

- Yong Huang**, see Yongsheng Wang, *AES-M Aug 96* 16-20
Yong Huang, see Huang Yong, *AES-M Dec 98* 3-6
Yong Huang, see Huang Yong, *AES-M Dec 98* 11-13
Yong Li, see He Mingyi, *AES-M Sep 98* 27-29
Yongqi Chen, see Xiufeng He, *AES-M Mar 98* 40-45
Yongqi Chen, see Xiufeng He, *AES-M Dec 98* 7-10
Yongsheng Wang, see Xiaorong Sun, *AES-M Jul 96* 31-34
Yongsheng Wang, see Xiangpeng Li, *AES-M Jul 96* 35-38
Yongsheng Wang, Xiangpeng Li, and Yong Huang. Navigation system of pilotless aircraft via GPS; *AES-M Aug 96* 16-20
Yongsheng Wang, see Huang Yong, *AES-M Dec 98* 11-13
Yongtan Liu, see Wang Wei, *AES-M Apr 99* 39-45
Young, Eric A. Guiding technology development and transition into products responsive to end-user needs; *AES-M Aug 93* 10-14
Young, F.C.D., and J.A. Houston. Formal verification and legacy redesign; *AES-M Mar 99* 31-36
Young, K., see Ovshinsky, S.R., *AES-M May 99* 17-23
Young, S., see Shoucri, M., *AES-M May 95* 37-42
Young, S., see Sage, K., *AES-M Apr 99* 19-29
Yount, L., see Hegg, J.W., *AES-M Jul 95* 31-34
Yu, Kai-Bor High-resolution multiple target angle tracking; *AES-M May 91* 8-12
Yu, T., see Lowinski, W.B., *AES-M Sep 92* 21-23
Yuanbin Wu, and Jinwen Li. The design of digital radar receivers; *AES-M Jan 98* 35-41
Yuan Jianping, see Jianping Yuan, *AES-M Jan 98* 25-30
Yuan Jianping, see Huamin Jia, *AES-M Jul 96* 23-26
Yuan Jianping, see Jianping Yuan, *AES-M Dec 98* 25-28
Yu-De Ni, see Jian-Guo Zhang, *AES-M Jul 99* 27-33
Yueping Tang, see Zheng Li, *AES-M Sep 96* 4-7
Yuhshyen Shen, see Hilland, J.E., *AES-M Nov 98* 9-16
Yujiri, L., see Shoucri, M., *AES-M May 95* 37-42

Z

- Zacharias, R.A.**, see Poggio, A.J., *AES-M Apr 96* 27-33
Zacharias, Richard, Steve Pennock, Andrew Poggio, and Scott Ray. Tools and techniques for estimating high intensity RF effects; *AES-M Jan 92* 24-31
Zagrodnik, Jeffrey P., and Kenneth R. Jones. Nickel-hydrogen multicell common pressure vessel battery development update; *AES-M Nov 92* 43-48
Zari, M.C., A.F. Zwilling, D.A. Hess, J. Jo, C.S. Anderson, and D. Chiang. Soldier identification system utilizing low probability of intercept (LPI) techniques; *AES-M Jul 97* 21-26
Zarr, R., see Bowen, L., *AES-M May 94* 16-19
Zeh, James M., see Feeser, Kenneth A., *AES-M Sep 89* 3-12
Zeitlin, Andrew D., see Love, W. Dwight, *AES-M Jan 86* 7-12
Zhang, C.B., see Yeo, T.S., *AES-M May 99* 37-41
Zhang Jian-Guo, see Jian-Guo Zhang, *AES-M Apr 99* 31-38
Zhang Jian-Guo, see Jian-Guo Zhang, *AES-M Jun 99* 15-21
Zhang Jian-Guo, see Jian-Guo Zhang, *AES-M Jul 99* 27-33
Zhang Jian-Guo, see Jian-Guo Zhang, *AES-M Jul 99* 35-42
Zhang Jian-Guo, see Jian-Guo Zhang, *AES-M Oct 98* 25-32
Zhang Jian-Guo, see Jian-Guo Zhang, *AES-M Nov 98* 31-35
Zhang Xixong The future of military radar: a perspective; *AES-M Feb 99* 11-18
Zheng Li, see Jian-Guo Zhang, *AES-M Jul 99* 27-33
Zheng Li, Yilcai Su, and Yueping Tang. High speed driving of a gain-switched laser diode with an exponential transmission line; *AES-M Sep 96* 4-7
Zhenkang Shen, see Haixin Chen, *AES-M Jul 98* 21-24
Zhu, J., see Bogner, R.E., *AES-M Sep 98* 31-35
Zhu Xiaohua, see Liu Guosui, *AES-M Oct 97* 35-40
Zinn, E.-G., see Gamst, A., *AES-M Feb 86* 8-11
Zintsmaster, L.R. WIDE-EYE helmet mounted display system for rotorcraft applications; *AES-M Mar 94* 6-11
Zohdy, M.A. Review of "Estimation and Tracking Principles, Techniques, and Software" (Bar-Shalom, Y., and Li, X.-R.; 1993); *AES-M Aug 94* 11
Zucker, Sandra H., see Christian, Kathleen B., *AES-M Nov 86* 10-15
Zwilling, A.F., see Zari, M.C., *AES-M Jul 97* 21-26
Zywiel, Jan, see West-Vukovich, George, *AES-M Mar 89* 18-28

SUBJECT INDEX

A

Aberrations

- Hubble space-based telescope, Parker Effect. Parker, A., +, *AES-M Jul 98* 3-6

+ Check author entry for coauthors

- Lorentz length contraction, direct test. Renshaw, C., *AES-M Sep 98* 3-7
- Abstracts**
aerospace test facilities and simulation; 65 abstracts from INSPEC database. *AES-M Feb 90* 35-41
aircraft landing systems; 11 abstracts from INSPEC database. *AES-M May 90* 52-54
artificial intelligence and expert systems from non-US journals; search strategy and 43 abstracts. *AES-M Apr 88*
artificial intelligence software from non-US journals; search strategy and 40 retrieved abstracts. Doerr, Joan, *AES-M Sep 86*
avionics systems and instrumentation, and artificial intelligence; 51 abstracts. *AES-M Jan 92* 69-75
battery technology; 21 abstracts from INSPEC database. *AES-M Apr 92* 44-47
command and control; 81 abstracts from INSPEC database. *AES-M Aug 92*
command and control ground support systems from non-US journals; search strategy and 50 retrieved abstracts. Doerr, Joan, *AES-M Dec 86* 24-27
computer-related failures/disasters listing. Neumann, Peter G., *AES-M Oct 86* 18-19
computers; search strategy and 79 non-US abstracts. Doerr, Joan, *AES-M Apr 87*
control and simulation; search strategy and 58 non-US abstracts. Doerr, Joan, *AES-M Dec 87*
control systems; search strategy and 77 non-US abstracts. Doerr, Joan, *AES-M May 87*
control systems and navigation; search strategy and 49 non-US abstracts. Doerr, Joan, *AES-M Jun 87*
digital signal processing, 1987-1988; 48 abstracts. *AES-M Sep 88*
energy conversion; 9 abstracts from INSPEC database. *AES-M Aug 90* 45-46
extinction coefficients and atmospheric propagation; 4 abstracts from INSPEC database. *AES-M Apr 91* 26-29
filtering and communication from non-US journals; 49 abstracts. *AES-M Feb 88*
fuel cells, batteries, space power transmission, and electric vehicles; 49 abstracts from INSPEC database. *AES-M Nov 92* 50-57
GLONASS, GPS, Loran and air-traffic control; 62 abstracts from INSPEC database. *AES-M Feb 89*
GPS, GLONASS, Loran, Omega, inertial navigation and earth science, 94 abstracts from INSPEC database. *AES-M Jul 90* 45-59
impulse radar; 41 abstracts from INSPEC database. *AES-M Oct 93* 32-36
impulse radar, stealth aircraft detection, and image processing; 34 abstracts from INSPEC database. *AES-M Dec 92* 49-54
India and space; 21 abstracts from INSPEC database. *AES-M Feb 93* 56-58
intelligent vehicle-highway systems; 13 abstracts from INSPEC database. *AES-M Sep 93* 34-35
navigation systems and vehicle electronic systems; 37 abstracts from INSPEC database. *AES-M Jun 92* 70-75
OMEGA, Loran, GPS, and GLONASS; 65 abstracts from INSPEC database. *AES-M Jan 90* 32-40
optical and laser systems from non-US journals; search strategy and 32 retrieved abstracts. Doerr, Joan, *AES-M Aug 86*
papers from non-US journals; 29 abstracts. *AES-M Jul 88*
papers from non-US journals; 30 abstracts on space vehicles and satellite technology. *AES-M Nov 88*
papers from non-US journals; 38 abstracts on fiber optics. *AES-M Jan 89*
papers from non-US journals; 48 abstracts on robotics and control. Doerr, J., *AES-M Jan 88*
papers from non-US journals on aerospace technologies; 46 abstracts. *AES-M Aug 88*
papers from non-US journals on radar systems; 41 abstracts. *AES-M Oct 88*
papers from US and international journals; 24 abstracts on solar energy efficiency. *AES-M Nov 89* 66-70
papers related to potential defense applications of expert systems and artificial intelligence. Shah, Vivek, +, *AES-M Feb 88* 15-21
pattern acquisition and processing; search strategy and 37 non-US abstracts. Doerr, Joan, *AES-M Aug 87*
Polish radar research and development; summary of papers at Radar 90 conference to be published in IEEE Transactions on Aerospace and Electronic Systems. *AES-M Sep 90* 30
radar and radar polarimetry; 35 abstracts from INSPEC database. *AES-M Nov 90* 58-62
radar and radio navigation from USSR journals; search strategy and 50 retrieved abstracts from INSPEC database. Doerr, Joan, *AES-M July 86*
radar clutter, airborne imaging and radar systems; 19 abstracts from INSPEC database. *AES-M Jun 90* 43-46
radar systems and equipment; 27 abstracts from INSPEC database. *AES-M May 91* 38-43
simulation and tracking; search strategy and 62 non-US abstracts. Doerr, Joan, *AES-M Nov 87*
software from non-US journals; search strategy and 47 retrieved abstracts. Doerr, Joan, *AES-M Oct 86*

- software, ground support and telecommunication from non-US journals; search strategy and 52 retrieved abstracts. *Doerr, Joan, AES-M Nov 86*
- software radio, personal navigation, Iridium satellite, English Channel tunnel, and windpower and renewable energy; 37 abstracts from INSPEC database. *AES-M Jan 93 55-60*
- software radio technologies, architectures, model, and future directions. *Mitola, J., III, AES-M Apr 93 25-36*
- sonar, gyroscopes, military systems, direct energy conversion and storage; 31 abstracts from INSPEC database. *AES-M Apr 90 20-24*
- spacecraft anomalies, aircraft landing systems, digital data video, and space shuttle Orbiter; 36 abstracts from INSPEC database. *AES-M Apr 93 57-61*
- spacecraft, satellites, and rockets; search strategy and 44 non-US abstracts. *Doerr, Joan, AES-M Sep 87*
- space telerobotics and navigation; 39 abstracts from INSPEC database. *AES-M Jul 91 26-31*
- superconducting films, computer networks, satellite communication, TV, and optical fiber communication from non-US journals; 96 abstracts. *AES-M Jun 88*
- telecommunications; search strategy and 47 non-US abstracts. *Doerr, Joan, AES-M Jan 87*
- telecommunications, radar, and radio navigation; search strategy and 67 non-US abstracts. *Doerr, Joan, AES-M Feb 87*
- tracking systems; search strategy and 49 non-US abstracts from INSPEC database. *Doerr, Joan, AES-M Oct 87*
- vehicle collision avoidance and electric automobiles; 19 abstracts from INSPEC database. *AES-M Jul 93 39-43*
- vehicle dynamics, computer control, automatic-control image processing, and computer-aided design; search strategy and 55 non-US abstracts. *Doerr, Joan, AES-M Jul 87*
- video compression and miscellaneous subjects; 68 abstracts. *AES-M Oct 92 51-62*
- Abstracts; cf. Patent abstracts**
- Acceleration**
high-fidelity acceleration environment research. *Cammarota, Joseph P., AES-M Sep 89 30-38*
- Acceleration measurement**
Si μ SCRAS MEMS inertial rate and accel. sens., tactical grade navig. and guidance. *Hulsing, R., AES-M Nov 98 17-23*
tactical solid state accelerometer develop. for missile guidance. *Killen, A., +, AES-M Sep 94 20-25*
- Accelerometers**
inertial appls. of integrated MEMS sens. *Allen, J.J., +, AES-M Nov 98 36-40*
model QA3000 Q-Flex accelerometer high performance test results. *Foote, Steven A., +, AES-M Jun 92 59-67*
PLANS '94, Position, Location and Navigation Symposium '94. *Oman, H., AES-M Jul 94 2-5*
rotor vibr. meas. in elec. drives. *Pyrhonen, O., +, AES-M May 98 21-23*
tactical solid state accelerometer develop. for missile guidance. *Killen, A., +, AES-M Sep 94 20-25*
- Access protocols; cf. Code division multiple access**
- Accidents**
avionics ground proximity warning syst. *Breen, B.C., AES-M Jan 99 19-24*
high risk systs., human-machine interface failures minimization. *Sudano, J.J., AES-M Oct 94 17-20*
- AC generators**
19th-century 133-Hz 3-kV generator system used for transmitting power 2.6 miles to Colorado mine. *Wright, Charles R., AES-M Jan 88 8-10*
- AC generators; cf. Reluctance generators**
- AC motor drives**
elec. vehicle drives, experts' opinion survey. *Chang, L., AES-M Aug 94 7-11*
- AC motor drives; cf. Induction motor drives; Reluctance motor drives**
- AC motors; cf. Reluctance motors; Synchronous motors**
- Acoustic signal detection; cf. Sonar detection**
- Acoustoelectric transducers; cf. Earphones**
- Activation analysis; cf. Neutron activation analysis**
- Active antenna arrays**
satellite commun. syst. act. phased arrays, design-oriented reliab. model. *Ruggieri, M., AES-M Oct 97 23-29*
SIR-C/X-SAR, spaceborne imaging radar C/X-band multifaceted SAR, appls. *Stuhr, F., +, AES-M Oct 95 15-24*
- Active vision**
real-time monocular target tracking syst. *Baumela, L., +, AES-M Jul 95 4-7*
- Actuators**
fault-tolerant electro-hydrostatic actuator architectures for aircraft control. *Sadeghi, Tom, AES-M Mar 92 32-42*
high-performance magnetostrictive actuators. *Bushko, Dariusz A., +, AES-M Nov 91 21-25*
HVIC and IGT electronic technologies applied to aircraft actuation and control systems. *Lyford, Jon R., AES-M Dec 86 20-24*
TbDyFe, TERFENOL-D, giant magnetostrictive materials, actuators, magnetotagging. *Jones, B., +, AES-M Mar 96 3-6*
- Actuators; cf. Electric actuators; Intelligent actuators**
- Ada**
ATE test environ. eval., Ada/ATLAS/LabVIEW. *Gooding, M., +, AES-M Sep 97 12-17*
DoD projects, prog. lang. selection. *Naiditch, D., AES-M Sep 99 11-14*
mission-crit. systs., cost-effective software fault tolerance. *Kreutzfeld, R.J., +, AES-M Sep 97 25-30*
rationale for development of UK defense standards for safety-critical computer software. *Brown, Michael J. D., AES-M Nov 90 31-37*
traffic light control, safety kernel. *Ammann, P., AES-M Feb 96 13-19*
using Ada on US space station. *Humphrey, Terry D., AES-M Nov 88 21-24*
- Adaptive antenna arrays**
book review; Adaptive Antennas, Concepts and Performance (Compton, R. T., Jr.; 1988). *Brookner, Eli, AES-M Nov 88 32*
book review; Antenna-Based Signal Processing Techniques for Radar Systems (Farina, A.; 1992). *Brookner, Eli, AES-M Oct 93 31*
combining adaptive null-steering with high-resolution angle estimation under main-lobe interference conditions. *Theil, A., AES-M Nov 90 16-18*
digital beam forming antenna syst. for mobile commun. *Chiba, I., +, AES-M Sep 97 31-41*
flexible beamforming processor for digital adaptive array radar. *Teitelbaum, Kenneth, AES-M May 91 18-22*
- Adaptive control**
concepts for launch vehicle control studied for Advanced Launch System program. *Sijer, J. F., +, AES-M Feb 91 23-29*
- Adaptive filters**
adaptive filters for foliage penetration radar. *Nanis, J.G., +, AES-M Aug 95 34-36*
airborne adaptive moving target indication, whitening prevention. *Huang Yong, +, AES-M Jul 99 19-21*
- Adaptive radar**
airborne adaptive moving target indication, whitening prevention. *Huang Yong, +, AES-M Jul 99 19-21*
airborne early warning radar, knowledge-based space-time adaptive proc. *Melvin, W., +, AES-M Apr 98 37-42*
bistatic adaptive space-based radar, ground/airborne target detect. *Fante, R., AES-M Oct 99 39-44*
- Adaptive signal detection**
degradation of clutter processing due to missing radar return pulses. *Steiner, Michael, +, AES-M May 91 23-27*
- Adaptive signal processing**
airborne adaptive moving target indication, whitening prevention. *Huang Yong, +, AES-M Jul 99 19-21*
book review; Adaptive Signal Processing for Radar (Nitzberg, R.; 1992). *Brookner, E., AES-M Jan 94 39*
phased array airborne radar, STAP algm., real-time demons. *Linderman, M.H., +, AES-M Mar 98 15-31*
- Adaptive signal processing; cf. Space-time adaptive processing**
- Adaptive systems; cf. Adaptive filters**
- Add-on boards**
IRS-1C Indian Remote Sensing Satellite, on-board computer, PC based test syst. *Dinesh Kumar, G., +, AES-M Oct 95 35-38*
- Aerodynamics**
wind detect. in microcosm, ship/aircraft environ. sens. *Platt, J.R., AES-M Feb 98 26-33*
- Aerospace**
falshood of myths that aerospace engineers are useless in nondefense environments. *Oman, Henry, +, AES-M Sep 93 3-5*
space technology options in 1990s. *Gooch, Lawrence L., AES-M Mar 87 2-4*
- Aerospace biophysics**
high-fidelity acceleration environment research. *Cammarota, Joseph P., AES-M Sep 89 30-38*
loss of consciousness and spatial disorientation auto-recovery system for use in military aircraft. *Howard, John D., +, AES-M Dec 86 13-19*
- Aerospace computing**
aerospace maint. environ., wearable computers as portable maint. terminal. *Greene, S.R., +, AES-M Nov 99 33-35*
Aircraft Stores Interface Manual, paperless inform. technol., WWW. *Rochin, J.A.G., +, AES-M Jun 98 39-43*
ATM and FIS data link services. *Bauhof, C.R., AES-M Mar 94 38-42*
avionics engineers approach to automation, human factors. *Riley, V., AES-M May 96 3-8*
avionics hardware/software codesign, multi-formalisms approach. *Sahraoui, A.E.K., +, AES-M May 96 33-38*
avionics hybrid commun. archit., 1553 emulation, ATM. *Parish, D.J., +, AES-M Mar 98 34-39*
Cassini Information Access System, intranet technol. implement. *Abrahams, M.D., +, AES-M Jan 98 20-24*
computerized flight inspection system for testing basic air navigation ground facilities. *Eskelinen, Pekka, AES-M Mar 92 5-11*

environment for the integration and test of the US space station distributed avionics systems. *Barry, Thomas*, +, *AES-M Nov 88* 16-20

error-free software development for US space shuttle missions. *Kolkhorst, B. G.*, +, *AES-M Nov 88* 25-31

evaluation of voice interaction for workstation applications aboard spacecraft. *Morris, Randy B.*, +, *AES-M Aug 93* 26-31

GPS/IMU integrated syst., low-cost, develop., strapdown AHRS. *Xiufeng He*, +, *AES-M Dec 98* 7-10

GPS satellite antenna, radiant angle computing. *Xiangpeng Li*, +, *AES-M Jul 96* 35-38

hyperspectral airborne sens. systs. *Birk, R.J.*, +, *AES-M Oct 94* 26-33

IBM-PC-compatible interface card to be used for combining computer and video data in Spacelab experiments. *Collins, T. J., III*, +, *AES-M Aug 87* 9-12

intell./soft computing for space appls. *Berenji, H.R.*, *AES-M Aug 96* 8-10

IRS-1C Indian Remote Sensing Satellite, on-board computer, PC based test syst. *Dinesh Kumar, G.*, +, *AES-M Oct 95* 35-38

LabVIEW rapid prototyping environ. for avionics syst. teaching. *Reeves-Hardcastle, P.*, +, *AES-M Dec 95* 9-12

mil. avionics with INS/GPS. *Martin, M.K.*, +, *AES-M Nov 98* 41-46

modeling real-time software failure characterization for aerospace vehicle. *Dunham, Janet R.*, +, *AES-M Nov 90* 38-44

pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M.*, +, *AES-M May 95* 37-42

phased array airborne radar, STAP algm., real-time demons. *Linderman, M.H.*, +, *AES-M Mar 98* 15-31

