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Official Publication of the Chicago Section

• Institute of Electrical & Electronics Engineers

• May 1978

CALENDAR OF EVENTS

For reservations call the IEEE office at 236-4609 (unless otherwise indicated)

MAY

3	"Tech.Aspects of Address. the Interconnect Market"	Fox V. Sub. (j w/APS-MTTS & Comms. Soc.)	Elmhurst Inn 933 S. Rt. 83 Elmhurst	Dinner 7:00 PM Meeting 8:00 PM
9	Monthly Meeting — ALL WELCOME	IEEE Exec. Cte.	Brown & Root Offices 2001 Spring Rd. Oak Brook	Meeting 7:30 PM
10	"Design of Nuclear Power Stations"	IAS/IECI (j w/PES)	Nielsen's Village 7330 W. North Ave. Elmwood Park	Cockt. 5:30 PM Dinner 6:15 PM Meeting 7:15 PM
17	Tour of Motorola, Inc.	NW Sub.	1301 Algonquin Rd. Schaumburg (dinner at the Lancer Rest., 1450 Algonquin Rd., Schaumburg)	Cockt. 6:00 PM Dinner 7:00 PM Meeting 8:00 PM
18	"Understanding Antennas & Cavity Filter"	VTs (Call mtg. coord. at 576-6567)	Holiday Inn Chicago-West 1900 N. Mannheim Rd. Melrose Park	6:00 to 10:00 PM
20	Tour of O'Hare Field Control Tower	Fox V. Sub.	O'Hare Airport	9:00 AM
20	Tour of AEP/ASEA UHV Research Project	PES	24707 Quinn Rd. North Liberty, Ind.	Morning Lunch following
24-26	8th Intl. Symposium on Multiple-Valued Logic	Spon. by IIT, ONR, ACM & IEEE Comput.Soc.	Sheraton O'Hare 6810 Mannheim Rd. Rosemont	

JUNE

5-6	19th Annual Chicago Spring Conf. on Consumer Elec'nics	IEEE BCCES & Chicago Section of the IEEE	Arlington Pk.Hilton Euclid Ave. & Rohlwing Rd. Arlington Heights	(See announcement in this issue)
13	Monthly Meeting — ALL WELCOME	IEEE Exec. Cte.	Brown & Root Offices 2001 Spring Rd. Oak Brook	Meeting 7:30 PM
14	Tour of S & C Elec. Co.	IAS/IECI	6601 N. Ridge Blvd. Chicago	Dinner 5:30 PM
15-17	"Micro. Program. w/a 'Take-Home' Micro. & Power Supply"	IEEE Educa. Activities Bd.	Conrad Hilton Hotel 720 S. Michigan Ave. Chicago	8:30 AM-8:00 PM

CHICAGO SECTION ELECTS OFFICERS AND EXECUTIVE COMMITTEE

The Chicago Section of IEEE has elected their officers and members of the Executive Committee for the 1978-79 term. Voting was by ballot printed in the April issue of Scanfax. Officers elected are:

- Chairman - John Waters
 - Vice Chairman - Charles Hatstat
 - Treasurer - Paul Geiger
 - Secretary - George Kraft
- Bussmann Mfg. Div. of McGraw-Edison
Sargent & Lundy
Allen-Bradley Company
Bell Telephone Laboratories, Inc.

Members of the Executive Committee elected by mail ballot are:

- George Austin - Commonwealth Edison Company
- Michael Barnes - Motorola, Inc.
- Chuck Borchert - Bell Telephone Laboratories, Inc.
- Dennis Lamont - Weldy-Lamont Associates, Inc.
- Ed Osterberg - Illinois Bell Telephone Company
- Tom Traub - Commonwealth Edison Company
- Howard Wolfman - Teletype Corporation

The Executive Committee also includes the chairmen of both the Fox Valley and Northwest Subsections and the chairmen of each of the active group or society chapters. According to the Chicago Section Bylaws, they are automatically members of the Executive Committee and do not have to be voted upon by the membership.

