

IEEE publications bulletin

This Bulletin is the official announcement vehicle for IEEE publications, and information and educational services. Its purpose is to list, as they become available, all conference records, standards, special issues of Transactions and Journals, and other nonperiodic publications that may be purchased from IEEE Service Center.

Conference Publications

The publications listed below have become available since the last issue of this bulletin and, except as noted, were sent automatically to present subscribers to the appropriate option and suboption of the IEEE Open Order Plan (OOP). All conference publications are identified by appropriate OOP suboption codes. For completeness, the listing includes special issues or sections of IEEE periodicals that are devoted to IEEE conferences, as well as Conference Publications in the strict sense. Out-of-Stock items may be found in the Engineering Societies Library in New York City and in all libraries that subscribe to OOP.

Automatic Control Conference, 1978 Joint (JACC), held Oct 15-20, 1978 in Philadelphia, PA; sponsored by AIChE, ASME, IEEE CS, et al. *Proceedings—Control Theory Meets the Real World of Application*. 4v. in 2. 699p. \$55.00. **78CH1422-5 JACC**. OOP 1A.

Coverage: pH control; process control; DP transmitters; energy conservation and systems; energy and the environment; computer control applications; automation research; cryogenic systems and government agencies; pattern recognition; dynamics and control of chemical reactors; application of fuzzy sets; control components and techniques; control in bioengineering; system simulation, stability and modeling; biocybernetics.

Automotive Electronics, 1978 International Conference on, (title varies, previously Automotive Electronics and Electric Vehicles, 1976 International Conference on), held Sep 25-27, 1978 in Dearborn, MI; sponsored by SAE and IEEE VT. *Proceedings—Convergence* 78. 169p. **LC 78-70426**. \$45.00. **78CH1343-3 VT**. OOP 1B.

Coverage: Worldwide automotive electronics developments; EMI; EMC; solid-state memories and microprocessors; electronic fuel injection; displays; semi-conductor and transducer developments; automotive electronic reliability; electronic systems for vehicles of the 1980's.

AUTOTESTCON '78 International Automatic Testing Conference, held Nov 28-30, 1978 in San Diego, CA; sponsored by IEEE AES, IEEE IM and IEEE San Diego Section. *Conf. Record*. 405p. \$25.00. **78CH1416-7 AES**. OOP 1B, H

Sessions on: Automatic test generation; vehicle testing; software testing and verification; ATE: systems, techniques, IEEE Standards, software management and tools, projects; U.S. Air Force Modular Automatic Test Equipment (MATE) program; non-electronic testing; military test system requirements; support systems management; testability.

Bench Programming of Microprocessors (μ PIEEE-77), Workshop on, held Jun 10-12, 1977 in Philadelphia, PA; sponsored by IEEE Philadelphia Section. *Proceedings*. 124p. \$20.00. **EHO1255**. OOP 6.

Sessions on: High-level programming techniques; bench programming procedures; op-codes and microcoding; new coding languages; microprocessor chips; bench equipment.

Coal Mine Electrotechnology, 4th WVU Conference on, held Aug 2-4, 1978 in Morgantown, WV; sponsored by West Virginia U, IEEE 1A and U.S. Bureau of Mines. *Proceedings*. Approx. 455p. \$15.00. **78CH1386-2 1A**. OOP 1B

Sessions on: Mine illumination, communications, instrumentation and power systems; power instrumentation, automatic control and monitoring.

Communication Theory and Applications, AFOSR Workshop in, held Sep 17-20, 1978 in Provincetown, MA; sponsored by AFOSR, IEEE COM and IEEE IT. *Proceedings*. 115p. \$28.00. **EHO1396**.

Sessions on: Stochastic processes; source coding; statistical pattern recognition; communication theory; computer networks; adaptive equalizers; spread-spectrum multiple-access communications.

Computer Networking Symposium, held Dec 13, 1978 in Gaithersburg, MD; sponsored by IEEE C, US NBS and US DC. *Proceedings*. 137p. \$14.00. **78CH1400-1C**. OOP 1E.

Sessions on: Network evaluation techniques; communications architectures; network design, interfaces and protocols.