RF integrated electronics, open systs. archit. *Hooks, D.C.*, +, *AES-M Jan 99* 29-33

star trackers for attitude determ. *Liebe, C.C.*, *AES-M Jun 95* 10-16

Swedish JAS39 Gripen aircraft, electronic display. *Brandtberg, H.*, *AES-M Sep 94* 6-12

tightly-coupled GPS/INS syst. develop. *Knight, D.T.*, *AES-M Feb 97* 14-18

TPS reuse library, COTS tools. *Cashar, E.E.*, *AES-M Oct 97* 12-16

unmanned space vehicle navig. by GPS. *Xiaorong Sun*, +, *AES-M Jul 96* 31-34

using Ada on US space station. *Humphrey, Terry D.*, *AES-M Nov 88* 21-24

visibility enhancing synthetic vision aids. *Moller, H.*, +, *AES-M Mar 94* 27-33

wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9

Aerospace computing; cf. Aircraft computers

Aerospace control

airborne early warning radar, knowledge-based space-time adaptive proc. *Melvin, W.*, +, *AES-M Apr 98* 37-42

checker for validating safe schedules and selecting error recovery schedules for satellite control systems. *Peters, James F., III*, +, *AES-M Oct 92* 14-21

comparison of 35-GHz with 95-GHz air-to-ground fire-control systems. *Currie, Nicholas C.*, +, *AES-M Oct 88* 21-26

computational intell./soft computing. *Berenji, H.R.*, *AES-M Aug 96* 8-10

concepts for launch vehicle control studied for Advanced Launch System program. *Sifer, J. F.*, +, *AES-M Feb 91* 23-29

controlling remotely piloted space vehicles using voice systems and heads-up displays. *Hartley, Craig S.*, +, *AES-M Jul 88* 18-26

correction to 'Verifying command sequences for satellite systems' (Oct 92 14-21). *Peters, J. F., III*, +, *AES-M Apr 93* 40

expert systems for spacecraft; overview of two early experimental systems. *Toussaint, A. L.*, +, *AES-M May 86* 2-5

FINDER, complex DSS for commercial transport. *Bittermann, V.*, +, *AES-M Mar 94* 12-19

International Space Station elec. power syst., status, archit., future technol. *Gholdston, E.*, +, *AES-M Feb 96* 25-30

low-cost satellite ground control facility design. *Landis, Scott J.*, +, *AES-M Jun 93* 35-49

NASA's automation and robotics technology development program; overview. *Holcomb, Lee B.*, +, *AES-M Apr 87* 19-26

pilot error in automated systs., altitude deviation reports. *Ritter, R.D.*, *AES-M Apr 94* 15-19

real-time expert system for space-vehicle power control in Boeing Aerospace Autonomous Power System testbed. *Spier, Robert J.*, +, *AES-M Nov 89* 33-38

rendezvous guidance trajectory shaping for Space Station. *Klumpp, Allan R.*, *AES-M Feb 87* 17-22

smart probe, Deutsche Airbus flight test. *Hagen, F.W.*, +, *AES-M Apr 94* 7-14

Solar Dynamic Flight Demonstration Project plan, Joint US/Russian syst. *Wanhainen, J.S.*, +, *AES-M Feb 96* 31-36

spacecraft elec. propulsion syst., direct drive options. *Hamley, J.A.*, *AES-M Feb 96* 20-24

Space Station Freedom, two-fault tolerant attitude control. *Babcock, P.S., IV*, *AES-M May 96* 9-22

unmanned space vehicle navig. by GPS. *Xiaorong Sun*, +, *AES-M Jul 96* 31-34

Aerospace control; cf. Aircraft control; Air traffic control

Aerospace engines

US Air Force F-22 Fighter jet engines, automated test approach. *Rea, C.*, +, *AES-M Mar 96* 24-28

Aerospace expert systems

airborne early warning radar, knowledge-based space-time adaptive proc. *Melvin, W.*, +, *AES-M Apr 98* 37-42

aircraft navigation and route-planning expert systems for future aircraft. *Frankovich, Ken*, +, *AES-M Jan 86* 13-19

aircraft variable-speed constant frequency generator expert system. *Ho, Ting-Long*, +, *AES-M Apr 88* 6-13

CEPS diagnostic expert system for B1-B strategic bomber. *Davis, Kathy*, *AES-M Apr 88* 20-25

concepts and technologies required for development of robotic air vehicle. *Blair, Jesse*, +, *AES-M Sep 87* 8-11

cooperating rule-based systems for automating functions and decisions associated with combat aircraft's subsystems. *Belkin, Brenda L.*, +, *AES-M Jun 91* 3-11

expert systems for multisensor data handling and threat assessment in future fighter aircraft. *Yannone, Ronald M.*, *AES-M Feb 86* 12-16

expert systems for spacecraft; overview of two early experimental systems. *Toussaint, A. L.*, +, *AES-M May 86* 2-5

Pilot's Associate Demonstration One program; expert systems development for tactical aircraft. *Pohlmann, Lawrence D.*, +, *AES-M Aug 88* 3-9

real-time expert system for space-vehicle power control in Boeing Aerospace Autonomous Power System testbed. *Spier, Robert J.*, +, *AES-M Nov 89* 33-38

Aerospace industry

Allied-Signal's avionics develop. in CIS. *Dorenberg, F.M.G.*, +, *AES-M Feb 95* 8-12

avionics, cost of ownership. *Hitt, E.F.*, *AES-M Nov 97* 3-7

book review; Progress in Defense and Space: A History of the Aerospace Group of the General Electric Company (Johnson, A.). *Brown, L.*, *AES-M Jun 94* 26

Cassini Information Access System, intranet technol. implement. *Abrahams, M.D.*, +, *AES-M Jan 98* 20-24

European industry integration. *Piller, W.*, *AES-M Jan 99* 3-6

future tech. trends, Hughes experience. *Chester, A.N.*, *AES-M Apr 97* 38-39

IEEE AESS Space Panel's visit to Hindustan Aeronautics Limited. *French, D. E.*, *AES-M Feb 93* 37

IEEE AESS Space Panel's visit to ISRO Satellite Center in Bangalore, India. *Talapatra, Dipak C.*, +, *AES-M Feb 93* 16-18

IEEE AESS Space Panel's visit to ISRO space centers in Trivandrum region of India. *Kayton, Myron*, *AES-M Feb 93* 29-30

innovation proc., interpreting customer requirements. *Adler, T.R.*, *AES-M Jun 94* 17-25

report of IEEE AESS Space Panel's visit to India. *Kayton, Myron*, *AES-M Feb 93* 2-12

summary of Indian space program. *Talapatra, Dipak C.*, *AES-M Feb 93* 13-15

Aerospace instrumentation

fiber-optic current sensor for aerospace applications, using Faraday effect in fiber. *Patterson, Richard L.*, +, *AES-M Dec 90* 10-14

Parker effect and navig. in space. *Parker, V.*, +, *AES-M Jan 98* 11-13

pointing grade fibre optic gyroscope. *Killian, K.M.*, *AES-M Jul 94* 6-10

PowerCore based satellite power supplies with NiH₂ batt. *Lyman, P.C.*, +, *AES-M Sep 98* 39-42

Space Station Freedom, two-fault tolerant attitude control. *Babcock, P.S., IV*, *AES-M May 96* 9-22

star trackers for attitude determ. *Liebe, C.C.*, *AES-M Jun 95* 10-16

VLBI Space Observatory Programme satellite. *Hirosawa, H.*, +, *AES-M Jun 95* 17-23

Aerospace instrumentation; cf. Airborne radar; Aircraft instrumentation; Space vehicle electronics

Aerospace propulsion

accelerating hypersonic airplanes with ground power. *Oman, Henry*, *AES-M Apr 90* 9-14

Advanced Launch System activation and power systems; impact on operability and cost. *Sundberg, Gale R.*, *AES-M Sep 90* 20-23

advantages of antimatter for space propulsion. *Sun, Allen*, +, *AES-M Nov 93* 44-46

centralized power supply concept. *Bourgasov, M.P.*, +, *AES-M Oct 97* 3-7

concepts for launch vehicle control studied for Advanced Launch System program. *Sifer, J. F.*, +, *AES-M Feb 91* 23-29

electric propulsion technology overview; power laser beaming for enhanced performance of earth orbital transporters. *Dagle, Jeffery E.*, *AES-M Nov 91* 17-20

flywheel technol. develop. program for aerospace appl. *Christopher, D.A.*, +, *AES-M Jun 98* 9-14

launch of booster vehicle with strapdown navigation system on expendable launch vehicle. *Reddy, Narotham S.*, +, *AES-M Feb 91* 3-7

- Morgan phenom., electron jet propulsion principle. *Lebedev, O.*, +, *AES-M Aug 98* 3-5
- morph. synthesis for promising tech. systs. *Rakov, D.L.*, *AES-M Dec 96* 3-8
- optimum cruise speed of hypersonic aircraft. *Koelle, Dietrich E.*, *AES-M May 89* 13-16
- ring-laser-gyro-based navigator for space launch-vehicle guidance. *Wright, R. Joseph, Jr.*, +, *AES-M Mar 89* 29-38
- spacecraft elec. propulsion syst., direct drive options. *Hamley, J.A.*, *AES-M Feb 96* 20-24
- starter/generator technol. for future aerosp. appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96* 17-24
- torpedo elec. propulsion, Al-AgO primary batt. *Orndorff, C.M.*, +, *AES-M May 96* 27-31
- TWA800 fuel tank flammability study. *Wyczalek, F.A.*, *AES-M Jan 98* 16-19
- USAF More Electric Aircraft initiative, status. *Cloyd, J.S.*, *AES-M Apr 98* 17-22
- Word Storage Relay (WSR). *West, P.*, *AES-M Aug 96* 29-33
- Aerospace robotics**
- concepts and technologies required for development of robotic air vehicle. *Blair, Jesse*, +, *AES-M Sep 87* 8-11
- NASA's automation and robotics technology development program; overview. *Holcomb, Lee B.*, +, *AES-M Apr 87* 19-26
- robotic systems for aircraft servicing/maintenance during biochemical warfare. *Schultz, Edwin R.*, *AES-M Dec 86* 24-27
- space remote sensors as component of high-level robotic systems; sensors for EDS program. *Keller, Sam*, *AES-M Apr 87* 14-18
- telerobotics (supervised autonomy) for space applications. *Otaguro, W. S.*, +, *AES-M Nov 88* 11-15
- Aerospace simulation**
- airborne in-flight simulators for aircraft testing and pilot training developed by Flight Dynamics Laboratory; history. *Barry, Jack, Jr.*, +, *AES-M Mar 86* 10-16
- airdrop ballistic winds operationally capable lidar. *Carr, J.*, +, *AES-M May 99* 31-36
- flight deck-ATC syst., shared situation awareness. *Endsley, M.R.*, +, *AES-M Aug 99* 25-30
- high-fidelity research flight station simulator for future transport and military aircraft. *Sexton, George A.*, *AES-M Dec 86* 2-7
- influence of instructional systems development (ISD) on simulator design. *Gibbons, Andrew S.*, *AES-M Jun 89* 30-35
- LabVIEW rapid prototyping environ. for avionics syst. teaching. *Reeves-Hardcastle, P.*, +, *AES-M Dec 95* 9-12
- MARC (Modeling, Animation, Rendering, and Compositing) system for visualizing and simulating space-mission scenarios. *Stephenson, Thomas*, +, *AES-M Jun 89* 14-19
- neural networks in nonlin. aircraft flight control. *Calise, A.J.*, *AES-M Jul 96* 5-10
- reconditioning of Ni/H₂ batts., need and effect. *Suresh, M.S.*, +, *AES-M Apr 95* 26-29
- STOL Maneuver Technology Demonstrator Manned Simulation Test Program. *Feeser, Kenneth A.*, +, *AES-M Sep 89* 3-12
- training simulator archit. based on distributed proc. *Shi-Yu Gong*, +, *AES-M Sep 96* 8-10
- unmanned aircraft, simul. training syst. *Huang Yong*, +, *AES-M Dec 98* 11-13
- wireless power transm., solar power satellite develop. program. *Nansen, R.H.*, *AES-M Jan 96* 33-39
- Aerospace test facilities**
- AUTOTESTCON '96, test technol. and commercialization themes. *Schroer, R.*, *AES-M May 97* 20-23
- NASA B-757 HIRF test series low power on-the-ground tests. *Poggio, A.J.*, +, *AES-M Apr 96* 27-33
- RF test range for engng. education. *Eskelinen, P.*, +, *AES-M Jul 95* 17-23
- smart probe, Deutsche Airbus flight test. *Hagen, F.W.*, +, *AES-M Apr 94* 7-14
- Aerospace test facilities; cf. Wind tunnels**
- Aerospace testing**
- 2 μ m LIDAR for laser-based rem. sens. *Wagener, T.J.*, +, *AES-M Feb 95* 23-28
- AI in automatic test procedures. *Dean, J.S.*, *AES-M Jul 97* 16-20
- AUTOTESTCON '96, test technol. and commercialization themes. *Schroer, R.*, *AES-M May 97* 20-23
- computerized flight inspection system for testing basic air navigation ground facilities. *Eskelinen, Pekka*, *AES-M Mar 92* 5-11
- differential GPS/inertial navigation approach/landing flight test results. *Snyder, Scott*, +, *AES-M May 92* 3-11
- GPS/GLONASS/INS test program. *Vieweg, S.*, +, *AES-M Jul 94* 23-28
- GPS/IMU syst. integrat. based navig./landing syst. *Meyer-Hilberg, J.*, +, *AES-M Jul 94* 11-17
- LIPS III, solar cell test bed used in space. *Severns, J.G.*, +, *AES-M Dec 89* 8-12
- Li-SO₂ batt., Galileo probe batt. syst. *Dagarin, B.P.*, +, *AES-M Jun 96* 6-13
- meeting MIL-STD-2165 requirements for avionics design testability. *Croke, Don*, +, *AES-M Feb 87* 23-26
- Ni-Cd batt., cycled, pulse discharge behavior, satellite power systs. *Rao, G.*, +, *AES-M Aug 97* 41-43
- reconditioning of Ni/H₂ batts., need and effect. *Suresh, M.S.*, +, *AES-M Apr 95* 26-29
- separator syst. for advanced aerospace batt. cells. *Scoles, D.L.*, +, *AES-M Jul 96* 27-30
- space performance of silicon vertical-junction solar cells on LIPS-III satellite. *Statler, Richard L.*, +, *AES-M Dec 89* 13-16
- TPS first article acceptance testing, manager's guide. *Preiss, S.A.*, +, *AES-M Mar 96* 12-17
- validation test of 125-Ah, individual-pressure-cell, nickel-hydrogen batteries for long-term LEO spacecraft missions. *Smithrick, John J.*, +, *AES-M May 93* 11-15
- weapon syst. testing, vert. support, R&D effort. *Liguori, F.*, *AES-M Jul 97* 31-34
- Aerospace testing; cf. Aircraft testing**
- Agriculture**
- technol. change need, best practice, triune brain concept. *Ausubel, J.H.*, *AES-M Oct 99* 3-8
- Airborne radar**
- adaptive moving target indication, whitening prevention. *Huang Yong*, +, *AES-M Jul 99* 19-21
- airdrop ballistic winds operationally capable lidar. *Carr, J.*, +, *AES-M May 99* 31-36
- AN/AP-6 airborne radar for fighter aircraft. *Suffield, F.G.*, *AES-M Sep 95* 33-40
- antenna syst. installed perform. anal., computer code. *Kim, J.J.*, +, *AES-M Jun 99* 38-42
- battlefield awareness via synergistic SAR and MTI. *Fennell, M.T.*, +, *AES-M Feb 98* 39-43
- civ. ATC radar, sig. anal. and modellization. *Piazza, E.*, *AES-M Jan 99* 35-40
- clutter rejection and transmitter-receiver requirements in airborne radar for military aircraft. *Lacomme, Philippe*, *AES-M Jun 90* 11-13
- C/X-band airborne SAR developed for Canada Centre for Remote Sensing. *Livingstone, C. E.*, +, *AES-M Oct 88* 11-20
- DGPS-based aircraft flight guidance/test syst. *Huamin Jia*, +, *AES-M Jul 96* 23-26
- Doppler radar, weather/wind/shear detect. capability, radiated testing. *Michaels, J.F.*, *AES-M Dec 95* 25-30
- early warning radar, knowledge-based space-time adaptive proc. *Melvin, W.*, +, *AES-M Apr 98* 37-42
- ELDORA/ASTRAIA airborne Doppler weather radar, field test results. *Hildebrand, P.H.*, +, *AES-M Oct 96* 34-37
- ERIM interferometric SAR, IFSARE. *Adams, G.F.*, +, *AES-M Dec 96* 31-35
- Finnish telecomms. indust., mil. radio systs./warfare, hist. *Eskelinen, P.*, *AES-M Aug 96* 3-7
- flyable fiber-optic radar target generator. *Prcic, M.M.*, *AES-M Jan 94* 17-20
- history of development of side-looking airborne radar. *Marshall, Charles J.*, *AES-M Jun 89* 39-40
- integrated sens. systs. to support radar, EW, and CNI. *Rich, B.A.*, +, *AES-M Sep 95* 11-17
- Joan-Eleanor code for WWII airborne receiver-transmitter. *Gross, A.*, *AES-M Aug 97* 28-29
- JointSTARS develop., enemy ground forces obs. *Fowler, C.A.*, *AES-M Jun 97* 3-17
- Ka-band TWTs for airborne radars, high power. *Theiss, A.J.*, +, *AES-M Nov 95* 33-36
- P-3 ultra-wideband SAR, polarimetric imagery. *Sheen, D.R.*, +, *AES-M Nov 96* 25-30
- phased array airborne radar, STAP algm., real-time demons. *Linderman, M.H.*, +, *AES-M Mar 98* 15-31
- pulse radar, 3 MM wave, short-range nav., collision avoidance. *Muraviev, V.V.*, +, *AES-M Jul 99* 23-25
- radar scanning antenna, leaky-wave periodically loaded antenna design. *Manasson, V.*, +, *AES-M Oct 96* 29-33
- radar warning receiver, flat panel display upgrade, technol. insertion prog. *Coker, B.L., Jr.*, +, *AES-M Oct 98* 33-37
- SAR, data acquisition syst., DDS & DSP tech. *Yeo, T.S.*, +, *AES-M May 99* 37-41
- SAR integrated precision targeting simul. *Toussaint, J.A.*, +, *AES-M Feb 99* 29-32
- Yuma ground penetration SAR expt., 1995 results. *Jao, J.K.*, +, *AES-M Jun 99* 5-9
- Aircraft**
- accelerating hypersonic airplanes with ground power. *Oman, Henry*, *AES-M Apr 90* 9-14

