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Official Publication of the Chicago Section • Institute of Electrical & Electronics Engineers • APRIL 1989

TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

For reservations call the IEEE office 649-2800
(unless otherwise indicated)

Copy Deadline for May Scanfax is March 27, 1989

APR 11	Monthly Meeting All Welcome	IEEE Executive Committee	Contemporary Controls 2500 Wisconsin Downers Grove, IL	Meeting: 7:15 PM
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APR 12	Generator Circuit Breakers	Power Eng. Society	Carson Pirie Scott Lower Level Monroe & Wabash Chicago, IL	Social: 11:30 AM Lunch: 12:00 PM Talk: 12:45 PM
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APR 20	Recent Advances in Fiber Optic Lasers	LEOS	Sharko's Restaurant Ogden Ave. Lisle, IL	Social: 5:30 PM Meeting: 6:15 PM Dinner: 7:30 PM
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APR 26	Application Specific Integrated Circuits	Fox Valley IAS/IES	Wilton Manor Geneva Rd. & Main St. Wheaton	Social: 6:00 PM Dinner 7:00 PM Meeting: 8:00 PM
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MAY 1	Semiconductor Physics Research in the USSR	LEOS/ Northwest	Amoco Research Center, Warrenville Rd. Naperville, IL	Dinner: 6:30 PM Meeting: 8:00 PM
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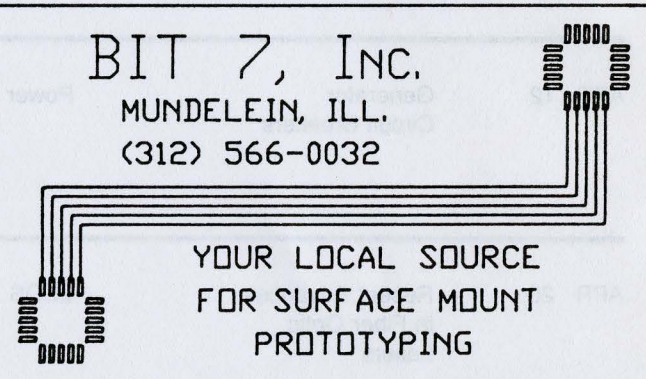
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SCANFAX DEADLINES

ISSUE	COPY DUE	MAILED ON
MAY	MAR 27	APR 15
JUNE	APR 24	MAY 15
-----	VACATION	-----
SEPT	JULY 25	AUG 15
OCT	AUG 29	SEPT 15
NOV	SEPT 26	OCT 15
DEC	OCT 31	NOV 15

THESE ARE FIRM DEADLINES!!!!

IEEE



POWER
ENGINEERING
SOCIETY

Please address reply to:

IEEE POWER ENGINEERING SOCIETY

SPEAKER:

Robert G. Slawek
Product Manager
ABB; Power Systems, Inc.

TOPIC:

Generator circuit breakers for new or retrofit applications - a viable alternative to start-up systems.

ABSTRACT:

Generator circuit breakers have been installed at fossil, nuclear and pumped storage generating stations. The general trend to smaller plants has led to the development of a smaller compact SF6 generator breaker. This SF6 circuit breaker will be discussed for applications at new cogeneration plants and for existing "retrofit" applications.

BACKGROUND:

Bob Slawek is a graduate electrical engineer from New Jersey Institute of Technology, with an M.B.A. from Rutgers University. He is currently the Product Manager for generator circuit breakers at ABB Power Systems Inc. in North Brunswick, N.J. He is involved with applications and sales of several types of generator circuit breakers manufactured by ABB.

PLACE:

Carson Pirie Scott - Chicago, IL (Monroe and Wabash); Corporate (Lower) Level

DATE:

April 12, 1989

TIME:

11:30 Cocktails
12:00 Lunch (Cost \$9.00 per person)
12:45 Presentation

Reservations may be made by calling the IEEE Chicago message center at 649-2800. Please leave name(s) and company name(s) for those wishing to attend.

NOTICE!! NOTICE!! NOTICE!! - The April meeting is changed from April 5, 1989, to April 12, 1989.

