier designs, the hard c-means clustering model, and several well known fuzzy generalizations of each of these. Section 4 discusses fuzzy logic and clustering networks based on learning vector quantization and self-organizing feature map models. Finally, section 4 provides an overview of biological neural networks, their computational analogs (classifier networks), and the relationship of computational neural networks to statistical decision theory and fuzzy models. Applications to low level vision (segmentation and edge detection) are given in sections 4,5, and 6.

SPEAKER: Jim Bezdek received the BSCE from the University of Nevada (Reno) in 1969, and the Ph.D. in Applied Mathematics from Cornell in 1973. He is currently a Professor in the Computer Science Department at the University of West Florida. His previous experience includes the directorship of Boeing's HTC Information Proc. Laboratory, and a term as head of Computer Science at the University of South Carolina.

Jim's interests include optimization, motor-cycles, pattern recognition, fishing, vision and image processing, skiing, computational neural networks, blues music, and medical applications.

Jim is the founding editor of the International Journal *Approximate Reasoning* and the IEEE Transactions on Fuzzy Systems. He is a distinguished lecturer for the IEEE and ACM and is an IEEE fellow.

The Engineer and the Courts

Orlando Section and Consultants' Network Joint Seminar
Presentation by David A. Conner

November 12, 1994

UCF, Health & Physics Building, Room 260

- A. Role and scope of the technical consultant/expert witness
 - Functions of the technical consultant/expert witness
 - Work for the plaintiff
 - Work for the defendant
- B. Beginning as a technical consultant/expert witness
 - Getting started as a consultant/expert witness
 - What to do when you get a case
 - Some of the issues of concern when investigating an accident
 - General comments
- C. A "Big Picture" of the legal system from the viewpoint of the technical consultant/expert witness
 - Order of discovery (pre-trial activities)
 - Court proceedings
 - Areas where significant help can be given in developing a case in the "discovery" phase
 - Types of witnesses
 - Questioning of a technical/expert witness during trial
 - Rules for questioning
- D. Testimony of the technical/expert witness
 - Pre-deposition activities
 - At the deposition
 - When you review your deposition for signature
 - At the trial
 - Be prepared for...
 - Quotations from...
 - A good reference

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Nov 1	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Nov 9	IEEE SP - Design of a Machine Vision Demo - UCF, T. Kasparis, (O) 823-5913, (H) 671-2491
Nov 12	IEEE Orlando Section/CN - The Engineer and the Courts - UCF, J. Medina, (O) 260-1676, P. Wahid, (O) 823-2610, (H) 677-0571
Nov 15	IEEE PE/IA/PEL - Utility Deregulation in Florida - Steak and Ale on Colonial Drive, B. Gray (O) 281-3269
Nov 19	IEEE Orlando Section/C/Student - A Tutorial on Fuzzy & Neural Models for Pattern Recognition - UCF, R. Guha (O) 823-5923
Dec 5-9	IEEE C - 10th Computer Security Applications Conf. - Orlando, G. Smith (703) 734-5611
Dec 6	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Dec 13	IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676
Dec 14-16	IEEE CSS - The 33rd IEEE Conference on Decision and Control - Lake Buena Vista, M. Masten, 214-462-3433
Dec 16	SOUTHCON '95 - Manuscripts Deadline - Electronic Conventions Management (800) 877-2668 ext. 250
Jan 3	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Jan 10	IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676
Jan 17	IEEE PE/IA/PEL - What's New at EPRI - B. Gray (O) 281-3269
Feb 7	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Feb 14	IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676



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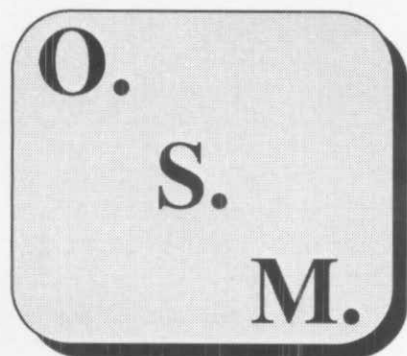
Experienced Electrical Engineer seeking challenging engineering position. Willing to relocate if necessary. BSEE Cornell University, MSEE (Systems and Signal Processing Concentration) University of Central Florida. Experience in Image Processing, Image Compression, Radar feature analysis, Control Systems, Automatic Target Recognition, Signal Processing, Adaptive Filtering, IR Image Synthesis, SIMD programming, Computer experience includes C, C++, UNIX (scripts, csh, IMAKE, AWK), FORTRAN, Sun, VAX, PC. Current EBI.

Call Tim (407) 857-3878.

POSITION WANTED

Electrical Engineer seeking entry-level position with Central Florida company with potential for personal growth and career development. Ten years experience with circuit design and analysis - control systems and power systems. UCF graduate, BSEE. Design course work included Controls, Microwave Circuits, Power Systems and Active Filters. Programming experience using C++. Also proficient with AutoCAD, WordPerfect and DOS. Self-motivated and exceptional communication skills.

Contact Joe Van Dam (407)657-6124



IEEE

THE ORLANDO SECTION MONTHLY

Volume XXVIII, Number 5



The Newsletter of the Orlando Section of the IEEE

December 1994

Meeting Announcements

Unless otherwise stated, non-IEEE members are welcome to attend the meetings listed here.
Members are encouraged to invite and bring guests to these events.

CONSULTANTS' NETWORK

*Summary of the AICNCC Meeting and
Highlights of the CN Workshop*

Speaker: Mr. Peter Hoyles, Vice Chair
IEEE CN of Orlando

Abstract: Mr. Hoyles will present a summary of the Alliance of the IEEE Consultants Network Coordinating Committee (AICNCC) meeting that took place in Newark on October 15, 1994 along with the highlights of the Workshop including: national referral service news, fee setting for consultants, contracts for consultants, and Section 1706 of the IRS tax code.

Date: Tuesday, December 13, 1994

Time: 6:00 PM Meeting

Location: Orlando Public Library,
3rd. Floor, Magnolia Room

Contact: Jorge Medina 407-260-1676,
Peter Hoyles 904-737-9686

SIGNAL PROCESSING

*Self-Adaptive
Equalization/Deconvolution*

Speaker: Dr. Anthony Bessios

Date: Wednesday, December 7, 1994

Time: 5:30 PM

Location: UCF, Eng. Bldg., Room 407

Contact: Dr. T. Kasparis
(O) 823-5913, (H) 671-2491

COMPUTER SOCIETY

*The Tsimmis
Database Integration Project*

Speaker: Professor Jeffrey D. Ullman, completed the B.S. degree in Engineering Mathematics at Columbia University in 1963, and the Ph.D. in Electrical Engineering at Princeton University in 1966. He then was at Bell Labs, Murray Hill, until 1969, and at Princeton University until 1979. Since then, he has been at Stanford University, where he was Chair of the Department of Computer Science for the past four years. He has honorary doctorates from the Free University of Brussels and the University of Paris--Dauphin. He was awarded the Einstein Fellowship from the Israeli Academy of Sciences in 1984, and held a Guggenheim Fellowship during 1988-89. He became a fellow of the National Academy of Engineering in 1989. He is author or coauthor of 14 books and 150 technical publications, including many of the core undergraduate and graduate textbooks in computer science.

Abstract: Tsimmis is an attempt to make it easy for implementers to integrate information from various sources, including databases and "raw" (test, ASCII files) sources. We begin by comparing the Tsimmis mediator approach with other approaches to integration.

The core of the Tsimmis is a "lightweight object" notation called OEM (Object Exchange Model), in which objects have an identifier, label, and value. The label is a name defined in a human-readable "manual;" the value can be atomic or a set of identifiers for other objects. Our objects are "lightweight" because they are not required to conform to any particular type, class, or database schema. We discuss the principal components of Tsimmis, including the LOREL query language, translators and mediators, and methods of generating those components automatically from rules. A central query optimization problem is how to answer queries for which no rules have been defined, but deducing that a sequence of defined queries will work.

Date: Friday, December 2, 1994

Time: 3:00 PM - 4:00 PM

Location: President's Boardroom, 3rd
floor, Administration Building,
UCF Main Campus

Contact: Dr. Mark Goudreau
(O) 823-5923, (H) 264-6170

POWER ENGINEERING/ INDUSTRY APPLICATIONS/ POWER ELECTRONICS

What's New At EPRI

Date: Tuesday, January 17, 1995

Contact: Bob Gray 281-3269

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*Dr. Parveen Wahid, Section Chairman***CHAIRMAN'S CORNER**

The Annual Family Fun day at Wet'n Wild was a huge success with wonderful weather, lots of fun and over 130 members and guests enjoying the day - thanks to **Dave King**, Programs Chairman, who took care of all the arrangements. Dave is already looking ahead and planning our Annual Awards banquet.

The Florida Council will be holding their meeting in Fort Lauderdale this month and I will be representing our Section. This meeting coincides with the IEEE Board meetings and the Florida Council members have an opportunity to meet the Board members at dinner after the meeting. In addition, the Educational Activities Board is holding an Education Chairs Workshop. The workshop will address educational issues and concerns of individuals coordinating education programs. Educational resources available within the IEEE that might be used in planning section education programs will be highlighted. **Dr. Issa Batarseh**, Chairman PE/IA/PEL, will be the Section representative at this workshop - we are looking forward to the information he will be bringing back.

The Computer Chapter has scheduled a technical meeting on December 2. The speaker is **Prof. Jeffrey Ullman** of Stanford University and he will be speaking on "The Tsimmis Database Integration Project". Dr. Ullman is a Fellow of the National Academy of Engineering and is the author or coauthor of 14 books and over 150 technical publications. Details of this meeting can be found in this newsletter.

I am happy to report that our Student Chapter has been extremely active in the past few months. **Dr. Ron DeMara**, Advisor for the Student Chapter, has been working closely with **Matt Skowrowski**, Chapter President, and the students and we appreciate his time and involvement. The Chapter has initiated a biweekly lecture series and has already had 4 lectures with two more planned for November. New student members are being actively recruited and regular chapter meetings have been held. This month the students will be visiting the USF Electric Vehicle Facility, they are also working on the SLAMFEST car and track competition. We are proud of our Student Chapter - keep up the good work.