Computer Society International Conference, 17th IEEE (COMPCON FALL 78), Tutorial: A Practical View of Computer Communications Protocols, see A Practical View of Computer Communications Protocols, Tutorial

Computer Software and Applications Conference (COMPSAC 78), 2nd IEEE Computer Society International, held Nov 13-16, 1978 in Chicago, IL; sponsored by IEEE C. *Proceedings*. 832p. **LC 77-91838**. \$30.00. **78CH1338-3C**. OOP 1E.

Scope: Computer applications, software methodologies and techniques.

Computer Software and Applications Conference (COMPSAC 78), Tutorial Distributed Data Base Management, see Distributed Data Base Management, Tutorial

Computer Software and Applications Conference (COMPSAC 78), Tutorial: Microcomputer Programming and Software Support, see Microcomputer Programming and Software Support, Tutorial

Computer Software and Applications Conference (COMPSAC 78), Tutorial: Software Methodology, see Software Methodology, Tutorial

Cybernetics and Society, [8th] International Conference on, held Nov 3-7, 1978 in Tokyo-Kyoto, Japan; sponsored by IEEE SMC and IEEE Tokyo Section. *Proceedings*. 3v. 1583p. **LC 74-170870**. \$40.00. **78CH1306-0 SMC**. OOP 1F.

Coverage: 49 sessions divided into the following six symposia: Biomedical systems and biocybernetics; human behavior and social systems; economic systems; technology: environment and resources; computer application to public service; systems science and cybernetics.

Digital Satellite Communications, 4th International Conference on, held Oct 23-25, 1978 in Montreal, Canada; sponsored by IEEE Canadian Region (Region 7) INTELSAT, Teleglobe Canada, et al. *Conf. Record*. 357p. \$20.00. **78CH1326-8**

REG 7. OOP 1H.

Sessions on: New services, applications and general systems design; modulation and transmission analysis; modern design; on board systems; integration with terrestrial networks; signal processing and coding; field trials and experiments; TDMA systems and techniques.

Display Research Conference, 5th (formerly Display Conference), held Oct 24–26, 1978 in Cherry Hill, NJ; sponsored by IEEE ED, SID and AGED. *Conf. Record.* 87p. **LC 78-51716.** \$20.00. **78CH1323-5 ED.** OOP 1D.

Coverage: Electrochromics, thin film electroluminescence, light emitting diodes, plasma displays, liquid crystals and cathode ray tubes.

Distributed Data Base Management, Tutorial:, held at the IEEE Computer Society's 2nd International Computer Software and Applications Conference (COMPSAC 78), Nov 13–16, 1978 in Chicago, IL, edited by Philip A. Bernstein, James B. Rothnie and David W. Shipman. *Tutorial.* 195p. **LC 78-70844.** \$14.00. **EHO1412.** OOP 8.

Coverage: Relational and distributed data base management; approaches to distributed query processing, concurrency control and data base reliability.

Electron Devices Meeting, 24th International, held Dec 4–6, 1978 in Washington, DC; sponsored by IEEE ED. *Technical Digest.* 687p. **LC 78-20188.** \$20.00. **78CH1324-3 ED.** OOP 1D.

Coverage: Approximately 85% of the papers are solid state related. Remaining papers are associated with electron tubes and plasma display devices. Papers on VLSI cover such subjects as fine line pattern definition, short channel effects, high packing density devices and advanced fabrication techniques. Also covered are sensors and electrically alterable memory devices; mixed compound material devices and electron tube reliability, and fast wave interactions.

Electronics and Aerospace Systems Convention, IEEE (EASCON '78), held Sep 25–27, 1978 in Arlington, VA; sponsored by IEEE Washington Section and IEEE AES. *Conf. Record—Electronics—Key to the Information Age.* 772p. **LC 73-159381.** \$30.00. **78CH1352-4 AES.** OOP 1C.