"UNDERSTANDING ANTENNAS AND CAVITY FILTER"

My. Floyd Shipley will be the guest speaker at the Vehicular Technology Society meeting on Thursday - May 18, 1978. Mr. Shipley is from Arlington, Texas and is an independent consulting engineer in the two-way radio field. His background involves over 25 years of practical communication experience and field problem solving work. He served as Vice President of Engineering, Design Engineer and Sales Engineer with Decibel Products, Inc., a leading two-way antenna and filter company. A registered professional engineer in Texas where he has been a consultant on many law enforcement communication systems, he earned his B.S. and M.S. degrees from North Texas State University. As part of his work, Floyd conducts seminars throughout the country on communication system design.

The meeting will be held at the Holiday Inn, Chicago-West from approximately 6:00 PM to 10:00 PM. The restaurant is located at 1900 North Mannheim Road in Melrose Park (junction of North Avenue and Mannheim Road). The cost of the roast sirloin dinner is \$7.50, tax and tip included. Reservations can be made by calling the IEEE VTS coordinator at 576-6567.

19th ANNUAL CHICAGO SPRING CONFERENCE

The 19th Annual Chicago Spring Conference on Consumer Electronics will be held on June 5 and 6, 1978 at the Arlington Park Hilton Hotel in Arlington Heights. The Conference is sponsored by IEEE BCCES and the Chicago Section of IEEE. Full particulars are given in a three-page announcement in this issue of Scanfax.

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TUESDAY, JUNE 6, 1978

19TH ANNUAL CHICAGO SPRING CONFERENCE ON CONSUMER ELECTRONICS

III. A. IF and TUNING ROOM A

- 9:30 1. SAW IF Filter on LiTaO₃ for Color TV Receivers
S. Takahashi, H. Hirano, T. Kodama, F. Miyashiro, B. Suzuki, A. Onoe, T. Adachi, K. Fujinuma
Toshiba
- 9:55 2. Low-Cost Lateral PIN Diode for Consumer Use
Y. Kuriyama, Y. Kabeya
NEC
- 10:20 3. An Integrated Tuning Interface for FM Radio Receivers
H. Rinderle, C. Malinowski
AEG-Telefunken
- 10:45 4. Remote Controlled TV Set Using a Digital Tuning System
M. Huber
Siemens AG
- 11:10 5. Channel Calculator Integrated Circuit
M. Hendrickson, R. Merrell
Zenith Radio Corporation
- 11:35 Meet the Authors

III. B. PANEL DISCUSSION - AM STEREO ROOM B

- Moderator: C. Eilers
Zenith Radio Corporation
- Panel Members: A. Meyer
Belar
D. Hersherberger
Harris
B. Loughlin
Hazelton
R. Streeter
Magnavox
N. Parker
Motorola
- (Opinions expressed by the participants are their own and do not represent the Chicago Spring Conference, the IEEE, or related organizations.)

III. C. DIGITAL - ANALOG INTERFACE ROOM C

- 9:30 1. A Microcomputer to Consumer Color TV Interface
Chip
R. Bhatnagar
American Microsystems, Inc.
- 9:55 2. A Sixteen Color Composite Video Summer Integrated Circuit for Video Display Terminals and Game Systems
J. O'Toole
Signetics Corporation
- 10:20 3. A Simplified Microprocessor-to-Television Interface
M. Goetze
Motorola Semiconductor
- 10:45 4. The Generation of Sounds with Microprocessors
J. Cyprus,
Texas Instruments
- 11:10 5. A Practical Approach to Achieve Ease of Play Organ Features
A. Bione
Hammond Organ Co.
- 11:35 Meet the Authors