The IEEE LEOS Chicago Chapter is looking for nominations for the 1989 Outstanding Product Award and the 1989 Individual Achievement Award.

Persons wishing to nominate in either of these categories should contact

**H.S. Hinton, AT&T-Bell Laboratories
Room 2F-235, 200 Park Plaza
Naperville, Illinois 60566**

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**INDUSTRY APPLICATIONS SOCIETY
INDUSTRIAL ELECTRONICS SOCIETY
CHICAGO CHAPTER**

**MEETING APRIL 26
At Wilton Manor**

TOPIC: Application Specific Integrated Circuits (ASICs)

DATE: WEDNESDAY 26, 1989

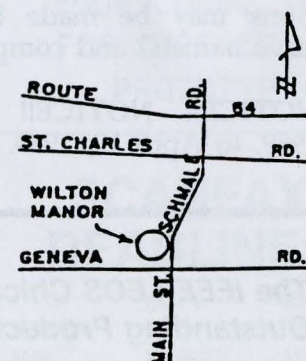
SPEAKER: To Be Announced

PLACE: Wilton Manor, Schmale Rd., Wheaton

TIME/COST: Social: 6:00 PM - Cash Bar
Dinner: 7:00 PM - \$11.00
Speaker: 8:00 PM - Free

RESERVATIONS: Call (312) 649-2800 to make reservations for Dinner and/or Meeting, by Monday, April 24, 1989.

TECHNICAL QUESTIONS: Direct questions about our topic or speaker to John Gavin on (312) 627-1919.



IEEE Lasers and Electro-Optics Society CHICAGO CHAPTER



DATE: THURSDAY, APRIL 20, 1989

TOPIC: Recent Advances in Fiber Optic Lasers

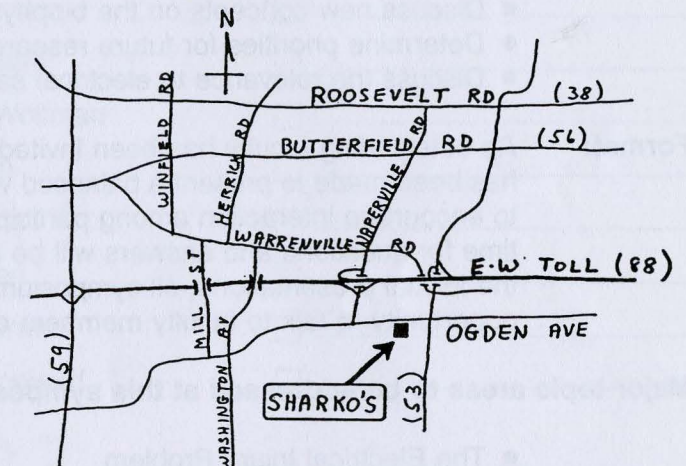
SPEAKER: Dr. Stephen G. Grubb, Amoco Technology Company, Naperville, IL 60566

ABSTRACT: Rare-earth doped, single-mode optical fibers have recently attracted a great deal of interest for use as lasers and optical amplifiers. Their advantages include high gain, low threshold, wide gain-bandwidth and ease of introduction of dopants. Recent performance results of Nd- and Er-doped fiber lasers will be presented, and the potential for using Er-doped fibers in all-optical repeaters at 1.55 microns will be discussed.

AGENDA: Social/Business Meeting: 5:30 PM (Cash Bar)
Technical Presentation: 6:15 PM (No Charge)
Dinner:* 7:30 PM (\$13.00 per person)
(Students - \$7.00)

LOCATION: Jerry Sharko's
2225 Ogden Avenue
Lisle, IL

DIRECTIONS: (E-W Tollway heading W)
Exit at 53 South
Take 53 South to Ogden
Right (W) onto Ogden
Left into Sharko's Lot



*Entree choices are London Broil or Pasta Primavera. Advance dinner reservations should be made by calling the IEEE Chicago Message Center at 649-2800 by April 18, 1989, 5:00 p.m. For additional information contact Tom Windhorn at 961-7922.