- conflicts between air law and space law arising from hypersonic flight; concept of where space begins. *Schwetje, F. Kenneth*, +, *AES-M May 89* 32-36
- Designer's Electronic Notebook, database covering aircraft crew-system design information. *Anderson, Arthur F.*, +, *AES-M Jun 89* 26-29
- FAA lithium batt. tech. std. for aircraft equipt. *Donaldson, G.J.*, +, *AES-M May 97* 3-5
- fatigue as major contributing factor in aircrew errors. *Ritter, Richard D.*, *AES-M Mar 93* 21-26
- Ferri project; technologies to support hypersonic transportation systems. *Buongiorno, Carlo*, +, *AES-M May 89* 17-25
- fuel tank flammability study. *Wyczalek, F.A.*, *AES-M Jan 98* 16-19
- global avionics future trends. *Oman, H.*, *AES-M Apr 95* 14-19
- hypersonic flight; selected papers from 1988 International Conference on Hypersonic flight in the 21st Century. *AES-M May 89* 1-36
- modeling real-time software failure characterization for aerospace vehicle. *Dunham, Janet R.*, +, *AES-M Nov 90* 38-44
- optimum cruise speed of hypersonic aircraft. *Koelle, Dietrich E.*, *AES-M May 89* 13-16
- recent progress in US National Aerospace Plane program. *Barthelemy, Robert*, *AES-M May 89* 3-12
- starter/generator technol. for future aerop. appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96* 17-24
- STOL Maneuver Technology Demonstrator Manned Simulation Test Program. *Feeser, Kenneth A.*, +, *AES-M Sep 89* 3-12
- US government policies and hypersonic flight in 21st century; author's recommendations. *Goldberg, Thomas R.*, *AES-M May 89* 26-31
- variable speed const. freq. starter/generator technols. *Elbuluk, M.E.*, +, *AES-M May 97* 24-31
- Aircraft; cf. Helicopters; Military aircraft; Remotely piloted aircraft; Short take-off and landing aircraft**
- Aircraft antennas**
- development of B-1 bomber aircraft antenna measurement test bed. *Grudzinski, Sigmund S.*, *AES-M Apr 91* 7-11
- pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong*, *AES-M Dec 98* 3-6
- Aircraft communication**
- aircraft traffic mgt., airport surface, VHF data link. *Hambly, R.M.*, +, *AES-M Mar 95* 9-13
- anti-jamming phase controlled antenna syst. *Eskelinen, P.*, +, *AES-M Apr 96* 8-11
- ATC, digital air/ground commun. develop. *Howland, J.W.*, *AES-M Apr 94* 20-24
- ATM and FIS data link services. *Bauhof, C.R.*, *AES-M Mar 94* 38-42
- avionic opt. fiber CDMA networks, high-speed, syst. integrat. *Jian-Guo Zhang*, *AES-M Jun 99* 15-21
- avionics commun., fiber opt. commun. syst., laser requirements. *Loehr, J.*, +, *AES-M Apr 98* 9-12
- avionics hybrid commun. archit., 1553 emulation, ATM. *Parish, D.J.*, +, *AES-M Mar 98* 34-39
- capacity as consideration for providing aeronautical mobile satellite air-traffic services in US domestic airspace. *Shively, Curtis A.*, *AES-M Jun 92* 51-58
- cockpit I/O terminal for general-aviation ground/air data link. *Ragland, Michael A.*, *AES-M Jun 87* 15-16, 18-19
- CONUS, high-capacity aeronautical mobile satellite system; conceptual design. *Sue, M. K.*, *AES-M Jan 88* 11-20
- Flight 2000 avionics suite, operational improvements, free flight. *Kirkman, D.A.*, +, *AES-M Dec 98* 29-33
- Iridium syst. based aeronautical satellite commun. *Lemme, P.W.*, +, *AES-M Nov 99* 11-16
- LD high speed driving, exponential transm. line. *Zheng Li*, +, *AES-M Sep 96* 4-7
- RF test range for engng. education. *Eskelinen, P.*, +, *AES-M Jul 95* 17-23
- UV commun. syst., solar blind, electrodeless, aircraft data/voice links. *Shute, R.D.*, *AES-M Nov 95* 2-7
- Aircraft computers**
- 777 airplane inform. mgt. syst. (AIMS), systs. integrat. *Witwer, B.*, *AES-M Apr 96* 17-21
- act. sidestick controllers for aircraft flight control. *Hegg, J.W.*, +, *AES-M Jul 95* 31-34
- aging avionics computers, F³I replacement strategy. *Luke, J.*, +, *AES-M Mar 99* 7-11
- avionic opt. fiber async. CDMA, real-time data distrib., computer interconnect. *Jian-Guo Zhang*, *AES-M Jul 99* 35-42
- avionics opt. fiber data buses, act.-coupler config. *Jian-Guo Zhang*, +, *AES-M Jul 99* 27-33
- C-17 appl. of existing ATE. *Sidhwa, F.*, +, *AES-M Mar 95* 29-34
- cockpit display syst., next generation, develop. *Read, B.C., III*, *AES-M Oct 96* 25-28
- COTS based open syst. archit. for mil. avionics. *Paul, J.T.*, *AES-M Sep 99* 37-42
- crew station meas. methodol., quantitat. approach, CAD model, CMM. *Purvis, B.D.*, +, *AES-M Oct 96* 14-16
- design-for-validation approach to designing computer hardware and software for flight-critical avionics for civil air-transport. *Johnson, Sally C.*, +, *AES-M Jan 92* 38-43
- fiber opt. avionics data buses, MIL-STD-1773, design issues. *Jian-Guo Zhang*, *AES-M Oct 98* 25-32
- Flight 2000 avionics suite, operational improvements, free flight. *Kirkman, D.A.*, +, *AES-M Dec 98* 29-33
- mission-crit. systs., cost-effective software fault tolerance. *Kreutzfeld, R.J.*, +, *AES-M Sep 97* 25-30
- modular avionics, open syst. concepts & technol. *The dens, J.R.*, *AES-M Oct 97* 30-34
- Open Systems approach, affordability. *Roark, C.*, +, *AES-M Sep 96* 15-20
- Outrider tactical unmanned aerial vehicle, DQI-NP appl. *Martin, M.K.*, +, *AES-M Dec 98* 21-24
- pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M.*, +, *AES-M May 95* 37-42
- pilot-centered autoflight syst. concept, user-centered design. *Riley, V.*, +, *AES-M Sep 99* 3-6
- pilot interface components for envisioned aircraft cockpits in year 2010. *Reising, John M.*, +, *AES-M Jan 86* 24-27
- pilotless aircraft navig. via GPS. *Yongsheng Wang*, +, *AES-M Aug 96* 16-20
- situation assessment using cellular automata paradigm. *Glickstein, Ira*, +, *AES-M Jan 92* 32-37
- test program sets re-hosting for mil. ATE. *Liguori, F.*, +, *AES-M Apr 96* 34-37
- VXibus multicomputer syst. set up and use. *Wright, M.*, *AES-M Sep 98* 17-21
- Aircraft control**
- 35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22
- act. sidestick controllers for aircraft flight control. *Hegg, J.W.*, +, *AES-M Jul 95* 31-34
- aircraft GPS/INS, reduced-order model. *Xiufeng He*, +, *AES-M Mar 98* 40-45
- aircraft navigation and route-planning expert systems for future aircraft. *Frankovich, Ken*, +, *AES-M Jan 86* 13-19
- all-terrain ground collision avoidance and maneuvering terrain-following for automated low-level night attack. *Barfield, A. Finley*, +, *AES-M Mar 93* 40-47
- applying dynamic interpolation to curved path aircraft approach problem. *Jackson, Joseph W.*, +, *AES-M Feb 91* 8-13
- architecture of highly integrated automatic flight system for MD-11 commercial aircraft. *Devlin, B. Terry*, +, *AES-M Mar 93* 53-56
- Boeing 777 microprocessor-based high lift control system. *Rea, Jon*, *AES-M Aug 93* 15-21
- comments on 'Electric control of large aeroplanes' by K. Thompson. *Esval, O. E.*, *AES-M Apr 89* 33
- DGPS-based aircraft flight guidance/test syst. *Huamin Jia*, +, *AES-M Jul 96* 23-26
- electric control of large aeroplanes; 1916 article compared with current ideas in aircraft flight control. *Thompson, Ken*, *AES-M Dec 88* 19-24
- fault-tolerant distributed flight control system using Fiber Distributed Data Interface (FDDI). *Hall, Oliver Keith*, +, *AES-M Jun 92* 21-33
- fault-tolerant electro-hydrostatic actuator architectures. *Sadeghi, Tom*, *AES-M Mar 92* 32-42
- fighter aircraft, future develop. trends. *Bartels, B.E.*, +, *AES-M Jan 94* 6-11
- FINDER, complex DSS for commercial transport. *Bittermann, V.*, +, *AES-M Mar 94* 12-19
- Flight 2000 avionics suite, operational improvements, free flight. *Kirkman, D.A.*, +, *AES-M Dec 98* 29-33
- flight control and navigation system implementation for tactical helicopters. *Bye, Charles T.*, +, *AES-M Jul 88* 27-33
- flight control syst. neural network modeling. *He Mingyi*, +, *AES-M Sep 98* 27-29
- flight management system of F-117A night attack US military aircraft. *Combs, S. R.*, +, *AES-M Jul 92* 49-55
- future fighter aircraft controls and displays. *Summers, Paul I.*, *AES-M Feb 86* 17-20
- GOCAT, ground and obstacle collision avoidance technique for all kinds of terrain. *Hewitt, C.*, +, *AES-M Aug 91* 13-20
- GPS, opportunities and problems. *Oman, H.*, *AES-M Jul 95* 35, 37, 39
- high-fidelity acceleration environment research. *Cammarota, Joseph P.*, *AES-M Sep 89* 30-38
- high-voltage IC (HVIC) for aircraft actuation systems. *Lyford, Jon R.*, *AES-M Dec 86* 20-24
- human factors R&D requirements for future aerospace cockpit systems. *Schiffler, Richard J.*, +, *AES-M Sep 87* 2-4
- integrated flight/fire control for military attack helicopters. *Osder, Stephen*, *AES-M Jan 92* 17-23

- loss of consciousness and spatial disorientation auto-recovery system for use in military aircraft. *Howard, John D.*, +, *AES-M Dec 86* 13-19
- mission-crit. systs., cost-effective software fault tolerance. *Kreutzfeld, R.J.*, +, *AES-M Sep 97* 25-30
- modular avionics, open syst. concepts & technol. *The dens, J.R.*, *AES-M Oct 97* 30-34
- neural networks in nonlin. aircraft flight control. *Calise, A.J.*, *AES-M Jul 96* 5-10
- online identification and control of linearized aircraft dynamics using multiple-objective optimization. *Rusnak, Ilan*, +, *AES-M Jul 92* 56-60
- optimal flight-management system with ATC automation. *Mohleji, Satish C.*, *AES-M Feb 89* 26-32
- pilot-centered autoflight syst. concept, user-centered design. *Riley, V.*, +, *AES-M Sep 99* 3-6
- pilot error in automated systs., altitude deviation reports. *Ritter, R.D.*, *AES-M Apr 94* 15-19
- pilot interface components for envisioned aircraft cockpits in year 2010. *Reising, John M.*, +, *AES-M Jan 86* 24-27
- pilotless aircraft navig. via GPS. *Yongsheng Wang*, +, *AES-M Aug 96* 16-20
- pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong*, *AES-M Dec 98* 3-6
- RF integrated electronics, open systs. archit. *Hooks, D.C.*, +, *AES-M Jan 99* 29-33
- smart probe, Deutsche Airbus flight test. *Hagen, F.W.*, +, *AES-M Apr 94* 7-14
- tightly-coupled GPS/INS syst. develop. *Knight, D.T.*, *AES-M Feb 97* 14-18
- triple and quadruple flight control architecture fault tolerances; impact of worst-case failures on aircraft transient response. *Sadeghi, Tom*, +, *AES-M Mar 92* 20-31
- ultra-reliable real-time control syst., future trends. *Hammett, R.C.*, *AES-M Aug 99* 31-36
- unmanned aircraft, simul. training syst. *Huang Yong*, +, *AES-M Dec 98* 11-13
- USAF More Electric Aircraft initiative, status. *Cloyd, J.S.*, *AES-M Apr 98* 17-22
- US military McDonnell Douglas C-17 flight control system overview. *Kowal, Brian W.*, +, *AES-M Jul 92* 24-31
- Aircraft control; cf. Aircraft landing guidance**
- Aircraft displays**
- 8-in } 8-in full-color LCD cockpit display. *Robbins, Lionel*, +, *AES-M Sep 90* 3-6
- cockpit display syst., next generation, develop. *Read, B.C., III*, *AES-M Oct 96* 25-28
- cockpit I/O terminal for general-aviation ground/air data link. *Ragland, Michael A.*, *AES-M Jun 87* 15-16, 18-19
- crew station meas. methodol., quantitat. approach, CAD model, CMM. *Purvis, B.D.*, +, *AES-M Oct 96* 14-16
- full-color active-matrix LCD with full avionic characteristics and night-vision-goggle compatibility. *Abileah, Adi*, +, *AES-M Jul 92* 20-23
- future fighter aircraft controls and displays. *Summers, Paul I.*, *AES-M Feb 86* 17-20
- head-up guidance system for low-visibility operation. *Hartman, Brian K.*, *AES-M Mar 93* 31-33
- high-fidelity research flight station simulator for future transport and military aircraft. *Sexton, George A.*, *AES-M Dec 86* 2-7
- HUD, enhanced vision, image quality issues. *Todd, J.*, +, *AES-M Mar 95* 40-44
- humane intelligence; human factors perspective for developing intelligent cockpits. *McNeese, Michael D.*, *AES-M Sep 86* 6-12
- large flat-panel multifunction LCD-based display for military and space applications. *Pruitt, James S.*, *AES-M Sep 92* 30-35
- pilot-centered autoflight syst. concept, user-centered design. *Riley, V.*, +, *AES-M Sep 99* 3-6
- pilot interface components for envisioned aircraft cockpits in year 2010. *Reising, John M.*, +, *AES-M Jan 86* 24-27
- radar warning receiver, flat panel display upgrade, technol. insertion prog. *Coker, B.L., Jr.*, +, *AES-M Oct 98* 33-37
- sunlight viewable electroluminescent displays for mil. aircraft appl. *Monarchie, D.*, +, *AES-M Aug 95* 21-25
- surveillance systs., ADS, global positioning syst. sigs. *Donohue, G.*, *AES-M Oct 95* 8-14
- Swedish JAS39 Gripen aircraft, electronic display. *Brandtberg, H.*, *AES-M Sep 94* 6-12
- tactical cockpits, three-generation develops./future outlook. *Adam, E.C.*, *AES-M Mar 94* 20-26
- US military McDonnell Douglas C-17 multifunction CRT color display. *Weindorf, Paul*, *AES-M Jul 92* 32-39
- wide angle HUD for synthetic vision. *Wisely, P.L.*, *AES-M Feb 95* 13-18
- WIDE-EYE helmet mounted display for rotorcraft. *Zintsmaster, L.R.*, *AES-M Mar 94* 6-11

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Aircraft electronics; cf. Avionics

Aircraft instrumentation

- airborne ground clutter measurement system design considerations. *Wicks, Michael*, +, *AES-M Oct 88* 27-31
- aircraft GPS navig. integrity, receiver autonomous integrity monitoring. *Michalson, W.R.*, *AES-M Oct 95* 31-34
- CASS, design for supportability. *Mena, A.C.*, *AES-M Jan 95* 23-27
- ECCM model for future EW combat. *Benren, T.*, *AES-M Jun 94* 12-16
- fiber-optic radar target generator. *Prcic, M.M.*, *AES-M Jan 94* 17-20
- field-portable imaging syst. for scene class. *Preston, E.*, +, *AES-M Sep 94* 13-19
- fighter aircraft, future develop. trends. *Bartels, B.E.*, +, *AES-M Jan 94* 6-11
- flying obj. vel. meas. CCD sens. *Ricny, V.*, +, *AES-M Jun 94* 3-6
- GPS precision lightweight receiver testing. *Cosentino, B.*, *AES-M Aug 94* 17-20
- hyperspectral airborne sens. systs. *Birk, R.J.*, +, *AES-M Oct 94* 26-33
- ice accretion meas., Phase I SBIR study, MM wave radar. *Lightfoot, F.M.*, +, *AES-M Aug 97* 3-9
- in-flight entertainment, aircraft integrat., enabling tools. *Lee, D.B.*, *AES-M Aug 99* 37-43
- Joint STARS phased array radar antenna. *Shnitkin, H.*, *AES-M Oct 94* 34-40
- NASA B-757 HIRF test series low power on-the-ground tests. *Poggio, A.J.*, +, *AES-M Apr 96* 27-33
- non-intrusive diagnostics, thermal/X-ray images. *Poitier, A.*, +, *AES-M Mar 94* 34-37
- planetary terrains tracking, CCD sens. *Liebe, C.C.*, *AES-M Feb 94* 9-18
- PLANS '94, Position, Location and Navigation Symposium '94. *Oman, H.*, *AES-M Jul 94* 2-5
- smart probe, Deutsche Airbus flight test. *Hagen, F.W.*, +, *AES-M Apr 94* 7-14
- visibility enhancing synthetic vision aids. *Moller, H.*, +, *AES-M Mar 94* 27-33

Aircraft instrumentation; cf. Aircraft displays; Aircraft landing guidance; Avionics

Aircraft landing guidance

- applying dynamic interpolation to curved path aircraft approach problem. *Jackson, Joseph W.*, +, *AES-M Feb 91* 8-13
- determining effects of adverse weather on performance of imaging sensors for aircraft landing systems. *Greenwood, Stuart W.*, *AES-M Apr 91* 3-6
- differential GPS/inertial navigation approach/landing flight test results. *Snyder, Scott*, +, *AES-M May 92* 3-11
- Federal Radionavigation Plan, civ. aviation problems, IGSAGS syst. *Crow, R.P.*, *AES-M Oct 98* 9-16
- fully automatic hands-off landing for commercial aircraft using GPS. *Lopez, Alfred R.*, *AES-M Apr 93* 37-40
- GPS/IMU syst. integrat. based navig./landing syst. *Meyer-Hilberg, J.*, +, *AES-M Jul 94* 11-17
- ground proximity warning syst. *Breen, B.C.*, *AES-M Jan 99* 19-24
- head-up guidance system for low-visibility operation. *Hartman, Brian K.*, *AES-M Mar 93* 31-33
- HUD, enhanced vision, image quality issues. *Todd, J.*, +, *AES-M Mar 95* 40-44
- invention of ground control approach radar at MIT Radiation Laboratory. *Jolley, Neal A.*, *AES-M May 93* 57
- multiple-function sensors for enhanced vision application in commercial aviation. *Patterson, Walter W.*, *AES-M Mar 93* 27-30
- Outrider tactical unmanned aerial vehicle, DQI-NP appl. *Martin, M.K.*, +, *AES-M Dec 98* 21-24
- surveillance systs., ADS, global positioning syst. sigs. *Donohue, G.*, *AES-M Oct 95* 8-14
- synthetic vision system based on 35-GHz imaging radar, to allow aircraft landing in low visibility. *Burgess, Malcolm A.*, +, *AES-M Mar 93* 6-13
- TALONS, 95-GHz radar sensor for autonomous military aircraft landing guidance. *Koester, Kenneth L.*, +, *AES-M Jul 92* 40-44

Aircraft landing guidance; cf. Instrument landing systems; Microwave landing systems

Aircraft maintenance

- aging avionics computers, F³I replacement strategy. *Luke, J.*, +, *AES-M Mar 99* 7-11
- avionics syst. maint. services, improvement prospects. *Majid, I.*, *AES-M Apr 99* 15-18
- integrated diagnostics; US Air Force Generic Integrated Maintenance Diagnostics program. *Seaman, Harry M.*, *AES-M Jun 86* 9-12
- integrated sens. systs. to support radar, EW, and CNL. *Rich, B.A.*, +, *AES-M Sep 95* 11-17
- robotic systems for aircraft servicing/maintenance during biochemical warfare. *Schultz, Edwin R.*, *AES-M Dec 86* 24-27
- SMART std. based autotesting for commercial and mil. appls. *Knoff, R.E.*, *AES-M Jan 95* 19-22
- wearable computers as portable maint. terminal. *Greene, S.R.*, +, *AES-M Nov 99* 33-35

Aircraft navigation

- aircraft GPS/INS, reduced-order model. *Xiufeng He*, +, *AES-M Mar 98* 40-45
- aircraft navigation and route-planning expert systems for future aircraft. *Frankovich, Ken*, +, *AES-M Jan 86* 13-19
- book review; Avionics Navigation Systems (Kayton, M., and Fried, W.R., Eds.). *Eskelinen, P.*, *AES-M Dec 97* 12
- commercial air transport control develops. in USA. *AES-M Mar 94* 2-5
- computerized flight inspection system for testing basic air navigation ground facilities. *Eskelinen, Pekka*, *AES-M Mar 92* 5-11
- extension of continental US LORAN-C coverage and incorporation in National Airspace System. *Sedlock, Andrew J.*, *AES-M Dec 87* 11-14
- Flight 2000 avionics suite, operational improvements, free flight. *Kirkman, D.A.*, +, *AES-M Dec 98* 29-33
- flight control and navigation system implementation for tactical helicopters. *Bye, Charles T.*, +, *AES-M Jul 88* 27-33
- GPS certification requirements for sole means navigation in US Navy aircraft. *Lowenstein, George*, +, *AES-M Aug 88* 16-22
- GPS/IMU integrated syst., low-cost, develop., strapdown AHRS. *Xiufeng He*, +, *AES-M Dec 98* 7-10
- GPS/IMU syst. integrat. based navig./landing syst. *Meyer-Hilberg, J.*, +, *AES-M Jul 94* 11-17
- GPS internal Kalman filter, bias error augmentation. *Weiss, J.D.*, *AES-M Jan 96* 23-26
- GPS navig. integrity, receiver autonomous integrity monitoring. *Michalson, W.R.*, *AES-M Oct 95* 31-34
- Honeywell/DND Helicopter Integrated Navigation System (HINS) for antisubmarine warfare. *West-Vukovich, George*, +, *AES-M Mar 89* 18-28
- Integrated Communication Navigation Identification Avionics (ICNIA) program; military customer perspective. *Harris, Robert L.*, *AES-M Jul 88* 2-9
- integrated sens. systs. to support radar, EW, and CNI. *Rich, B.A.*, +, *AES-M Sep 95* 11-17
- LORAN-C for general aviation; implementation and future. *Jackson, Elijah*, *AES-M Aug 87* 7-8
- microwave landing system area navigation (MLS RNAV) system using time-reference scanning beam. *Remer, James*, +, *AES-M Dec 87* 23
- modular packaging technology for ICNIA (Integrated Communication Navigation Identification Avionics) digital processor subsystem. *Poradish, Frank*, *AES-M Jun 87* 20-23
- pilotless aircraft navig. via GPS. *Yongsheng Wang*, +, *AES-M Aug 96* 16-20
- present and future status of LORAN-C; worldwide activity and improved equipment. *Fuentes, Adeste F.*, *AES-M Dec 87* 8-10
- pulse radar, 3 MM wave, short-range nav., collision avoidance. *Muraviev, V.V.*, +, *AES-M Jul 99* 23-25
- receiver autonomous integrity monitoring capability for sole-means GPS navigation in oceanic phase of flight. *Lee, Young C.*, *AES-M May 92* 29-36
- synthesis and test issues for future aircraft inertial systems integration. *Biezad, Daniel J.*, *AES-M Sep 88* 19-23
- tightly-coupled GPS/INS syst. develop. *Knight, D.T.*, *AES-M Feb 97* 14-18

Aircraft navigation; cf. Aircraft landing guidance**Aircraft power systems**

- 270-VDC/hybrid 115-VAC electric power generating system technology demonstrator. *Niggemann, R.E.*, +, *AES-M Aug 91* 21-26
- aircraft variable-speed constant frequency generator expert system. *Ho, Ting-Long*, +, *AES-M Apr 88* 6-13
- battery configurations for multi-megawatt pulse power; application to hypersonic airplanes. *Oman, Henry*, *AES-M Aug 90* 23-26
- causes of aircraft electrical failures; results of survey. *Galler, Donald*, +, *AES-M Aug 91* 3-8
- design of Boeing 777 electric system. *Andrade, Luiz*, +, *AES-M Jul 92* 4-11
- high-energy density regenerative fuel cell systs. for terrestrial appls. *Burke, K.A.*, *AES-M Dec 99* 23-34
- high-voltage equipment for aerospace usage; design and packaging. *Dunbar, W. G.*, *AES-M Jan 86* 2-6
- HVIC and IGT electronic technologies applied to aircraft actuation and control systems. *Lyford, Jon R.*, *AES-M Dec 86* 20-24
- Intersociety Energy Conversion Engineering Conference 1999, plenary session and luncheon presentations. *Oman, H.*, *AES-M Nov 99* 30-32
- modular 550-W, 25-W per cubic inch power supply for next-generation aircraft. *Holley, O. M.*, +, *AES-M Sep 90* 11-16
- more-elec. aircraft, power mgt. & distrib. syst., MADMEL program. *Maldonado, M.A.*, +, *AES-M Dec 99* 3-8
- Ni-Cd aircraft batt., sealed, life cycle testing. *Kulin, T.M.*, *AES-M Oct 97* 17-22
- PBW, PBW program for aircraft, motor drive technols., options and trends. *Elbuluk, M.E.*, +, *AES-M Nov 95* 37-42
- PBW program, motor drive technol., power converters & devices. *Elbuluk, M.E.*, +, *AES-M Dec 95* 31-36
- sealed lead-acid aircraft batt., life expectancy, 24-V, 15-Ah. *Vutetakis, D.G.*, +, *AES-M Aug 97* 33-35

valve regulated lead acid batts., operational testing, commercial aircraft. *Timmons, J.B.*, +, *AES-M Jul 97* 35-38