Finally, I urge all the Chapter Chairs to attend

the Executive Committee meetings. At the last two meetings we have just enough members to have a quorum. I hope to see you all at the coming meetings - your presence and participation is essential. Remember the Executive Committee meetings are held on the first Tuesday of every month. The next meeting will be on December 6 at UCF, engineering building room 288. Mark your calendars - I hope to see you there.

★ **STAR SEARCH** ★**ORLANDO SECTION AWARDS
CANDIDATE SEARCH FORM****1.1 PURPOSE**

To encourage and facilitate the identification of potential candidates for Orlando Section Awards by providing a simple avenue for preliminary consideration by the Awards Committee.

1.2 PROCEDURE

The Submitter fills out the form as indicated and suggests nominators and endorsers to support the nomination. After a review process, some candidates will be selected for nomination. If the Submitter is willing to prepare the nominations forms, the Awards Committee will provide the necessary materials by return mail. If not, the committee will attempt to locate a suitable Nominator. (The members of the Awards Committee are not permitted to nominate or endorse any candidates).

1.3 QUALIFICATIONS

The **OUTSTANDING ENGINEER AWARD** is designed to recognize a member of the Section who, through his technical and professional abilities, has made an outstanding contribution to the electro-technology profession.

The **OUTSTANDING ENGINEERING EDUCATOR AWARD** is designed to recognize a member of the Section who has shared his technical and professional abilities through teaching (in industry, government or in an institution of higher learning) and in so doing has made an outstanding contribution to the electro-technology profession.

The **OUTSTANDING SERVICE AWARD** is designed to recognize a member of the Section who, through his service to the Region and to the Institute, has made an outstanding contribution to the electro-technology profession.

The **OUTSTANDING ENTREPRENEUR AWARD** is designed to recognize a self-employed member of the Section who, through his consulting abilities has made outstanding contributions to the electro-technology profession.

1.4 ELIGIBILITY

- Only IEEE members with 3 years residency in the Orlando Section are eligible.
- A nominee cannot be considered for more than one award simultaneously.
- Current members of the Section Executive Board are not eligible.
- Previous award recipients, even from other Sections, are not eligible for the same award.
- The candidate need not be a member of a Group or Society.

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6. ARE YOU WILLING TO PREPARE THE NOMINATION FORMS YOURSELF? YES _____ NO _____

7. POTENTIAL ENDORSERS (two required who are familiar with nominee, who can attest to his/her contributions and to the importance thereof)

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- Dec 5-9 IEEE C - 10th Computer Security Applications Conf. - Orlando, G. Smith (703) 734-5611
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- Jan 17 IEEE PE/IA/PEL - What's New at EPRI - B. Gray (O) 281-3269
- Feb 7 IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
- Feb 14 IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676
- Mar 7 IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
- Mar 14 IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676



Southcon/95

Electronics Show and Convention

March 7-9, 1995

Greater Ft. Lauderdale/Broward County
Convention Center

Ft. Lauderdale, Florida

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USE THE IEEE PROFESSIONAL
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We offer unemployed Orlando Section members and local IEEE oriented firms an opportunity to run a **FREE** position wanted and position available ads, respectively, in the Orlando Section Monthly. Write your own ad copy and mail or fax it to the Orlando Section Monthly editorial office. Please include your membership number. Your ad will appear in the next available issue.

POSITION WANTED

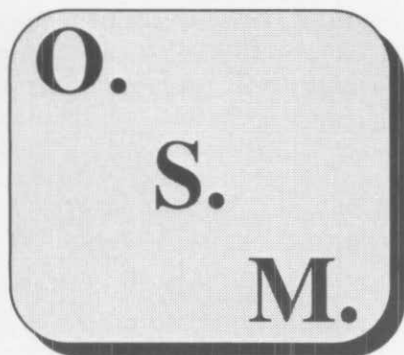
Experienced Electrical Engineer seeking challenging engineering position. Willing to relocate if necessary. BSEE Cornell University, MSEE (Systems and Signal Processing Concentration) University of Central Florida. Experience in Image Processing, Image Compression, Radar feature analysis, Control Systems, Automatic Target Recognition, Signal Processing, Adaptive Filtering, IR Image Synthesis, SIMD programming, Computer experience includes C, C++, UNIX (scripts, csh, IMAKE, AWK), FORTRAN, Sun, VAX, PC. Current EBI.

Call Tim (407) 857-3878.

POSITION WANTED

Electrical Engineer seeking entry-level position with Central Florida company with potential for personal growth and career development. Ten years experience with circuit design and analysis - control systems and power systems. UCF graduate, BSEE. Design course work included Controls, Microwave Circuits, Power Systems and Active Filters. Programming experience using C++. Also proficient with AutoCAD, WordPerfect and DOS. Self-motivated and exceptional communication skills.

Contact Joe Van Dam (407) 657-6124



IEEE

THE ORLANDO SECTION MONTHLY

Volume XXVIII, Number 6



The Newsletter of the Orlando Section of the IEEE

January 1995

Meeting Announcements

Unless otherwise stated, non-IEEE members are welcome to attend the meetings listed here.
Members are encouraged to invite and bring guests to these events.

CONSULTANTS' NETWORK

The Consultant Selection Process

Speaker: Jorge Medina, CN Chairman

Abstract: This presentation will outline the typical activities which occur from the time the need for a consultant is recognized through the day the selected consultant comes on board the assignment. This presentation is intended to be useful to both consultants and their clients in providing a novel perspective of the options available in the selection process.

Date: Tuesday, January 10, 1995

Time: 6:00 PM Meeting

Location: Orlando Public Library,
3rd. Floor, Magnolia Room

Contact: Jorge Medina 407-260-1676

POWER ENGINEERING/ INDUSTRY APPLICATIONS/ POWER ELECTRONICS

Considerations For Specifying Synchronous Generators

Speaker: Lon W. Montgomery, Westinghouse

Date: Tuesday, January 17, 1995

Time: 6:00 PM dinner

7:00 PM technical presentation

Location: Ronnie's, 2702 E. Colonial

Contact: Ken White or Gary
Engmann 240-9000

SIGNAL PROCESSING

Carrying On A Meaningful Conversation With Your Computer

Speaker: Dr. Victor Zue, MIT, Distinguished Lecturer

Date: Tuesday, January 17, 1995

Time: 7:00 PM

Location: UCF, Eng. Bldg., Room 288

Contact: Dr. T. Kasparis
(O) 823-5913, (H) 671-2491

ORLANDO SECTION SPECIAL EXCOM MEETING

Election of Section Secretary

The Executive Board invites nominations for the position of the Secretary of the IEEE Orlando Section. This is an elected position and the elected person will serve through June 1995. We presently have one nominee, **Dr. Michael Georgiopoulos** from UCF, Chair of the Neural Network Working Group. According to the Section by-laws, the members may make additional nominations. The nomination should include a one paragraph biography of the nominee and a statement of the nominee's consent to serve. The nominations should be delivered to Dr. Parveen Wahid, Section Chair, by January 2, 1995.

The responsibilities of the Secretary include preparing the Executive Commit-

tee meeting agenda, the timely reporting of the meeting minutes, obtaining and filing all meeting reports, the filing of all important documents related to the Sections Activities and sending the annual report to the IEEE headquarters by February 1, 1995. The election will take place on January 3, 1995 at 6:00 p.m. at a special meeting of the Executive Committee before the regular monthly meeting.

IEEE Orlando Section 1995 Awards Banquet

Saturday, February 18, 1995

Blazing Pianos

8445 International Drive

6:00 p.m. - 10:00 p.m.

Presentation of Awards

Chapter Engineer-of-the-Year
Outstanding Student Award
Outstanding Section Awards
Florida Council IEEE Award

For reservations or additional
details please contact

David King at
862-9094 or 628-4462

IEEE ORLANDO SECTION

Region 03 Council 05 Section 51

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UFFC: Dr. Rodolfo Almar, Sawtek Inc.
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Neural Network: Dr. M. Georgiopoulos, UCF
(VM) 500, (O) 823-5338, (H) 275-2665

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Strategic Planning: Dave King, Datacube, Inc.
(VM) 690, (O) 862-9094, (H) 628-4462
Jr. Past Chair: Jacqueline Hines, Sawtek Inc.
(O) 886-8860, (H) 628-1604

UCF STUDENT BRANCH

Advisor: Dr. Ron DeMara, UCF
Chairman: Matt Skowrowski (H) 282-9213
SRC: Tim Jackson (H) 671-0244

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*Dr. Parveen Wahid, Section Chairman***CHAIRMAN'S CORNER**

All the Florida IEEE Sections were represented at the Florida Council meeting in Fort Lauderdale in November held in conjunction with the IEEE Board of Director's meeting. Several members of the board stopped in at our meeting to answer questions relating to membership services, rebates, etc. The RAB and TAB have endorsed a change in the number of meetings required by Chapters from four to two per year. This has to be approved by the Board and will be retroactive for 1994. All Sections will now receive a 10% bonus rebate if they file in ALL their reports by February 20, 1995. **Dr. Madjid Belkerdid** was chosen for the Florida Council Outstanding Educator Award. Congratulations Madjid! **Jackie Hines** has forwarded nominations from our Section for the Region 3 awards. The nominees are **Mr. Jorge Medina** for Outstanding Service, **Dr. Gerald Holst** for Outstanding Engineer and **Dr. Madjid Belkerdid** for Outstanding Educator. Good luck to all of you!

Dr. Zhihua Qu, Assistant Professor in the ECE department at UCF, has agreed to be the Membership Development Chair. You will see in this newsletter that we are inviting nominations for the Section Secretary's position. Due to other obligations that **Mike Germain** has he will be unable to fulfill the duties of the Secretary. He will continue to be the Chair of the COM/VT chapter. We thank Mike for his help and participation during the past months.

