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Institute of Electrical & Electronic Engineers  Chicago Section Newsletter

JUNE 1996



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Spotlight on the Computer Society

To All Members of the IEEE Chicago Section's Computer Society Chapter:

I am very excited for the opportunity to be your Chair for the 1996-97 term. With great pleasure, I would like to introduce the newly elected members of the Executive and Steering Committee.

Chair..... Arup Bhuyan, Lucent Technologies
Vice Chair Adrienne Novick, Argonne National Labs
Secretary Joe Feitler, Retired
Program Chair Jack Sherman, Motorola Corp.
Arrangements/Membership... Norma Mackay, Lucent Technologies
Publicity..... Krish Krishnamachari, Lucent Technologies
Steering Committee Member.. Don Bak, Motorola Corp.

Our most important goal will be to serve your interests. To accomplish this, I would like to hear from you about your technical and professional needs and your ideas for this chapter's activities. You can reach me at 708-713-7759 or send e-mail to a.bhuyan@ieee.org.

Our chapter will continue to be the forum for you to discuss and learn about the research and development in areas such as the explosive use of the internet and the latest advances in personal computing. We will bring to you experts from academia and industry for technical activities such as evening talks and workshops. Our student members will benefit from direct networking with industry professionals.

Along with technical growth, this chapter will focus on personal growth of its members as well. Involvement with the community where we live through activities such as working with high school students to generate interest in careers in Science and Technology will be a high priority for this chapter.

Before I end, I would like to thank Jack Sherman, Chicago Section Chair, for his guidance during the election process and Joe Feitler, Past Computer Chapter Chair, for transitioning his responsibilities to me. Above all, I deeply appreciate the support of those who helped to form this committee.

Sincerely,
Arup Bhuyan

IEEE CHICAGO PROGRAM

JUNE 1996

- **IEEE Nuclear Science and Plasma Society
and Magnetics Society**
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Planning Meeting and Election of Officers..... Page 5
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- **IEEE Dielectrics and Electrical Insulation Society**
Wednesday, June 26, 1996
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- **IEEE Antennas and Propagation Society and
Microwave Theory and Techniques Society**
Thursday, June 27, 1996
**Electromagnetic Applications of
Photonic Band Gap Materials Page 11**

Chicago Section Executive Committee Meeting
June 11 • July 9 • August 13 • 7:15 PM
DeVry • 1221 N. Swift Road • Addison, IL

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SUBMITTAL DEADLINES
Articles for September '96 Scanfax due July 25.
Articles for the October '96 Scanfax due August 29.
Submit articles to Jack Sherman.

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*Nuclear Science and
Plasma Society and
Magnetics Society*

PLANNING MEETING AND ELECTION OF OFFICERS

Monday, June 10, 1996

ABOUT OUR MEETING

Chapter elections and program planning will be conducted at that time. Elections are for all the officers, and we are currently seeking nominations for the Secretary position. Officers must be members of either the NPS or Magnetics Societies. The meeting is open to anyone with an interest in the Chapter's activities.

PLACE

**IIT Rice Campus
201 East Loop Road
Wheaton, IL**

TIME

Meeting 7:15 PM

FOR FURTHER INFORMATION

Contact Tom Jurgens at (708) 840-4803 or email t.jurgens@ieee.org.

Planning a Meeting?

Planning a Meeting within the Greater Chicago IEEE Section/Subsection Area? Please discuss your desired dates with Chicago Section Program Chair Dave Schumacher BEFORE setting the date for your meeting. Help us avoid holding two or more meetings at the same time. Contact:

Dave Schumacher
5616 Plymouth Street
Downers Grove, IL 60516
Attn.: IEEE Programs
deschumacher@lucent.com
708/224-6471

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PLANNING MEETING AND ELECTION OF OFFICERS

Wednesday, June 12, 1996

ABOUT OUR MEETING

Nominees for the following Offices are:

Chair Gerry Ryan, CTE Engineers
Vice-Chair Pat Murphy, CTA
Treasurer Chuck Nochumson, Cutler-Hammer
Secretary Bert Rezko, City of Chicago - Department of Water
Past Chair/Publicity Pat Hennelly, Weldy/Lamont
Membership Chris Lovin, Cutler-Hammer
Program Bob Pierce, Lehman Company

Nominations for the above positions will be accepted from the floor or call Pat Murphy at (312)973-3280 ext. 555 if you wish to make a nomination.

PLACE

CTE Engineers
168 North Clinton Street, 5th Floor Conference Room
Chicago, IL

TIME

Meeting 5:00 PM

NOTE

Attendance at IAS/IEC Technical Meetings is worth 1 PDH. These are acceptable in most states where continuing education is required for PE renewal.

1996-1997 IAS/IEC CHICAGO CHAPTER MEETING DATES AND TOPICS

10/16/96.....NEMA vs IEC Motor Control Standards and Applications
11/20/96.....Commonwealth Edison Metering Practices
1/29/97.....Low Voltage Switchgear
3/26/97.....Medium Voltage Switchgear
5/14/97.....City of Chicago - Plan Approval Process

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ELECTRO -
MAGNETIC
COMPATIBILITY
SOCIETY

ANTENNA CALIBRATION: A PRACTICAL VIEW

Presented by
Dr. Clifford Kraft of Lucent Technologies

Wednesday, June 19, 1996

ABOUT OUR SPEAKER

Dr. Kraft is a member of the technical staff at Lucent Technologies in Naperville, working in the system compliance group. His specialty is EMC analysis and calibration studies.