Aircraft propulsion; cf. Aerospace propulsion**Aircraft testing**

- airborne in-flight simulators for aircraft testing and pilot training developed by Flight Dynamics Laboratory; history. *Barry, Jack, Jr.*, +, *AES-M Mar 86* 10-16
- airborne weapons platform capability assessment process. *Elengical, George*, +, *AES-M Apr 88* 14-19
- ATC in far East Russia, data link-based. *Shuvaev, A.P.*, +, *AES-M Dec 96* 9-12
- ATLAS lang., test equipt., spec., transportable test programs. *Hulme, A.M.B.*, *AES-M Mar 96* 29-34
- CEPS diagnostic expert system for B1-B strategic bomber. *Davis, Kathy*, *AES-M Apr 88* 20-25
- deterministic VXI highway interconnect, aerospace test systs. *Cleary, R.T.*, *AES-M Mar 96* 18-23
- instrument, engineer's first test flight in Boeing 777. *Bolanos, J.A.*, *AES-M Jul 95* 16
- mechanical systems diagnostic design approach's impact as exemplified by development of V-22 tiltrotor military aircraft. *Balke, Rod W.*, *AES-M Jan 91* 21-27
- mil. aircraft BIT maturation, test program set, relational database technols. *Sudolsky, M.D.*, *AES-M Mar 96* 35-40
- NASA B-757 HIRF test series low power on-the-ground tests. *Poggio, A.J.*, +, *AES-M Apr 96* 27-33
- Royal Australian Air Force, ATE, dispersed logistics mgt. syst. *Hills, P.C.*, *AES-M May 97* 6-9
- SMART std. based autotesting for commercial and mil. appls. *Knoff, R.E.*, *AES-M Jan 95* 19-22
- systems engineering methodology for weapons-platform avionics availability; transition to two levels of maintenance. *Minei, Anthony J.*, *AES-M Oct 89* 7-11
- test program sets re-hosting for mil. ATE. *Liguori, F.*, +, *AES-M Apr 96* 34-37
- TPS reuse library, COTS tools. *Cashar, E.E.*, *AES-M Oct 97* 12-16
- US Air Force F-22 Fighter jet engines, automated test approach. *Rea, C.*, +, *AES-M Mar 96* 24-28

Air pollution

- elec. vehicles develops. in USA. *Oman, H.*, *AES-M Jan 94* 33-35
- exhaustion of fossil fuels and production of greenhouse effect; impact on photovoltaics use. *Carlson, D.E.*, *AES-M Dec 89* 3-7
- issues affecting future of electric vehicles. *O'Brien, William A.*, *AES-M May 93* 38-41
- total life-cycle cost analysis of conventional and alternative fueled vehicles. *Cardullo, Mario W.*, *AES-M Nov 93* 39-43

Airports

- aircraft pos. ident. at airports, FAA trials. *Castaldo, R.*, +, *AES-M Jun 96* 35-40
- aircraft traffic mgt., airport surface, VHF data link. *Hambly, R.M.*, +, *AES-M Mar 95* 9-13
- application of automatic surface lights to improve airport safety. *Lynn, Ervin F.*, *AES-M Mar 93* 14-20
- CNS/ATM, Communications Navigation Surveillance Air Traffic Management, MTSAT. *Sukegawa, S.*, *AES-M Mar 97* 33-37
- differential GPS, real time Van Carrier Location System. *Evers*, +, *AES-M Aug 94* 26-32
- forward opportune landing sites location, satellite spectral images. *Botschner, R.*, *AES-M Apr 98* 43-47
- pseudo-tomographic X-ray imaging for aviation security. *Evans, J.P.O.*, +, *AES-M Jul 98* 25-30
- radar over-the-horizon surveillance, counterdrug appls. *Ciboci, J.W.*, *AES-M Jan 98* 31-34
- wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9

Air traffic

- civil aviation requirements and role of new satellite navigation, computer, and communication technologies. *Watrous, David S.*, *AES-M May 92* 47-50

Air traffic control

- aeronautical mobile satellite services, 1960s, 1990s develops. *Guangren Chen*, +, *AES-M Dec 94* 25-36
- aircraft collision avoidance system logic; design concepts. *Love, W. Dwight*, +, *AES-M Jan 86* 7-12
- aircraft pos. ident. at airports, FAA trials. *Castaldo, R.*, +, *AES-M Jun 96* 35-40
- aircraft traffic mgt., airport surface, VHF data link. *Hambly, R.M.*, +, *AES-M Mar 95* 9-13
- ATM and FIS data link services. *Bauhof, C.R.*, *AES-M Mar 94* 38-42
- capacity as consideration for providing aeronautical mobile satellite air-traffic services in US domestic airspace. *Shively, Curtis A.*, *AES-M Jun 92* 51-58

- civ. ATC radar, sig. anal. and modellization. *Piazza, E.*, *AES-M Jan 99* 35-40
- CNS/ATM, Communications Navigation Surveillance Air Traffic Management, MTSAT. *Sukegawa, S.*, *AES-M Mar 97* 33-37
- commercial air transport control develops. in USA. *AES-M Mar 94* 2-5
- data link-based, far East Russia. *Shuvaev, A.P.*, +, *AES-M Dec 96* 9-12
- DGPS-based aircraft flight guidance/test syst. *Huamin Jia*, +, *AES-M Jul 96* 23-26
- digital air/ground commun., voice/data commun. *Howland, J.W.*, *AES-M Apr 94* 20-24
- flight deck-ATC syst., shared situation awareness. *Endsley, M.R.*, +, *AES-M Aug 99* 25-30
- Iridium syst. based aeronautical satellite commun. *Lemme, P.W.*, +, *AES-M Nov 99* 11-16
- potential interference sources to GPS; solutions appropriate for applications to civil aviation. *Johannessen, R.*, +, *AES-M Jan 90* 3-9
- S-band surveillance radar sidelobe suppression. *Bucci, N.J.*, +, *AES-M Aug 95* 37-43
- supportable aircraft separation stds., stat. hypothesis testing. *Haest, M.*, +, *AES-M Jun 95* 24-29
- tower ATC, syst. integrat., user interface design. *Miller, D.L.*, +, *AES-M Apr 96* 22-26
- Air traffic control; cf. Aircraft landing guidance**
- Air transportation; cf. Airports; Air traffic**
- Alarm systems**
- AMETHYST automatic alarm assess. *Horner, M.*, +, *AES-M Jul 98* 31-36
- annunciator archit. for yr. 2000. *Adams, D.G.*, +, *AES-M Jun 97* 25-28
- avionic ground proximity warning syst. *Breen, B.C.*, *AES-M Jan 99* 19-24
- intell. alarm anal., sens. fusion. *Nelson, C.L.*, +, *AES-M Sep 97* 18-24
- intruder alarm systs. effectiveness for crime prevention. *Pascoe, T.*, +, *AES-M Feb 98* 8-15
- mm-wave safety warning syst. for in-vehicle signing. *Greneker, G.*, *AES-M Jul 98* 7-12
- model-based vision for automatic interpretation of alarms from perimeter intrusion detection system. *Ellis, T.J.*, +, *AES-M Mar 91* 14-20
- Aluminum**
- torpedo elec. propulsion, Al-AgO primary batt. *Orndorff, C.M.*, +, *AES-M May 96* 27-31
- Amorphous semiconductors**
- amorphous Si thin-film transistors and sensors and their applications. *Thompson, Malcolm J.*, +, *AES-M Aug 87* 25-29
- Amplifiers; cf. Instrumentation amplifiers; Radiofrequency amplifiers**
- Amplitude modulation; cf. Pulse amplitude modulation**
- Analog computers**
- need for small general-purpose analog computer for control systems laboratories; advantages for hardware testing and development. *Spiess, Ray H.*, *AES-M Feb 87* 2-4
- Analog-digital conversion**
- 3D mag. microsystr., magnetodosimeter, on-chip serial interface. *Malcovati, P.*, +, *AES-M Sep 99* 43-46
- airborne SAR, data acquisition syst., DDS & DSP tech. *Yeo, T.S.*, +, *AES-M May 99* 37-41
- analog radar cancellation algorithms for dynamic range reduction. *Moyer, Lee R.*, +, *AES-M Oct 93* 10-14
- multimode radar, low-cost technol., flexible test bed archit. *Adler, E.*, +, *AES-M Jun 99* 23-27
- ultra-high-speed, large-capacity radar data acquisition system. *Chen, Zhenpin*, +, *AES-M Sep 92* 36-38
- Analog processing circuits**
- Xs-MET fab. using complementary heterostruct. FET, space appls. *Cerny, C.L.*, +, *AES-M Mar 98* 7-14
- Anechoic chambers (electromagnetic)**
- imaging of compact range using autoregressive spectral estimation. *Walton, Eric K.*, +, *AES-M Jul 91* 15-20
- RF testrange for engng. education. *Eskelinen, P.*, +, *AES-M Jul 95* 17-23
- tower mounted antennas for cellular commun., RF scale testing. *Eskelinen, P.*, *AES-M Aug 98* 33-35
- Angular measurement**
- angle measurement in presence of main-beam interference. *Lin, Feng-Ling C.*, +, *AES-M Nov 90* 19-25
- optical angle of attack sensor. *McDevitt, T. Kevin*, +, *AES-M Feb 90* 19-27
- Si μ SIRAS MEMS inertial rate and accel. sens., tactical grade navig. and guidance. *Hulsing, R.*, *AES-M Nov 98* 17-23
- smart probe, Deutsche Airbus flight test. *Hagen, F.W.*, +, *AES-M Apr 94* 7-14
- Angular velocity control**
- pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong*, *AES-M Dec 98* 3-6
- Angular velocity measurement**
- Parker effect and navig. in space. *Parker, V.*, +, *AES-M Jan 98* 11-13
- Annealing**
- Li-LiMn₂O₄ thin-film batts., fab./props. *Bates, J.B.*, +, *AES-M Apr 95* 30-32
- Antenna accessories; cf. Radomes**
- Antenna arrays**
- exponential approxs. for small arguments, first-order. *Narayanan, R.M.*, *AES-M Feb 94* 33-35
- Antenna arrays; cf. Active antenna arrays; Adaptive antenna arrays; Antenna phased arrays; Microstrip antenna arrays; Microwave antenna arrays; Monopole antenna arrays; Slot antenna arrays; Yagi antenna arrays**
- Antenna earths**
- ground plane Yagi antenna tests, 3 GHz. *Eskelinen, P.*, +, *AES-M Feb 96* 37-40
- Antenna feeds**
- lens config. phased arrays, low-cost. *Rao, J.B.L.*, +, *AES-M Jun 97* 39-44
- Antenna phased arrays**
- digital beam forming antenna syst. for mobile commun. *Chiba, I.*, +, *AES-M Sep 97* 31-41
- electronic scan for phased arrays, history. *Fowler, C.A.*, *AES-M Sep 98* 24A-24L
- IRIDIUM satellite antenna array concept. *Schuss, J.J.*, +, *AES-M Dec 97* 3-12
- Joint STARS phased array radar antenna. *Shnitkin, H.*, *AES-M Oct 94* 34-40
- lens config. phased arrays, low-cost. *Rao, J.B.L.*, +, *AES-M Jun 97* 39-44
- satellite commun. syst. act. phased arrays, design-oriented reliab. model. *Ruggieri, M.*, *AES-M Oct 97* 23-29
- SIR-C/X-SAR, spaceborne imaging radar C/X-band multifaceted SAR, appls. *Stuhr, F.*, +, *AES-M Oct 95* 15-24
- space-fed phased array for surveillance from space. *Hightower, Charles H.*, +, *AES-M May 91* 13-17
- Antenna radiation patterns**
- cellular phone coverage meas., test vehicle pattern effects. *Eskelinen, P.*, +, *AES-M Mar 97* 9-11
- differential GPS, array antennas, multipath rejection. *Counselman, C.C., III*, *AES-M Dec 98* 15-19
- exponential approxs. for small arguments, first-order. *Narayanan, R.M.*, *AES-M Feb 94* 33-35
- GPS satellite antenna, radiant angle computing. *Xiangpeng Li*, +, *AES-M Jul 96* 35-38
- ground plane Yagi antenna tests, 3 GHz. *Eskelinen, P.*, +, *AES-M Feb 96* 37-40
- IRIDIUM satellite antenna array concept. *Schuss, J.J.*, +, *AES-M Dec 97* 3-12
- microwave parab. dish reflector, perform. anal., simple photography. *Eskelinen, P.*, +, *AES-M Apr 97* 3-5
- MM wave radar scanning antenna, leaky-wave periodically loaded antenna design. *Manasson, V.*, +, *AES-M Oct 96* 29-33
- radar antenna syst., installed perform. anal., computer code. *Kim, J.J.*, +, *AES-M Jun 99* 38-42
- RF testrange for engng. education. *Eskelinen, P.*, +, *AES-M Jul 95* 17-23
- satellite commun. syst. act. phased arrays, design-oriented reliab. model. *Ruggieri, M.*, *AES-M Oct 97* 23-29
- tower mounted antennas for cellular commun., RF scale testing. *Eskelinen, P.*, *AES-M Aug 98* 33-35
- wireless power transm., wave beam peculiarities. *Garmash, V.R.*, +, *AES-M Oct 98* 39-41
- Antennas; cf. Antenna radiation patterns; Antenna testing; Antenna theory; Aperture antennas; Dielectric-loaded antennas; Dipole antennas; Directive antennas; Leaky wave antennas; Lens antennas; Microstrip antennas; Microwave antennas; Millimeter wave antennas; Mobile antennas; Monopole antennas; Multibeam antennas; Radar antennas; Receiving antennas; Reflector antennas; Satellite antennas; Waveguide antennas**
- Antenna testing**
- cellular phone coverage meas., test vehicle pattern effects. *Eskelinen, P.*, +, *AES-M Mar 97* 9-11
- development of B-1 bomber aircraft antenna measurement test bed. *Grudzinski, Sigmund S.*, *AES-M Apr 91* 7-11
- ground plane Yagi antenna tests, 3 GHz. *Eskelinen, P.*, +, *AES-M Feb 96* 37-40
- IRIDIUM satellite antenna array concept. *Schuss, J.J.*, +, *AES-M Dec 97* 3-12
- Joint STARS phased array radar antenna. *Shnitkin, H.*, *AES-M Oct 94* 34-40
- microwave parab. dish reflector, perform. anal., simple photography. *Eskelinen, P.*, +, *AES-M Apr 97* 3-5
- radar antenna syst., installed perform. anal., computer code. *Kim, J.J.*, +, *AES-M Jun 99* 38-42
- rectifying receiving antenna for microwave energy transm. *McSpadden, J.O.*, +, *AES-M Nov 94* 36-41
- RF testrange for engng. education. *Eskelinen, P.*, +, *AES-M Jul 95* 17-23

- S-band digital beamforming antenna. *Pettersson, L., +, AES-M Nov 97 19-29*
- tower mounted antennas for cellular commun., RF scale testing. *Eskelinen, P., AES-M Aug 98 33-35*
- Antenna theory**
- book review; Control and Measurement of Unintentional Electromagnetic Radiation (Bennett, W.S.; 1997). *Eskelinen, P., AES-M Jun 99 46-47*
- exponential approxs. for small arguments, first-order. *Narayanan, R.M., AES-M Feb 94 33-35*
- wireless power transm., wave beam peculiarities. *Garmash, V.R., +, AES-M Oct 98 39-41*
- Antialiasing**
- cockpit display syst., next generation, develop. *Read, B.C., III, AES-M Oct 96 25-28*
- Aperture antennas**
- wireless power transm., wave beam peculiarities. *Garmash, V.R., +, AES-M Oct 98 39-41*
- Application program interfaces**
- COTS based open syst. archit. for mil. avionics. *Paul, J.T., AES-M Sep 99 37-42*
- Application specific integrated circuits**
- digital beam forming antenna syst. for mobile commun. *Chiba, I., +, AES-M Sep 97 31-41*
- migration of digital ASIC from first attempt to VLSI in three generations. *Lowinski, W.B., +, AES-M Sep 92 21-23*
- S-band digital beamforming antenna. *Pettersson, L., +, AES-M Nov 97 19-29*
- Approximation theory**
- exponential approxs. for small arguments, first-order. *Narayanan, R.M., AES-M Feb 94 33-35*
- Archaeology**
- history of Hamilton and Scourge Station, sunken ships from War of 1812. *Cain, Emily, AES-M Jul 87 2-7*
- Array signal processing**
- bistatic adaptive space-based radar, ground/airborne target detect. *Fante, R., AES-M Oct 99 39-44*
- GPS receiver, jammer cancellation and jammer multipath. *Fante, R.L., +, AES-M Nov 98 25-28*
- phased array airborne radar, STAP algm., real-time demons. *Linderman, M.H., +, AES-M Mar 98 15-31*
- Artificial intelligence**
- automatic test appls. *Dean, J.S., AES-M Jul 97 16-20*
- humane intelligence; human factors perspective for developing intelligent cockpits. *McNeese, Michael D., AES-M Sep 86 6-12*
- hybrid connectionist systs. in research and teaching. *Jain, L.C., AES-M Mar 95 14-18*
- Smart BIT, plan for intelligent built-in test using AI. *Richards, Dale W., AES-M Jan 89 26-29*
- Artificial intelligence; cf. Decision support systems; Expert systems; Intelligent systems; Learning (artificial intelligence)**
- Artificial limbs**
- portable electrical stimulation systems for gait restoration in stroke victims and motor-disabled persons. *Meadows, Paul, AES-M Oct 91 6-10*
- Artificial satellites**
- book review; MIR Space Station: A Precursor to Space Colonization (Harland, D.M.; 1997). *Eskelinen, P., AES-M Jun 99 45-46*
- book review; The Space Station: An Idea Whose Time Has Come (Simpson, T. R., Ed.; 1985). *Kayton, M., AES-M Jan 86 33*
- checker for validating safe schedules and selecting error recovery schedules for satellite control systems. *Peters, James F., III, +, AES-M Oct 92 14-21*
- COLUMBUS program, European contribution to US Space Station; status report. *Kutzer, Ants, AES-M Jan 87 2-12*
- correction to 'Verifying command sequences for satellite systems' (Oct 92 14-21). *Peters, J. F., III, +, AES-M Apr 93 40*
- Defense Meteorological Satellite Program; overview. *Curtis, Justin A., +, AES-M Mar 87 13-17*
- development of expert systems for use in US Space Station; overview of early experimental systems. *Toussaint, A. L., +, AES-M May 86 2-5*
- electrical power distribution on space-based radar satellites; 240-V/20-kHz distribution network for 30-kW source. *Moody, Malcolm H., +, AES-M Nov 89 10-16*
- electrical power system for 30-kW space-based radar satellite for tracking aircraft. *Maskell, Craig A., AES-M Jan 92 46-50*
- environment for the integration and test of the US space station distributed avionics systems. *Barry, Thomas, +, AES-M Nov 88 16-20*
- IEEE AESS Space Panel's visit to ISRO Satellite Center in Bangalore, India. *Talapatra, Dipak C., +, AES-M Feb 93 16-18*
- International Space Station, federal funding and policy implications. *Tee Wee Ang, AES-M Jul 98 24a-24p*
- IRS-1C Indian Remote Sensing Satellite, on-board computer, PC based test syst. *Dinesh Kumar, G., +, AES-M Oct 95 35-38*
- Japanese Experiment Module for US Space Station. *Hasegawa, Hideo, AES-M Jan 87 17-23*
- Li-ion satellite cell develop., past, present & future. *Kelly, C.O., +, AES-M Jun 98 21-25*
- Lorentz length contraction, direct test. *Renshaw, C., AES-M Sep 98 3-7*
- multi-spacecraft syst., relative navig., GPS. *Jianping Yuan, +, AES-M Dec 98 25-28*
- on-orbit anomalies related to deployment of spacecraft appendages and their causes. *Freeman, Michael T., AES-M Apr 93 3-15*
- operations management system for US NASA Space Station. *Savage, Terry R., AES-M Oct 87 19-23*
- payload accommodation for US Space Station. *Aepli, T. C., +, AES-M Jan 87 13-17*
- PowerCore based satellite power supplies with NiH₂ batt. *Lyman, P.C., +, AES-M Sep 98 39-42*
- power needs for commercial satellites by year 2000. *Billerbeck, W. J., AES-M Oct 86 20-28*
- recognition of star constellations for spacecraft attitude determination. *Liebe, Carl Christian, AES-M Jan 93 31-39*
- rendezvous guidance trajectory shaping for Space Station. *Klumpp, Allan R., AES-M Feb 87 17-22*
- repair of Salyut 7 space station; chronology. *Newkirk, Dennis, AES-M Feb 88 9-11*
- space station Freedom solar array design development. *Winslow, Cindy, AES-M Jan 93 3-8*
- Space Station power requirements, US/Russian cooperation. *Huckins, E., +, AES-M Dec 94 3-7*
- using Ada on US space station. *Humphrey, Terry D., AES-M Nov 88 21-24*
- US Space Station Freedom's power system; design. *Thomas, Ronald L., +, AES-M Jan 90 19-24*
- US Space Station's orbiting platform communication and data management systems. *Clark, Walton, +, AES-M Oct 87 24-29*
- VLBI Space Observatory Programme satellite. *Hirosawa, H., +, AES-M Jun 95 17-23*
- Artificial satellites; cf. Satellite...; Solar power satellites**
- Asteroids**
- eponymous Philip J. Klass' recollections on becoming skeptical UFO investigator [letter]. *Klass, P.J., AES-M Aug 99 12*
- events leading Philip J. Klass to investigating UFO claims. *Dobson, D., AES-M Jul 99 2*
- naming of asteroid for Philip J. Klass, UFO investigator (reprinted from "Skeptical Inquirer", vol. 23, no. 3, May/June 99). *Frazier, K., AES-M Jul 99 3*
- Astrometry**
- Lorentz length contraction, direct test. *Renshaw, C., AES-M Sep 98 3-7*
- Astronomical telescopes**
- Hubble space-based telescope, Parker Effect. *Parker, A., +, AES-M Jul 98 3-6*
- Hubble Space Telescope solar array change-out, mission anom. *Winslow, C., AES-M Apr 95 3-13*
- Astronomy**
- events leading Philip J. Klass to investigating UFO claims. *Dobson, D., AES-M Jul 99 2*
- naming of asteroid for Philip J. Klass, UFO investigator (reprinted from "Skeptical Inquirer", vol. 23, no. 3, May/June 99). *Frazier, K., AES-M Jul 99 3*
- Philip J. Klass' recollections on becoming skeptical UFO investigator [letter]. *Klass, P.J., AES-M Aug 99 12*
- Astrophysical radiation mechanisms**
- moving observer gravit. pot., Mercury perihelion shift, photon deflection. *Renshaw, C.E., +, AES-M Feb 97 7-11*
- Asynchronous circuits**
- design, protocol validation tool. *Rahardjo, B., +, AES-M Jul 95 8-11*
- Asynchronous generators**
- aerospace variable speed const. freq. starter/generator technols. *Elbuluk, M.E., +, AES-M May 97 24-31*
- starter/generator technol. for future aerop. appl., review. *Elbuluk, M.E., +, AES-M Oct 96 17-24*
- Asynchronous transfer mode**
- avionics hybrid commun. archit., 1553 emulation, ATM. *Parish, D.J., +, AES-M Mar 98 34-39*
- Atmospheric electromagnetic wave propagation**
- wingtip generated wake vortices, radar target. *Marshall, R.E., +, AES-M Dec 96 27-30*
- Atmospheric electromagnetic wave propagation; cf. Ionospheric electromagnetic wave propagation**
- Atmospheric humidity**
- water vapor imagery from weather satellites for weather analysis. *Rao, P. K., +, AES-M Oct 87 4-9*
- Atmospheric movements; cf. Wind**
- Atmospheric temperature**
- exhaustion of fossil fuels and production of greenhouse effect; impact on photovoltaics use. *Carlson, D. E., AES-M Dec 89 3-7*