CSCT78 19TH ANNUAL CHICAGO SPRING CONFERENCE ON CONSUMER ELECTRONICS

- 12:00 LUNCHEON
Guest Speaker:
H. Walter Tanaka
Counsel for the Electronic Industries Association of Japan
- 1:30 CSC 78 SPECIAL EVENT
PBS Television Program Transmission by Satellite:
an Improved System
Edmund A. Williams
Associate Director of Transmission Engineering
Public Broadcasting System



IV. A. TUNING ROOM A

- 2:30 1. Low Cost Digital Tuning System with Full Function Automatic Search Preset
S. Matsura, M. Kamimura, T. Fujimura
Hitachi, Ltd.
- 2:55 2. A Systems Approach to Low Cost Electronic Tuning Address
F. Zlotnik, S. Reid, W. Howell
Motorola Semiconductor Products
- 3:20 3. Frequency Synthesis Tuning Systems with Automatic Offset Tuning
B. Beyers, H. Blatter, J. George, J. Henderson, R. Rast, J. Tults, C. Wine
Story
- 3:45 4. Frequency Synthesis Custom LSI: the Inside Story
H. Blatter, R. Rast, J. Tults
- 4:10 5. Microprocessor Based TV Controller
H. Schmitt, R. Landuyt
National Semiconductor GMBH
- 4:35 Meet the Authors

IV. B. VIDEO RECORDING and DIGITAL AUDIO ROOM B

- 2:30 1. Development of the PCM Laser Sound Disc Player
S. Itoya, T. Nagai
TEAC Corporation
- 2:55 2. A Rotary Head PCM Recorder Employing Error Correction Technique
Y. Ishida, N. Tomikawa, S. Nishi, S. Kunii, T. Sato
Mitsubishi Electric Corp.
- 3:20 3. A New Optical Videodisc System with One Hour Playing Time
Y. Naruse, A. Ohkoshi
Sony Corp.
- 3:45 4. Advanced and Simplified Signal Process System for VTR and Its High Performance LSI's
A. Shibata, T. Itoh, I. Nakagawa
Hitachi, Ltd.
- 4:10 5. Video Cassette Recorder Development for Consumers
Y. Shiraishi, A. Hirota
Victor Company of Japan
- 4:35 Meet the Authors

IV. C. TV DISPLAY AND POWER SUPPLY ROOM C

- 2:30 1. Wide Range and High Efficiency Switching Power Supply for Color TV Receivers
T. Fujimura, T. Murayama, K. Umehara
Hitachi Ltd.
- 2:55 2. Soft-Flash Picture Tubes
J. Gerritsen
N. V. Philips Gloeilampenfabrieken
- 3:20 3. Internal Surge Limiting for TV Picture Tubes
GTE Smythall
- 3:45 4. The Physical Mechanisms of Feedback Multiplier Electron Sources
C. Catanese, J. Endriz*
- 4:00 5. Flat TV Display Using Feedback Multipliers
J. Endriz*, S. Keneman, C. Catanese, L. Johnston
- 4:15 6. Feedback Multiplier Flat Panel Technologies
L. Consentino, V. Christiano, J. Endriz*, J. Dresner, G. Stockdale, J. Cooper, J. Hewitt, J. Harrison, Jr.
RCA
- *Present Address:
Varian Associates
- 4:35 Meet the Authors

PROBLEMS OF ADDRESSING THE INTERCONNECT MARKET

Mr. Larry Bowman, Circuit Engineering Manager at Microwave Communications, Inc. of Washington, D.C. will speak at the Fox Valley Subsection meeting on problems of addressing the interconnect market. MCI is a company formed to provide long distance private line and switched communications to the private sector of the business community. Services are customized to fit the needs of the customer.

Mr. Bowman will talk about MCI, their competition, their position in the marketplace, their relationship with the Bell System and their present offering of services. He will also discuss system design considerations.

