



Networking the World – Locally

by Sandy Hunter, Section Chair

I am looking forward to serving the IEEE/SEM Section as Chair this year. The section has over forty elected officers who are interested in making IEEE membership more valuable than ever. This article describes IEEE's new campaign to define the value it provides, illustrates a few of the ways that the section supports IEEE's goals locally, and identifies my goals as Section Chair.



The new motto **IEEE: Networking the World** captures the essence of the services and opportunities that IEEE provides to members. IEEE is communicating three main ideas with this phrase: fostering technical innovation, supporting members' careers, and promoting community worldwide. (You can find more information about the motto at www.ieee.org/newsinfo/ntw.) The IEEE/SEM section, chapters, and student branches are focused on the same goals as IEEE as a whole but with an emphasis on local activities.

Continued on Page 6

IEEE/SEM Fall '98 Section Meeting

Date: Wednesday, October 28
Location: The McGregor Memorial Conference Center on the campus of Wayne State University, Detroit, MI.
Contact: Jim Woodyard, 313-577-3758

Program
 5:30 p.m. Registration & Check-In opens.
 5:45 p.m. Concurrent technical meetings.
 6:30 p.m. Social period with cash bar.
 University Showcases and Vendor Exhibits on display.
 7:15 p.m. Check-In closes.
 7:30 p.m. Dinner
 8:00 p.m. Featured Speaker: Dr. Fred Dietrich.
The meeting will end at approximately 9:00 p.m.

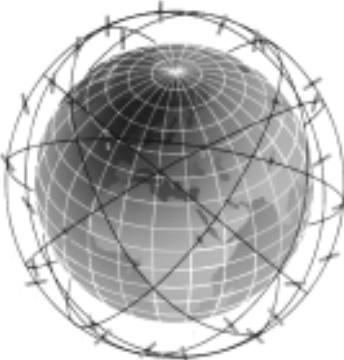
How to Register:
 Mail in the registration form on page 7 by October 16, 1998. Late registrations (full price) are accepted by phone through October 23, 1998. There is no fee for attending technical sessions only but pre-registration is requested to aid in room assignments. Dinner is not guaranteed to attendees registering the night of the event.
See page 7 for full registration information.

Student Registration:
 Students must register through their student branch to receive discounted prices. Student branch signup procedures are on the section's web page.

Section Meeting Technical Sessions & Featured Speaker Presentation
 by James Woodyard, IEEE/SEM Vice Chair

The section meeting will feature eight or more parallel technical sessions and a student track meeting. These sessions include presentations on varied technologies, such as *surface microscopy, communication technologies, web-based technology in teaching, digital signal processing and virtual laboratories*. Following the technical sessions, participants will have the opportunity to view student branch activities and vendor exhibits during a social period.

Dr. Fred Dietrich of Globalstar, San Jose, CA, is the featured speaker for the meeting as well as one of the technical session speakers. Following dinner, Dr. Dietrich, will provide a multi-media presentation entitled:
"The Globalstar™ Satellite-Cellular Communication Satellite System."



The Globalstar™ 48-satellite low-earth orbit (LEO) constellation will provide worldwide wireless communication via voice and data, paging and messaging, and radio-determination satellite services (RDSS) to over 98% of the world's population.



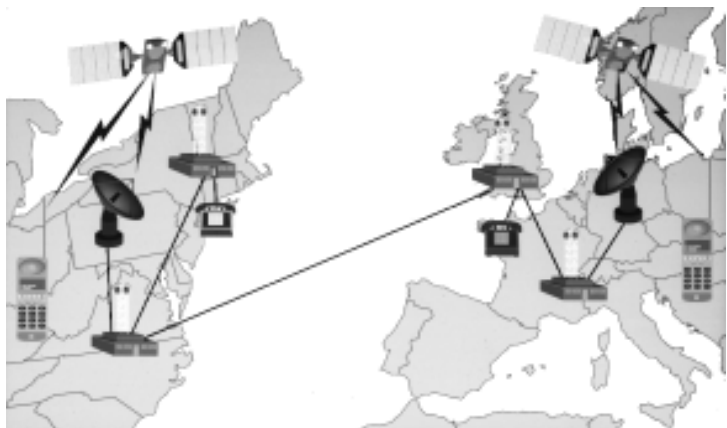
Continued on Next Page

| TABLE OF CONTENTS | | | | | |
|----------------------------|-----|--------------------------------------|-----|-----------------------------------|---|
| Fall Section Meeting | 1,2 | Yearbook | 4,5 | Directions to Fall Meeting | 7 |
| Networking the World | 1,6 | Volunteers Needed | 6 | VLSI Design Contest Results | 8 |
| Calendar of Events | 3 | Fall Meeting Registration Form | 7 | Hello from New Editors | 8 |