Atmospheric turbulence

wind detect. in microcosm, ship/aircraft environ. sens. *Platt, J.R.*, *AES-M Feb 98* 26-33

Atomic clocks

moving clocks, ref. frames & twin paradox. *Renshaw, C.*, *AES-M Jan 96* 27-31

num. controlled, long term timing stabil. *Eskelinen, P.*, +, *AES-M Oct 97* 8-11

Atomic force microscopy

parallel scanning AFM chip, CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34

Attitude control

flywheel technol. develop. program for aerospace appl. *Christopher, D.A.*, +, *AES-M Jun 98* 9-14

GPS/IMU integrated syst., low-cost, develop., strapdown AHRS. *Xiufeng He*, +, *AES-M Dec 98* 7-10

multi-spacecraft syst., relative navig., GPS. *Jianping Yuan*, +, *AES-M Dec 98* 25-28

pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong*, *AES-M Dec 98* 3-6

planetary terrains tracking, CCD sens. *Liebe, C.C.*, *AES-M Feb 94* 9-18

pointing grade fibre optic gyroscope. *Killian, K.M.*, *AES-M Jul 94* 6-10

spacecraft energy storage, flywheel systs. *Ginter, S.*, +, *AES-M May 98* 27-32

Space Station Freedom, two-fault tolerant attitude control. *Babcock, P.S.*, *IV*, *AES-M May 96* 9-22

Attitude measurement

attitude determination with GPS; experimental results. *Martin-Neira, M.*, +, *AES-M Sep 90* 24-29

instantaneous attitude determination using GPS measurements. *Brown, Ronald A.*, *AES-M Jun 92* 3-8

recognition of star constellations for spacecraft attitude determination. *Liebe, Carl Christian*, *AES-M Jan 93* 31-39

spacecraft attitude determination based on database of star constellation patterns using CCD star imager. *Liebe, Carl Christian*, *AES-M Jun 92* 34-41

star trackers for attitude determ. *Liebe, C.C.*, *AES-M Jun 95* 10-16

Authoring systems

US army Interactive Electronic Technical Manuals. *Brown, J.*, *AES-M Jul 95* 24-30

Automated highways

intell. vehicle highway systs., wireless commun. appl. *Kamali, B.*, *AES-M Nov 96* 8-12

Automatic guided vehicles

differential GPS, real time Van Carrier Location System. *Evers*, +, *AES-M Aug 94* 26-32

Automatic test equipment

Air Force appls. *Kirkland, L.V.*, +, *AES-M Jan 95* 14-18

Air Force outlook, electronic components testing. *Kirkland, L.V.*, +, *AES-M Jan 94* 12-16

ATE user interface design, Integrated Maintenance Information System appl. *Landseadel, P.*, *AES-M Aug 95* 15-20

ATLAS lang., test equipt., spec., transportable test programs. *Hulme, A.M.B.*, *AES-M Mar 96* 29-34

C-17 appl. of existing ATE. *Sidhwa, F.*, +, *AES-M Mar 95* 29-34

CASS, design for supportability. *Mena, A.C.*, *AES-M Jan 95* 23-27

design requirements and tradeoffs related to calibration of portable test systems. *Russo, Tony*, *AES-M Jan 91* 3-5

deterministic VXI highway interconnect, aerospace test systs. *Cleary, R.T.*, *AES-M Mar 96* 18-23

eval. of three ATE test environ. *Gooding, M.*, +, *AES-M Sep 97* 12-17

factory ATE systs. develop., reusable test programs. *Neblett, B.*, *AES-M Jun 97* 29-34

fault diagnosis, cost efficient TPS using BIT. *Rogin, H.*, *AES-M Dec 99* 9-14

knowledge acquisition for ATE diagnosis of VLSI test systems. *Ryan, Patricia M.*, +, *AES-M July 86* 5-12

life cycle, independent verification/validation. *Calhoun, C.C.*, *AES-M Jul 98* 37-42

naval ships, AEGIS weapon syst. integrated diagnostics. *Brazet, M.D.*, *AES-M Feb 94* 40-45

neural network based cct. fault diagnosis, current monitoring. *Kirkland, L.V.*, +, *AES-M Jan 95* 28-30

non-intrusive diagnostics, thermal/X-ray images. *Poitier, A.*, +, *AES-M Mar 94* 34-37

PCB diagnosis, neural networks and mag. fields. *Spence, H.F.*, *AES-M Feb 94* 20-24

Royal Australian Air Force, ATE, dispersed logistics mgt. syst. *Hills, P.C.*, *AES-M May 97* 6-9

single meas. testing, pros and cons. *Miller, J.R., III*, *AES-M Mar 95* 35-39

SMART std. based autotesting for commercial and mil. appls. *Knoff, R.E.*, *AES-M Jan 95* 19-22

test program sets re-hosting for mil. ATE. *Liguori, F.*, +, *AES-M Apr 96* 34-37

TPS first article acceptance testing, manager's guide. *Preiss, S.A.*, +, *AES-M Mar 96* 12-17

US Air Force F-22 Fighter jet engines, automated test approach. *Rea, C.*, +, *AES-M Mar 96* 24-28

VXI based breadboard module use. *Wright, B.K.*, *AES-M Sep 98* 43-47

VXIbus multicomputer syst. set up and use. *Wright, M.*, *AES-M Sep 98* 17-21

VXIplug&play, integrat. VXI resources problems. *Gooding, M.*, *AES-M Jul 99* 9-12

wood characterization by microwaves. *Eskelinen, P.*, +, *AES-M Feb 98* 34-35

World Wide Web methodol. in ATE prog. environ. *Hansen, P.*, *AES-M Jun 98* 35-38

Year 2000 impact on automated testing, pot. problem areas. *Waken, W.*, +, *AES-M Jul 99* 5-8

Automatic testing

AI in automatic test procedures. *Dean, J.S.*, *AES-M Jul 97* 16-20

ATE paperless multimedia information and data collection system. *Willis, Fred L.*, +, *AES-M Feb 92* 14-20

AUTOTESTCON '96, test technol. and commercialization themes. *Schroer, R.*, *AES-M May 97* 20-23

benefits of ATE for testing printed circuit boards. *Dorf, Richard C.*, +, *AES-M Oct 89* 12-16

commercial off-the-shelf testers, AUTOTESTCON '94 report[h2]Meetings. *Oman, H.*, *AES-M Jan 95* 3-8

generic training for ATE technicians. *Scully, Timothy M.*, +, *AES-M Jun 89* 36-37

implementation of automated minimum resolvable temperature testing. *Orlando, Harold*, +, *AES-M Feb 92* 28-31

inspection of hole solder joints, X-rays. *Pierce, B.L.*, +, *AES-M Feb 94* 28-32

IRS-1C Indian Remote Sensing Satellite, on-board computer, PC based test syst. *Dinesh Kumar, G.*, +, *AES-M Oct 95* 35-38

mil. aircraft BIT maturation, test program set, relational database technols. *Sudolsky, M.D.*, *AES-M Mar 96* 35-40

mil. avionics, fault diagnosis, cost efficient TPS using BIT. *Rogin, H.*, *AES-M Dec 99* 9-14

multisignal flow graphs, syst. testability anal./fault diagnosis. *Deb, S.*, +, *AES-M May 95* 14-25

PCB diagnosis, neural networks and mag. fields. *Spence, H.F.*, *AES-M Feb 94* 20-24

radar syst. factory testing, design integrat. test reuse. *Dadin, L.E.*, *AES-M Jun 99* 29-33

VXI based breadboard module use. *Wright, B.K.*, *AES-M Sep 98* 43-47

weapon syst. testing, vert. support, R&D effort. *Liguori, F.*, *AES-M Jul 97* 31-34

wood characterization by microwaves. *Eskelinen, P.*, +, *AES-M Feb 98* 34-35

Automatic test software

ATLAS TPS conversion to ANSI C, open-syst. approach. *Timcho, T.J.*, *AES-M Jul 99* 13-17

card testing problems, neural networks, testing strategies. *Kirkland, L.V.*, +, *AES-M Aug 97* 36-40

hybrid diagnostic strategy for expert system-controlled automatic test system (EXATS). *Pflueger, Klaus W.*, *AES-M Oct 89* 25-30

mil. ATE software, rehosting legacy TPS. *Arena, J.J.*, *AES-M Jul 98* 43-48

multisignal flow graphs, syst. testability anal./fault diagnosis. *Deb, S.*, +, *AES-M May 95* 14-25

START, system testability analysis and research tool for automatic test sequencing and testability analysis of complex, hierarchical, modular systems. *Pattipati, Krishna R.*, +, *AES-M Jan 91* 13-20

test program sets re-hosting for mil. ATE. *Liguori, F.*, +, *AES-M Apr 96* 34-37

TPS reuse library, COTS tools. *Cashar, E.E.*, *AES-M Oct 97* 12-16

US army Interactive Electronic Technical Manuals. *Brown, J.*, *AES-M Jul 95* 24-30

VLSTA virtual instrum. std. test archit. *Tondre, H.*, +, *AES-M Mar 95* 19-28

VXIplug&play, integrat. VXI resources problems. *Gooding, M.*, *AES-M Jul 99* 9-12

why testing technology is not transferred to industry. *Payne, J.E.*, *AES-M Jan 98* 3-4

World Wide Web methodol. in ATE prog. environ. *Hansen, P.*, *AES-M Jun 98* 35-38

Year 2000 impact on automated testing, pot. problem areas. *Waken, W.*, +, *AES-M Jul 99* 5-8

Automation

NASA's automation and robotics technology development program; overview. *Holcomb, Lee B.*, +, *AES-M Apr 87* 19-26

Automation; cf. Automatic testing; Design automation; Manufacturing automation

Automobiles

ARTEMIS, positioning syst., automatic ranging theodolite with microwave sigs. *Goldbohm, E.*, *AES-M Aug 97 20-22*
brushless motors and controllers designed for GM Sunrayce solar powered vehicle competition. *Cambrier, Craig S.*, *AES-M Aug 90 13-15*
capabilities and functions of automobile navigation systems in 1990s. *French, Robert L.*, *AES-M May 87 6-12*
energy source, H storage, water electrolyser. *Oman, H.*, *AES-M Aug 99 44-45*
mm-wave car anticollision radars, sig. proc. procedures. *Groll, H.P.*, +, *AES-M Aug 97 15-19*
TWA800 fuel tank flammability study. *Wyczalek, F.A.*, *AES-M Jan 98 16-19*

Automotive electronics

high perform. automotive radar for automatic AICC. *Eriksson, L.H.*, +, *AES-M Dec 95 13-18*
mm-wave safety warning syst. for in-vehicle signing. *Greneker, G.*, *AES-M Jul 98 7-12*
Network Vehicle, technol. initiative in mobile multimedia. *Lind, R.*, +, *AES-M Sep 99 27-32*
side zone automotive radar, cost effective design approach. *Reed, J.G.*, *AES-M Jun 98 3-7*
ultra-reliable real-time control syst., future trends. *Hammett, R.C.*, *AES-M Aug 99 31-36*

Autoregressive processes

imaging of compact range using autoregressive spectral estimation. *Walton, Eric K.*, +, *AES-M Jul 91 15-20*

Avionics

13th Digital Avionics Sys. Conf., plenary/tech. session highlights. *Omda, H.*, *AES-M Feb 95 2-7*
airborne collision avoidance systems; background and obstacles to realization. *Buley, Robert G.*, *AES-M Oct 87 2-4*
Allied-Signal's avionics develop. in CIS. *Dorenberg, F.M.G.*, +, *AES-M Feb 95 8-12*
architecture of highly integrated automatic flight system for MD-11 commercial aircraft. *Devlin, B. Terry.*, +, *AES-M Mar 93 53-56*
avionics for small remotely piloted vehicle. *Vandersteen, A. D.*, *AES-M Jun 87 24-30*
avionics requirements-definition process at conceptual levels. *Paskin, Harvey M.*, *AES-M Nov 87 5-9*
book review; Aerospace Avionics Systems: A Modern Synthesis (Siouris, G. M.; 1993). *Chen, Guanrong.*, *AES-M Sep 93 21-22*
book review; Avionics for Pilots & Engineers (Dhunta, P.S.). *Gupta, R.G.*, *AES-M Jan 99 44*
book review; Avionics Navigation Systems (Kayton, M., and Fried, W.R., Eds.). *Eskelinen, P.*, *AES-M Dec 97 12*
cost of ownership, business model. *Hitt, E.F.*, *AES-M Nov 97 3-7*
Deep Space 1 Mission, multifunctional struct. technol. expt. *Barnett, D.M.*, +, *AES-M Jan 99 13-18*
design for testability in future avionics systems using Maintenance And Diagnostic System (MADS). *Subramanyam, V. R.*, +, *AES-M Jun 88 2-6*
diagnostics automation for fault identification in avionic systems. *Scully, John K.*, *AES-M Oct 89 3-6*
FAA reliab.-safety requirements and alternatives. *Pecht, M.*, +, *AES-M Feb 98 16-20*
fault-tolerant air data/inertial reference unit for ARINC 651 integrated modular avionics. *Sheffels, Michael L.*, *AES-M Mar 93 48-52*
fiber opt. commun. syst., laser requirements. *Loehr, J.*, +, *AES-M Apr 98 9-12*
Flight 2000 avionics suite, operational improvements, free flight. *Kirkmah, D.A.*, +, *AES-M Dec 98 29-33*
fourth-generation avionics, modular approach, digital networks. *Schroeder, J.E.*, +, *AES-M Oct 95 39-41*
GOCAT, ground and obstacle collision avoidance technique for all kinds of terrain. *Hewitt, C.*, +, *AES-M Aug 91 13-20*
ground proximity warning syst. *Breen, B.C.*, *AES-M Jan 99 19-24*
hardware/software codesign, multi-formalisms approach. *Sahraoui, A.E.K.*, +, *AES-M May 96 33-38*
how mechanical engineering issues affect avionics design. *Leonard, Charles T.*, *AES-M Apr 90 3-8*
hybrid commun. archit., 1553 emulation, ATM. *Parish, D.J.*, +, *AES-M Mar 98 34-39*
implementation-independent architecture for integrating electrical and electronic subsystems. *Furno, V. E.*, *AES-M Jun 87 9-14*
integrated modular avionics for next generation commercial airplanes as applied to Boeing 777 Airplane Information Management System. *Morgan, Michael J.*, *AES-M Aug 91 9-12*
integrated sens. systs. to support radar, EW, and CNI. *Rich, B.A.*, +, *AES-M Sep 95 11-17*
integrating avionics in conceptual design phase. *Quinn, Gordon F.*, +, *AES-M Nov 87 2-4*

international perspective on digital avionics. *Spitzer, Cary R.*, *AES-M Jan 92 44-45*

LabVIEW rapid prototyping environ. for avionics syst. teaching. *Reeves-Hardcastle, P.*, +, *AES-M Dec 95 9-12*
life-cycle methods for development and integration of avionics software-based systems at Boeing Co. *Gartz, Paul Ebner.*, *AES-M Jun 87 2-8*
maint. services, improvement prospects. *Majid, I.*, *AES-M Apr 99 15-18*
military products from commercial lines. *Kinsella, M.E.*, +, *AES-M Sep 95 7-10*
modular packaging technology for ICNIA (Integrated Communication Navigation Identification Avionics) digital processor subsystem. *Poradish, Frank.*, *AES-M Jun 87 20-23*
NASA digital/electric airplane; concepts and RD&E status. *Tagge, Gordon E.*, *AES-M Jan 86 20-23*
Open system avionics architectures concepts, DoD level. *Roark, C.*, +, *AES-M Sep 95 18-22*
Open Systems approach, affordability. *Roark, C.*, +, *AES-M Sep 96 15-20*
open systs., affordability, syst. engng. perspective. *Roark, C.*, +, *AES-M Feb 97 26-32*
opt. fiber CDMA networks, high-speed, syst. integrat. *Jian-Guo Zhang.*, *AES-M Jun 99 15-21*
optical interconnection and packaging technologies for advanced avionics systems. *Schroeder, J. E.*, +, *AES-M Sep 92 5-9*
pilots approach to automation, human factors. *Riley, V.*, *AES-M May 96 3-8*
SAFEbus backplane for Boeing 777 integrated avionics system. *Hoyme, Kenneth.*, +, *AES-M Mar 93 34-39*
SMART std. based autotesting for commercial and mil. appls. *Knoff, R.E.*, *AES-M Jan 95 19-22*
starter/generator technol. for future aerosp. appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96 17-24*
STEP, tool for estimating avionics life-cycle costs. *Curry, Ernest E.*, *AES-M Jan 89 30-32*
tools and techniques for estimating high-intensity RF effects. *Zacharias, Richard.*, +, *AES-M Jan 92 24-31*
trends in avionics technology and systems and their role in systems development. *Borky, John M.*, *AES-M Nov 87 10-15*
vertical-cavity surface-emitting lasers for avionics applications. *Wang, S. C.*, +, *AES-M Aug 93 39-43*

Avionics; cf.

