

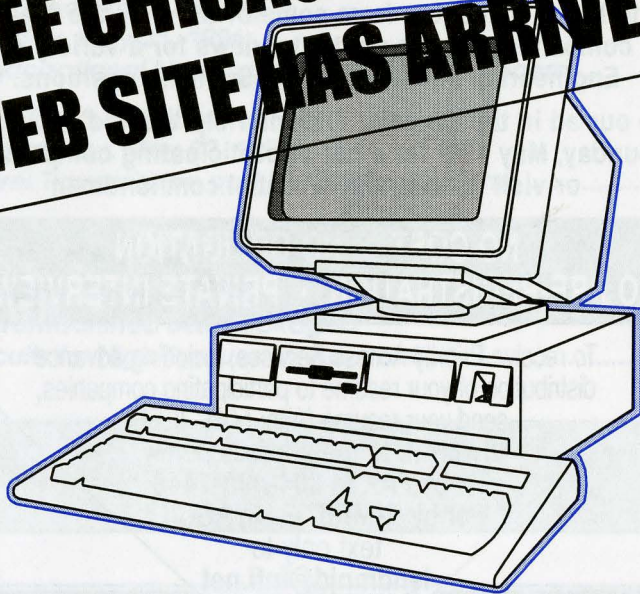


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Institute of Electrical & Electronic Engineers ☞ Chicago Section Newsletter

MAY 1996

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IEEE CHICAGO PROGRAM

MAY 1996

- **IEEE Power Engineering Society**
Tuesday, May 8, 1996
New Cable Technologies..... Page 5
- **IEEE Electron Devices Society**
Thursday, May 16, 1996
*Photonic Switching Using
VLSI Optoelectronic Devices..... Page 7*
- **IEEE Power Electronics Society**
Tuesday, May 21, 1996
Organizational Meeting and Election of Officers..... Page 8
- **IEEE Fox Valley Subsection**
Wednesday, May 22, 1996
Power Transmission and Distribution Systems..... Page 9
- **IEEE Antennas and Propagation Society and
Microwave Theory and Techniques Society**
Thursday, May 23, 1996
*Micromachined Self-Packaged
Circuits for High Frequency Applications..... Page 11*

Chicago Section Executive Committee Meeting
Tuesday • May 14, 1996 • 7:15 PM
DeVry • 1221 N. Swift Road • Addison, IL

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SUBMITTAL DEADLINES
Articles for September '96 Scanfax due July 25.
Submit articles to Editor.

TO PLACE AN ADVERTISEMENT
Call the Chicago Section Business Office at 800/898-4333.



NEW CABLE TECHNOLOGIES

Presented by
Roland Watkins of BICC-USA

Wednesday, May 8, 1996

ABOUT OUR TOPIC

Mr. Watkins will discuss new cable constructions developed for use in the transmission, distribution, power and control cable industry; requirements of the 1996 National Electric Code for flexible and flame resistant cables.

ABOUT OUR SPEAKER

Roland Watkins is a utility business development manager with BICC Cables Corp. He has 30 years of cable industry experience, with more than 20 years of senior management positions at Anixter, Inc. A professional engineer, Mr. Watkins graduated from Heriot Watt University, Edinburgh, Scotland with a Bachelor of Science Degree in Electrical Engineering and a Masters Degree in Mechanical Engineering. He is a member of the International Wire and Cable Symposium, a past Chairman of ICC (Insulated Conductors' Committee), a Chairman of the 1994 IEEE/PES Transmission and Distribution Conference and Exposition, and a Vice-Chairman of Special Technical Conferences of IEEE/PES.

PLACE

Chicago Bar Association
321 S. Plymouth Court
Chicago, IL
(Near Jackson and Dearborn)

TIME

Social 11:30 AM
Lunch 12:00 PM
Presentation 12:30 PM

NOTES

Lunch tickets can be purchased in the Chicago Bar Association Shop on the first floor for \$8.50.

FOR RESERVATIONS

Please call the IEEE Business Office at (800) 898-IEEE to make your reservation no later than noon, Monday, May 6th.