...Featured Speaker

Continued from Page 1

Dr. Dietrich's presentation on communication-satellite systems will include a brief review of competing satellite-based systems and then a general discussion of the globalstar system. Dr. Dietrich will be discussing the technology in detail, during the earlier parallel technical session co-sponsored by Chapters III and VI.



Globalstar™ routes a subscriber's wireless phone call up through one of 48-low-Earth orbiting satellites, down through a gateway connected to the Public Switched Telephone Network (PSTN), and on to the calling party or the party called. If

the call is destined for another portable Globalstar™ phone, the call continues through a second gateway, up to a satellite, and back down to the receiver.

The topic of communication-satellite systems for telephony was selected for the fall section meeting because the technology is expected to have a significant impact on the global and southeastern Michigan economy. Developing economies are also recognizing that modern telecommunication is critical and fundamental to building of a nation.

Communication-satellite systems will be a major contributor to the global-economic developments, as the information era evolves. Communication companies are rising up to the challenge and projecting the implementation of full global wireless telephone system by 1999. The technology will also provide other digital telecommunication services, such as *data transmission, paging, facsimile, position location* to areas currently under serviced or not serviced by existing wireline and cellular telecommunication systems.

The IEEE/SEM Fall '98 Section Meeting is co-sponsored by IEEE Southeastern Michigan Section, Wayne State University College of Engineering and Globalstar. The program committee has attempted to develop a meeting to meet your professional needs. We invite you and your friends to register and participate in the meeting. Updated details will be presented in the October issue.

Help us manage the meeting more effectively by registering early.

Contact *Jim Woodyard* (woodyard@eng.wayne.edu, 313-577-3758) for any relevant information, to volunteer, or to communicate suggestions.

Volunteers Needed For Future City Competition

by *Don C Bramlett, PE, IEEE/SEM Section Advisor*

IEEE/SEM section members are invited to participate in the Sixth annual National Engineering Week (NEW) Detroit Regional Future City competition. The competition is scheduled to be held in the third week of January 1999 at a location to be announced later. The competition consists of a team of middle school students, a teacher and an engineer as advisor. There are five phases in the competition:

- 1) Design a future city using Simcity 2000 software
- 2) Use Urban renewal kit, to produce a color CAD presentation of the Top(aerial) View of the city.
- 3) Build a scale (30"(W)x 60"(L)x24"(H), maximum) model of any one section of the city.
- 4) Write a 500 words essay (subject: city planning).
- 5) Give an Oral presentation at the Detroit Regional competition.

The role of the volunteer engineer is to serve as a mentor to the students. He/she may be involved in all the phases of the project as an advisor only. The volunteer engineer will typically spend 18-24 hrs with a team of students from mid-October through the third week of January 1999. Finally the volunteer engineer for the winner of the Detroit Regional competition would get an opportunity to accompany a team of 3 students and a teacher on a free trip to the National competition in Washington DC during NEW, Feb. 21-28 1999

Be a part of the exciting Detroit Regional Future City competition. This is one of the most stimulating and rewarding pre-college educational programs. You as a volunteer will share practical engineering skills such as teamwork, problem solving, CAD and applied Math and science. Engineers are also needed as Judges on the day of the competition.

ESD-The Engineering Society will serve the primary sponsor for the competition and as a member organization of the ESD Affiliate Council, the IEEE/SEM Section strongly encourages members to participate in this worthwhile endeavor.

A comprehensive Teacher/Engineer Volunteer Handbook is available, detailing contest specifics and other relevant information. To receive this free handbook or to register as a volunteer engineer, please call Maureen Simari at ESD- Engineering Society at 248-355-2910.