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ELECTRICAL TRAUMA

The Biophysical Mechanism of Tissue Injury and Clinical Concepts

On July 13 and 14, 1989, the IEEE Engineering in Medicine and Biology Society, the IEEE EMC Society Product Safety Group, the IEEE Consumer Electronics Society, and the IEEE Power Engineering Society will co-sponsor a symposium with the Electric Power Research Institute, American Burn Association, and the Electric Utility Program of M.I.T. The topic is the biophysical mechanism of tissue injury caused by electrical trauma.

Purpose: This symposium was organized to bring together experts in the fields of biomedical engineering, burn trauma, cell membrane biophysics, cellular pathology and reconstructive surgery for the purpose of critically reviewing current information on electrical trauma. Participants will discuss the relative role of thermal and non-thermal mechanisms of cell injury as well as determine strategies for future research.

Objectives:

- Review the clinical facts about electrical injuries.
- Discuss new concepts on the biophysical mechanisms of cellular injury.
- Determine priorities for future research.
- Discuss the relevance to electrical safety issues.

Format: An outstanding faculty has been invited to give formal presentations. Every effort has been made to present a balanced view of key topics in an atmosphere designed to encourage interaction among participants and stimulate lively debate. Extensive time for questions and answers will be allowed during each session. In addition to the formal presentations, all symposium participants will have an excellent opportunity to talk to faculty members during the Thursday evening reception.

Major topic areas to be addressed at this symposium are:

- The Electrical Injury Problem
- Tissue Response to Electrical Current
- Biophysical Mechanisms of Cellular Injury by Electric Fields
- Approaches to the Electric Injury Problem

The symposium is under the direction of Raphael C. Lee, M.D. Sc.D. Registration fee is \$50.00 for medical residents, \$25.00 for students, and \$125.00 for all others.

For further information and brochure contact:

The Center for Continuing Medical Education
The University of Chicago
5841 S. Maryland Ave., Box 139
Chicago, Illinois 60637
(312) 702-1056

The Chicago Section nominating committee chaired by Ed Barrett met in November to develop a slate of officers for the executive committee for the 1989-1990 term. The list of names was published in the February SCANFAX. No additional names were added at the February section meeting. Please mark your choice with an X in the box, or write in a candidates name and place an X to the left of the candidates name.

OFFICE BALLOT

OFFICE	NAME	WRITE-IN
Chairman:	☐ Robert Schrage	☐ _____
Vice-Chairman:	☐ George Stout	☐ _____
Treasurer:	☐ John Truitt	☐ _____
Secretary:	☐ Barry Brusso	☐ _____
Member Services:	☐ Robert Tervin	☐ _____
Publications:	☐ Bob Hofmann	☐ _____
Professional Activities:	☐ John Waters	☐ _____
Conferences:	☐ Howard Wolfman	☐ _____
Program:	☐ Art Eagen	☐ _____
Student Activities:	☐ Cara Lindell	☐ _____
Finance:	☐ Len Cohen	☐ _____
Special Events:	☐ Henry Korman	☐ _____
Awards:	☐ Carl Kannewurf	☐ _____

This is the official election ballot of the Chicago Section of the IEEE. The portion of the ballot containing your signature will be discarded before opening the ballot. Please tear out this page, mark your choices, fold on the dotted lines, affix a 25 cent stamp, and mail to:

IEEE ELECTION
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THIS BALLOT MUST BE RECEIVED BY THE IEEE NO LATER THAN APRIL 25, 1989.