 Aircraft computers; Aircraft instrumentation; Military avionics Awards

1986 Carlton Award given to Airdor Margalit and Robert M. Gagliardi. *AES-M Apr 87 27*
1987 Harry Rowe Mimmo Award given to Paul E. Gartz. *AES-M Jan 88 31*
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1993 Pioneer Award given to William F. Bahret. *AES-M Jul 93 32-33*
1994 IEEE AUTOTESTCON Frank McGinnis Professional Achievement Award given to Michael T. Ellis. *AES-M Dec 94 7*
1994 John Slattery Professional Achievement Award given posthumously to Ralph DePaul, Jr. *AES-M Dec 94 7*
1999 Harry Rowe Mimmo Award given to Mark T. Fennel and Richard P. Wishner. *AES-M Nov 99 9*
awards presented at NAECON 88. *AES-M Aug 88 28*
biography of J. A. Pierce, 1961 Pioneer Award winner. *Colin, Robert I.*, *AES-M Oct 90 34-36*

- biography of Luis Alvarez, 1963 Pioneer Award winner. *Colin, Robert I., AES-M Oct 90 42-44*
- election of W. M. Brown and R. C. Hansen to US National Academy of Engineering. *AES-M Jun 92 33*
- IEEE Aerospace and Electronics Systems Society members elected IEEE Fellows. *AES-M Feb 98 3-4*
- IEEE Aerospace and Electronics Systems Society members elected IEEE Fellows. *AES-M Jan 87 26*
- IEEE Aerospace and Electronics Systems Society members elected IEEE Fellows. *AES-M Feb 93 48*
- IEEE Aerospace and Electronic Systems members elected IEEE Fellows. *AES-M Jan 95 38*
- IEEE Aerospace and Electronic Systems Society elected IEEE Fellows. *AES-M Jan 91 34*
- IEEE Aerospace and Electronic Systems Society members elected IEEE Fellows. *AES-M Mar 91 26*
- Radio Technical Commission for Aeronautics Meritorious Service Award given to Sven H. Dodgington. *AES-M Aug 91 29*

B

- Backpropagation**
inspection of hole solder joints, X-rays. *Pierce, B.L., +, AES-M Feb 94 28-32*
- Backscatter**
radar target classification and interpretation using structural descriptions of backscatter. *Silverstein, Paul B., +, AES-M May 91 3-7*
- Ballistics**
airdrop ballistic winds operationally capable lidar. *Carr, J., +, AES-M May 99 31-36*
- Balloons**
balloon gravimetry using GPS and INS. *Jekeli, Christopher, AES-M Jun 92 9-15*
- IEEE AESS Space Panel's visit to Indian high-altitude scientific balloon facility. *Sugerman, Leonard R., AES-M Feb 93 41-42*
- low-cost Tracking and Data Relay Satellite System communications for NASA's long-duration balloon project. *Israel, David J., AES-M Feb 93 43-47*
- Batteries; cf. Cells (electric)**
- Battery chargers**
batt. mgt., multichemistry systs. *Bently, W.F., +, AES-M May 96 23-26*
- characteristics of battery charge controllers in stand-alone photovoltaic systems. *Harrington, Steve, +, AES-M Aug 92 15-21*
- global avionics future trends. *Oman, H., AES-M Apr 95 14-19*
- IC controllers for batts. charging. *Mammano, R.A., AES-M Apr 95 20-25*
- intell. fast batt. charging, neural-fuzzy approach. *Ullah, Z., +, AES-M Jun 96 26-34*
- Li ion batt. charger. *Teofilo, V.L., +, AES-M Nov 97 30-36*
- Li-ion batt. software safety protection. *Tsenter, B., +, AES-M Sep 98 23-25*
- Zn-air batts. for forward battlefield charging. *Atwater, T.B., AES-M Sep 98 36-38*
- Battery storage plants**
USAF More Electric Aircraft initiative, status. *Cloyd, J.S., AES-M Apr 98 17-22*
- Battery testers**
Galileo probe batt. syst. prod. and testing. *Dagarin, B.P., +, AES-M Jun 96 6-13*
- sealed lead-acid aircraft batt., life expectancy, 24-V, 15-Ah. *Vutetakis, D.G., +, AES-M Aug 97 33-35*
- Bayes methods**
tracks assoc. from over horizon radar. *Bogner, R.E., +, AES-M Sep 98 31-35*
- Beam steering**
combining adaptive null-steering with high-resolution angle estimation under main-lobe interference conditions. *Theil, A., AES-M Nov 90 16-18*
- Behavioral sciences**
indust. appl. of behavioral sci. *Chamberlain, T.E., AES-M Feb 99 7-10*
- Bibliographies**
computer-related failures/disasters listing. *Neumann, Peter G., AES-M Oct 86 18-19*
- Biocontrol**
muscle control biofeedback device to assist learning smooth golf swings. *McCurnin, Thomas W., +, AES-M Aug 86 14-15, 18-21*
- Biographies**
J. A. Pierce, 1961 Pioneer Award winner. *Colin, Robert I., AES-M Oct 90 34-36*
- life and scientific accomplishments of George Forbes, carbon brush inventor. *Duthie, Frederick W., AES-M Apr 86 2-7*
- Luis Alvarez, 1963 Pioneer Award winner. *Colin, Robert I., AES-M Oct 90 42-44*
- Biological effects of fields**
3D mag. microsystem, magnetodosimeter, on-chip serial interface. *Malcovati, P., +, AES-M Sep 99 43-46*
- DC and AC electric and magnetic field effects on people and animals. *Farmer, Laurie E., +, AES-M Sep 91 26-29*
- ion parametric model of biol. effects from mag. fields. *Blanchard, J.P., AES-M Feb 96 6-10*
- Biological systems; cf. Biological motor systems**
- Biomagnetism**
animal navigation through detection of earth's magnetic field. *Kayton, Myron, AES-M Mar 89 3-7*
- ion parametric model of biol. effects from mag. fields. *Blanchard, J.P., AES-M Feb 96 6-10*
- Biomechanics**
muscle control biofeedback device to assist learning smooth golf swings. *McCurnin, Thomas W., +, AES-M Aug 86 14-15, 18-21*
- Biomedical equipment**
computerized medical devices; trends, problems, and safety. *Bassen, H., +, AES-M Sep 86 20-24*
- Biomedical MRI**
magnetic resonance image enhancement using V-filter; clinical applications. *Yamamoto, Hideki, +, AES-M Jun 90 31-35*
- Biometrics (access control)**
iris recogn. technol., video-based syst., IrisCode database. *Williams, G.O., AES-M Apr 97 23-29*
- Bipolar transistor switches**
high-voltage IC (HVIC) for aircraft actuation systems. *Lyford, Jon R., AES-M Dec 86 20-24*
- Bipolar transistor switches; cf. Power bipolar transistor switches**
- B-ISDN**
B-IDAIEN, broadband integrated digital inform. exchange networks, avionics appls. *Jian-Guo Zhang, AES-M Nov 98 31-35*
- emerging broadband-ISDN services; satellites' role and NASA ACTS high-data-rate experiments. *vonDeak, Thomas, AES-M Oct 92 38-42*
- Blackboard architecture**
DSN antenna subsystem, microwave generic controller, blackboard archit. *Ramanna, S., AES-M Jul 95 12-15*
- Bolometers**
IR imaging sens., overview of develop. *Crawford, F.J., AES-M Oct 98 17-24*
- Book reviews**
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World Wide Web methodol. in ATE prog. environ. *Hansen, P., AES-M Jun 98 35-38*
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magnetic braking of the Earth's rotation. *Oman, Henry, AES-M Apr 89 3-10*
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obituary. *AES-M Oct 90 54*
- Brightness**
blind aiding electronic device. *de Acevedo, R.L.M., AES-M Feb 99 4-6*
sunlight viewable electroluminescent displays for mil. aircraft appl. *Monarchie, D., +, AES-M Aug 95 21-25*
- Broadband networks**
assessment of ultra-wideband (UWB) technology. *Fowler, Charles, +, AES-M Nov 90 45-49*
avionic opt. fiber CDMA networks, high-speed, syst. integrat. *Jian-Guo Zhang, AES-M Jun 99 15-21*
- Broadband networks; cf. B-ISDN**
- Brushes**
life and scientific accomplishments of George Forbes, carbon brush inventor. *Duthie, Frederick W., AES-M Apr 86 2-7*
- Brushless DC motors**
brushless motors and controllers designed for GM Sunrayce solar powered vehicle competition. *Cambrier, Craig S., AES-M Aug 90 13-15*
- PBW, PBW program for aircraft, motor drive technol., options and trends. *Elbuluk, M.E., +, AES-M Nov 95 37-42*
- Brushless machines**
starter/generator technol. for future aerosp. appl., review. *Elbuluk, M.E., +, AES-M Oct 96 17-24*
- Buffer storage**
airborne SAR, data acquisition syst., DDS & DSP tech. *Yeo, T.S., +, AES-M May 99 37-41*
ultra-high-speed, large-capacity radar data acquisition system. *Chen, Zhenpin, +, AES-M Sep 92 36-38*
- Building**
building struct. & works, RF band high resolu. sounding. *Vasiliev, I.A., +, AES-M May 99 25-29*
- Built-in self test**
built-in test and embedded diagnostics for two US Army M1A2 main battle tank subsystems. *Sallade, Rex, AES-M Feb 92 8-13*
diagnostic on-a-chip. *Nolan, M., +, AES-M Jan 95 9-13*
flyable fiber-optic radar target generator. *Prcic, M.M., AES-M Jan 94 17-20*
mil. avionics, fault diagnosis, cost efficient TPS using BIT. *Rogin, H., AES-M Dec 99 9-14*
Smart BIT, plan for intelligent built-in test using AI. *Richards, Dale W., AES-M Jan 89 26-29*
VXI based breadboard module use. *Wright, B.K., AES-M Sep 98 43-47*
- Buried object detection**
buried metallic mines detect., ultra-wideband ground-penetrating radar. *Earp, S.L., +, AES-M Sep 96 30-39*
ground probing radar systems for pipeline location. *Kikuta, Takashi, +, AES-M Jun 90 23-26*
mine detect., wide-span syst., terrain radio images. *Ivashov, S.I., +, AES-M May 99 6-8*
RF band high resolu. sounding of building struct. & works. *Vasiliev, I.A., +, AES-M May 99 25-29*
Yuma ground penetration SAR expt., 1995 results. *Jao, J.K., +, AES-M Jun 99 5-9*
- Business; cf. Commerce**
- Business communication**
GPS overview and marketplace applications. *Montgomery, Hale, AES-M Aug 92 26-28*
- C**
- CAD**
ATE systs. develop., reusable test programs. *Neblett, B., AES-M Jun 97 29-34*
avionics engineers approach to automation, human factors. *Riley, V., AES-M May 96 3-8*
avionics hardware/software codesign, multi-formalisms approach. *Sahraoui, A.E.K., +, AES-M May 96 33-38*
crew station meas. methodol., quantitat. approach, CAD model, CMM. *Purvis, B.D., +, AES-M Oct 96 14-16*
limitations of object-oriented design. *Kester, James E., AES-M Sep 93 14-16*
morph. synthesis for promising tech. systs. *Rakov, D.L., AES-M Dec 96 3-8*
- CAD; cf. Electronic design automation; Intelligent design aids; Logic CAD**
- CAD/CAM**
computerizing circuit board manufacturing industry while reducing costs. *Dyre, Tom F., AES-M Oct 89 17-20*
framework for structuring strategies for incorporating automation and robotics in manufacturing. *Peters, Lloyd S., +, AES-M Feb 87 12-16*
low-cost LAN implementation for small factory; case study and suggestions for software design. *Cipher, T. J., AES-M Jul 87 18-21*
semiconductor industry's manufacturing environment; goals of Semiconductor Research Corporation's program. *Phillips, D. Howard, AES-M Feb 87 9-11*
- Cadmium**
Cd-NiOOH aerospace batt. cells, separator syst. *Scoles, D.L., +, AES-M Jul 96 27-30*
NiCd batt. pack, intell. charging, neural-fuzzy approach. *Ullah, Z., +, AES-M Jun 96 26-34*
- Calcium**
Galileo probe batt. syst. prod. and testing. *Dagarin, B.P., +, AES-M Jun 96 6-13*
- Calcium compounds**
Ca-CaCrO₄ thermal batts. for Galileo spacecraft. *Dagarin, B.P., +, AES-M Jun 96 6-13*
- Calculus of communicating systems**
asynchronous message router spec., formal design tools. *Moller, F., AES-M Mar 97 38-44*
- Calibration**
clocks, slowing when in motion or in gravit. well, equivalence principle. *Renshaw, C., AES-M Oct 95 2-5*

- design requirements and tradeoffs related to calibration of portable test systems. *Russo, Tony, AES-M Jan 91 3-5*
- DGPS-based aircraft flight guidance/test syst. *Huamin Jia, +, AES-M Jul 96 23-26*
- ERIM interferometric SAR, IFSARE. *Adams, G.F., +, AES-M Dec 96 31-35*
- GPS/IMU syst. integrat. based navig./landing syst. *Meyer-Hilberg, J., +, AES-M Jul 94 11-17*
- moving clocks, ref. frames & twin paradox. *Renshaw, C., AES-M Jan 96 27-31*
- S-band digital beamforming antenna. *Pettersson, L., +, AES-M Nov 97 19-29*
- smart probe, Deutsche Airbus flight test. *Hagen, F.W., +, AES-M Apr 94 7-14*
- Cameras**
- pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M., +, AES-M May 95 37-42*
- Capacitance**
- carbon fiber electrochem. capacitors, low surface area fibers. *Lipka, S.M., AES-M Jul 97 27-30*
- Capacitive sensors**
- capacitive chem. sens. microsystr., CMOS integrated meas. syst. *Baltes, H., +, AES-M Oct 99 29-34*
- Capacitor storage**
- energy storage media and techniques; comparative analysis. *Rose, M. F., +, AES-M Dec 91 26-32*
- high-energy-density capacitors for space-vehicle power conditioning. *Rose, M. Frank, AES-M Nov 89 17-22*
- high-energy-density double-layer capacitors for energy storage applications. *Lai, Jih-Sheng, +, AES-M Apr 92 14-19*
- MLC capacitors, energy storage, 77K. *Lawless, W.N., +, AES-M May 97 32-35*
- Capacitors; cf. Ceramic capacitors; Electrolytic capacitors; Power capacitors**
- Carbon**
- MnO₂ cathode, aerospace Li-ion solid polymer batts. *Teofilo, V.L., +, AES-M May 98 33-36*
- Carbon fibers**
- carbon fiber electrochem. capacitors, low surface area fibers. *Lipka, S.M., AES-M Jul 97 27-30*
- Cartography**
- chart-correction computer system for automatic updating of electronic charts via satellite data transfers. *Logan, Kevin P., AES-M Sep 87 20-22*
- electronic delivery of digital cartographic data; conceptual design. *Hayes, C. William, AES-M Sep 87 23-25*
- Cascade systems**
- thermionic/AMTEC cascade converter concept for high-efficiency space power. *Van Hagan, T.H., +, AES-M Jul 97 10-15*
- Cathode-ray tube displays**
- WIDE-EYE helmet mounted display for rotorcraft. *Zintsmaster, L.R., AES-M Mar 94 6-11*
- Cathodes**
- LiMn₂O₄ spinel for Li-ion prismatic batts. *Ehrlich, G.M., +, AES-M Sep 97 7-11*
- CCD image sensors**
- field-portable imaging syst. for scene class. *Preston, E., +, AES-M Sep 94 13-19*
- flying obj. vel. meas., CCD sens. *Ricny, V., +, AES-M Jun 94 3-6*
- planetary terrains tracking, CCD sens. *Liebe, C.C., AES-M Feb 94 9-18*
- spacecraft attitude determination based on database of star constellation patterns using CCD star imager. *Liebe, Carl Christian, AES-M Jun 92 34-41*
- star trackers for attitude determ. *Liebe, C.C., AES-M Jun 95 10-16*
- Celestial mechanics**
- moving observer gravit. pot., Mercury perihelion shift, photon deflection. *Renshaw, C.E., +, AES-M Feb 97 7-11*
- Cells (electric)**
- 12th Annual Battery Conf., report. *Oman, H., AES-M Apr 97 30-37*
- battery configurations for multi-megawatt pulse power; application to hypersonic airplanes. *Oman, Henry, AES-M Aug 90 23-26*
- complex impedance studies of lithium iodine batteries. *Schmidt, C. L., +, AES-M Aug 90 7-12*
- develop. trends. *Brandhorst, H.W., AES-M Nov 94 21-25*
- effect of KOH concentration on LEO cycle life of IPV nickel-hydrogen flight cell. *Smithrick, John J., +, AES-M Apr 92 9-13*
- evaluation of nickel-hydrogen battery cells for space-based radar satellites. *Maskell, Craig A., +, AES-M Nov 92 37-42*
- future trends in US space power technology. *Massie, Lowell D., AES-M Nov 91 8-13*
- high-power vented nickel-cadmium cells designed for ultralow maintenance. *Scardaville, Paul A., +, AES-M May 93 16-24*
- nickel-hydrogen battery for PV systems. *Bush, Donald M., AES-M Aug 90 27-30*
- nickel-hydrogen battery industry survey; five-year update. *Milden, Martin J., AES-M Nov 91 14-16*
- nickel-hydrogen multicell common pressure vessel battery development; update. *Zagrodnik, Jeffrey P., +, AES-M Nov 92 43-48*
- progress in battery technology since first CSULB Annual Battery Conference and future prospects. *Pickett, David F., Jr., AES-M Apr 92 6-8*
- safety and environmental considerations for nickel-metal-hydride and nickel-cadmium batteries used in notebook computers. *Phillips, Jeffrey, +, AES-M May 93 35-37*
- scaling of advanced power systems for military uses. *Wiley, Robert L., AES-M Dec 91 40-44*
- space batteries for mobile battlefield power applications. *O'Donnell, Patricia M., AES-M Dec 91 45-48*
- space power alternatives for laser radar sensor system; comparison of fire batteries and flywheel systems. *Boretz, John F., AES-M Mar 90 3-8*
- status of US Air Force nickel-hydrogen-battery LEO life test. *House, Shaun D., +, AES-M Dec 93 14-17*
- U.S. Army batt. needs, 1990s status and future. *Hamlen, R.P., +, AES-M Jun 95 30-33*
- US Army Research Laboratory R&D programs for portable communication/electronic battlefield equipment power sources. *Christopher, Harold A., +, AES-M May 93 7-10*
- use of bimode uninterruptible power supplies in renewable hybrid energy systems. *Bower, Ward, +, AES-M Aug 90 16-22*
- validation test of 125-Ah, individual-pressure-cell, nickel-hydrogen batteries for long-term LEO spacecraft missions. *Smithrick, John J., +, AES-M May 93 11-15*
- Cells (electric); cf. Battery...; Fuel cells; Primary cells; Secondary cells**
- Cellular automata**
- situation assessment using cellular automata paradigm. *Glickstein, Ira, +, AES-M Jan 92 32-37*
- Cellular biophysics**
- ion parametric model of biol. effects from mag. fields. *Blanchard, J.P., AES-M Feb 96 6-10*
- Cellular effects of radiation**
- ion parametric model of biol. effects from mag. fields. *Blanchard, J.P., AES-M Feb 96 6-10*
- Cellular radio**
- cellular radio network planning design program. *Gamst, A., +, AES-M Feb 86 8-11*
- coverage meas., test vehicle pattern effects. *Eskelinen, P., +, AES-M Mar 97 9-11*
- intell. vehicle highway systs., wireless commun. appl. *Kamali, B., AES-M Nov 96 8-12*
- interference control in cellular systems; fundamentals. *Brenig, T., AES-M Mar 86 6-9*
- physical, climatic and electronic environment factors affecting cellular mobile telephones. *Ehrlich, Nathan, +, AES-M Apr 86 27-31*
- techniques for increasing frequency spectrum utilization in mobile systems. *Sekiguchi, H., +, AES-M Mar 86 1-5*
- tower mounted antennas for cellular commun., RF scale testing. *Eskelinen, P., AES-M Aug 98 33-35*
- Centralized control**
- high risk systs., human-machine interface failures minimization. *Sudano, J.J., AES-M Oct 94 17-20*
- Ceramic capacitors**
- MLC capacitors, energy storage, 77K. *Lawless, W.N., +, AES-M May 97 32-35*
- Certification**
- avionics open systs., affordability, syst. engng. perspective. *Roark, C., +, AES-M Feb 97 26-32*
- Flight 2000 avionics suite, operational improvements, free flight. *Kirkman, D.A., +, AES-M Dec 98 29-33*
- production-representative and production software-intensive systems for dedicated tests and evaluation. *Shumskas, Anthony F., AES-M Sep 91 9-14*
- Chaos**
- nonlinear arms race model with transition from predictability to chaos. *Saperstein, Alvin M., AES-M Jun 86 18-24*
- Character recognition**
- neural networks implement. and appls. *Vonk, E., +, AES-M Jul 96 11-16*
- Charge measurement**
- secondary batt., microcontroller based. *Bowen, L., +, AES-M May 94 16-19*
- Chemical reactions; cf. Electrolysis**
- Chemical sensors; cf. Gas sensors**
- Circuit analysis computing**
- LD high speed driving, exponential transm. line. *Zheng Li, +, AES-M Sep 96 4-7*
- Circuit breakers**
- space power wiring systs., safety, maint. and protection. *Stavnes, M.W., +, AES-M Jan 94 21-27*