ENGEL - KLAES COMPANY

32540 Schoolcraft Rd., #130 Livonia, MI 48150

Power Equipment Sales for the following Products:

ABB Cast Coil Transformers, ADALET-PLM Cast Enclosures & HV Cable Accessories, C&D Stationary Batteries, DELTA UNIBUS Isophase Bus, DOBLE Test Equipment, FISHER-PIERCE Photo Electric Controls, HUBBELL/FEMCO Remote Control Systems, METHA TECH Fault Recorders, GEC ALSTHOM Breakers, GE MULTILIN Protective Relays, OLSUN Dry Transformers, PAUWELS Liquid filled Transformers, POWELL Switchgear, PRINGLE High Current Switches, SANTANA Insulators, SOLIDSTATE CONTROLS UPS Systems, SOUTHERN STATES HV Switches, UNIBUS Bus Duct Systems.

For Technical Information : P(734) 513-0330 F(734) 513-0335



IEEE Southeastern Michigan Section Executive Committee

Officers

| | | |
|------------|--------------------|--------------|
| Chair | Sandy Hunter | 248-524-0645 |
| Vice Chair | James Woodyard | 313-517-3758 |
| Secretary | John Miller | 313-322-7486 |
| Treasurer | Donald Silversmith | 313-577-0248 |

Administrative Activities

| | | |
|-------------------------|----------------|--------------------|
| Past Chair | George Peters | 519-972-2727 x4447 |
| Section Advisor | Don Bramlett | 313-235-7549 |
| Student Activities | Mohamed Zohdy | 248-370-2234 |
| Professional Activities | Tarek Lahdhiri | 519-253-4232 x3436 |
| Technical Activities | Satyendra Basu | 313-235-6523 |
| Educational Activities | Ece Yaprak | 313-994-0550 |
| Membership | Maurice Snyder | 734-973-1300 |

IEEE/SEM Chapters

- I Circuits & Signal Processing:** Acoustics, Speech & Signal Processing (ASSP-01), Circuits & Systems (CAS-04), Information Theory (IT-12) and Control Systems (CS-23)
- II Vehicular Technology:** Vehicular Technology (VT-06)
- III Comm. & Aero. Electronics:** Aerospace & Electronics Systems (AES-10) and Communications (COM-19)
- IV Trident:** Electron Devices (ED-15), Microwave Theory & Techniques (MTT-17) and Antennas & Propagation (AP-03)
- V Computer:** Computer (C-16)
- VI Geoscience & Remote Sensing:** Geoscience & Remote Sensing (GRS-29)
- VII Power Eng. & Ind. Apps.:** Power Engineering (PE-31) and Industrial Applications (IA-34)
- VIII EMC:** Electromagnetic Compatibility (EMC-27)
- IX Power & Ind. Electronics:** Power Electronics (PEL-35) and Industrial Electronics (IE-13)
- X Engineering Management:** Eng. Management (EM-14)

EDITORS

| | |
|-------------------|-------------------------|
| Anita Malhotra | Gianna Barberi |
| O: 313-845-2409 | O: 313-961-2242 x1826 |
| H: 810-268-0249 | H: 248-674-4479 |
| amalhot1@ford.com | gianna.barberi@gale.com |

PRINTER

Progressive Printing
1326 Goldsmith
Plymouth, Michigan 48170
734-459-2960



COPY DEADLINE: News items are due the first day of the month for an issue which is published the following month, e.g. April 1 is the deadline for the May issue.

ADVERTISING RATES CIRCULATION OVER 4000

| Ad Size | Annual Rate (8 issues) | Single Issue Rate |
|----------|------------------------|-------------------|
| 1/8 page | \$525 | \$85 |
| 1/4 page | \$1000 | \$160 |
| 1/2 page | \$1900 | \$300 |
| 1 page | \$4000 | \$650 |

(Special color, sizes & placement quotes available upon request)

POSTMASTER Send address changes to:

IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854.
Phone: 732-981-0060 x150. USPS 878-660

POSTAL INFORMATION NOTICE

The newsletter of the Southeastern Michigan Section of IEEE, "Wavelengths", (USPS 878-660), is published monthly 8 times per year except June, July, August & December by the Institute of Electrical and Electronics Engineers, Inc. Headquarters: 345 East 47th Street, New York, NY 10017-2394. \$1.00 per member, per year (included in annual dues) is designated for each member of the Southeastern Michigan Section. Periodicals Postage Paid at New York, NY and at additional mailing offices.