Dr. Ratan Guha presented the Section with a check for \$4,000. This is a part of the net proceeds from the World Congress on Computational Intelligence held here in June which the Section co-sponsored. Nominations are invited for the Orlando Section Awards. If you know of anyone deserving of the awards please mail in a completed appli-

cation form found on page 3 of this newsletter or contact **Jackie Hines**. **David King** has finalized the arrangements for our annual Awards Banquet - details can be found on the front page of this newsletter. This promises to be a fun filled evening where we have the opportunity to recognize outstanding members in our community.

I wish you all a prosperous and a happy New Year!

★ **STAR SEARCH** ★**ORLANDO SECTION AWARDS
CANDIDATE SEARCH FORM****1.1 PURPOSE**

To encourage and facilitate the identification of potential candidates for Orlando Section Awards by providing a simple avenue for preliminary consideration by the Awards Committee.

1.2 PROCEDURE

The Submitter fills out the form as indicated and suggests nominators and endorsers to support the nomination. After a review process, some candidates will be selected for nomination. If the Submitter is willing to prepare the nominations forms, the Awards Committee will provide the necessary materials by return mail. If not, the committee will attempt to locate a suitable Nominator. (The members of the Awards Committee are not permitted to nominate or endorse any candidates).

1.3 QUALIFICATIONS

The OUTSTANDING ENGINEER AWARD is designed to recognize a member of the Section who, through his technical and professional abilities, has made an outstanding contribution to the electro-technology profession.

The OUTSTANDING ENGINEERING EDUCATOR AWARD is designed to recognize a member of the Section who has shared his technical and professional abilities through teaching (in industry, government or in an institution of higher learning) and in so doing has made an outstanding contribution to the electro-technology profession.

The OUTSTANDING SERVICE AWARD is designed to recognize a member of the Section who, through his service to the Region and to the Institute, has made an outstanding contribution to the electro-technology profession.

THE OUTSTANDING ENTREPRENEUR AWARD is designed to recognize a self-employed member of the Section who, through his consulting abilities has made outstanding contributions to the electro-technology profession.

1.4 ELIGIBILITY

- Only IEEE members with 3 years residency in the Orlando Section are eligible.
- A nominee cannot be considered for more than one award simultaneously.
- Current members of the Section Executive Board are not eligible.
- Previous award recipients, even from other Sections, are not eligible for the same award.
- The candidate need not be a member of a Group or Society.

THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC.

ORLANDO SECTION AWARD CANDIDATE SEARCH FORM

1. AWARD: _____ Outstanding Engineer Award
 _____ Outstanding Engineering Educator Award
 _____ Outstanding Service Award
 _____ Outstanding Entrepreneur Award

Please Return Form by 1/15/95

To: Jacqueline Hines
 1741 Edwin Blvd.
 Winter Park, FL 32789

2. NOMINEE: _____

Professional Affiliation and Title: _____

Current Address: _____

Work Phone: () _____ Home Phone: () _____

3. PROPOSED CITATION (30 words or less) FOR: _____

4. IEEE SOCIETY/BOARD RELEVANT TO ACHIEVEMENT CITED: _____

5. SUBMITTED BY: _____

IEEE Position and Grade: _____

Current Address: _____

Work Phone: () _____ Home Phone: () _____

6. ARE YOU WILLING TO PREPARE THE NOMINATION FORMS YOURSELF? YES _____ NO _____

7. POTENTIAL ENDORSERS (two required who are familiar with nominee, who can attest to his/her contributions and to the importance thereof)

A. Name	B. Name	C. Name
Position/Title	Position/Title	Position/Title
Address	Address	Address
City/ZIP/Phone	City/ZIP/Phone	City/ZIP/Phone

8. BRIEF EVIDENCE TO SUPPORT NOMINATION/YEAR ACHIEVEMENT/IMPORTANCE: _____

9. SUGGESTED NOMINATOR(S) IF DIFFERENT FROM #5: _____

IEEE Orlando Section
P.O. Box 521917
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THE ORLANDO SECTION MONTHLY

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Circulation 1625

EVENTS CALENDAR

For the latest information call the IEEE Orlando Voice Information Center (407) 260-1676 or BBS (407) 539-0884

Jan 3	IEEE Orlando Section - Special EXCOM: Election Of Section Secretary - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Jan 10	IEEE CN - The Consultant Selection Process - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676
Jan 17	IEEE PE/IA/PEL - Considerations For Specifying Synchronous Generators - Ronnie's, K. White, G. Engmann (O) 240-9000
Jan 17	IEEE SP - Carrying On A Meaningful Conversation With Your Computer - UCF, T. Kasparis, (O) 823-5913, (H) 671-2491
Feb 7	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Feb 14	IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676
Feb 18	IEEE Orlando Section - Awards Banquet - Blazing Pianos, D. King (O) 862-9094, (H) 628-4462
Feb 21	IEEE PE/IA/PEL - Power Engineering & Power Electronics Education - UCF, I. Batarseh, (O) 823-0185
Mar 7	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Mar 14	IEEE CN - Networking Meeting - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676
Mar 21	IEEE PE/IA/PEL - Understanding Lightning - Tilden Lobnitz Cooper, B. Gray (O) 281-3269
Apr 4	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Apr 11	IEEE CN - TBA - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676

The Orlando Section Monthly - Advertisement Rates

The Orlando Section of the IEEE encourages placement of technical, professional, promotional, and commercial advertisement in the Orlando Section Monthly. This newsletter, read by more than 1,400 members and over 200 key area industries, is published 11 times a year, August through June. The due date for the receipt of the camera ready ad and payment is the 1st Tuesday of the month preceding the month of publication.

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Full Page	8 x 10.5	\$300	\$255
3/4 Page	8 x 7.5	\$255	\$225
2/3 Page	8 x 7 or 5 x 10.5	\$225	\$195
Half Page	8 x 5	\$195	\$165
1/3 Page	8 x 2.75 or 2.25 x 8	\$165	\$135
1/4 Page	8 x 2.5 or 5 x 3.75	\$135	\$105
1/6 Page	4 x 3 or 2.25 x 5	\$80	\$72
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Two Page Preprinted Insert	16.95 x 10.95	\$292	\$252
Full Page Preprinted Insert	8.45 x 10.95	\$195	\$165

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IEEE

THE ORLANDO SECTION MONTHLY



Volume XXVIII, Number 7

The Newsletter of the Orlando Section of the IEEE

February 1995

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ANNUAL AWARDS BANQUET

SATURDAY FEBRUARY 18

\$25.00 PER PERSON

INCLUDES ADMISSION TO BLAZING PIANOS

MENU

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CAESAR SALAD
CHICKEN MARSALA
OR
SALMONE SCOPPATO
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COFFEE

AT THE MERCADO
ON INTERNATIONAL DRIVE
CASH BAR AT 6:00 PM

RESERVATIONS

NAME _____ NO. ATTENDING _____
CHOICE OF ENTREES _____



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*Dr. Parveen Wahid, Section Chairman***CHAIRMAN'S CORNER**

The annual Awards Banquet will be held on February 18 at the Blazing Pianos on International Drive. I do hope you will all try to attend this exciting and important event in our section. Information regarding this banquet can be found on the front page.

Dr. Ali Atashroo spent a major portion of his holidays updating our BBS. We now have new QBBS software loaded with FidoNet capability. Also, the system has been configured so that each chapter has its own area which can be used as a real time calendar of events. Ali is working on having a competition between the three student branches involving the BBS during Engineers's Week. Details of the competition are provided by Ali in this newsletter.

Dr. Michael Georgiopoulos was elected as the section Secretary. His immediate task is to send the annual report to headquarters by February 1. Dr. Sundaram is working on completing the annual treasurer's report.

Many members of our section are actively involved with the International MTT and NTC conferences coming to Orlando in May 1995. Also preparations for Southcon '95 to be held in Fort Lauderdale in March are well underway. Plans for the International IAS conference to be held in Orlando in October 1995 are mov-

ing smoothly. I am currently putting together a proposal to host Southeastcon in Orlando in 1998. We welcome volunteers to help with any of these conferences. Please contact **Dr. Issa Batarseh** for additional information.

Attendance at the Executive Committee meetings has been poor! I would like to see more of our chapter officers at these meetings. Our next meeting is scheduled for February 7 at UCF in room 288 of the engineering building.

Orlando Section Monthly Advertisement Rates

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1/4 Page	\$135	\$105
1/6 Page	\$80	\$72
Business Card	\$50	\$35
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Fax: (407) 260-1636

Meeting Announcements

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Members are encouraged to invite and bring guests to these events.

COMPUTER SOCIETY

The Fleet Assignment Problem

Abstract: Given a flight schedule and set of aircraft, the fleet assignment problem is to determine which type of aircraft should fly each light segment. This paper describes a basic daily, domestic fleet assignment problem and then presents chronologically the steps taken to solve it efficiently. Our model of the fleet assignment problem is a large multi-commodity flow problem with side constraints defined on a time-expanded network. The computational results show that the algorithm finds solutions with a maximum optimality gap of 0.02% and is more than two orders of magnitude faster than using default options of a standard LP-based branch-and-bound code. We also provide modeling devices for including maintenance and crew considerations into the basic model while retaining its solvability.

Speaker: Professor George Nem-hauser
Georgia Institute of Technology

Date: Friday, February 17, 1995

Time: 1:30 PM- 2:30 PM

Location: UCF, Computer Center II,
Room 102/103

Contact: Dr. Mark Goudreau (407) 823-5923

Recurrent Neural Networks: El Dorado or Fort Knox?

Speaker: Dr. C. Lee Giles, NEC Research Institute and University of Maryland

Date: Friday, February 24, 1995

Time: 1:30 PM- 2:30 PM

Location: UCF, Computer Center II,
Room 102/103

Contact: Dr. Mark Goudreau (407) 823-5923

CONSULTANTS' NETWORK

Video Tutorial

Modeling and Control of Automated Manufacturing Systems

Abstract: This Video Tutorial summarizes the significant research in automation and flexible manufacturing systems, concentration on the Petri net approach that is very promising for wide industrial applications in the future. The dynamics of automated manufacturing systems is comprehensively presented. The tutorial discusses the most recent modeling and control methods and explains their potential for improving the efficiency of future manufacturing systems. Two important tools are emphasized. They are the Markov models and Petri nets which are used to model and control manufacturing processes. These modeling approaches are clearly described from their fundamental theory to their advanced applications in automated manufacturing systems. Performance analysis and evaluation of Petri net based controllers and typical production lines is conducted by using stochastic Petri nets and existing software tools. The advantage to using Petri net models for manufacturing systems are discussed over the other models such as Markov models and queuing theory. Manufacturing control software development for a practical machining center is also discussed.