- Circuit CAD; cf.** Hardware description languages
Circuits; cf. Filters; Logic circuits; Printed circuits
Circuit testing
 neural network based cct. fault diagnosis, current monitoring. *Kirkland, L.V.*, +, *AES-M Jan 95* 28-30
Circuit testing; cf. Integrated circuit testing
C language
 DoD projects, prog. lang. selection. *Naiditch, D.*, *AES-M Sep 99* 11-14
C++ language
 DoD projects, prog. lang. selection. *Naiditch, D.*, *AES-M Sep 99* 11-14
Clarke, John
 obituary. *AES-M Mar 89* 45
Classical field theory
 radiation continuum model of light, Galilean invariance of Maxwell eqns. *Renshaw, C.E.*, +, *AES-M Oct 98* 3-8
Client-server systems
 Network Vehicle, technol. initiative in mobile multimedia. *Lind, R.*, +, *AES-M Sep 99* 27-32
 syst. engng. software tools, inter-operation, middleware technol. *Chow, E.Y.*, *AES-M Nov 98* 3-6
Climatology
 relation of climate to sea level change; effect of changing sea level on prehistoric man. *Butt, Arthur J.*, +, *AES-M Jul 87* 8-11
Clocks
 NAVSTAR GPS and GLONASS onboard clocks. *Daly, P.*, +, *AES-M Jul 90* 3-9
 slowing, motion effects, gravit. well, equivalence principle. *Renshaw, C.*, *AES-M Oct 95* 2-5
 solar grazing photon, time delay determ. *Renshaw, C.*, *AES-M Aug 96* 21-23
Closed circuit television
 perimeter intruder detect., uncontrolled water access, automatic detect. *Ceng, M.S.*, +, *AES-M Aug 97* 30-32
 video surveillance appl. using multiple views of scene. *Meyer, M.*, +, *AES-M Mar 99* 13-18
 VIDEQUAL, automated meas. syst. for fixed CCTV surveillance. *Ceng, M.S.*, +, *AES-M Mar 97* 29-32
Closed loop systems
 Solar Dynamic Flight Demonstration Project plan, Joint US/Russian syst. *Wanhainen, J.S.*, +, *AES-M Feb 96* 31-36
Clutter
 two-color temporally correl. IR background meas., missile warning sens. *Montgomery, J.B.*, +, *AES-M Apr 98* 29-35
Clutter; cf. Radar clutter
CMOS digital integrated circuits
 S-band digital beamforming antenna. *Pettersson, L.*, +, *AES-M Nov 97* 19-29
CMOS integrated circuits
 3D mag. micro syst., magnetodosimeter, on-chip serial interface. *Malcovati, P.*, +, *AES-M Sep 99* 43-46
 capacitive chem. sens. micro syst., CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34
 inertial appls. of integrated MEMS sens. *Allen, J.J.*, +, *AES-M Nov 98* 36-40
 microfluxgate sens., CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34
 parallel scanning AFM chip, CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34
Coaxial cables
 outdoor intrusion detect., ported coaxial cable technol. *Clifton, R.W.*, +, *AES-M May 97* 36-40
Code division multiple access
 avionic opt. fiber CDMA networks, high-speed, syst. integrat. *Jian-Guo Zhang, AES-M Jun 99* 15-21
 opt. fiber async. CDMA, real-time data distrib., computer interconnect. *Jian-Guo Zhang, AES-M Jul 99* 35-42
 avionic opt. fiber async. CDMA, real-time data distrib., computer interconnect. *Jian-Guo Zhang, AES-M Jul 99* 35-42
 C/A (Clear Acquisition) code precision in comparison to P code. *Ashjaee, Javad, AES-M Jun 88* 7-10
Codes; cf. Hamming codes
Code standards
 compression standards and alternative methods for video telecommunication. *Kaplan, Sidney, AES-M Oct 92* 27-30
Cogeneration
 CHP technol., USA mfg. carbon & energy savings. *Kaarsberg, T.M.*, +, *AES-M Jan 99* 7-12
Coils
 EM fund. laws testing, implications for universe exploration. *Morgan, H.*, *AES-M Jan 98* 5-10
Collision avoidance
 35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22
 airborne collision avoidance systems; background and obstacles to realization. *Buley, Robert G., AES-M Oct 87* 2-4
 aircraft collision avoidance system logic; design concepts. *Love, W. Dwight, +, AES-M Jan 86* 7-12
 all-terrain ground collision avoidance and maneuvering terrain-following for automated low-level night attack. *Barfield, A. Finley, +, AES-M Mar 93* 40-47
 GOCAT, ground and obstacle collision avoidance technique for all kinds of terrain. *Hewitt, C.*, +, *AES-M Aug 91* 13-20
 mm-wave car anticollision radars, sig. proc. procedures. *Groll, H.P.*, +, *AES-M Aug 97* 15-19
 pulse radar, 3 MM wave, short-range nav., collision avoidance. *Muraviev, V.V.*, +, *AES-M Jul 99* 23-25
Color
 blind aiding electronic device. *de Acevedo, R.L.M., AES-M Feb 99* 4-6
Color graphics
 cockpit display syst., next generation, develop. *Read, B.C., III, AES-M Oct 96* 25-28
Combined cycle power stations
 gas turbine based power generation in elec. utilities. *Oman, H., AES-M Aug 96* 37, 39, 41, 43
Combustion
 TWA800 fuel tank flammability study. *Wyczalek, F.A., AES-M Jan 98* 16-19
Command and control systems
 automated software configuration management on US Dept. of Defense satellite ground system. *Christian, Kathleen B., +, AES-M Nov 86* 10-15
 avionic opt. fiber async. CDMA, real-time data distrib., computer interconnect. *Jian-Guo Zhang, AES-M Jul 99* 35-42
 book review; Command, Control, and Communications: Systems Engineering (Beam, W. R.; 1989). *Doepfner, Thomas W., AES-M Jun 89* 46
 communications satellite technology and services for 1990s for both military and commercial applications. *Wu, William W., +, AES-M Sep 92* 39-43
 FIREFINDER posn. anal. syst. advanced develop. model. *DiDomizio, J., +, AES-M Sep 96* 25-29
 MMI, standardization. *Alston, C.E., +, AES-M Nov 94* 16-20
 multimode radar, low-cost technol., flexible test bed archit. *Adler, E., +, AES-M Jun 99* 23-27
 opt. fiber data buses, act.-coupler config. *Jian-Guo Zhang, +, AES-M Jul 99* 27-33
 Pearl Harbor radar story, SCR-270 radar set. *West, C.P., AES-M Apr 94* 3-6
 PLSR (position location reporting system) for users in tactical environment. *Okawa, U. S., +, AES-M Aug 88* 10-15
 relative navigation and data registration in US military services' Joint Tactical Information Distribution System. *Altrichter, Wayne W., AES-M Jun 92* 42-50
 smuggling interdiction, AN/APG-76 multimode radar adaptation. *Tobin, M.E., +, AES-M Nov 96* 19-24
 tactical C² MMI standardization. *Alston, C.E., +, AES-M Jun 95* 40-44
Commerce
 avionics, cost of ownership. *Hitt, E.F., AES-M Nov 97* 3-7
 book review; The New Competition (Kotler, P., et al.; 1985). *Sumner, George C., AES-M Jan 86* 33
Commissioning
 VIDEQUAL, automated meas. syst. for fixed CCTV surveillance. *Ceng, M.S., +, AES-M Mar 97* 29-32
Communicating sequential process
 engineering systems; intro. to three papers *Peters J.F., III, AES-M Jul 95* 3
Communication; cf. Professional communication
Communication systems; cf. Telecommunication
Compensation
 array-feed distortion compensation techniques for reflector antennas. *Rahmat-Samii, Yahya, AES-M Jun 91* 12-17
Compensation; cf. Motion compensation
Compressors
 Solar Dynamic Flight Demonstration Project plan, Joint US/Russian syst. *Wanhainen, J.S., +, AES-M Feb 96* 31-36
Computational complexity
 aircraft GPS/INS, reduced-order model. *Xiufeng He, +, AES-M Mar 98* 40-45
Computational geometry
 crew station meas. methodol., quantitat. approach, CAD model, CMM. *Purvis, B.D., +, AES-M Oct 96* 14-16
 solar cells, geom. prop., tessellation, intercell spacing. *Bisaccio, G.A., AES-M Jul 99* 4
Computer aided analysis; cf. Digital simulation
Computer aided engineering
 EPSAT, system analysis tool for assessing environment's effect on space power systems. *Jongeward, G.A., +, AES-M Nov 89* 40-43

Computer aided instruction

influence of instructional systems development (ISD) on simulator design. *Gibbons, Andrew S.*, *AES-M Jun 89* 30-35
 LabVIEW rapid prototyping environ. for avionics syst. teaching. *Reeves-Hardcastle, P.*, +, *AES-M Dec 95* 9-12
 training simulator archit. based on distributed proc. *Shi-Yu Gong*, +, *AES-M Sep 96* 8-10

Computer animation

MARC (Modeling, Animation, Rendering, and Compositing) system for visualizing and simulating space-mission scenarios. *Stephenson, Thomas*, +, *AES-M Jun 89* 14-19
 video compression implemented using rigid and nonrigid object recognition and computer graphics animation. *Freedman, Jeffrey*, *AES-M Oct 92* 31-37

Computer applications; cf. Aerospace computing; CAD; CAD/CAM; Computerized instrumentation; Engineering computing; Expert systems; Military computing; Physics computing

Computer architecture

777 airplane inform. mgt. syst. (AIMS), systs. integrat. *Witwer, B.*, *AES-M Apr 96* 17-21
 annunciator archit. for yr. 2000. *Adams, D.G.*, +, *AES-M Jun 97* 25-28
 ATE enabling technol., Air Force outlook. *Kirkland, L.V.*, +, *AES-M Jan 94* 12-16
 avionics develop., Open Systems approach, affordability. *Roark, C.*, +, *AES-M Sep 96* 15-20
 smart probe, Deutsche Airbus flight test. *Hagen, F.W.*, +, *AES-M Apr 94* 7-14
 systems approach to satellite operations problem using IntelliSTAR processing architecture. *Gathmann, Thomas P.*, +, *AES-M Dec 90* 20-24
 VXIbus multicomputer syst. set up and use. *Wright, M.*, *AES-M Sep 98* 17-21

Computer architecture; cf. Neural net architecture; Parallel architectures

Computer based training

training simulator archit. based on distributed proc. *Shi-Yu Gong*, +, *AES-M Sep 96* 8-10
 unmanned aircraft, simul. training syst. *Huang Yong*, +, *AES-M Dec 98* 11-13

Computer communications software

low-cost LAN implementation for small factory; case study and suggestions for software design. *Cipher, T. J.*, *AES-M Jul 87* 18-21

Computer crime

security intrusion proc., empirical model, attacker behavior. *Jonsson, E.*, +, *AES-M Apr 97* 7-17
 software security problems. *Knight, J.C.*, *AES-M Feb 98* 6-7

Computer facilities

enhancement of Arnold Engineering Development Center data processing capabilities. *Bond, D. C.*, +, *AES-M Aug 89* 26-32

Computer interfaces

IBM-PC-compatible interface card to be used for combining computer and video data in Spacelab experiments. *Collins, T. J., III*, +, *AES-M Aug 87* 9-12

Computer interfaces; cf. Peripheral interfaces; System buses; User surfaces

Computerized control

35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22
 high risk systs., human-machine interface failures minimization. *Sudano, J.J.*, *AES-M Oct 94* 17-20
 Li-ion batt. software safety protection. *Tsenter, B.*, +, *AES-M Sep 98* 23-25
 pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong*, *AES-M Dec 98* 3-6
 real-time navig., Global Positioning Syst. *Simon, D.*, +, *AES-M Jan 95* 31-37
 VHF data link, aircraft traffic mgt. *Hambly, R.M.*, +, *AES-M Mar 95* 9-13

Computerized control; cf. Command and control systems

Computerized instrumentation

at. clocks, num. controlled, long term timing stabil. *Eskelinen, P.*, +, *AES-M Oct 97* 8-11
 computerized medical devices; trends, problems, and safety. *Bassen, H.*, +, *AES-M Sep 86* 20-24
 hyperspectral airborne sens. systs. *Birk, R.J.*, +, *AES-M Oct 94* 26-33
 min. invasive surgery, defense technol. appl. *Williams, R.*, +, *AES-M Oct 94* 3-6
 smart low-power instrument for measuring meteorological parameters, Sea Data Corporation's WTR-10 Weather Station. *Garcia, Edward P.*, *AES-M Sep 87* 16-19
 smart probe, Deutsche Airbus flight test. *Hagen, F.W.*, +, *AES-M Apr 94* 7-14
 VXIbus instrum., past, present & future. *Sarfi, T.*, *AES-M Jun 99* 35-37

Computerized instrumentation; cf. Automatic test equipment; Computerized monitoring; Virtual instrumentation

Computerized monitoring

3D mag. microsystem, magnetodosimeter, on-chip serial interface. *Malcovati, P.*, +, *AES-M Sep 99* 43-46

Flight Data Analysis and Display, tool for monitoring hardware and software of multiprocessor electronic countermeasures systems. *Fenichel, Bruce*, +, *AES-M Sep 87* 5-7
 intell. batt., microcontroller-based. *Bowen, L.*, +, *AES-M May 94* 16-19
 interactive system for global ship monitoring combining ordnance alterations and casualty report data for PHALANX weapons systems. *Sun, Gwong*, +, *AES-M Apr 90* 15-18
 VIDEQUAL, automated meas. syst. for fixed CCTV surveillance. *Ceng, M.S.*, +, *AES-M Mar 97* 29-32

Computerized navigation

aircraft traffic mgt., airport surface, VHF data link. *Hambly, R.M.*, +, *AES-M Mar 95* 9-13
 ATM and FIS data link services. *Bauhof, C.R.*, *AES-M Mar 94* 38-42
 automotive radar for automatic AICC. *Eriksson, L.H.*, +, *AES-M Dec 95* 13-18
 chart-correction computer system for automatic updating of electronic charts via satellite data transfers. *Logan, Kevin P.*, *AES-M Sep 87* 20-22
 differential GPS, real time Van Carrier Location System. *Evers*, +, *AES-M Aug 94* 26-32
 FINDER, complex DSS for commercial transport. *Bittermann, V.*, +, *AES-M Mar 94* 12-19
 MOBITEX wireless WAN for land-based positioning/navig. *Yang, T.T.*, +, *AES-M Jul 94* 29-35
 Network Vehicle, technol. initiative in mobile multimedia. *Lind, R.*, +, *AES-M Sep 99* 27-32
 pilot error in automated systs., altitude deviation reports. *Ritter, R.D.*, *AES-M Apr 94* 15-19
 real-time navig., Global Positioning Syst. *Simon, D.*, +, *AES-M Jan 95* 31-37
 tightly-coupled GPS/INS syst. develop. *Knight, D.T.*, *AES-M Feb 97* 14-18
 visibility enhancing synthetic vision aids. *Moller, H.*, +, *AES-M Mar 94* 27-33

Computerized numerical control

at. clocks, num. controlled, long term timing stabil. *Eskelinen, P.*, +, *AES-M Oct 97* 8-11

Computerized tomography

pseudo-tomographic X-ray imaging for aviation security. *Evans, J.P.O.*, +, *AES-M Jul 98* 25-30

Computer networks

ATM and FIS data link services. *Bauhof, C.R.*, *AES-M Mar 94* 38-42
Computer networks; cf. Information networks; Internet; Intranets; Local area networks; Token networks; Wide area networks

Computer peripheral equipment; cf. Data communication equipment

Computer power supplies

Hy-Stor™ batt. design and appls. *Burghart, P.A.*, *AES-M Nov 97* 8-18
 safety and environmental considerations for nickel-metal-hydrate and nickel-cadmium batteries used in notebook computers. *Phillips, Jeffrey*, +, *AES-M May 93* 35-37

Computer reliability

1990 Computer Assurance Conference; meeting report. *Lubbes, H. O.*, *AES-M Nov 90* 52

Computers

aesthetics of computers (New Horizons). *Rucinski, Andrzej*, *AES-M Aug 89* 33-35

Computers; cf. Aircraft computers; Analog computers; Network computers; Neural nets; Notebook computers; Portable computers; Special purpose computers; Workstations

Computer software; cf. Automatic test software; Software standards

Computer testing

environment for the integration and test of the US space station distributed avionics systems. *Barry, Thomas*, +, *AES-M Nov 88* 16-20
 IRS-1C Indian Remote Sensing Satellite, on-board computer, PC based test syst. *Dinesh Kumar, G.*, +, *AES-M Oct 95* 35-38
 Y2K readiness testing in computer systs., tech. and mgt. issues. *Downing, W.D.*, +, *AES-M Nov 99* 3-9

Computer vision

AMETHYST automatic alarm assess. *Horner, M.*, +, *AES-M Jul 98* 31-36
 COUNTERFOIL high security opt. surface technol. *Atherton, P.*, *AES-M May 98* 3-6
 HUD, enhanced vision, image quality issues. *Todd, J.*, +, *AES-M Mar 95* 40-44
 iris recogn. technol., video-based syst., IrisCode database. *Williams, G.O.*, *AES-M Apr 97* 23-29
 real-time monocular target tracking syst. *Baumela, L.*, +, *AES-M Jul 95* 4-7
 security appl. of computer vision, technol. develop. *Sage, K.*, +, *AES-M Apr 99* 19-29
 visibility enhancing synthetic vision aids. *Moller, H.*, +, *AES-M Mar 94* 27-33

Concurrency control

asynchronous message router spec., formal design tools. *Moller, F.*, *AES-M Mar 97* 38-44

Concurrent engineering

Deep Space 1 Mission, multifunctional struct. technol. expt. *Barnett, D.M.*, +, *AES-M Jan 99* 13-18
 diagnostician on-a-chip. *Nolan, M.*, +, *AES-M Jan 95* 9-13

Conducting films; cf. Superconducting films**Configuration management**

TPS reuse library, COTS tools. *Cashar, E.E.*, *AES-M Oct 97* 12-16
 Using configuration control and error analysis to improve software quality used for US space shuttle avionics. *Haugh, James M.*, *AES-M Jan 92* 12-16

Conformance testing

redesign, safety testing, and certification of switching power supply to conform to international standards. *Michael, Arthur E.*, *AES-M Apr 86* 8-10

Consultancies

pers. positioning for young professionals. *Kostek, P.J.*, *AES-M Jan 97* 3-5

Consumer electronics

in-flight entertainment, aircraft integrat., enabling tools. *Lee, D.B.*, *AES-M Aug 99* 37-43

Contacts; cf. Brushes**Continuing education**

IEEE Engineering Skills Assessment Program; description of Program components and summary of its history. *Masten, Michael K.*, *AES-M Aug 90* 35-37

IEEE Engineering Skills Assessment Program; field-specific knowledge inventory for navigation engineering. *AES-M Sep 90* 38-42

IEEE Engineering Skills Assessment Program; field-specific knowledge inventory for radar engineering. *AES-M Nov 90* 53-56

IEEE Engineering Skills Assessment Program; overview of Program. *AES-M Aug 90* 33

improving knowledge workers' professional environment; view on employer's responsibilities. *Thompson, K. Reed*, *AES-M Mar 88* 6-9

Contracts

TPS first article acceptance testing, manager's guide. *Preiss, S.A.*, +, *AES-M Mar 96* 12-17

Control engineering computing

need for small general-purpose analog computer for control systems laboratories; advantages for hardware testing and development. *Spies, Ray H.*, *AES-M Feb 87* 2-4

training simulator archit. based on distributed proc. *Shi-Yu Gong*, +, *AES-M Sep 96* 8-10

Control engineering computing; cf. Control system analysis computing**Control equipment; cf. Electrohydraulic control equipment****Controllability**

aircraft GPS/INS, reduced-order model. *Xiufeng He*, +, *AES-M Mar 98* 40-45

Controller area networks

Network Vehicle, technol. initiative in mobile multimedia. *Lind, R.*, +, *AES-M Sep 99* 27-32

ultra-reliable real-time control syst., future trends. *Hammitt, R.C.*, *AES-M Aug 99* 31-36

Controllers

IC controllers for batts. charging. *Mammano, R.A.*, *AES-M Apr 95* 20-25

Control nonlinearities

flight control syst. neural network modeling. *He Mingyi*, +, *AES-M Sep 98* 27-29

Control system analysis computing

aircraft GPS/INS, reduced-order model. *Xiufeng He*, +, *AES-M Mar 98* 40-45

Control systems

practical hierarchical control system for telerobotic land vehicles. *Byrne, Raymond H.*, *AES-M Oct 92* 22-26

SCR-584 radar and Mark 56 naval gun fire control system (reprint of 1975 paper). *Getting, Ivan A.*, *AES-M Oct 90* 3-15

ultra-reliable real-time control syst., future trends. *Hammitt, R.C.*, *AES-M Aug 99* 31-36

Control systems; cf. Aerospace control; Centralized control; Digital control; Intelligent control; Machine control; Nonlinear control systems; Physical instrumentation control; Process control; Relay control; Telecommunication control; Telecontrol; Traffic control**Control theory; cf. Adaptive control; Controllability; Fuzzy control; Observability; Optimal control; Robust control****Converters; cf. Inverters; Power converters****Convolution**

SAR image formation from compressed data using convolution technique. *Read, Christopher J.*, +, *AES-M Oct 88* 3-10

Cooling

electrolysis heat, 'zero point' effect, letter to editor/reply. *Wyczalek, F.A.*, *AES-M Apr 94* 42

heating and cooling battery electric vehicles. *Wyczalek, Floyd A.*, *AES-M Nov 93* 9-14

Stirling machines, emerging technol. and appls. *Ross, B.*, *AES-M Jun 95* 34-39

Correlation methods

radar beamwidth reduction techs. *Suzuki, T.*, *AES-M May 98* 43-48
 random sig. radar develop., present & future trends. *Liu Guosui*, +, *AES-M Oct 97* 35-40

Correlation methods; cf. Optical correlation**Cost-benefit analysis**

avionics open systs., affordability, syst. engng. perspective. *Roark, C.*, +, *AES-M Feb 97* 26-32

fuel cell technol. status, commercialization. *Hirschenhofer, J.H.*, *AES-M Mar 97* 23-28

office information system cost justification in engineering environments. *Sassone, Peter G.*, +, *AES-M Aug 86* 21-26

phys. protection syst., cost & perform. anal., tactical decision making. *Hicks, M.J.*, +, *AES-M Apr 99* 9-13

Costing

Advanced Launch System activation and power systems; impact on operability and cost. *Sundberg, Gale R.*, *AES-M Sep 90* 20-23

modular avionics, open syst. concepts & technol. *The dens, J.R.*, *AES-M Oct 97* 30-34

parametric cost model for solar and dynamic isotope space power systems. *Meisl, Claus J.*, *AES-M Dec 93* 24-29

SMES benefit anal., prod. cost model. *Dagle, J.E.*, *AES-M Feb 94* 36-39

wireless power transm., solar power satellite develop. program. *Nansen, R.H.*, *AES-M Jan 96* 33-39