Visit the following IEEE World Wide Web sites:

Section: www.ieee.org/regional/section/se_michigan
Computer Chapter: www.egr.msu.edu/ieeesem/chapv/
IEEE: www.ieee.org
IEEE Region 4: www.ieee.org/regional/r4/



Calendar of Events

- | | | |
|-------------------------|--|---|
| Tuesday September 1 | Meeting: Time: Location: Sponsor: Contact: | Executive Committee Dinner at 6 p.m., meeting 6:30 p.m. Eaton Corp., 26201 Northwestern Highway, Southfield IEEE/SEM Kimball Williams, 248-354-2845 |
| Thursday October 8 | Topic: Speaker: Time: Location: Sponsor: Contact: | Collaborative Classrooms in Cyberspace Dr. Douglas Short 3:30 p.m. 201 Dodge Hall, Oakland University, Rochester Oakland University School of Engineering and Computer Science, 248-370-2212 |
| Wednesday October 28 | Event: Time: Location: Contact: Comment: | IEEE/SEM Fall Section Meeting Check in opens at 5:30 p.m. McGregor Memorial Conference Center on the campus of Wayne State University Jim Woodyard, 313-577-3758 woodyard@eng.wayne.edu See article on pages 1 and 2. Be sure to register using the form on page 7! |

Electromagnetic Test, Analysis & Consulting

The Eaton Detroit Center provides OEMs and suppliers worldwide with full-service test and analysis capability in more than 50 vehicle technologies, including the following electromagnetic test, analysis and consulting services:

- **New Product Test, Evaluation, Problem Resolution, Validation, and Standards Certification**
- **Evaluation of Materials Shielding**
- **Customer-Site Problem Analysis and Resolution**
- **In-Plant Power Quality Analysis**
- **NVLAP/NARTE Certified**
- **Consulting on EMC and Power Quality Issues**
 - **New Product Concepts**
 - **Existing Product**
 - **Specifications**
 - **Revisions**
 - **Test Plans**
 - **Re-Designs**

Eaton has earned more customer quality awards than any peer, and the first-ever *SAE Henry Ford II Distinguished Award For Excellence In Engineering ...* Find out why! For more information on laboratory hours and how we can support your test and developments programs, call Kimball Williams at (248) 354-2845.

Eaton Corporation
Corporate Research & Development
26201 Northwestern Highway
Southfield, MI 48037



Section Officers

Chair



Sandra Hunter
EDS
O: 248-524-0645
H: 248-588-0355
Fax: 248-524-8950
s.e.hunter@ieec.org

Vice Chair



James Woodyard
Wayne State Univ.
O: 313-577-3758
H: 313-563-3186
Fax: 313-577-1101
woodyard@eng.wayne.edu

Secretary



John M. Miller
Ford Motor Co.
O: 313-322-7486
H: 313-429-2877
Fax: 313-323-8239
jmille24@ford.com

Treasurer



Donald Silversmith
Wayne State Univ.
O: 313-577-0248
H: 248-350-9578
Fax: 313-577-1101
silversm@ece.eng.wayne.edu

Past Chair



George Peters
St. Clair College
O: 519-972-2727 x4447#
H: 519-972-9907
Fax: 519-966-3533
GPeters@stclairc.on.ca

Section Directors

Professional



Tarek Lahdhiri
Univ. of Windsor
O: 519-253-4232 x3436
H: 519-256-5925
Fax: 519-973-7053
tl007@uwindsor.ca

Membership



Maurice Snyder
Applied Dynamics Int., Inc.
O: 734-973-1300
H: 734-741-1241
Fax: 734-741-0383
snyder@adi.com

Technical



Anthony Will
Detroit Edison
O: 810-986-9557
H: 810-412-9884
Fax: 810-986-2169
awill@wwnet.net

Educational



Ece Yaprak
Wayne State Univ.
O: 313-577-0875
H: 313-994-0550
Fax: 313-577-1781
yaprak@ozric.eng.wayne.edu