FOR FURTHER INFORMATION

Contact Sam Peach at (815) 942-2920 x3866.

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accommodating working adults with evening classes at Chicago suburban locations

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CEMM 415	Environmental Geotechnology
EECS 433	Computer Communication Networks
EECS 460	Computer Algorithms
EECS 527	Optical Electronics
EECS 571	Software Engineering Environments
ME 412	Dynamic Systems Analysis I
ME 421	Intermediate Heat Transfer
ME 594	Mathematical Models of Engineering

Contact the Off-Campus Programs Coordinator:

Phone: 312/996-2311
Fax: 312/413-7950
E-mail: cmk-ob@uic.edu

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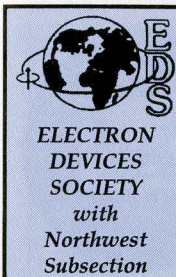
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PHOTONIC SWITCHING USING VLSI OPTOELECTRONIC DEVICES

Presented by
Dr. Anthony Lentine of AT&T Bell Laboratories

Thursday, May 16, 1996

ABOUT OUR TOPIC

Optical interconnections are playing an increasing role in the development of large telecommunications switching and computing systems. While fiber optic interconnections between circuit boards are now common, enhanced performance and lower cost may be possible by integrating optical receivers and transmitters directly onto VLSI circuitry.

Current research at Bell Labs in this area includes VLSI optoelectronic circuits consisting of the hybrid integration of quantum well optical modulators and detectors. This talk will describe recent research in free space photonic switching, including motivation, architectures, optical and optomechanical system design, the optoelectronic VLSI devices, results from photonic switching system experiments, and a discussion of future work in this area.

ABOUT OUR SPEAKER

Dr. Lentine received his BS and MS degrees in Electrical Engineering from the University of Illinois - Urbana in 1979 and 1980, respectively; he received his Ph.D. from Heriot-Watt University, Edinburgh, UK in 1993. He began his professional career at Bell Labs working on microwave integrated circuits. Since 1985, he has been a leading researcher in the areas of smart pixel optoelectronic devices and optical interconnects. This work has resulted in over 50 refereed journal articles and 17 patents.

PLACE

Motorola Schaumburg Campus
Building 1301, Door Location 13
1301 Algonquin Road, Gate A

TIME

Meeting 7:00 PM

NOTES

Coffee and rolls will be available.

FOR RESERVATIONS

Please call the IEEE Business Office at (800) 898-IEEE to make your reservation before Wednesday, May 15th. Reservations are required. Your attendance will be confirmed.

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- Modeling and Simulation for Business Decisions

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**POWER
ELECTRONICS
SOCIETY**

ORGANIZATIONAL MEETING AND ELECTION OF OFFICERS

Tuesday, May 21, 1996

ABOUT OUR MEETING

Help is **urgently** needed to organize and run the chapter if it is to continue to operate successfully. A meeting will be held to elect officers and discuss activities for next season, and anyone interested in power electronics is invited to attend. *See you there!*

PLACE

Motorola Schaumburg Campus
Building 1301, Door Location 13
1301 Algonquin Road, Gate A (Algonquin and Meacham Roads)
Schaumburg, IL

TIME

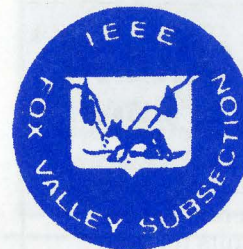
Meeting 7:00 PM

FOR RESERVATIONS

Please register by calling the IEEE Business Office at (800) 898-IEEE by noon, Monday, May 20th.

FOR FURTHER INFORMATION

Contact George Studtmann at (847) 392-7189.



POWER TRANSMISSION AND DISTRIBUTION SYSTEMS

Presented by

Mark Hamann and John Bettler of ComEd

Wednesday, May 22, 1996

ABOUT OUR TOPIC

Have you ever wondered how power is transmitted and distributed to your home or business? This presentation will answer many of your questions from Power Transmission and Distribution to the basic Rating Structure of ComEd. There will also be a general discussion with questions and answers.