Coverage: Military and civil systems: tactical, postal, mass transportation; radar/sensor systems: acquisition, tracking, signal processing, MM wave/ESM, sonar; satellite communications: domestic and international, earth station technology, modulation techniques, orbit/spectrum utilization; electro-optical systems and technology/space systems: laser communications, fiber and integrated optics, sensors, civil applications/satellite navigation, earth sensing; information systems: architecture, software, networking, computer security, regulatory policy, microprocessor applications; new horizons in electronics: energy, medical, transportation, consumer, EFT, home computers.

High-Voltage Insulation, Thomas W. Dakin Symposium on, held May 10, 1978 in Pittsburgh, PA; sponsored by Westinghouse Electric Corp. Papers in *IEEE Transactions on Electrical Insulation* Vol. EI-13. No. 4. Aug 1978. \$10.00. **JH 43299.** (Not distributed under OOP)

Scope: Discharges; gases as electrical insulators; electric breakdown in dielectric liquids; treeing; properties of solid-liquid composite dielectric systems; insulation aging; high voltage insulation applications. The symposium was held in honor of T. W. Dakin for his outstanding contributions to the field of dielectrics.

Interactive Techniques in Computer Aided Design, International Conference, held Sep 21–23, 1978 in Bologna, Italy; sponsored by ACM, AICA, IEEE C, et al. *Proceedings.* 496p. **LC 77-91283.** \$25.00. **78CH1289-8 C.** OOP 1E.

Scope: Information management systems for computer aided design applications; systems architecture; organizational and social implications; man/machine interaction; CAD/CAM application; education.

Microcomputer Programming and Software Support, Tutorial:, held at the IEEE Computer Society's 2nd International Com-

puter Software and Applications Conference (COMPSAC 78), Nov 13–16, 1978 in Chicago, IL, edited by Imsong Lee. *Tutorial.* 193p. **LC 78-70845.** \$14.00. **EHO1404.** OOP 8.

Contents: Microcomputer programming and support systems; choosing programming languages; microcomputer software development; examples of microcomputer software development systems.

Microprogramming Workshop (MICRO 11), 11th, held Nov 19–22, 1978 in Pacific Grove, CA; sponsored by ACM and IEEE C. *Proceedings.* 160p. \$14.00. **78CH1411-8 C.** OOP 1E.

Sessions on: VLSI; emulation; microprogramming system functions; optimal and automated generation of microcode; interpreters; signal processing; LISP machines; microlanguages.

National Telecommunications Conference (NTC), 7th, held Dec 3–6, 1978 in Birmingham, AL; sponsored by IEEE CSCB, IEEE Alabama Section, IEEE COM, et al. *Conf. Record.* 3v. Approx. 1050p. \$50.00. **78CH1354-0 CSCB.** OOP 1C.

Coverage: New developments in communications, including electronics, switching and transmission systems; radio, satellite, space data and computer communications; electromagnetic compatibility; social implications of technology; standards coordination; aerospace and electronic systems; geoscience.

Parallel Processing, 1978 International Conference on, held Aug 22–25, 1978 in Bellaire, MI; sponsored by Wayne State U. and IEEE C., edited by G. Jack Lipovski. *Proceedings.* 269p. \$22.00. **78CH1321-9 C.** OOP 1E.

Coverage: Pipelined, general and special purpose architectures; language and control; distributed processing; SIMD architectures; data flow; scheduling; interconnection technology; data base machines; arithmetic processors.

Petroleum and Chemical Industry Conference, 25th, held Sep 11–13, 1978 in Tulsa, OK; sponsored by IEEE IA. *Conf. Record.* 332p. **LC 73-641120.** \$23.00. **78CH1322-7 IA.** OOP 1B.

Coverage: Underground cable distribution for, and cogeneration at, petrochemical plants; petroleum manufacturing and electrical power systems; chemical manufacturing; production of petroleum and chemical products: motor protection, automatic and centrifugal pumps; transportation of petroleum and chemical products: pipeline motors, flow rate control, switching devices; motor efficiency.

Photovoltaic Specialists Conference, 13th IEEE, held Jun 5–8, 1978 in Washington, DC; sponsored by IEEE ED. *Conf. Record.* 1346p. \$80.00. **78CH1319-3 ED.** OOP 1D.