The date of the meeting is Wednesday — May 3, 1978 at the Elmhurst Inn, 933 South Riverside Drive, Elmhurst. Cocktails (cash bar) at 6:00 PM, dinner 7:00 PM (\$6.50) and the meeting will be held at 8:00 PM. Call the IEEE office at 236-4609 for reservations prior to Tuesday, May 2.

IAS/IECI TO TOUR S & C ELECTRIC COMPANY

A tour of S & C Electric Company, 6601 North Ridge Boulevard, Chicago is being planned by the Industry Applications Society/Industrial Electronics Control Instrumentation on Wednesday — June 14, 1978. Tour will be limited on a reservation basis only. Deadline for reservations is Friday, June 9. Cost is \$8.00 per person.

REPEAT OF A "SELLOUT" WORKSHOP

One of the most successful Short Courses developed by the IEEE Educational Activities Board is an intensive two-day workshop entitled "Microprocessor Programming with a 'Take-Home' Microprocessor and Power Supply." The workshop held in Washington, D.C. in December 1977 was a "sellout." A second workshop was conducted last month to accomodate those who could not take the first course. This outstanding program is scheduled to be held here in Chicago at the Conrad Hilton Hotel on Thursday, Friday and Saturday — June 15, 16 and 17, 1978 from 8:30 AM to 8:00 PM (on the 17th until 4:30 PM). Fees are \$425.00 for IEEE members, \$275.00 for student members showing a student card and \$525.00 for non-members.

If you have any questions, write to: Stephen M. Panko, Ph.D., Director of Continuing Education, Loyola University of Chicago, Lewis Towers, 820 North Michigan Avenue, Chicago 60611 or call him at (312) 670-3014. Mr. Panko is assisting Vincent J. Giardina, IEEE Manager of Continuing Education in administering certain aspects of the workshop. If you prefer, you may contact Mr. Giardina at: IEEE Service Center, 445 Hoes Lane, Piscataway, New Jersey 08854, (201) 981-0060, extension 174.



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19TH ANNUAL
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Panasonic
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WILL BE REQUIRED FOR
"MEMBER RATE"

TENTATIVE PROGRAM →

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and the Chicago Section of the IEEE

**I. A. TV SIGNAL PROCESSING
ROOM A**

- 9:30 1. *A Versatile Low Level Luminance IC for TV*
K. Skinner
The Magnavox Company
W. Cocke
National Semiconductor
- 9:55 2. *Second Generation IC's for Color TV Receivers (Part I)*
K. Yamamoto, T. Fujimori, Y. Sato, T. Kutsuki, N. Yamaguchi, M. Ueda, K. Uno
Matsushita Electronic Industrial Co., Ltd.
- 10:20 3. *A New LSI Integrated Circuit for Line Recognition and VIR Signal Processing in Television Receivers*
S. Barton, B. Sadler
Fairchild Semiconductor
- 10:45 4. *VIR II System*
S. Kim
General Electric Company
- 11:10 5. *Captioning for the Deaf, a Video Display System*
K. Renner
Texas Instruments, Inc.
- 11:35 Meet the Authors

**I. B. AM & FM AUDIO
ROOM B**

- 9:30 1. *Single-Chip TV Sound Channel Offers Greater Flexibility, More Functions*
P. Menniti
SGS-ATES
- 9:55 2. *A Phase-Tracking Loop (PTL) Detector for FM Signals and Its Application to an FM Receiver*
Y. Ishigaki, T. Muraoka, M. Hagiwara
Victor Company of Japan, Ltd.
- 10:20 3. *Super High Quality FM Detector and Its Development Process*
S. Inoue, Y. Iso
Hitachi, Ltd.
- 10:45 4. *An Interference-Rejecting AM Receiver*
R. Hudson, R. Castle, T. McHale, H. Krauss
Virginia Polytechnic and State University
- 11:10 5. *An AM-FM Digital Tuning System*
T. Mills
National Semiconductor
- 11:35 Meet the Authors