Date: Tuesday, February 14, 1995

Time: 6:00 PM Meeting

Location: Orlando Public Library,
3rd. Floor, Magnolia Room

Contact: Jorge Medina 260-1676.

ENGINEERING WEEK STUDENT CONTEST

1st Prize: ZOOM 14,400 modem or equivalent in cash. **2nd Prize:** 130 extra hours on IEEE-OS Bulletin Board. The

theme of the student contest for Engineering Week (Feb. 20-24, 1995) is "Enhance the IEEE-OS Bulletin Board." You can download the contest rules from the IEEE-OS BBS by dialing the BBS number 539-0884 and setting your modem to 14400 or less baud rate, 8, N, 1. On Thursday February 23, 1995, the winners will be presented with the respective prizes.

POWER ENGINEERING/ INDUSTRY APPLICATIONS/ POWER ELECTRONICS

Panel Discussion

Power Engineering and Power Electronics Education

The objectives of this panel discussion may be summarized as follows:

1. Address the status of power engineering and power electronics education in the US.
2. Address the local and national needs of both the industry and universities for PE and PEL engineers.
3. Discuss the current power engineering curriculum and the need to address the concerns of the industry, and
4. Make any recommendations to improve power curriculum and how to deal with issues raised by this panel.

This activity will be carried out during the Engineering Week at UCF. Students, faculty and guests are invited to attend.

Date: February 21, 1995

Time: 5:00 PM - 7:00 PM

Location: UCF, Great Hall, College of Engineering

Panelists: Dr. B.K. Bose, University of Tennessee (IAS, PEL and PE background)- invited, Alternative Dr. Kassakian, MIT (PEL); Dr. Tim Emery, Westinghouse; Mr. Jerry Murphy, Disney World; Dr. Avelino Gonzalez, UCF
Contact: Dr. Issa. Batarseh 823-0185

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Feb 7	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Feb 14	IEEE CN - Modeling & Control of Automated Manufacturing Systems - Part I - Orlando Public Library, J. Medina, (O) 260-1676
Feb 17	IEEE C - The Fleet Assignment Problem - UCF, Computer Center, M. Goudreau (O) 823-5923
Feb 18	IEEE Orlando Section - Awards Banquet - Blazing Pianos, D. King (O) 862-9094, (H) 628-4462
Feb 21	IEEE PE/IA/PEL - Power Engineering & Power Electronics Education - UCF, I. Batarseh, (O) 823-0185
Feb 24	IEEE C - Recurrent Neural Networks: El Dorado or Fort Knox? - UCF, Computer Center, M. Goudreau (O) 823-5923
Mar 7	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Mar 14	IEEE CN - Consulting Fees - Orlando Public Library, 3rd Floor, J. Medina, (O) 260-1676
Mar 21	IEEE PE/IA/PEL - Understanding Lightning - Tilden Lobnitz Cooper, B. Gray (O) 281-3269
Apr 4	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Apr 11	IEEE CN - Modeling & Control of Automated Manufacturing Systems - Part II - Orlando Public Library, J. Medina, (O) 260-1676
May 2	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
May 9	IEEE CN - TBA - Orlando Public Library, J. Medina, (O) 260-1676
May 15	IEEE 1995 MTT-S International Microwave Symposium, Orange County Convention Center, Laurie Dunn, (O) 826-3813

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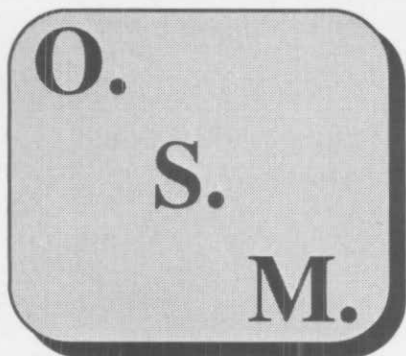
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IEEE

THE ORLANDO SECTION MONTHLY

Volume XXVIII, Number 8



The Newsletter of the Orlando Section of the IEEE

March 1995

Meeting Announcements

Unless otherwise stated, non-IEEE members are welcome to attend the meetings listed here.
Members are encouraged to invite and bring guests to these events.

CONSULTANTS' NETWORK

Structuring Your Consulting Fees for Profit

Abstract: A discussion of the different consulting compensation methods will be presented. One part of this presentation will be a summary of the survey of fees charged by our members. We have asked all our members who have served clients during 1991-1994 to respond to a questionnaire on consultants' fees. Our goal is to establish a realistic appraisal of the prevailing rate structure in our areas of expertise and should be beneficial to both ourselves and our clients.

Date: Tuesday, March 14, 1995

Time: 6:00 PM Meeting

Location: Orlando Public Library, 3rd. Floor, Magnolia Room

Contact: Jorge Medina (MSI) 260-1676.

POWER ENGINEERING/ INDUSTRY APPLICATIONS/ POWER ELECTRONICS

IEEE SEMINAR SERIES

The Grounding and Direct Lightning Strike Protection Seminar Program

Objective: To impart an understanding of the requirements and effects of grounding and direct lightning strike protection. Instructors will be practicing engineers with engineering firms, utilities, and manufacturers. A certificate of completion will be awarded at the end of the course.

Date: April 4 to April 25, 1995

Time: 6:30 - 9:30 on Tuesday evenings

Location: Orlando Utilities Commission Building, 6003 Pershing Avenue, Orlando

Registration Fee: \$90 for IEEE Members, \$130 for Nonmembers, Student IEEE members \$45 and Student Nonmember \$65.

Contact: Robert Danner (TLC Engineers) 841-9050 or Gary Engmann (Black & Veatch) 419-3521.

(See page 3 for more details)

SIGNAL PROCESSING

An Overview of MPEG Standards and Applications

Speaker: Dr. Arun Ramaswami

Date: March 7, 1995

Time: 5:30 PM Meeting

Location: UCF, College of Engineering, Room 407

Contact: Dr. T. Kasparis 823-5913

ULTRASONICS, FERROELECTRICS, AND FREQUENCY CONTROL

Ferroelectric Materials for Electromechanical Transducer Applications

Speaker: L. Eric Cross, UFFC-S Distinguished Lecturer, The Pennsylvania State University

Date: March 9, 1995

Time: 6:00 PM (Dinner 6:30 PM)

Location: Townsends Plantation, 604 E. Main Street, Apopka

Contact: Mike Garrity (Sawtek Inc.) (407) 886-8860 ext. 3086, mg@sawtek.com. Dinner reservations required, RSVP by March 2, 1995.

(See page 2 for more announcements)

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Neural Network: Dr. M. Georgiopoulos, UCF
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Dr. Parveen Wahid, Section Chairman

CHAIRMAN'S CORNER

Dr. Sundaram and Dr. Georgiopoulos submitted the annual financial report and the secretary's report to IEEE headquarters for the year 1994. This month I will be looking into our section bylaws to see if there are any revisions we would like to make.

Allan Cole is the Florida Council Chairman for PACE and he will be assisting PACE chairs in the sections in planning their activities. Our student chapter chairman, **Richard Vanderbilt** is nominating **Dr. Ron DeMara** for the IEEE Student Branch Advisor Award. The three student chapters in the section have decided to work as a group to improve the overall student membership and to increase the level of activity. They have planned several meetings and fund-raising programs.

You must have all received the announcement on *Southcon '95*, to be held March 7-9 at Fort Lauderdale. This year there will be 18 technical sessions, 10 tutorials and exhibitors from over 300 companies. In addition, attendees have the opportunity to attend various workshops and panel sessions on topics such as Industry/University Partnership, NAFTA etc. Southcon provides a great opportunity for interaction between professionals in the field.

Our next Executive Committee meeting will be on March 7, at UCF in Room 288 of the engineering building. Hope to see you there.

Meeting Announcements*(Continued from page 1)*

**SYSTEMS/ROBOTICS/
CONTROL
and
NEURAL NETWORK
WORKING GROUP
JOINT MEETING**

*Learning Geometric Hashing
Functions For Model-Based
Object Recognition*

Abstract: One of the major problems associated with indexing based object recognition techniques, is the nonuniform distribution of data over the index space. This can result in an inefficient storage of data which can increase the recognition time of an algorithm significantly. In addition, given that indexing based methods are highly amenable to parallel implementation, a nonuniform distribution of data poses certain difficulties in tackling the load-balancing problem. In this talk, we consider the geometric hashing technique. In specific, we present a new approach for distributing the data uniformly over the hash space using an elastic hash table, implemented as a Self-Organizing Feature Map Neural Network (SOFM-NN). The advantage of the proposed approach is that the hash function obtained is actually computed through learning, makes no a priori assumptions about the data, is well behaved and is inherently parallelizable.

Speaker: George Bebis, Dept. of Electrical & Computing Engineering, UCF
Date: Thursday, March 30, 1995
Time: 6:00 PM

Location: UCF, Eng. Building, Room 288.

Contact: Dr. Georgiopoulos (407) 823-5338

IEEE SEMINAR SERIES

THE ORLANDO CHAPTER OF THE IEEE POWER ENGINEERING/
INDUSTRY APPLICATIONS/POWER ELECTRONICS SOCIETY
IS PLEASED TO INVITE YOU TO ATTEND

The Grounding and Direct Lightning Strike Protection Seminar Program

Objective: To impart an understanding of the requirements and effects of grounding and direct lightning strike protection. Instructors will be practicing engineers with engineering firms, utilities, and manufacturers. A certificate of completion will be awarded at the end of the course.