Student



Mohamed Zohdy
Oakland Univ.
O: 248-370-2234
H: 248-375-9159
Fax: 248-370-4261
zohdyma@vela.acs.oakland.edu

Administrative

Senior Past Chair



David Horvath
Advent Eng. Services, Inc.
O: 734-930-7500
H: 734-426-8452
Fax: 734-741-9370
DAHorvath@aol.com

Section Advisor



Don Bramlett
Detroit Edison
O: 313-235-7549
H: 734-525-5422
Fax: 313-235-5180
d.bramlett@ieec.org

Section Support



Satyendra Basu
Detroit Edison
O: 313-235-6523
H: 248-524-0058
Fax: 313-235-8597
basus@detroitiedison.com

Wavelengths

Editor



Anita Malhotra
Ford Motor Co.
O: 313-845-2409
H: 810-268-0249
Fax: 313-621-4706
amalhot1@ford.com

Assistant Editor



Gianna Barberi
Gale Research, Inc.
O: 313-961-2242 x1826
H: 248-674-4479
gianna.barberi@gale.com



Chapter Officers

Chapter I

Circuits & Signal Processing:
(ASSP-01, CAS-04, IT-12, CS-23)

Chair



Fathi M. A. Salam
Michigan State Univ.
O: 517-355-7695
H: 517-347-0660
Fax: 517-353-1980
salam@ee.msu.edu

Vice Chairs

Charles MacCluer **Sandra Yost,**
Hoda Abdel-Aty- **CSJ**
Zohdy **Rob Cadena**
 Robert Nowak
 Ning Xi

Chapter II

Vehicular Technology:
(VT-06)

Chair



Ken N. Rao
O: 248-266-3587
H: 248-952-1628
Fax: 734-266-4854
kn_rao@kh.com

Vice Chairs

Elias Strangas
Edzko Smid

Chapter III

Comm. & Aero. Electronics:
(AES-10, COM-19)

Chair



Robert Desoff
Ameritech
O: 734-983-8530
H: 734-455-0338
Fax: 734-983-8488
rgd@compuserve.com

Vice Chair

Bruce Block

Chapter IV

Trident:
(ED-15, MTT-17, AP-03)

Chair



Timothy Grotjohn
Michigan State Univ.
O: 517-353-8906
H: 517-349-4746
Fax: 517-353-1980
grotjohn@ee.msu.edu

Vice Chairs

Lisa M. Anneberg
Joseph Burns

Chapter V

Computer:
(C-16)

Chair



Charles Severance
Michigan State Univ.
O: 517-353-2268
H: 517-694-0892
Fax: 517-355-7516
crs@egr.msu.edu

Vice Chairs

Sylvia Karmanoff
Nizar Al-Holou
Subramaniam Ganesan
Syed Mahmud
Nabil Hachem

Chapter VI

Geoscience & Remote Sensing:
(GRS-29)

Chair



Robert Onstott
ERIM
O: 734-944-1200x2544
H: 734-426-8316
Fax: 734-994-5824
Onstott@erim-int.com

Vice Chair

Leland Pierce

Chapter VII

Power Eng. & Ind. Apps.:
(PE-31, IA-34)

Chair



Thomas Powell
McNamee, Porter & Seeley, Inc.
O: 313-964-0790
H: 734-528-0894
Fax: 313-964-6957
tompowell@iee.org

Vice Chairs

Ib Bentzen-Bilkvist
Brian Harrington
Shamala Chickamenahalli

Chapter VIII

EMC:
(EMC-27)

Chair



Dennis Barberi
General Dynamics
O: 810-825-8854
H: 248-674-4479
Fax: 810-825-4013
Barberi@gdls.com

Vice Chair

Scott Lytle

Chapter IX

Power & Ind. Electronics:
(PEL-35, IE-16)

Chair



Yu Chin Qin
Controlled Power Company
O: 248-528-0411 x201
H: 248-689-9361
Fax: 248-528-0411
chin-yu@controlledpwr.com

Vice Chairs

Ka C. Cheok **Gamze Erten**
Shamala Chickamenahalli
Subramaniam Ganesan

Chapter X

Engineering Management:
(EM-14)

Chair



Prakash Shrivastava
General Motors
O: 810-986-2206
H: 248-641-0063
Fax: 810-986-8722
Inustc1.lz1nj@gmeds.com

Vice Chairs

Carl McGlashan
Stephen Kishok

Networking the World ...