Sessions on: Photovoltaic power systems; low cost production, research and development; silicon material; field tests; array production and system costs; economics and market analysis; system studies; basic studies; space solar array technology; silicon cells for space applications; space radiation effects and GaAs cells; concentrators.

Position Location and Navigation Symposium (PLANS), 2nd IEEE, held Nov 6–9, 1978 in San Diego, CA; sponsored by IEEE AES and IEEE San Diego Section. *Conf. Record.* 396p. \$25.00. **78CH1414-2.** OOP 1C.

Sessions on: Satellite navigation; precise time and frequency; hyperbolic systems; mapping, charting and geodesy; inertial technology; automatic vehicle monitoring; test range; undersea navigation; relative navigation; estimation technology and special applications.

Power Engineering Society Summer Meeting, IEEE 1978, held Jul 16–21, 1978 in Los Angeles, CA; sponsored by IEEE PE. *Conf. Record.* Approx. 850p. \$45.00. **78CH1361-5 PWR.** OOP 1G. Abstracts in *IEEE Transactions on Power Apparatus and Systems* Vol. PAS-98. No.1. Jan/Feb 1979. \$15.00. **JH48934.** Individual preprints are available, \$3.00 each, *write for list* of titles. (Not distributed under OOP). Accepted discussions and authors' closures will be published in a separate volume (78CH1362-3 PWR) by April, 1979.

Coverage: The entire field of power; energy supply; conservation; load management; apparatus and systems.

Power Generation Conference, 1978 Joint ASME, IEEE and ASCE, held Sep 10–13, 1978 in Dallas TX; sponsored by IEEE PE, ASME and ASCE. *Conf. Record—IEEE Papers only.* Approx. 170p. \$16.00. **78CH1329-2 PWR.** OOP 1G. This publication contains the full text of all IEEE papers presented at the Conference. These papers are also published in the *IEEE Transactions on Power Apparatus and Systems*, either in full "F" or in abstract "A" form. Abstracts of all "A" papers appear in *IEEE Transactions on Power Apparatus and Systems* Vol. PAS-98. No.2 Mar/Apr 1979. \$15.00. **JH48942.** The full text of all "F" papers will appear in various 1979 issues of the *Transactions*. (Not distributed under OOP).

Scope: Technical papers on the latest innovations in a multitude of areas from fuel development, equipment and operations to regulatory, environmental and economic concerns within the conference theme "Energy: Keystone of the Future."

A Practical View of Computer Communications Protocols, Tutorial, held at the 17th IEEE Computer Society International Conference (COMPCON FALL 78), Sep 5–8, 1978 in Washington, DC, edited by John M. McQuillan and Vinton G. Cerf. *Tutorial.* 258p. **LC 78-61492.** \$16.00. **EHO1370.** OOP 8. See Jan 1979 bulletin for Conf. Proceedings.

Coverage: Function of computer communications protocol; design objectives; choice of transmission facilities; host level protocols; network samples.

Product Liability Prevention Conference, 9th, held Aug 21–23, 1978 in Philadelphia, PA; sponsored by IEEE R, ANSI, ASQC, et al. *Proceedings.* 206p. \$15.00. **78CH1370-6 R.** OOP 1F.

Coverage: Proposed legislation relief; Senate committee plans on product liability related matters; product liability in Europe; appropriate product liability prevention and defense procedures. Includes text of proposed Uniform State Product Liability Act and Cumulative Author Index of PLP Conferences 1970–1977.

Pulp and Paper Industry Technical Conference, 1977 IEEE, held Jun 14–17, 1977 in San Francisco, CA; sponsored by IEEE IA. *Conf. Record.* 138p. **LC 74-136000.** \$10.00. **77CH1212-0 IA.**

Coverage: Plant safety and protection programs; engineer and client relationships; power consumption; electrical power systems; motors; paper mill system stability considerations, utility tie line relaying, load shedding.

Rubber and Plastics Industries, 30th Conference of Electrical Engineering Problems in the, held Apr 3–4, 1978 in Akron, OH; sponsored by IEEE IA and IEEE Akron Section. *Conf. Record.* 65p. **LC 68-1277.** \$10.00. **78CH1335-9 IA.** OOP 1A.