**I. C. OPTOELECTRONICS
ROOM C**

- 9:30 1. *Integrated LED Bargraph Display Driver*
P. Lefferts
National Semiconductor
- 9:55 2. *A Bilateral Analog FET Optocoupler*
R. Chen
Tektronix, Inc.
W. Sahn III
General Electric
- 10:20 3. *An Integrated Intrusion Alarm System*
W. Gontowski, R. Lutz
Sprague Electric Company
- 11:35 Meet the Authors



12:30 LUNCHEON
Invited Speaker: Robert Strauss
Special Representative for Trade Negotiations



**II. A. TV SIGNAL PROCESSING
ROOM A**

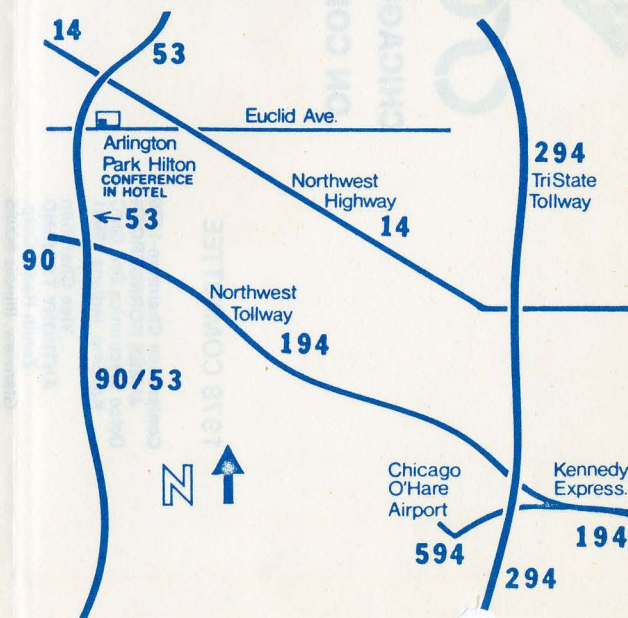
- 2:30 1. *A Fully Automatic Ghost Canceller*
S. Makino, M. Iwasawa, J. Murakami, M. Sakurai
Toshiba Research and Development Center
T. Miura
Technical Research Laboratory
of NHK
- 2:55 2. *Second Generation IC's for Color TV Receivers (Part II)*
Y. Yoshimi, T. Shiotani, M. Masuda, K. Yamamoto, K. Uno
Matsushita Electric Industrial Co., Ltd.
- 3:20 3. *New Developments in Integrated Horizontal Processors for TV*
S. Coccetti
SGS-ATES
- 3:45 4. *Single Chip Deflection System IC for TV Receiver*
S. Kondo, J. Sakamoto
Tokyo Sanyo Electric Co., Ltd.
- 4:10 5. *A Highly Stable Integrated Sync System*
M. Wilcox
National Semiconductor Corporation
- 4:35 Meet the Authors

**II. B. AUDIO
ROOM B**

- 2:30 1. *New Power Supply for Audio Power Amplifiers*
N. Miura, Y. Fuura, T. Sato, Y. Okada
Tokyo IC Co., Ltd.
- 2:55 2. *Highest Efficiency and Super Quality Audio Amplifier with MOS Power FET in Class G Operation*
T. Sampei, S. Ohashi, Y. Ohta, S. Inoue
Hitachi, Ltd.
- 3:20 3. *Digital Amplifiers for Analog Power*
J. Dutra
University of California, Davis
- 3:45 4. *Better Internal Protections and Fewer Leads Mark New Generation of Integrated L-F Power Amplifiers*
C. Cini, M. Santi
SGS-ATES
- 4:10 5. *Electronically Switched Tape Audio Processor*
S. Hobrecht
National Semiconductor
- 4:35 Meet the Authors

**II. C. ROOM C
TELEVISION CHANNEL TABOOS: HISTORY & RECENT DEVELOPMENTS**

AT THE ARLINGTON PARK HILTON



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