SIGNATURE _____



Special Joint Meeting Lasers and Electro-Optics Society Electron Devices Society Northwest Subsection Sigma Xi



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IEEE ELECTION
820 NORTH ORLEANS STREET
CHICAGO, IL 60610

DATE: Monday, May 1, 1989

TOPIC: Semiconductor Physics Research at A.F. Ioffe Physico-Technical Institute of the USSR Academy of Sciences: History and Recent Achievements

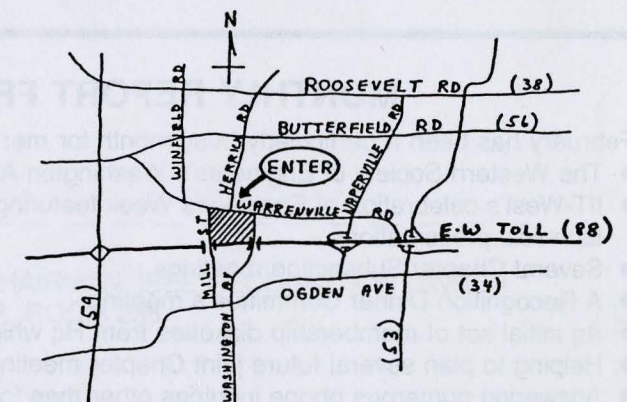
SPEAKER: Dr. Zhores I. Alferov, Academician, A.F. Ioffe Physico-Technical Institute, Leningrad, USSR

Academician Zhores I. Alferov, an eminent Soviet physicist, and director of A.F. Ioffe Physico-Technical Institute, Leningrad, has been active in the field of Semiconductor Physics Research since the early 1950s. His earliest work was in the development of the first transistors in the USSR, and in 1954 he and his colleagues constructed the first high-power germanium devices in that country. In 1962 he pioneered the concept of the use of heterojunctions in semiconductor devices, and in 1969 was the first to report room-temperature cw operation of a double heterostructure (GaAs/AlGaAs) laser. In 1971 Alferov was elected a member of the Franklin Institute, which at the same time awarded him the Stuart Ballantine gold medal. In 1972 he and his group at the Physico-Technical Institute were awarded a Lenin Prize for fundamental studies of heterojunctions in semiconductors, and the construction of new devices based on them. He was awarded the European Physical Society's Physics Prize in 1978 for his studies of heterojunctions, and also received the European Hewlett-Packard award for those studies. He has been a full member of the USSR Academy of Sciences since 1979.

Dinner:* 6:30 PM
Technical Presentation: 8:00 PM

LOCATION: Amoco Research Center
Warrenville Road
Naperville, IL 60566

ENTRANCE: Warrenville & Herrick



*Cost for the dinner is \$11.00/person. Entree choices are Prime Rib or Pasta Primavera. Advance dinner reservations are required. Advance reservations to attend the technical presentation only are highly recommended to insure proper seating. Reservations should be made by calling the IEEE Chicago Message Center at 649-2800 by April 27, 1989, 5:00 p.m. For additional information, contact Tom Windhorn at 961-7922.

**INDUSTRY APPLICATIONS SOCIETY
INDUSTRIAL AND COMMERCIAL POWER SYSTEMS CONFERENCE
CHICAGO — MAY 7-11, 1989**

INDUSTRY APPLICATIONS SOCIETY — INDUSTRIAL AND COMMERCIAL POWER SYSTEMS CONFERENCE WILL BE HELD IN CHICAGO MAY 7-11, 1989. FOR THOSE INTERESTED IN RECEIVING DETAILS ON THE CONFERENCE PLEASE SEND YOUR NAME AND ADDRESS TO: DENNIS LAMONT, WELDY/LAMONT ASSOCIATES INC., 1008 E. NORTHWEST HWY., MT. PROSPECT, IL 60056.

FRANK VOLTAGGIO NOMINATED FOR IEEE HISTORY COMMITTEE

Frank will be a 1990 candidate for this 13-member National Committee. His professional background in military and aerospace electronics started with his Army Air Corps assignment in 1941, followed by 46 years in this industry. He has demonstrated his long-term interest in ECM (Electronic Countermeasures), particularly by joining the history committee of the "Old Crows", an international organization concerned with ECM.

Since the 1989 Committee slots have been filled, he has been offered a nonvoting consulting assignment on an interim basis.

We all wish Frank much success and professional gratification on this new endeavor.