Time: 6:30 - 9:30 on Tuesday evenings from April 4, 1995 to April 25, 1995

Location: Orlando Utilities Commission Building, 6003 Pershing Avenue, Orlando

Registration Fee: \$90 for IEEE Members, \$130 for Nonmember, Student IEEE members \$45 and Student Nonmember \$65.

Schedule:

Date	Topic	Instructor(s)
April 4, 1995	<i>Direct Strike Protection</i>	Mr. Bill Griego & Mr. Bob Nowell

A three hour tutorial on the design and analytic techniques for direct lightning stroke protection engineering, as contained in IEEE Standards Project P998, Direct Lightning Stroke Shielding of Substations (copies of the latest draft will be distributed to course registrants). Mr. Nowell and Mr. Griego are senior members of the Working Group that is developing this IEEE Standard.

April 11, 1995	<i>Applying IEEE 80</i>	Mr. Nelson Barbeito
----------------	-------------------------	---------------------

A three hour tutorial on every day application of the tools and techniques of IEEE 80, Safety in AC Substation Grounding (course registrants are expected to have a copy of the Standard). Mr. Barbeito is a senior member of the Working Group that is developing the 1996 revision to this IEEE Standard.

April 18, 1995	<i>Soil & Grounding System Models</i>	Mr. William K. Daily
----------------	---	----------------------

A three hour tutorial on the methods for determination of soil resistivity, manual and computer based modeling techniques for single and multilayer soils and methods for determining step, touch, transferred voltages. Mr. Daily is a senior member of the Working Group that is developing the 1996 revision to this IEEE Standard. Mr. Daily has also published several IEEE Transactions Papers in this area, and is an recognized industry expert on grounding issues.

April 25, 1995	<i>Applying IEEE 142</i>	Mr. Donald Zipse
----------------	--------------------------	------------------

A three hour tutorial on the everyday application of IEEE 142, Grounding of Industrial and Commercial Power Systems (course registrants are expected to have a copy of the Standard). Mr. Zipse is a member and an active contributor to the Working Group that produced the current revision of this IEEE Standard.

For further information contact Program Coordinators: Robert Danner (TLC Engineers) 841-9050 or Gary Engmann (Black & Veatch) 419-3521.

REGISTER BY MAIL. DEADLINE IS MARCH 30.
IN-CLASS REGISTRATION, IF SPACE IS AVAILABLE

REGISTRATION: Send with check, payable to IEEE Power Engineering Society, Orlando Chapter, for appropriate amount (\$90 for IEEE Members; \$130 for Non-Members; \$45 for IEEE full-time students and \$65 for non-IEEE full-time students).

Bob Danner
Tilden Lobnitz Cooper Engineering
1717 South Orange Avenue, Suite 300
Orlando, Florida 32806

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Mar 9	IEEE UFFC - Ferroelectric Materials For Electromechanical Transducer Applications - M. Garrity, (O) 886-8860 ext. 3086
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Mar 30	IEEE SRC/NNWG - Learning Geometric Hashing Functions For Model-Based Object Recognition - UCF, M.G. (O) 823-5338
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Apr 4 - 25	IEEE PE/IA/PEL - The Grounding & Direct Lightning Strike Protection Seminar Program- OUC, B. Danner, (O) 841-9050
Apr 11	IEEE CN - Modeling & Control of Automated Manufacturing Systems - Part II - Orlando Public Library, J. Medina, (O) 260-1676
May 2	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
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May 15	IEEE 1995 MTT-S International Microwave Symposium, Orange County Convention Center, Laurie Dunn, (O) 826-3813
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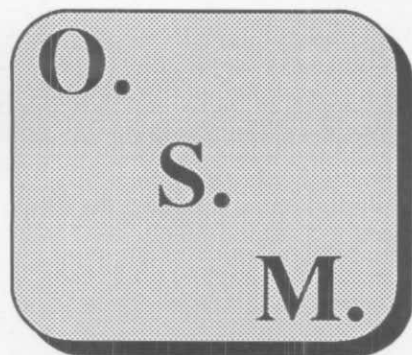
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IEEE

THE ORLANDO SECTION MONTHLY



The Newsletter of the Orlando Section of the IEEE

April 1995

IEEE ORLANDO SECTION 1995 AWARDS BANQUET

The 1995 Awards banquet was held at the Blazing Pianos and was attended by 43 members and guests. Two student awards, nine Chapter Engineer-of-the-Year awards and three Section awards were given out at the banquet. In addition, one FCIEEE award was also presented.

Student Awards

The Orlando Section annually presents an award to the Outstanding Undergraduate and Graduate student in Electrical and Computer Engineering. This year's winners were:

Outstanding Undergraduate Student in ECE
Mr. Michael Bitterman

Outstanding Graduate Student in ECE
Mr. Haoping Yu

The awards were presented to the students by **Dr. Sam Richie**, Co- Advisor for the student branch.



Student Awards Recipients: **Mr. Haoping Yu** (left), **Mr. Michael Bitterman** accompanied by **Dr. Parveen Wahid** and **Mr. Dorrell Shirley**.

Chapter Engineer of the Year Awards

The Chapter Engineer of the Year Awards are designed to recognize members of the Orlando Section who, through their technical and professional abilities, have made outstanding contributions to their profession. Evaluation criteria include; importance of technical contribution, output of patents, proprietary design, technical papers and presentations, service to IEEE and to the engineering profession. The following were the award winners for 1995:

AES.....	Dr. David Webb
AP/MTT.....	Ms. Laurie Dunn
COMP.....	Dr. Ali Orooji
ED/CHMT.....	Dr. Donald Malocha
LEOS.....	Dr. Jeffrey Dixon
PE/IA/PEL.....	Mr. Gary Engmann
SP.....	Ms. Yvette Gordon
SRC.....	Dr. Harley Myler
UFFC.....	Dr. Leland Solie



Chapter Engineer of Year Award Recipients: (back row left) **Dr. Leland Solie**, **Dr. Ali Orooji**, **Ms. Yvette Gordon**, **Mr. Gary Engmann**, (front row left) **Ms. Laurie Dunn**, **Dr. Donald Malocha**.

Orlando Section Awards

The Orlando Section Outstanding Engineering Educator Award is designed to recognize Orlando Section members who, through academic contributions, have enhanced the engineering profession. This year's award winner was **Dr.**



Orlando Section Award Recipients: **Mr. Michael Dodane** (left), **Mr. Gregory Rawlins**, and **Dr. Samuel Richie**.

Samuel Richie. The Orlando Section Outstanding Service Award was presented to **Mr. Michael Dodane** for his service to the Section and valuable contributions to the PE/IA/PEL Chapter. The Orlando Section Outstanding Entrepreneur Award was given to **Mr. Gregory Rawlins** in recognition of his contributions to the Community and success in his profession.

IEEE Florida Council Awards

This year the Orlando Section won the Florida Council award for the Outstanding Engineering Educator. **Dr. Madjid Belkerdid**, the winner of this award was the Orlando Section Outstanding Engineering Educator for 1994. The award was presented to him by **Mr. Dorrell Shirley**, Chairman of FCIEEE.



IEEE Florida Council Award Recipient: **Dr. Madjid Belkerdid** (right) with **Mr. Dorrell Shirley**.

Ms. Jackie Hines, Awards Chair of the Section, prepared all the certificates and the plaques. She unfortunately was unable to attend the banquet and **Dr. Parveen Wahid**, Chair of the Section served as the Master of Ceremonies. **Mr. Dave King**, Vice Chair & Programs Chair of the Section was responsible for all the arrangements for the banquet and **Dr. Kalpathy Sundaram** was the photographer for the evening. Special thanks go out to Jackie and Dave for making the evening a success. In addition, the Section thanks all the Chapter Chairs and the Awards Committee for their help in providing nominations and making the selections for the '95 Orlando Section Awards.

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Neural Network: Dr. M. Georgiopoulos, UCF
(VM) 500, (O) 823-5338, (H) 275-2665

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Publications/Editor: Jorge Medina, MSI
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Strategic Planning: Dave King, Datacube, Inc.
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SRC: Tim Jackson (H) 671-0244

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Dr. Parveen Wahid, Section Chairman

CHAIRMAN'S CORNER

The 1995 awards banquet held at the Blazing Pianos was a successful event. **Mr. Dorrell Shirley**, Chairman of the FCIEEE was a guest at the banquet. I attended the Southcon '95 at Fort Lauderdale. There were several exhibitors from all over the country putting up an impressive display of their products and the conference was well attended. Many of the Orlando Section members had made contributions to the technical sessions. Faculty members from UCF, **Drs. Christodoulou, Batarseh, Georgiopoulos**, to name a few, attended Southcon with their graduate students and presented papers in Electromagnetics, Controls, Power Conversion etc. Dr. Georgiopoulos is the Technical Chairman for Southcon '96 which will be held in Orlando.

Dr. Ali Atashroo and I will be attending Southeastcon in North Carolina on March 25 and 26 to present our bid for Southeastcon '98 in Orlando. **Mr. Jorge Medina** has been invited by Region 3 to attend the Southeastcon Conference this year and make a presentation on his Consultant's Network. He will also be attending the Region 3 PACE meetings.

Many of the Chapters in our Section have not been active this year. The AES, ED/CHMT, LEOS and SRC chapters have not held a meeting since July. Chapter Chairs need to organize one or two meetings in the near future or else the chapters face the danger of becoming delinquent. If any of you need help in planning your technical meetings please

contact me or **Laurie Dunn** and we will be glad to assist you. In May, the Chapters need to have identified a new slate of officers for the coming year. Chapter Chairs need to start gathering nominations and plan on having the new officers voted in at their chapter meeting in May. All new Chapter officers and Section Officers will be installed at the June installation banquet.

At The March meeting we did not have a quorum and a couple of important issues could not be voted on. I strongly urge the Chapter Chairs to attend the Executive Committee meetings. I would also like to emphasize the fact that the Executive Committee is always willing to receive input from the Section members on all matters that affect us. Members are always welcome to attend the meetings and express their opinions and viewpoints. The only way we can make the Section stronger is through your active participation and involvement. The next Executive Committee meeting will be held on April 4 at 6:00 P.M. at UCF in Engineering Room 288.