PLACE

Lucent Technologies - Bell Labs Innovations
2000 N. Naperville Rd.
Naperville, IL
(708) 979-2000

TIME

Social 7:15 PM
Presentation 7:30 PM

NOTES

Refreshments will be served at 7:15 PM.

DIRECTIONS

Lucent Technologies is located at the northwest corner of Warrenville Rd. and Naperville Rd. To enter, go west on Warrenville Rd. to the first turn on the right. Enter the drive and again take the first right into the parking lot. To enter the building, go to the center of the southeast side near the flag poles.

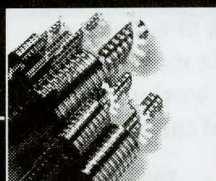
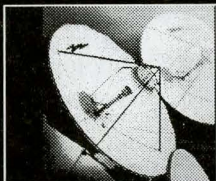
FOR RESERVATIONS

Please call the IEEE Business Office at (800) 898-IEEE to make your reservation.

CHICAGO SECTION EXECUTIVE COMMITTEE ELECTION RESULTS - 1996/1997 TERM

Chair	Tom Jurgens	Vice-Chair	Irwin Smiley
Treasurer	Sam Peach	Secretary	Howard Penrose
Program Chair	David Schumacher	Member Services	Jack Sherman
Student Activities ...	Betty Bajana	Special Events	Frank Lakowski
Awards	Carl Kannewurf	SGAC	Norbert Orszula
Conferences	Ed Bogus	Publications	Jack Sherman
		Professional Activities	John Waters

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INSULATION
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FOX VALLEY
SUBSECTION**

ELECTRIC MOTOR INSULATION TESTING

Presented by
Howard Penrose of Dreisilker Electric Motors

Wednesday, June 26, 1996

ABOUT OUR TOPIC

Electric motor insulation testing is a common, yet often misapplied, manner of checking the condition of an electric motor. From Megger testing to Polarization Index and Surge Comparison Testing, tests are often applied to electric motors, but are often misread.

In this presentation, we shall discuss practical application and interpretation of electric motor insulation testing. Megger Testing, Polarization Index, Surge Comparison, Hi-Potential Testing, and others shall be discussed as well as how, and when, to apply these tests and interpret the results. Several of the instruments will be presented with some hands-on instruction in their use.

This presentation is meant for anyone who has responsibility for maintaining and/or testing electric motors, or for those who have a general interest in electric motor systems.

ABOUT OUR SPEAKER

Howard W. Penrose is the Director of Field Service and Research and Development for Dreisilker Electric Motors, Inc. He is responsible for electrical and electronic testing and repair of electric motor systems for Dreisilker Customers, in the field, and is consulted by the Canadian Electrical Association (CEA) and the US Department of Energy (US DOE) in matters of energy efficient motor systems and repair.

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 will include an entree, plus dinner rolls, salad, coffee and dessert. Complimentary beverages will be available from 6:30 to 7:00 PM. Dietary and vegetarian meals can be requested when you make your reservation.

FOR RESERVATIONS

Please call the IEEE Business Office at (800) 898-IEEE to make your reservation.

FOR FURTHER INFORMATION

Contact Howard W. Penrose at (708) 347-8850, h.penrose@ieee.org



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Show hours Thursday, October 10th — 12 noon – 9 pm

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ELECTROMAGNETIC APPLICATIONS OF PHOTONIC BAND GAP MATERIALS

Presented by Professor Hung Y. David Yang
of the University of Illinois at Chicago

Thursday, June 27, 1996

ABOUT OUR TOPIC

Due to the recent advances of material processing techniques, there are growing research activities in artificial materials for electromagnetic applications. An artificial material is made of macroscopic periodic implants within a surrounding medium. Such materials are of particular interest for the existence of photonic band gap where wave propagation is prohibited in all directions.

The engineering applications of photonic band gap (PBG) materials result in devices with new functionality's, not possible otherwise, such as optical shield, low-loss photonic waveguides, optical high-Q resonators, optical transducer, directional couplers, etc. PBG material coating could also be used for signature alternation and identification and for the laser protection or emission. The molding of electromagnetic waves would result in ultra-high gain antennas.

This presentation provides an overview of the current research in the artificial material design and applications. Computational methods for electromagnetic waves in periodic or partially periodic material structures including finite difference method and integral equation method will also be discussed.

ABOUT OUR SPEAKER

Prof. Yang received the M.S. and Ph.D. degrees from UCLA in 1985 and 1988, respectively. Currently, he is an Assistant Professor at EECS Dept., UIC. His current research interests are on the printed circuits, antennas and arrays on nonreciprocal materials, electromagnetic applications of advanced materials, and computational electromagnetics.

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, June 25. They will provide you with travel directions. Dinner will cost approximately \$17.



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