Continued from Page 1

Here are some of the ways the section, chapters and student branches support the IEEE Networking the World goals.

The ten IEEE/SEM chapters are vital links in the local IEEE network. The chapters hold numerous technical meetings in their specialty areas each year. These meetings foster technical innovation by presenting new or timely information about trends, standards, applications, problems with electrical, electronic, and software systems. They expose members to new ideas, stimulate their imaginations, and allow them to apply what they have learned back at their jobs. By using IEEE's Distinguished Lecturer Program, the chapters bring acknowledged experts to locations near you. Chapter meetings also provide networking opportunities for you to meet and talk to fellow engineers and computer scientists. You can find out about trends in local industries and new research, offer career guidance to a new engineer, ask peers for advice on solving a problem at work, and even make new friends by attending meetings.

By providing mentors and judges for the Future Cities competition, IEEE/SEM members can share their enthusiasm for math, science, and engineering with middle school students and their teachers. At the Metro Detroit Science and Engineering Fair, our members, serving as judges for IEEE/SEM awards, encourage students to pursue technical interests and consider careers in engineering. Both of these activities help students and their families better understand engineering and computer science. Hopefully, the section's efforts will enlighten the public about what engineers do and persuade more people to pursue technical careers.

The section's active student branches are another example of the Networking the World theme. Technical and professional programs at the branches foster innovation and prepare students to enter the workforce. Design contests, such as the Bucket O' Parts competition, bring students from several universities together, allowing them to be inspired by each other. Several of the student branches sponsor outreach programs to encourage middle and high school students to consider engineering careers.

These are just a few of the ways in which the section promotes life-long learning, career development, and community outreach. While the section has done a good job in these areas in the past, we still have room for improvement.

I encourage members to become involved. Share your suggestions for conferences and non-technical seminars with section officers. Tell us what you like about *Wavelengths* and section meetings so

that we maintain those services. Volunteers are always welcome to help the section and chapter officers achieve these goals. You can find contact information for this year's officers inside this newsletter. Through your membership and active participation, you can "network the world" as well. Your input is important to shaping and implementing my goals for the section.

The first goal is to attract a least one more IEEE conference to be held in the area in the next 3-5 years. (Conference sites for large conferences are usually determined several years prior to the event.) The only currently planned conferences in the IEEE/SEM area are the "1998 IEEE Workshop on Power Electronics in Transportation" and the "1999 IEEE International Conference on Robotics and Automation." Local members benefit from conferences since members do not have to travel far to gain knowledge and new contacts. The section may also benefit financially as well if we provide seed money to the conference organizers. With past conferences, the section has recouped its initial investment plus a healthy gain.

My second goal is to increase the number of career development and professional activities in the section. Topics such as how to plan and execute projects, work cooperatively with customers and peers in other countries, and balance work & family life are as relevant to members' lives as the technical activities that the section provides.

My third goal is to balance the section's income and expenditures. As past Treasurer's have noted, the section typically spends more each year than its income. The section has been able to do this in the past since conference sponsorships generated income about every three to four years. However, the section lacks a pipeline of sponsored conferences now. Developing budgets for section meetings to help ensure that all costs will be recovered is one step in this direction. The section also has a subcommittee working on ways to either increase the revenue or decrease expenses for *Wavelengths* while preserving the value the newsletter provides. Obtaining funds from Region 4 for development of new programs will also help the section's finances. A financially strong section will be able to provide valued services to its members now and in the future.

Achieving these goals will require the support and involvement of section and chapter officers and members. The Executive Committee has endorsed fiscal responsibility and sponsoring more conferences for at least the past two years. This is the year to take decisive action. I am looking forward to working with this year's officers to achieve these goals.