NOMINATIONS FOR NEW SECTION OFFICERS

The Section membership may make nominations for new Section officers, chairman, vice chairman, secretary and treasurer, for 7/1/95 - 6/30/96 by submitting qualified petitions. A qualify petition shall meet the following criteria:

- Specify the office.
- Bear the signature of at least 15 voting Section members.
- Contain statement of the nominee's consent to serve.
- State nominee's qualification and biography.
- Be delivered to the Section Chairman on or before April 4, 1995.

Meeting Announcements

Unless otherwise stated, non-IEEE members are welcome to attend the meetings listed here. Members are encouraged to invite and bring guests to these events.

POWER ENGINEERING/ INDUSTRY APPLICATIONS/ POWER ELECTRONICS

IEEE SEMINAR SERIES

The Grounding and Direct Lightning Strike Protection Seminar Program

Objective: To impart an understanding of the requirements and effects of grounding and direct lightning strike protection. Instructors will be practicing engineers with engineering firms, utilities, and manufacturers. A certificate of completion will be awarded at the end of the course.

Date: April 4 to April 25, 1995

Time: 6:30 - 9:30 on Tuesday evenings

Location: Orlando Utilities Commission Building, 6003 Pershing Avenue, Orlando

Registration Fee: \$90 for IEEE Members, \$130 for Nonmembers, Student IEEE members \$45 and Student Nonmember \$65.

Contact: Robert Danner (TLC Engineers) 841-9050 or Gary Engmann (Black & Veatch) 419-3521.

CONSULTANTS' NETWORK

Video Tutorial

Modeling and Control of Automated Manufacturing Systems - Part I

Abstract: This Video Tutorial summarizes the significant research in automation and flexible manufacturing systems, concentration on the Petri net approach that is very promising for wide industrial applications in the future. The dynamics of automated manufacturing systems is comprehensively presented. The tutorial discusses the most recent modeling

and control methods and explains their potential for improving the efficiency of future manufacturing systems. Two important tools are emphasized. They are the Markov models and Petri nets which are used to model and control manufacturing processes. These modeling approaches are clearly described from their fundamental theory to their advanced applications in automated manufacturing systems. Performance analysis and evaluation of Petri net based controllers and typical production lines is conducted by using stochastic Petri nets and existing software tools. The advantage to using Petri net models for manufacturing systems are discussed over the other models such as Markov models and queuing theory. Manufacturing control software development for a practical machining center is also discussed.

Date: Tuesday, April 11, 1995

Time: 6:00 PM Meeting

Location: Orlando Public Library, 3rd. Floor, Magnolia Room

Contact: Please make your reservations by calling Jorge Medina at 260-1676.

CONSULTANTS' FEE SURVEY

Jorge Medina, chairman of the IEEE Consultants' Network of Orlando (ICNO), has just completed the 1994 anonymous fee survey of member consultants. The results were categorized in terms of degrees, years of experience, billing methods, hourly rates, insurance and marketing methods. Here is some of the information compiled:

Degree	Avg. Hourly Rate
A.A. or A.S.	\$31
B.S. or B.A.	\$58
M.S. or M.A.	\$60
Ph.D.	\$103
P.E.	\$102

Experience	Avg. Hourly Rate
Less than 7 years	\$66
Greater than 7 years	\$69

Our average member is a full time consultant with a MS degree, has been consulting for more than 4 years, charges about \$66 per hour, bills by the hour, sold over 1,445 hours last year, uses spouse's health insurance, and claims networking/personal contacts is the best marketing method.

REGION 3 ELECTRONIC BBS (1-800-555-REG3)

The first IEEE Regional Bulletin Board System (BBS) includes region and institute reference materials (region history, calendar of events, directory, awards and documents, the ETI database manual, the Region 3 Consultants Network, and the Region 3 Strategic Plan), as well as current committee and area/council/section activities (sections with electronic newsletters are welcome to load it on the BBS). Meeting notices for region meetings will be available; look up the details of the upcoming meeting at Southeastcon if you haven't already done so. Internal e-mail among BBS users, teleconference, and forums are other features currently being used. One of the most popular areas will probably be the job posting area, where companies can list their job openings for members to access.

The Region 3 BBS was conceived in the fall of 1994 as a vehicle for the region and the Institute to communicate with officers and members who may have access to modems, but not to e-mail services. The project was funded by the region ExCom in November, and the United States Activities Board (USAB) agreed to cosponsor the project later that month.

The toll free number (within Region 3, excluding area code 404) is 1-800-555-REG3 (7343). Users will need to know their IEEE membership number (which becomes the user's password).

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EVENTS CALENDAR

For the latest information call the IEEE Orlando Voice Information Center (407) 260-1676 or BBS (407) 539-0884

- Apr 4** IEEE Orlando Section - **EXCOM** - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Apr 4 - 25 IEEE PE/IA/PEL - **The Grounding & Direct Lightning Strike Protection Seminar Program**- OUC, B. Danner, (O) 841-9050
Apr 11 IEEE CN - **Modeling & Control of Automated Manufacturing Systems - Part I** - Orlando Public Library, J. Medina, (O) 260-1676
- May 2** IEEE Orlando Section - **EXCOM** - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
May 9 IEEE CN - **TBA** - Orlando Public Library, J. Medina, (O) 260-1676
May 15 IEEE **1995 MTT-S International Microwave Symposium**, Orange County Convention Center, Laurie Dunn, (O) 826-3813
- Jun 6** IEEE Orlando Section - **EXCOM** - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Jun 13 IEEE CN - **Modeling & Control of Automated Manufacturing Systems - Part II** - Orlando Public Library, J. Medina, (O) 260-1676
Jun TBA IEEE Orlando Section - **Installation Banquet** - D. King, (O) 862-9094, (H) 628-4462
- Aug 1** IEEE Orlando Section - **EXCOM** - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Aug 8 IEEE CN - **TBA** - Orlando Public Library, J. Medina, (O) 260-1676

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The Orlando Section of the IEEE encourages placement of technical, professional, promotional, and commercial advertisement in the Orlando Section Monthly. This newsletter, read by more than 1,400 members and over 200 key area industries, is published 11 times a year, August through June. The due date for the receipt of the camera ready ad and payment is the 1st Tuesday of the month preceding the month of publication.

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Two-Page	16.5 x 10.5	\$450	\$390
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3/4 Page	8 x 7.5	\$255	\$225
2/3 Page	8 x 7 or 5 x 10.5	\$225	\$195
Half Page	8 x 5	\$195	\$165
1/3 Page	8 x 2.75 or 2.25 x 8	\$165	\$135
1/4 Page	8 x 2.5 or 5 x 3.75	\$135	\$105
1/6 Page	4 x 3 or 2.25 x 5	\$80	\$72
Business Card	3.5 x 2.25	\$50	\$35
Two Page Preprinted Insert	16.95 x 10.95	\$292	\$252
Full Page Preprinted Insert	8.45 x 10.95	\$195	\$165

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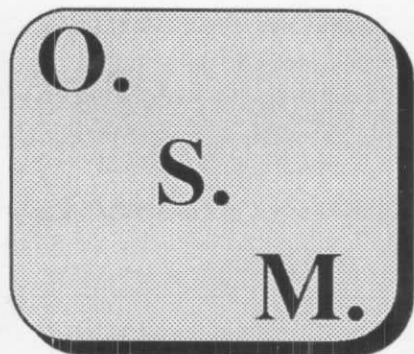
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ORLANDO MEMBERS USE THE IEEE PROFESSIONAL ASSISTANT NETWORK

We offer unemployed Orlando Section members and local IEEE oriented firms an opportunity to run a FREE position wanted and position available ads, respectively, in the Orlando Section Monthly. Write your own ad copy and mail or fax it to the Orlando Section Monthly editorial office. Please include your membership number. Your ad will appear in the next available issue.



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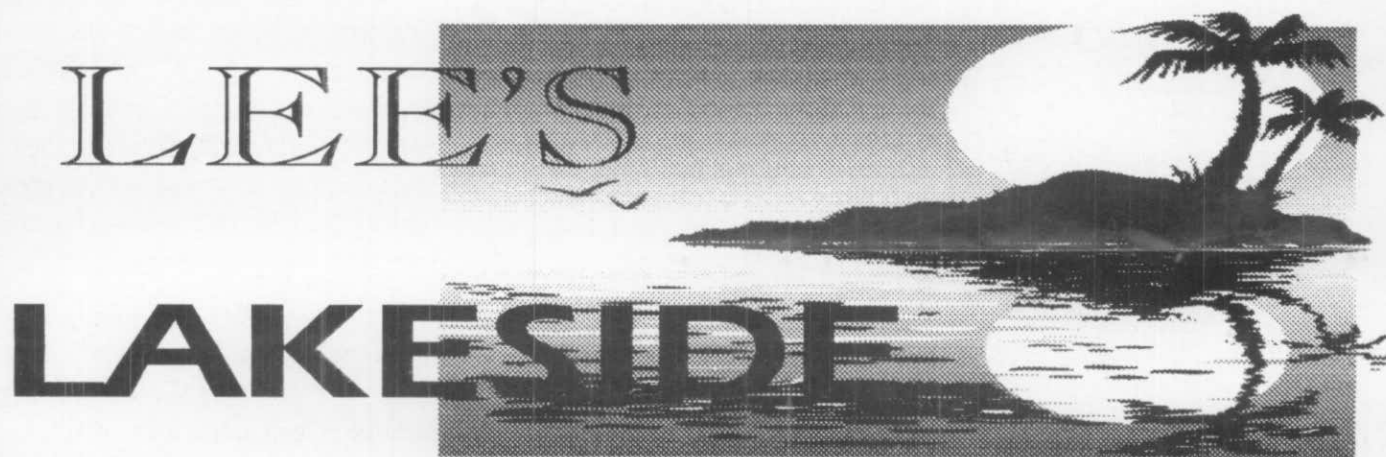
Volume XXVIII, Number 10



The Newsletter of the Orlando Section of the IEEE

May 1995

1995 IEEE ORLANDO SECTION



ANNUAL INSTALLATION BANQUET

431 East Central Blvd., Orlando
Saturday, June 17, 1995

Chicken Marsala
Prime Rib of Beef
Cash Bar at 6:00 PM

Featuring Mr. Rob Catto
Nationally Recognized Educator

Reservations: Dave King at 628-4462, FAX 628-9535

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Dr. Parveen Wahid, Section Chairman

CHAIRMAN'S CORNER

Ali Atashroo and I attended the Florida Council and Region 3 meetings in North Carolina on March 25 and 26. Ali attended all the PACE meetings as our PACE representative. I attended the session for Leadership Development Training. We presented our proposal to host Southeastcon in Orlando in 1998 and had to compete with Lexington for that bid. I am happy to announce that we won the bid! **David Green**, Region 3 Conference Committee Chair will be visiting us in October to give us guidelines on planning the conference. Ali has gathered a lot of information regarding PACE and will forward this to **Dr. Ratan Guha**, the Section PACE chair. **Jorge Medina**, on invitation by Region 3, gave a very interesting and useful presentation on the Consultant's Network.