Coverage: Lighting for conservation; computerized energy management; cogeneration; drive modernization; cable diagnostics for power cables; temperature controllers; microprocessors; brushless tachometers; substitute fluid retrofill of askarel containing transformers; ground fault protection for underground distribution systems; 1978 National Electric Code; NFPA-70E—Proposed OSHA electrical safety standards; state-of-the-art of system grounding.

Simulation Conference, 10th Winter, held Dec 4–6, 1978 in Miami Beach, FL; sponsored by IEEE SMC, US NBS, AIIE, et al., edited by Norman R. Nielsen, Harold J. Highland and Larry G. Hull. *Proceedings.* 2v. 1051p. \$48.00. **78CH1415-9 SMC.** OOP 1F.

Coverage: Tutorials on the situation process. Sessions on methodology: random variate generation; state-of-the-art surveys of simulation methodology; optimization with simulation models; ranking and selection of alternatives; model management; simulation techniques; documentation; simulation databases; learning languages; instructional methods. Sessions on applications: system design and scheduling; government/social systems; agriculture; computer systems; military; transportation; corporate planning models; ecosystems; health care; manufacturing and industrial systems; computer networks; education; energy; production planning and control; financial and behavioral models; information systems; business.

Software Life Cycle Management Workshop, 2nd, held Aug 21–22, 1978 in Atlanta, GA; sponsored by US Army Computer Systems Command and IEEE C. *Conf. Record.* 220p. \$16.00. **78CH1390-4 C.** OOP 1E.

Coverage: Theory, practice and technology in managing software over its life cycle: descriptions of various components of the life cycle; ways to delineate and analyze relationships among component activities; milestones and tools to help direct, coordinate, understand and control research and development in software life cycle management; development of management tools using the results of life cycle management research to help plan and manage software development projects.

Software Methodology, Tutorial:, held at the IEEE Computer Society's 2nd International Computer Software and Applications Conference (COMPSAC 78), Nov 13–16, 1978 in Chicago, IL, edited by C.V. Ramamoorthy and Raymond T. Yeh. *Tutorial.* 832p. **LC 78-70861.** \$14.00. **EHO1420.** OOP 8.

Coverage: State-of-the-art in software development methodology; evaluation methods; case studies. Focus is on technique applicable to large and complex applications such as air traffic control systems, distributed commercial systems, banking systems, airline reservation systems, and data base systems.

Special Issues

The special issues listed below have become available since the last issue of this Bulletin. Special issues devoted entirely to conferences are listed in the Conference Publications section.

Analog Circuits (8 of the 13 papers in this issue were presented, in digest form, at the 1978 Int. Solid-State Circuits Conf., see Jul 1978 bulletin for Digest of Technical Papers); *IEEE Journal of Solid-State Circuits* Vol. SC-13. No. 6. Dec 1978. \$10.00. **JH49296.**

Coverage: New trends and advances in the field of solid-state circuits, including: new solutions to the problem of achieving single chip compatibility of precision analog and high-density digital circuits; development of a versatile monochip all-bipolar light sensor with high and stable light-to-current conversion gain and wide dynamic range; chip converting 110V from the ac power line to a low dc voltage with 30 percent efficiency.

Microwave and Millimeter-Wave Integrated Circuits; IEEE Transactions on Microwave Theory and Techniques. Vol. MTT-26. No. 10. Oct 1978. \$10.00. **JH43851.**

Coverage: Selection of transmission media for microwave and millimeter wave integrated circuits to meet technical, physical and electrical requirements most economically. New techniques which minimize parasites and improve the device-circuit interface are explored.

Miniaturized Filters; Proceedings of the IEEE. Vol. 67. No. 1. Jan 1979. \$10.00. **JH46995.**

Coverage: This special issue gathers together papers on many different types of filter technologies. The emphasis is on real filters that may have value in the design process. The whole spectrum of activities in mechanical and crystal filtering in Japan and the latest results on a mechanical channel filter from Germany are covered. An update of the state-of-the-art in crystal filters is presented. The broad spectrum of activities on filters includes passive lumped filters, active-RC filters, CCD and switched-capacitor filters and SAW and EMI filters.