FCC Class A and B Testing of Computing Devices and Systems

Radiation Laboratory
University of Michigan
(734) 764-0500

*Fast, accurate, local testing for
compliance with FCC Regulation Part 15
Subpart J.*

**MICHIGAN STATE
UNIVERSITY**

**Free Preview of a
New Web-Based
On-Line Course**

Internet and Technology

<http://www.vu.msu.edu/preview/egr124/>

IEEE/SEM Fall '98 Meeting Registration Form

Complete and mail form with an early registration fee of \$25 per person. The registration fee includes technical session attendance and dinner. Complete this form for each person attending. Please make check payable to IEEE/SEM and forward along with a completed registration form to: **Graeme Rogerson, MIRA North America, 47523 Clipper St., Plymouth, MI 48170.**

| Fee Type | Amount | Deadline |
|----------------------|--------|--|
| Registration | \$25 | Received by 5 p.m. 10/16/98. |
| Late Registration | \$30 | Phone call to Graeme Rogerson, 734-455-8200, by 5 p.m. 10/23/98. |
| Student Registration | \$12 | Register & pay through student branch. |

There will be express check in for registered attendees.

Please type or print:

Name: _____
 Address: _____
 City/State/ZIP: _____
 Phone Number: _____ [] H [] W
 Company: _____
 Amount enclosed: \$ _____ Registration (\$25 per person)

Indicate your choice of meal:

[] Regular - Chicken Marsala or [] Vegetarian

Indicate which technical session you wish to attend:

- Chapter I: Circuits & Signal Processing
"Digitally programmable RF Front Ends: Towards Universal Mobile Communication Service"
- Chapter II: Vehicular Technology
Topic to be determined
- Chapter III: Comm. and Chapter VI: Geoscience & Remote Sensing
"Cellular Service using Globalstar Satellite System"
- Chapter IV: Trident
"The Use of Surface Microscopy for Electronics Development"
- Chapter V: Computer
"Teaching Courses Using Video on the World-Wide Web"
- Chapter VII: Power Eng. & Ind. Apps.
"An Overview of the Midfield Terminal at Detroit Metropolitan Airport"
- Chapter VIII: EMC
"Global EMC Requirements"
- Chapter IX: Power & Ind. Electronics
"DSP in Industrial Applications"
- Chapter X: Engineering Management
Topic to be determined
- Student Track
"Simulation in the Classroom-Designing Virtual Labs"

Directions to McGregor Memorial Conference Center Located on the Campus of Wayne State University

The McGregor Memorial Conference Center is located on the main campus of Wayne State University, southwest of the corner of Palmer and Cass.

The conference center is readily accessible from any of Detroit's freeways.

From I-94: Exit at the Woodward exit. Take John R south to Palmer. Proceed west on Palmer across Woodward and Cass. The parking areas are west of Cass on Palmer.

From I-75: Exit at Warren Avenue. Proceed west to Woodward. Turn north onto Woodward, proceed to Palmer. Turn west onto Palmer. Proceed across Cass. The parking areas are west of Cass on Palmer.

From US 10 (the Lodge): Exit Warren Avenue. Proceed east on Warren to Cass. Turn north onto Cass, proceed to Palmer. Turn west onto Palmer. The parking areas are west of Cass on Palmer.

Parking



Parking will be in the Guest and Visitors Parking Lot and Parking Structure No. 1. Both parking areas are located west of Cass as shown on the map. IEEE/SEM meeting signs will be located in front of the parking areas. Wayne State University Hosts will be wearing dark blue T-shirts bearing the IEEE logo. They will be in front of the parking areas, along the walkway to the McGregor Memorial Conference Center, and in the Center to assist you in finding your way to the meetings. Hosts will also be available after the meeting to help you find your way to your car and use the provided parking cards that are necessary to exit Parking Structure No. 1.

Upon parking, walk south through the breeze way between the Law School and the Law Library. McGregor is the first building on the right. Should you arrive at the center after 5:45 p.m., proceed to the meeting area and register during the social period.



Specializing in :

- Commercial and Industrial Electrical Construction
- Standby Emergency Generating Systems
- Uninterruptible Power Supply (UPS) Systems
- Computer Room Electrical Distribution Systems
- X-Ray Equipment Installations for Hospitals and Clinics

Please Contact: Stephen W. Talbot, P.E. Vice President

11887 Belden Court
Livonia, MI 48150
(734) 261-3440

Members:
IEEE, NECA, IBEW, IAEI

Note From The Editors *by Anita and Gianna*

Hello Everyone!