The International Microwave Theory and Techniques Symposium (MTT-S) will be held here in Orlando, May 14-19. **Dr. Keith Huddleston**, Chairman of MTT-S, and the steering committee members have done an excellent job with all the arrangements and so we can look forward to an exciting and successful conference. The National Telecommunications Conference (NTC) will also be held during that week between May 17 and 19. **Dr. Madjid Belkerdid**, Chairman of NTC, re-

ports that he has a strong technical program in place and that he expects the attendance to be high. **Dr. Michael Georgiopoulos** is the Technical Committee Chairman for Southcon '96 to be held in Orlando from May 14-16, 1996. He is planning on having more technical sessions in collaboration with industry. Four technical areas he is currently targeting are computers, communications, defense electronics and medical electronics. Please get in touch with Mike if you would like to present a paper or organize a technical session.

Dr. Sundaram will be moving funds out of our Vanguard Short Term Treasury account into a six month certificate of deposit. The Vanguard account is not performing well. \$10,000 will be transferred to the CD and the remaining amount of approximately \$4,234 will be transferred to the checking account.

This newsletter carries the list of nominees for the Section Officers for next year. The Election Committee members for the Section Officers are **Mr. Jorge Medina**, **Dr. Ali Atashroo**, **Dr. Amir Mortazawi** and **Dr. Mark Goudreau**. The voting will take place at our May Executive Committee meeting. Chapter Chairs must select their officers for the next year in May. **Dave King** is finalizing plans for the installation banquet to be held in June. The date for the next executive committee meeting is May 2 - mark your calendars and please attend!

NEURAL NETWORK*New Officers*

Chairman: Dr. Michael Georgiopoulos (UCF)
Treasurer: Mr. Parag Karkhanis (Solitron International, Inc.) ♦

Meeting Announcements

Unless otherwise stated, non-IEEE members are welcome to attend the meetings listed here. Members are encouraged to invite and bring guests to these events.

CONSULTANTS' NETWORK

Video Seminar and Officer Nominations

*Simple Things You Can Do Today
To Increase
Your Business Tomorrow*

Abstract: This video seminar will cover:

1. How to write ads and direct mail letters that pull significant responses.
2. How to convert one shot sales into repeat customers.
3. Creative ideas to get appointments with people who are difficult to reach.
4. The most powerful marketing system a consultant can use to get more business.

Speakers: Mr. & Mrs. Kent Lindemann, The Home Office and Small Business Association, Inc.

Date: Tuesday, May 9, 1995

Time: 6:00 PM Meeting

Location: Orlando Public Library, 3rd. Floor, Magnolia Room

Contact: Please make your reservations by calling Jorge Medina at (407) 260-1676, E-mail j.medina@ieee.org or Peter Hoyles at (904) 737-9686, E-mail Pete2Wheel@aol.com.

WANT TO KNOW WHO HIRES IEEE MEMBERS?

If you are a member of IEEE within Region 3, you can get a list of companies that employ technical professionals in the southeast. All you need to do is send an Internet e-mail message to:

empaccess.r03@eng.uab.edu

Use the exact format shown below. An autoresponse file will be sent to you by return-e-mail with instructions on how to access the ETI Database.

NAME LINE: [IEEE Mem. #] [Last Name, First Name, MI]
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SECTNAME: [Section Name]
STBRANCH: [Student Branch Name]
HOMENMBR: [Home Phone Number]
WORKNMBR: [Work Phone Number]
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EMAILADR: [E-mail Address]

NEW RETIREMENT SOFTWARE AVAILABLE TO U.S. MEMBERS

Retirement Asset Manager software that provides a step-by-step approach to saving and investing for a secure financial future is available to U.S. members. The software helps users focus on retirement income goals and explore investment strategies. IEEE-USA's Engineering Employment Benefits Committee contributed to the package's development. IEEE's Financial Advantage program is offering Retirement Asset Manager for Windows to U.S. members at a special discount of \$44.95, a \$25 savings off the retail price. For more information or to place an order, call (800) 277-8647.

GET THE LATEST STATISTICS ON U.S. ENGINEERING SALARIES

Order by May 15 and save \$10.00

Wouldn't you like to know how your salary and benefits compare with other engineers' in the United States? The all-new 1995 IEEE U.S. Mem-

bership Salary & Fringe Benefit Survey provides you with the current information you need. Use the included regression-analysis formula - analyzing more than 50 individual variables including primary areas of technical expertise, industry and geographic location -- to predict your own salary. You'll also get definitive information on salaries by level of education...by job function...by geographic area...by industry...pensions and retirement plans...insurance...401K plans...and much more. You'll find the survey data especially helpful when looking for a new job or negotiating salary and benefits.

As an IEEE member, order the new 1995 U.S. Membership Salary & Fringe Benefit Survey by May 15 and save \$10.00. IEEE members \$64.95 (plus \$5.00 handling) until May 15; \$74.95 thereafter. Nonmembers \$99.95 (plus \$6.00 handling) until May 15; \$119.95 thereafter. To order call 1-800-678-IEEE and ask for product #UH0198-2.

CANDIDATES FOR IEEE ORLANDO SECTION OFFICERS NAMED

In accordance with the Section By-laws, the following candidates for Section Officers for terms beginning July 1, 1995 and ending June 30, 1996, are as follows:

Chairman:	Mr. Dave King
Vice Chairman:	Dr. Kalpathy B. Sundaram
Treasurer:	Dr. Kalpathy B. Sundaram
Secretary:	Dr. Christos Christodoulou

Each person was contacted by the Nominations Committee and was found to be qualified and willing to serve.

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EVENTS CALENDAR

For the latest information call the IEEE Orlando Voice Information Center (407) 260-1676 or BBS (407) 539-0884

- May 1 - 3 IEEE 1995 International Symposium on Electronics and the Environment - Hyatt Regency, Orlando, (908) 562-3908
May 2 IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
May 9 IEEE CN - Simple Things You Can Do Today To Increase Your Business Tomorrow - O.P.L., J. Medina, (O) 260-1676
May 15 - 16 IEEE 1995 Microwave & Millimeter-Wave Monolithic Circuits Symposium, Orange County Convention Center, M. Kumar
May 16 - 18 IEEE 1995 MTT-S International Microwave Symposium, Orange County Convention Center, Laurie Dunn, (O) 826-3813
May 17 - 19 IEEE 1995 National Telesystems Conference, Orange County Convention Center, D. Malocha
May 19 IEEE 1995 Automatic Radio Frequency Techniques Group Conference, Orange County Convention Center, E. Godshalk

Jun 6 IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Jun 13 IEEE CN - Open Forum for Issues & Sharing of Consulting Concerns - Orlando Public Library, J. Medina, (O) 260-1676
Jun 17 IEEE Orlando Section - 1995 Installation Banquet - Lee's Lakeside Restaurant, Orlando, D. King, (O) 862-9094, (H) 628-4462

Jul 11 IEEE Orlando Section - Chapter Officer's Orientation - UCF, Eng. Bldg., D. King, (O) 862-9094, (H) 628-4462

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2/3 Page	8 x 7 or 5 x 10.5	\$225	\$195
Half Page	8 x 5	\$195	\$165
1/3 Page	8 x 2.75 or 2.25 x 8	\$165	\$135
1/4 Page	8 x 2.5 or 5 x 3.75	\$135	\$105
1/6 Page	4 x 3 or 2.25 x 5	\$80	\$72
Business Card	3.5 x 2.25	\$50	\$35
Two Page Preprinted Insert	16.95 x 10.95	\$292	\$252
Full Page Preprinted Insert	8.45 x 10.95	\$195	\$165

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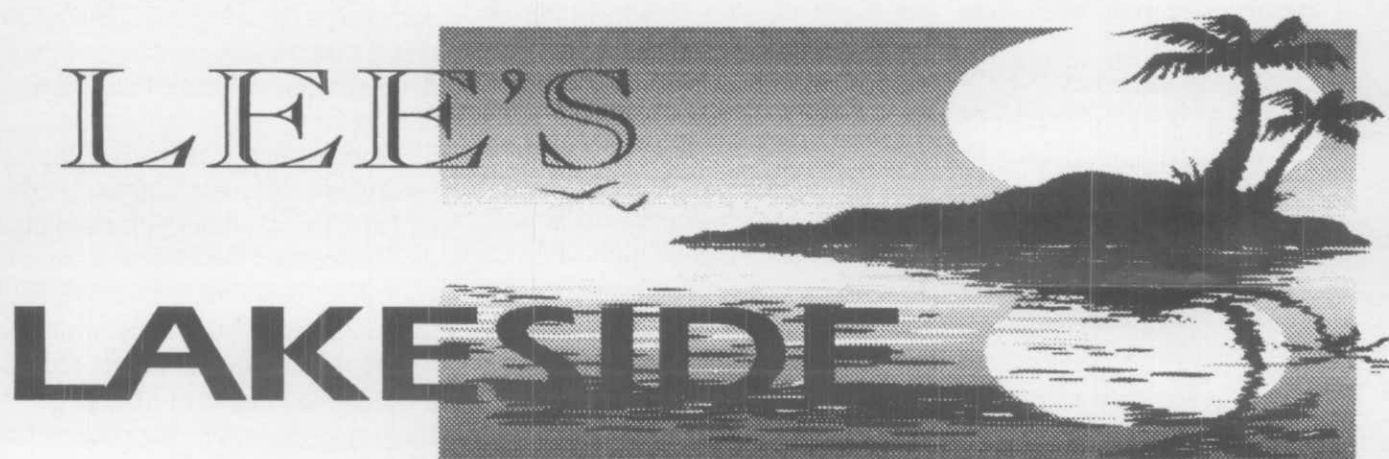
Volume XXVIII, Number 11