ABOUT OUR SPEAKER

Mark Hamann, EIT, CEM, is a member of the Technical Services Industrial Segment Department of ComEd. Mark graduated from IIT with a BSEE. He has developed, coordinated, and implemented ComEd's Industrial Motor Testing Program which analyzes operating load and efficiency of industrial motors, and compares them to energy efficient motors.

John Bettler is a member of the Technical Services Technology Specialists Group of ComEd. John received his BSEE from Iowa State University and his MSEE from IIT. John first worked in ComEd's Operational Analysis Department where he analyzed and troubleshot various high and low voltage relaying equipment, breakers, and distribution system equipment. John now performs data acquisition and analysis on various client equipment.

PLACE

Jerry Sharko's
2225 Ogden Ave.
Lisle, IL

TIME

Social 6:00 PM
Dinner 7:00 PM
Presentation 8:00 PM

NOTES

Dinner costs \$15.00 per person and the presentation is free. Dinner menu includes Caesar Salad, Dinner Rolls, Stir Fry Chicken Entree, Coffee, and Dessert. Dietary and vegetarian meals can be requested when you make your reservation. Fox Valley Officer elections will be held before the presentation.

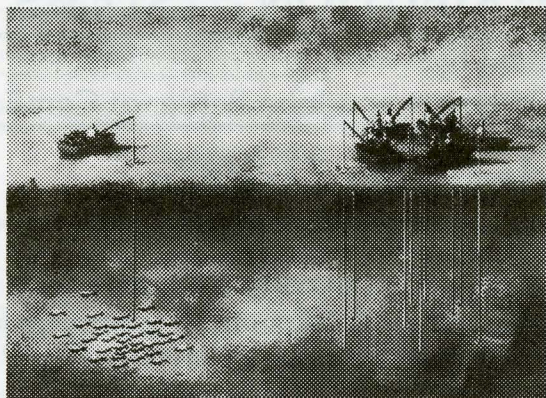
FOR RESERVATIONS

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FOR FURTHER INFORMATION

Contact Howard Penrose at (708) 347-8850, hpenrose@ieee.org

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MICROMACHINED SELF-PACKAGED CIRCUITS FOR HIGH FREQUENCY APPLICATIONS

Presented by Professor Rhonda Drayton
of the University of Illinois at Chicago

Thursday, May 23, 1996

ABOUT OUR TOPIC

In the past few years, micromachining techniques have been used in a variety of high frequency application areas related to antenna designs, high performance transmission lines, and monolithic packages. The result is the development of planar circuit and antenna designs that offer improved and in some cases optimum performance. Traditionally, micromachining techniques have been used extensively in sensor-related applications. Its use in high frequency applications is gaining popularity since it offers a low-cost solution for compact, high performance designs.

The development of the first monolithic "self-package" addresses problems associated with radiation and cross-talk between neighboring circuits on a single substrate. The advantages offered by this package include reduction of parasitic radiation and substrate mode coupling. In addition, it is lightweight, small in size, and monolithically incorporated into the planar circuit design. This talk focuses on the use of micromachining in high frequency applications. Specifically, the development and characterization of the self-packaged circuit is presented along with results for a number of high frequency circuit elements commonly found in many planar designs.

There will be a tour of the Microfabrication Applications Laboratory at UIC.

ABOUT OUR SPEAKER

Dr. Rhonda Franklin Drayton joined the EECS department as an Assistant Professor at the University of Illinois at Chicago this year. She is a recent graduate of the Radiation Laboratory in the EECS department at the University of Michigan. During that time, she also worked at Lawrence Livermore National Laboratory on a variety of projects related to microwave engineering.

PLACE

University of Illinois at Chicago
842 W. Taylor Street, Room 1043 ERF
Chicago, IL

TIME

Tour	6:00 PM
Dinner	6:30 PM
Presentation	7:00 PM

FOR RESERVATIONS AND DIRECTIONS

Please call the IEEE Business Office at (800) 898-IEEE to make your reservation no later than noon, Tuesday, May 21st. They will provide you with travel directions. Dinner will cost approximately \$17.



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