POWER ENGINEERING SOCIETY

**American Power Conference
April 23-26, Palmer House**

The Tuesday, April 25, 1989 IEEE-PES Luncheon will be presided over by President Wallace Behnke and Chapter Chairman Arthur Eagen. The speaker will be Alan Schreisheim, Director of Argonne National Laboratory, who will talk on the national superconductivity applications program.

Conference subjects include transmission access-wheeling, expert systems, system planning-operations, station equipment, relaying and distribution. For a program, contact the American Power Conference, IIT, Chicago, IL 60616, (312) 567-3202.

MONTHLY REPORT FROM YOUR CHAIRMAN

February has been a particularly busy month for me:

- The Western Society of Engineers's Washington Award Dinner at the Union League Club
- IIT-West's celebration of Engineer's Week featuring Blaine Hammond, a NASA Astronaut and a series of technical presentations
- Several Chapter/Subsection meetings
- A Recognition Dinner Committee's meeting
- An initial set of membership diskettes from Hq which need much more work
- Helping to plan several future joint Chapter meetings and a Symposium
- Answering numerous phone inquiries other than for reservations
- A 1989 MIDCON dinner meeting to help us improve our future financial picture

Major items needing attention:

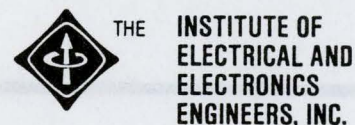
We still need much more \$\$ support for the 1989 Recognition Dinner and ticket sales!

All of our Chapters, Subsections, and the Section need more volunteers for short-time and long-range assignments. Recent graduates and women are especially encouraged to apply so we can develop some programs of interest to them.

Therefore your help and support are most essential to provide interesting programs for our members.

Joe Feitler

P.S. IEEE HQ in NJ has an 800 number to help you — **1-800-678-IEEE**



IEEE RECOGNITION DINNER

DATE: SATURDAY, MAY 20, 1989

PLACE: RAMADA HOTEL O'HARE — PENTHOUSE BALLROOM
6600 N. MANNHEIM RD. (JUST NORTH OF HIGGINS)
ROSEMONT, IL 60018

PROGRAM FOR THE EVENING

COCKTAILS 6:00 P.M.
& Hors D'oeuvres

DINNER 7:00 P.M.

DONATION: \$30.00 PER PERSON

AWARDS

FELLOW: Mr. S. David Hoffman — Underwriters Laboratories
Mr. Charles K. Rhodes — University of Illinois
Mr. Karl E. Martersteck Jr. — AT&T Laboratories
Professor Henry Stark — Illinois Institute of Technology

STUDENT: To be announced

ENTERTAINMENT: Charles Dink Freeman
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You may wish to form a group for a table of 10.

DINNER COMMITTEE MEMBERS:

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V. Chrmn. — Frank Lakowski, United Chemi-Con
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Treasurer — Cara Lindell, Commonwealth Edison
Arrangements — Bob Warzin, Allen Bradley
Tickets — George Gawell, Zenith Electronics
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MAIL TO OR CALL: GEORGE GAWELL, TICKET CHAIRMAN, IEEE RECOGNITION DINNER
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Glenview, IL 60025
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Enclosed is my check in the amount of \$ _____ covering _____ tickets, at \$30.00 each for the 1989 IEEE Recognition Dinner at the Ramada Hotel O'Hare.

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be 708 699-9060

PLACEMENT SERVICE

The Chicago Section is now offering a Placement Service for its members free of charge. The program is intended for those who are Member Grade and above and is a positive step to help our members who are unemployed. If interested in any of the applicants listed below, call the IEEE office 649-2800 for their name and phone number. If marked "confidential," the applicant will be contacted by the IEEE office so that he/she may contact the prospective employer.

- 175 Analog/Digital Analysis & Design - Spice Modeling - Programming (C, Basic, Assembly)
- 176 An Associate Professor with 6 years of experience seeking a faculty position in Electronic Engineering or Technician Program.
- 177 BSEE-UIC - Seeking entry level position with emphasis on uprocessor-based systems & related software.
- 178 Seeking electromechanical - design drafting - familiar with AutoCad, IBM5080, CADAM, Computervision.