We would like to extend a special thanks to former editors Sandy and Mark Hunter for all of their help. Also, many thanks to Jim Woodyard, the section officers and everyone who has contributed and helped in the completion of the September issue.

Anita would also like to thank John Miller for his encouragement to volunteer.

We are looking forward to serving you as editors and welcome your contributions to *Wavelengths*.

PERIODICAL POSTAGE PAID
AT PLYMOUTH, MICHIGAN

Does the mailing label show "Membership Expired"? If so, our records show you didn't pay your dues last fall.

It's not too late! If you just forgot then you can still renew and maintain a continuous membership. Contact Mark Hunter at m.hunter@ieee.org or 248-588-0355 to get a renewal form, check your membership status, get general membership information or just to let us know of ways that the section might provide more service to its members. You can also find online help and information at www.ieee.org and at the local section and web sites listed on page 3 of this newsletter.

Hundreds of the IEEE/SEM members fail to renew their membership each year. Some have decided to let their membership lapse but some of you simply placed that renewal letter on the mail pile last year and it was forgotten in the pile. I

know several people who thought they had renewed this year until it was brought to their attention that their membership was in "Arrears". You don't have to find that old letter. We can help you get your membership easily activated again. If the label is incorrect then let me know so our local records will be correct.

Even if you are letting your membership lapse, we would still like to hear your thoughts on how we can better serve our members. Make an effort to come to our Fall Section Meeting to find out what the local section has to offer or at least just spend an evening with fellow engineers.

...don't let this be one of your last Wavelengths!

Students win top honors in VLSI Design Contest

by Catharine June

Students from the University of Michigan and Seattle University took top honors in the 1998 student VLSI Design Contest.

This contest was initiated in 1981 by Prof. Richard Brown (U-M) and Prof. Kent Smith (U of Utah), to promote excellence in education for integrated circuit designers at universities. This event provides competition to students in the design and fabrication of integrated circuits, at the novice level and the experienced level.

This year seven schools across the country participated in the contest. The award ceremony for the contest was held at the U-M Electrical Engineering and Computer Science building. The winners took home a combined total of \$14,000.

The winners in the experienced class were :

- 1st place: Univ. of Michigan (Matthew Postiff , Timothy Strong)
- 2nd place: Iowa State University (S. Karthikeyan, A. Tammineedi)
- 3rd place: Univ. of Michigan (N. Baisa, S. Monasa, O. Pon, M. Vanderploeg).

The winners in the novice class were:

- 1st place: Seattle Univ. (Chris DeForest, Melissa Degan and Alexandre Plombin)
- 2nd place: Univ. of Michigan (I. Lin, C. Lin, Y. Zhang and J. Cao)
- 3rd place: Stanfrd Univ. (H. Rodriguez, J. Medlock) and Univ. of Washington (D. Haube, J. Reiter).

For sponsors to the event, and other relevant information, please visit the web site :

<http://www.eecs.umich.edu/VLSI/press98.html>

Get on track with Lawrence Tech's graduate engineering programs!

Lawrence Tech's Masters of Automotive Engineering, Engineering in Manufacturing Systems, Civil Engineering and Computer Engineering programs emphasize the vital interplay between manufacturing, engineering, research, suppliers and management. Most feature cross-disciplinary programs for mechanical, electrical and civil engineers, part of the University's commitment to enhance the growth of today's working professionals.

*Evening classes designed for practicing engineers
Outstanding faculty with top academic credentials and
professional experience*

*Classes begin January, May and August
Graduate in two years attending classes twice per week
Full service campus*

21000 West Ten Mile Road



Southfield, MI 48075-1058
1-800-CALL-LTU, ext. 1
TDD (248) 204-4117
<http://www.ltu.edu>



Defining the World of the Future

ERIM International, Inc.
P.O. Box 134008
Ann Arbor, MI
48113-4008

ERIM International, a world class R & D firm, is continuing to solve tough technical problems for our customers. We are expanding into commercial and international markets, and are seeking high calibre technical staff to help forge the way.

Broad areas of technology: Remote Sensing, Advanced Radar, Signal Processing and Image Processing. Specific needs: Automotive Electronics, Intelligent Transportation Systems, Radar System Engineering and Radar Hardware Development (rf, analog and digital).

US CITIZENSHIP REQUIRED www.erim-int.com