IEEE Standards

ANSI N42.14-1978 Calibration and Usage of Germanium Detectors for Measurement of Gamma-Ray Emission of Radionuclides, American National Standard; Sep 14, 1978. 13p. \$4.50. **SH07492.** OOP 5.

ANSI N42.13-1978 Calibration and Usage of "Dose Calibrator" Ionization Chambers for the Assay of Radionuclides, American National Standard; Sep 14, 1978. 10p. \$4.00. **SH07484.**

Miscellaneous Publications

The Electrostatic and Electromagnetic Effects of AC Transmission Lines; Tutorial Course [held at IEEE Power Engineering Society Winter Meeting, Feb 4-9, 1979, New York, NY] sponsored by IEEE Power Engineering Society. 65p. \$16.00. **79EHO1453 PWR.** OOP 8. See Oct 1978 bulletin for Conf. Record.

Coverage: Theory regarding the phenomena of electric and magnetic fields associated with ac transmission lines; updated calculation and measurement techniques; short term effects and mitigation methods in response to public concerns; emerging regulatory involvement.

IEEE State-of-the-Art Symposium—Turbine Generator Shaft Torsionals; prepared by ASME/IEEE Joint Working Group on Power Plant/Electric System Interaction. ©1979. 113p. \$10.00. **79TH0059-6-PWR.** OOP 6. See also Power Generation Conference, 1978 Joint ASME, IEEE and ASCE listing under Conference Publications.

Coverage: Technical report of symposium held at the 1978 IEEE/ASME/ASCE Joint Power Generation Conference, contains symposes of selected presentations made during the plenary session, materials provided by the authors at the technical sessions and a bibliography with abstracts.

Software Testing and Validation Techniques, Tutorial, edited by Edward F. Miller and William E. Howden. ©1978. 425p. **LC 78-67758.** \$16.00. **EHO1388.** OOP 8.

Coverage: Theoretical foundations; static and dynamic

analysis: tools and techniques; effectiveness assessment; management and planning; research and development. Replaces earlier text by Edward F. Miller, **Program Testing Techniques** (Tutorial), IEEE Computer Society, 1970.

Surge Protection in Power Systems; Tutorial Course [held at IEEE Power Engineering Society Winter Meeting, Feb 4-9, 1979, New York, NY] sponsored by IEEE Power Engineering Society. 118p. \$16.00. **79EHO1446-PWR.** OOP 8. See Oct 1978 bulletin for Conf. Record.

Coverage: Concepts in surge phenomena, protection and insulation coordination; modern procedures and practices in the application of surge protective devices: station and station equipment; lines, cables and connected equipment; underground and overhead distribution systems; rotating machines; gas insulated substations.

Conference Records on Microfiche

All 1978 and 1979 conference records and digests are now also available on microfiche at the same price as listed for the printed editions.

Delivery is made by first class mail (air mail overseas), in contrast to printed copies which are mailed at the book rate and require a longer delivery time.

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Backfiles: Date from 1884 through 1975 and include all periodicals of the IEEE's predecessor societies—The Institute of Radio Engineers and The American Institute of Electrical Engineers. Purchasers of the complete backfiles of all of the *IEEE Transactions*

(1951-1975) are entitled to sizable discounts of the sum of the individual *Transactions* prices.

Annual Updates: Include all IEEE periodicals published since January 1, 1976, on a yearly basis. Purchasers of all *IEEE Transactions* on microfilm for a single year receive sizable discounts under the total of the individual *Transactions* prices. They also receive a free copy of the annual combined INDEX TO IEEE PUBLICATIONS for that year.

Available in June, 1979: Microfilmed 1978 issues of all IEEE periodicals.

Further Details: For complete details and price list, ask for catalog No. F-15 Rev. 4/78. Send your request to: IEEE Service Center, Microfilm Services, 445 Hoes Lane, Piscataway, NJ 08854.

Supplementary Information

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