The Newsletter of the Orlando Section of the IEEE

June 1995

1995 IEEE ORLANDO SECTION



ANNUAL INSTALLATION BANQUET

431 East Central Blvd., Orlando

Saturday, June 17, 1995

\$23.00 per person

Menu:

Chicken Marsala

Prime Rib of Beef

Cash Bar at 6:00 PM

Featuring Mr. Rob Catto

Nationally Recognized Educator

Reservations: Dave King at 628-4462, FAX 628-9535

IEEE ORLANDO SECTION

Region 03 Council 05 Section 51

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*Dr. Parveen Wahid, Section Chairman***CHAIRMAN'S CORNER**

At the last Executive Committee meeting the Section officers for next year were elected, **Mr. Dave King** will be the chairman, **Dr. Kalpathy Sundaram** will serve as the treasurer and the vice chairman and **Dr. Christos Christodoulou** will be the secretary. They will take up office in July 1995. The AP/MTT, ED/CHMT and UFFC chapters have elected their officers for next year. All the other chapters are planning on having the elections for new officers during the month of May. In April the PE/IA/PEL chapter successfully completed their seminar series. Four seminars were held on topics related to Grounding and Direct Lightning Strike Protection.

My tenure as the Section Chairman ends this month. Our Section continues to be one of the most active sections in Florida and in Region 3 and we should be proud of the dedicated volunteers who help in making this happen.

I would like to take this opportunity to highlight some of the activities of the section since June 1994. We had our annual Family Fun Day on October 15, which was once again a big success. The Awards Banquet was held on February 18 where outstanding members in our section were recognized for their contribution to the engineering profession. **Dr. Madjid Belkerdid** was the recipient of the 1995 FCIEEE Outstanding Teacher award. In 1994, the Section sponsored the 1995 International NTC conference and the 1995 International IAS conference. These will be held in Orlando in May and October 1995 re-

spectively. Many of our section members are working hard to make these successful. Based on the sponsorship the Section will receive a portion of the net proceeds made in these conferences. **Dr. Michael Georgiopoulos** will be the Technical Chairman of Southcon '96 to be held in Orlando. Southeastcon '98 will be held in Orlando and I will be the Chairman for this conference.

The checking account balance as of May 2, 1995 was \$9,558.05 with a certificate of deposit of \$10,000. This year a separate checking account was set up by the PE/IA/PEL chapter. The Section received \$4,000 from the World Congress on Computational Intelligence held in Orlando in June 1994. The Section will also be receiving an additional 10% rebate from headquarters for sending in the annual report and the financial report on time.

Special thanks go to **Dr. Michael Georgiopoulos** for serving as the Secretary and **Dr. Zhihua Qu** for serving as the Membership Development chairman after these positions became vacant in the middle of the year. The Consultant's Network is doing an outstanding job under the leadership of **Mr. Jorge Medina**. The PE/IA/PEL chapter with chairman, **Dr. Issa Batarseh** and his officers has had a very active year holding 13 technical meetings, monthly officer meetings, a workshop on power engineering and a seminar series. The Student Chapter initiated a biweekly lecture series this year, actively recruited new members and organized fund raising activities. The Section BBS was upgraded with a more user friendly software package. The activity on the BBS has been increasing steadily. The Section bylaws were revised and approved; they were last revised in May 1990.

I want to thank the Section officers and the committee members who helped me through the year. Plans for the Installation banquet on June 17 are in place and I encourage all of you to attend. The last Executive Committee meeting for the year will be held on June 6 at UCF in room Engr. 288. ♦

Meeting Announcements

Unless otherwise stated, non-IEEE members are welcome to attend the meetings listed here.
Members are encouraged to invite and bring guests to these events.

CONSULTANTS' NETWORK

Member's Presentation

Consulting Background and Services

Abstract: Starting with our meeting on June 13, 1995 the Orlando Consultants' Network is inviting each and every one of its member to present a 15-minute briefing on his or her consulting practice as a condition of continued network membership. Each member will have an opportunity to brief their colleagues on their consulting practice and receive coverage of their technical biography in the IEEE Orlando Section Monthly newsletter, which is distributed to over 2,000 readers. Briefings and newsletter coverage will take place every other month. These presentations will be in addition to (and in some months, in place of) our regular guest speaker program. The following members have been invited to present an overview of their background and services at the June meeting.

Theodore (Ted) Balaska of Insulated Power Cable Services, Inc., in Bradenton, FL has experience since 1946 with installations of power cable systems, through 345KV, with electric utilities, cable manufacturer, and cable accessories producer. Consultant since 1986 for evaluations, testing, training programs, marketing and technical expert in litigation proceedings. Active in technical committees of IEEE/PES. Past Chair of Insulated Conductors Committee (ICC), Distinguished Service Awards

of ICC, PES Distinguished Lecturer and Past Chair of PES Meeting Department.

Michele R. Gardill, an Independent Consultant of Rockledge, FL designs better ways for liquids and powders manufacturers to mix, transport, and handle liquids and powders. Offers management perspectives including design of customer/vendor surveys and assessment of strengths, weaknesses, opportunities, and threats. Provides interactive, multimedia training software. She has experience with cleaning products, pharmaceuticals, FDA-regulated products, other powdered and liquid products; equipment layout design and specification. Michele provides training on problem-solving methods designed to cut down wasted time in meetings, identify the 'root' problem, and prioritize work utilizing methods such as Design of Experiments, Statistical Process Control, Fishbone Diagram, Pareto Chart, and Brainstorming.

Kathryn C. Kinsley of Datawise, Inc., in Orlando, FL is an independent computer consultant providing objective, competent, technical advice and support to the business and government community regarding computer technology, particularly in the area of database technology. Her outstanding track record is shown by her many satisfied clients in both government and commercial business, e.g., Orange County, Community Coordinated Care for Children, Consumer Credit Counseling Service and Private Industry Council. Datawise, Inc. specializes in utiliz-

ing the relational database model for implementation on PC, server and minicomputer platforms. Program specialization is in xBase and ORACLE. Consulting Services include information management, strategic planning, RFI/RFP development, downsizing and open systems development. Datawise also offers training courses in relational data modeling.

Date: Tuesday, June 13, 1995

Time: 6:00 PM Meeting

Location: Orlando Public Library, 3rd. Floor, Magnolia Room

Note: Elections for new officers will be held at this meeting.

Contact: Please make your reservations by calling Jorge Medina at (407) 260-1676, or Peter Hoyles at (904) 737-9686.

POWER ENGINEERING/ INDUSTRY APPLICATIONS/ POWER ELECTRONICS

Tutorial Presentation

Turbine Engines: Analysis and Design

Speakers: Dr. Tim Emery, Principle Engineer, Power Generation Business Unit, Westinghouse Co.

Date: May 25, 1995

Time: 6:30 PM - 8:30 PM

Location: UCF, Seminar Room: ENGR 188, College of Engineering

Note: Pizza and refreshments will be served. Elections for the new chapter officers will be held at this meeting.

Contact: Dr. Issa Batarseh, Tel. (407) 823-0185, Fax (407) 823-5835, E-mail: batarseh@pegasus.cc.ucf.edu.

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EVENTS CALENDAR

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May 25	IEEE PE/IA/PEL - Turbines Engines: Analysis and Design -UCF, College of Engineering, I. Batarseh (O) 823-0185
Jun 6	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., P. Wahid, (O) 823-2610, (H) 677-0571
Jun 13	IEEE CN - Member's Presentation: Consulting Background & Services (Part I) - Orlando Pub. Lib., J. Medina, (O) 260-1676
Jun 17	IEEE Orlando Section - 1995 Installation Banquet - Lee's Lakeside Restaurant, Orlando, D. King, (O) 862-9094, (H) 628-4462
Jul 18	IEEE Orlando Section - New Chapter Officer's Orientation - D. King, (O) 862-9094, (H) 628-4462
Aug 1	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., D. King, (O) 862-9094, (H) 628-4462
Aug 8	IEEE CN - Member's Presentation: Consulting Background & Services (Part II) - Orlando Pub. Lib., J. Medina, (O) 260-1676
Sep 5	IEEE Orlando Section - EXCOM - UCF, Eng. Bldg., D. King, (O) 862-9094, (H) 628-4462
Sep 12	IEEE CN - TBA - O.P.L., J. Medina, (O) 260-1676
Sep 20-23	IEEE - Eighth Int'l Conf. on Parallel and Distributed Computing Systems - UCF, N. Deo, (O) 823-6336

The Orlando Section Monthly - Advertisement Rates

The Orlando Section of the IEEE encourages placement of technical, professional, promotional, and commercial advertisement in the Orlando Section Monthly. This newsletter, read by more than 1,400 members and over 200 key area industries, is published 11 times a year, August through June. The due date for the receipt of the camera ready ad and payment is the 1st Tuesday of the month preceding the month of publication.

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The Referral Service of the IEEE CONSULTANTS NETWORK OF ORLANDO has over 30 engineering, technical and managerial consulting professionals available to help you with your particular problem. The Network's ethical code ensures the highest professional standards. There is NO CHARGE for referrals.

Tel: (407) 260-1676, FAX: (407) 260-1636
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SOFTWARE ENGINEERS

Central Florida company has immediate opportunities for software engineers with experience in designing, and developing embedded controller applications using C/C++. Experience with Motorola 32-bit microprocessors, ARM RISC processors, IBM-PC, DOS operating system and Windows environment very desirable. Please send resume and salary history to:

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