Costing; cf. Life cycle costing; Software cost estimation**Crystal resonators**

tactical solid state accelerometer develop. for missile guidance. *Killen, A.*, +, *AES-M Sep 94* 20-25

Current measurement

fiber-optic current sensor for aerospace applications, using Faraday effect in fiber. *Patterson, Richard L.*, +, *AES-M Dec 90* 10-14

CW radar

random sig. radar develop., present & future trends. *Liu Guosui*, +, *AES-M Oct 97* 35-40

CW radar; cf. FM radar**Cybernetics**

comments on 'Reference models of nations' by H. Chestnut (Aug 86 6-13). *Happy, Herb*, *AES-M Oct 86* 34

reference models of nations for cybernetic understanding. *Chestnut, Harold*, *AES-M Aug 86* 6-13

Cybernetics; cf. Artificial intelligence**Cyclotron resonance**

ion parametric model of biol. effects from mag. fields. *Blanchard, J.P.*, *AES-M Feb 96* 6-10

D**Data acquisition**

35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22

airborne SAR, data acquisition syst., DDS & DSP tech. *Yeo, T.S.*, +, *AES-M May 99* 37-41

ATE paperless multimedia information and data collection system. *Willis, Fred L.*, +, *AES-M Feb 92* 14-20

data acquisition system for US National Transonic Facility wind tunnel. *Holmes, Harlan K.*, *AES-M Feb 86* 1-7

field-portable imaging syst. for scene class. *Preston, E.*, +, *AES-M Sep 94* 13-19

hyperspectral airborne sens. systs. *Birk, R.J.*, +, *AES-M Oct 94* 26-33

tracking and data acquisition facilities for LEO and geosynchronous satellites. *Lewis, Donald*, *AES-M Feb 93* 19-27

ultra-high-speed, large-capacity radar data acquisition system. *Chen, Zhenpin*, +, *AES-M Sep 92* 36-38

Database systems

airborne self-protection jammer program performance prediction software for evaluating user data files. *Olliff, Don*, *AES-M Mar 92* 16-19

crew-system design database of lessons learned during military aircraft design; user interface. *Moore, Gabriel*, *AES-M Jun 89* 20-25

Designer's Electronic Notebook, database covering aircraft crew-system design information. *Anderson, Arthur F.*, +, *AES-M Jun 89* 26-29

spacecraft attitude determination based on database of star constellation patterns using CCD star imager. *Liebe, Carl Christian*, *AES-M Jun 92* 34-41

Database systems; cf. Relational databases**Data communication**

aircraft traffic mgt., airport surface, VHF data link. *Hambly, R.M.*, +, *AES-M Mar 95* 9-13

cockpit I/O terminal for general-aviation ground/air data link. *Ragland, Michael A.*, *AES-M Jun 87* 15-16, 18-19

design of Boeing 777 electric system. *Andrade, Luiz*, +, *AES-M Jul 92* 4-11

DGPS-based aircraft flight guidance/test syst. *Huamin Jia*, +, *AES-M Jul 96* 23-26

- electronic delivery of digital cartographic data; conceptual design. *Hayes, C. William, AES-M Sep 87 23-25*
- emerging broadband-ISDN services; satellites' role and NASA ACTS high-data-rate experiments. *vonDeak, Thomas, AES-M Oct 92 38-42*
- fault-tolerant distributed flight control system using Fiber Distributed Data Interface (FDDI). *Hall, Oliver Keith, +, AES-M Jun 92 21-33*
- MOBITEX wireless WAN for land-based positioning/navig. *Yang, T.T., +, AES-M Jul 94 29-35*
- techniques for transmitting digital data on space shuttle Orbiter's analog video channel. *Smith, Dean Lance, +, AES-M May 93 42-50*
- techniques for transmitting space shuttle Orbiter data over composite video channel. *Smith, Dean Lance, +, AES-M Apr 93 16-24*
- Data communication; cf. Data buses; Data communication equipment; Telemetry**
- Data communication equipment**
- 1553-ACE series programmable communication terminal. *Friedman, Steven N., AES-M Jan 93 48-51*
- mil. avionics, opt. fiber data bus, MIL-STD-1773, modulation tech. *Jian-Guo Zhang, AES-M Apr 99 31-38*
- SDH networks, additive time sync. syst. *Serizawa, Y., AES-M Feb 99 19-28*
- Data communication equipment; cf. Network computers**
- Data compression**
- compression standards and alternative methods for video telecommunication. *Kaplan, Sidney, AES-M Oct 92 27-30*
- nonlinear amplitude compression in magnetic resonance imaging; quantization noise reduction and data memory saving. *Kose, Katsumi, +, AES-M Jun 90 27-30*
- video compression implemented using rigid and nonrigid object recognition and computer graphics animation. *Freedman, Jeffrey, AES-M Oct 92 31-37*
- Data conversion; cf. Analog-digital conversion**
- Data handling**
- enhancement of Arnold Engineering Development Center data processing capabilities. *Bond, D. C., +, AES-M Aug 89 26-32*
- IBM-PC-compatible interface card to be used for combining computer and video data in Spacelab experiments. *Collins, T. J., III, +, AES-M Aug 87 9-12*
- Data handling; cf. Document handling**
- Data integrity**
- mission-crit. systs., cost-effective software fault tolerance. *Kreutzfeld, R.J., +, AES-M Sep 97 25-30*
- Y2K readiness testing in computer systs., tech. and mgt. issues. *Downing, W.D., +, AES-M Nov 99 3-9*
- Data visualization**
- MARC (Modeling, Animation, Rendering, and Compositing) system for visualizing and simulating space-mission scenarios. *Stephenson, Thomas, +, AES-M Jun 89 14-19*
- measurements, visualization and interpretation of 3-D flows; application within base flows. *Berner, Claude, +, AES-M Feb 90 10-18*
- DC-AC power converters**
- more-elec. aircraft, power mgt. & distrib. syst., MADMEL program. *Maldonado, M.A., +, AES-M Dec 99 3-8*
- DC-DC power converters**
- more-elec. aircraft, power mgt. & distrib. syst., MADMEL program. *Maldonado, M.A., +, AES-M Dec 99 3-8*
- DC motor drives**
- brushless motors and controllers designed for GM Sunrayce solar powered vehicle competition. *Cambrier, Craig S., AES-M Aug 90 13-15*
- PBW, PBW program for aircraft, motor drive technol., options and trends. *Elbuluk, M.E., +, AES-M Nov 95 37-42*
- Decision-making; cf. Military decision-making**
- Decision support systems**
- FINDER, complex DSS for commercial transport. *Bittermann, V., +, AES-M Mar 94 12-19*
- phys. protection syst., cost & perform. anal., tactical decision making. *Hicks, M.J., +, AES-M Apr 99 9-13*
- Decision theory**
- defense analysis principles. *Fowler, C. A., AES-M Dec 89 21-24*
- situation assessment using cellular automata paradigm. *Glickstein, Ira, +, AES-M Jan 92 32-37*
- tracks assoc. from over horizon radar. *Bogner, R.E., +, AES-M Sep 98 31-35*
- Deconvolution**
- radars with imaging capability, thinned stepped freq. waveforms. *Freedman, A., +, AES-M Nov 96 39-43*
- Deformation**
- array-feed distortion compensation techniques for reflector antennas. *Rahmat-Samii, Yahya, AES-M Jun 91 12-17*
- Delays**
- fault tolerant proc. elements, real time recovery. *Sims, T., AES-M Dec 97 13-17*
- flight control syst. neural network modeling. *He Mingyi, +, AES-M Sep 98 27-29*
- GPS appl. to space vehicles, space environ./errors anal. *Jianping Yuan, +, AES-M Jan 98 25-30*
- solar grazing photon, time delay determ. *Renshaw, C., AES-M Aug 96 21-23*
- Design aids**
- crew-system design database of lessons learned during military aircraft design; user interface. *Moore, Gabriel, AES-M Jun 89 20-25*
- Designer's Electronic Notebook, database covering aircraft crew-system design information. *Anderson, Arthur F., +, AES-M Jun 89 26-29*
- Design engineering**
- design-for-validation approach to designing computer hardware and software for flight-critical avionics for civil air-transport. *Johnson, Sally C., +, AES-M Jan 92 38-43*
- how mechanical engineering issues affect avionics design. *Leonard, Charles T., AES-M Apr 90 3-8*
- mechanical systems diagnostic design approach's impact as exemplified by development of V-22 tiltrotor military aircraft. *Balke, Rod W., AES-M Jan 91 21-27*
- tactical solid state accelerometer develop. for missile guidance. *Killen, A., +, AES-M Sep 94 20-25*
- Design engineering; cf. Design for manufacture; Design for testability**
- Design for manufacture**
- military products from commercial lines. *Kinsella, M.E., +, AES-M Sep 95 7-10*
- radar syst. factory testing, design integrat. test reuse. *Dadin, L.E., AES-M Jun 99 29-33*
- Design for testability**
- CASS, design for supportability. *Mena, A.C., AES-M Jan 95 23-27*
- design for testability in future avionics systems using Maintenance And Diagnostic System (MADS). *Subramanyam, V. R., +, AES-M Jun 88 2-6*
- mil. avionics, fault diagnosis, cost efficient TPS using BIT. *Rogin, H., AES-M Dec 99 9-14*
- multisignal flow graphs, syst. testability anal./fault diagnosis. *Deb, S., +, AES-M May 95 14-25*
- TQM, test role. *Neblett, B., AES-M May 95 26-34*
- Design methodology; cf. CAD**
- Device drivers**
- VXIplug&play, integrat. VXI resources problems. *Gooding, M., AES-M Jul 99 9-12*
- Diagnostic expert systems**
- Autonomous Power System project for demonstrating application of integrated intelligent diagnosis, control, and scheduling to space power distribution systems. *Ringer, Mark J., +, AES-M Jan 93 40-47*
- DORIS (Diagnostic Oriented Rockwell Intelligent System) fault-diagnosis expert system. *Davis, Kathleen, AES-M July 86 18-21*
- hybrid diagnostic strategy for expert system-controlled automatic test system (EXATS). *Pflueger, Klaus W., AES-M Oct 89 25-30*
- integrating diagnostic knowledge using AI techniques. *Havlicsek, Bruce L., AES-M Nov 89 54-59*
- methodology for real-time fault detection, isolation, and correction in large satellite communication system using expert systems. *Pensick, Ellen C., +, AES-M Jul 93 11-23*
- Diagnostic reasoning**
- diagnostician on-a-chip. *Nolan, M., +, AES-M Jan 95 9-13*
- Dielectric-loaded antennas**
- MM wave radar scanning antenna, leaky-wave periodically loaded antenna design. *Marasson, V., +, AES-M Oct 96 29-33*
- Differential amplifiers; cf. Instrumentation amplifiers**
- Digital circuits; cf. Direct digital synthesis**
- Digital control**
- training simulator archit. based on distributed proc. *Shi-Yu Gong, +, AES-M Sep 96 8-10*
- Digital filters**
- digital radar receivers design. *Yuanbin Wu, +, AES-M Jan 98 35-41*
- Digital integrated circuits**
- migration of digital ASIC from first attempt to VLSI in three generations. *Lowinski, W. B., +, AES-M Sep 92 21-23*
- Digital phase locked loops**
- real-time navig., Global Positioning Syst. *Simon, D., +, AES-M Jan 95 31-37*
- Digital radio**
- software radio technologies, architectures, model, and future directions. *Mitola, J., III, AES-M Apr 93 25-36*
- Digital readout**
- 3D mag. microst., magnetodosimeter, on-chip serial interface. *Malcovati, P., +, AES-M Sep 99 43-46*
- capacitive chem. sens. microst., CMOS integrated meas. syst. *Baltes, H., +, AES-M Oct 99 29-34*
- microfluxgate sens., CMOS integrated meas. syst. *Baltes, H., +, AES-M Oct 99 29-34*
- Digital signal processing chips**
- beam forming antenna syst. for mobile commun. *Chiba, I., +, AES-M Sep 97 31-41*

- modular packaging technology for ICNIA (Integrated Communication Navigation Identification Avionics) digital processor subsystem. *Poradish, Frank, AES-M Jun 87 20-23*
- Digital simulation**
 aircraft GPS/INS, reduced-order model. *Xiufeng He, +, AES-M Mar 98 40-45*
 avionics hybrid commun. archit., 1553 emulation, ATM. *Parish, D.J., +, AES-M Mar 98 34-39*
 civ. ATC radar, sig. anal. and modellization. *Piazza, E., AES-M Jan 99 35-40*
 flying obj. vel. meas., CCD sens. *Ricny, V., +, AES-M Jun 94 3-6*
 J-MASS Marketplace, DoD modeling/simul. software implement. *McQuay, W.K., AES-M Sep 95 23-26*
 morph. synthesis for promising tech. systs. *Rakov, D.L., AES-M Dec 96 3-8*
 neural networks implement. and appls. *Vonk, E., +, AES-M Jul 96 11-16*
 neural networks in nonlin. aircraft flight control. *Calise, A.J., AES-M Jul 96 5-10*
 radar detect. problems solution, MATLAB simul. *Schleher, D.C., AES-M Apr 95 36-40*
 simulator for basic radar sigs., low-cost. *Eskelinen, E., +, AES-M Jun 94 7-11*
 target recogn. by fuzzy logic. *Moruzzis, M., +, AES-M Jul 98 13-20*
- Digital simulation; cf.** Virtual machines
- Digital storage; cf.** Buffer storage; Random-access storage
- Digital systems**
 optical interconnections for digital systems. *Tsang, Dean Z., AES-M Sep 92 10-15*
- Digital systems; cf.** Real-time systems
- Dipole antennas**
 rectifying receiving antenna for microwave energy transm. *McSpadden, J.O., +, AES-M Nov 94 36-41*
- Direct broadcasting by satellite**
 Japan's first-generation satellite broadcasting system; operation of first two broadcasting satellites, and future plans. *Matsushita, Misao, +, AES-M Oct 87 10-18*
 LEO store-and-forward satellites in amateur radio service. *Diersing, Robert J., +, AES-M Jan 93 21-30*
- Direct digital synthesis**
 airborne SAR, data acquisition syst., DDS & DSP tech. *Yeo, T.S., +, AES-M May 99 37-41*
 multimode radar, low-cost technol., flexible test bed archit. *Adler, E., +, AES-M Jun 99 23-27*
 radar receivers design. *Yuanbin Wu, +, AES-M Jan 98 35-41*
- Direct energy conversion**
 31st Intersociety Energy Conversion Engineering Conference, conf. report. *Oman, H., AES-M Jan 97 10-19*
 Intersociety Energy Conversion Engineering Conference 1999, plenary session and luncheon presentations. *Oman, H., AES-M Nov 99 30-32*
 Intersociety Energy Conversion Engineering Conference 1999, report. *Oman, H., AES-M Nov 99 17-26*
 report on significant developments at 1992 Intersociety Energy Conversion Engineering Conference. *Oman, Henry!Associate Ed., AES-M Nov 92 2-6*
- Direct energy conversion; cf.** Solar cells; Thermoelectric conversion; Thermionic conversion
- Direction-of-arrival estimation**
 combining adaptive null-steering with high-resolution angle estimation under main-lobe interference conditions. *Theil, A., AES-M Nov 90 16-18*
 HF OTH radar target detect. & estim., parallel proc. subsyst. *Wang Wei, +, AES-M Apr 99 39-45*
 high-resolution multiple-target-angle tracking. *Yu, Kai-Bor, AES-M May 91 8-12*
- Directive antennas**
 ground plane Yagi antenna tests, 3 GHz. *Eskelinen, P., +, AES-M Feb 96 37-40*
- Disasters**
 computer-related failures/disasters; bibliographic listing. *Neumann, Peter G., AES-M Oct 86 18-19*
- Discharges (electric)**
 Ni-Cd batt., cycled, pulse discharge behavior, satellite power systs. *Rao, G., +, AES-M Aug 97 41-43*
- Discrete Fourier transforms**
 reconstruction of mutilated speech using sum of computer-generated sinusoids. *Kabrisky, Matthew, +, AES-M Sep 89 39-43*
- Display devices; cf.** Cathode-ray tube displays; Electroluminescent displays; Flat panel displays; Large screen displays; Liquid crystal displays; Plasma displays; Three-dimensional displays; Touch sensitive screens
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 annunciator archit. for yr. 2000. *Adams, D.G., +, AES-M Jun 97 25-28*
 GPS-based vessel position monitoring and display system. *Reynolds, James C., +, AES-M Jul 90 16-22,28*
- Display instrumentation; cf.** Aircraft displays; Head-up displays
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 ARTEMIS, positioning syst., automatic ranging theodolite with microwave sigs. *Goldbohm, E., AES-M Aug 97 20-22*
- Distortion; cf.** Deformation; Intermodulation distortion; Optical distortion
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 fault-tolerant distributed flight control system using Fiber Distributed Data Interface (FDDI). *Hall, Oliver Keith, +, AES-M Jun 92 21-33*
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 environment for the integration and test of the US space station distributed avionics systems. *Barry, Thomas, +, AES-M Nov 88 16-20*
 mission/flight systems integration study to identify future avionics systems technologies and requirements. *Schneider, Bernard A., AES-M Jan 89 23-25*
 training simulator archit. based on distributed proc. *Shi-Yu Gong, +, AES-M Sep 96 8-10*
- Distributed processing; cf.** Client-server systems; Parallel processing
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 design of Boeing 777 electric system. *Andrade, Luiz, +, AES-M Jul 92 4-11*
 electrical power distribution on space-based radar satellites; 240-V/20-kHz distribution network for 30-kW source. *Moody, Malcolm H., +, AES-M Nov 89 10-16*
- Document delivery**
 multimedia document server. *Christodoulakis, S., +, AES-M Nov 86 2-9*
- Document handling**
 Aircraft Stores Interface Manual, paperless inform. technol., WWW. *Rochin, J.A.G., +, AES-M Jun 98 39-43*
 Cassini Information Access System, intranet technol. implement. *Abrahams, M.D., +, AES-M Jan 98 20-24*
 multimedia document server. *Christodoulakis, S., +, AES-M Nov 86 2-9*
- Dodd, W. Donald**
 obituary. *AES-M May 94 36*
- Dodington, Sven H.**
 obituary. *AES-M Feb 92 32*
- Doppler effect**
 S-band surveillance radar sidelobe suppression. *Bucci, N.J., +, AES-M Aug 95 37-43*
- Doppler measurement**
 narrowband SAR imaging using coherent Doppler tomography technique. *McCoy, J.W., +, AES-M Feb 91 19-22*
 precise orbit determination of high-earth elliptical orbiters using differenced Doppler and ranging measurements. *Estefan, Jeff A., AES-M May 92 12-18*
 wind tunnel laser Doppler velocimeter. *Seegmiller, H. Lee, +, AES-M May 86 16-20*
- Doppler radar**
 2 μm LIDAR for laser-based rem. sens. *Wagener, T.J., +, AES-M Feb 95 23-28*
 airborne adaptive moving target indication, whitening prevention. *Huang Yong, +, AES-M Jul 99 19-21*
 airborne Doppler radar, weather/windshear detect. capability, testing. *Michaels, J.F., AES-M Dec 95 25-30*
 airfields over-the-horizon radar surveillance, counterdrug appls. *Ciboci, J.W., AES-M Jan 98 31-34*
 degradation of clutter processing due to missing radar return pulses. *Steiner, Michael, +, AES-M May 91 23-27*
 ELDORA/ASTRAIA airborne Doppler weather radar, field test results. *Hildebrand, P.H., +, AES-M Oct 96 34-37*
 HF OTH radar target detect. & estim., parallel proc. subsyst. *Wang Wei, +, AES-M Apr 99 39-45*
 identifying helicopter from its pulse Doppler radar signature. *Bullard, Barry D., +, AES-M May 91 28-30*
 interclutter visibility, Doppler ratio detect. *Long, M.W., AES-M Dec 96 17-21*
 mm-wave car anticollision radars, sig. proc. procedures. *Groll, H.P., +, AES-M Aug 97 15-19*
- Dosimeters**
 3D mag. microsystr., magnetodosimeter, on-chip serial interface. *Malcovati, P., +, AES-M Sep 99 43-46*
- DP industry**
 avionics develop., Open Systems approach, affordability. *Roark, C., +, AES-M Sep 96 15-20*
- DP management; cf.** Software management
- Drag**
 ultralight elec. vehicles, design param. *Wyczalek, F.A., AES-M Jan 96 40-44*
- Driver circuits**
 driver board power supply for high power IGBT. *Liuchen Chang, AES-M Aug 96 24-28*
 high speed driving, exponential transm. line. *Zheng Li, +, AES-M Sep 96 4-7*

Driver information systems

- mm-wave car anticollision radars, sig. proc. procedures. *Groll, H.P.*, +, *AES-M Aug 97* 15-19
 Network Vehicle, technol. initiative in mobile multimedia. *Lind, R.*, +, *AES-M Sep 99* 27-32

Dubridge, Lee A.

- obituary. *AES-M Mar 94* 43

Dynamics

- online identification and control of linearized aircraft dynamics using multiple-objective optimization. *Rusnak, Ilan*, +, *AES-M Jul 92* 56-60

Dysprosium alloys

- TbDyFe, TERFENOL-D, giant magnetostrictive materials, actuators, magnetotagging. *Jones, B.*, +, *AES-M Mar 96* 3-6

E**Earphones**

- blind aiding electronic device. *de Acevedo, R.L.M.*, *AES-M Feb 99* 4-6

Earth

- magnetic braking of the Earth's rotation. *Oman, Henry*, *AES-M Apr 89* 3-10

Earth rotation

- Lorentz length contraction, direct test. *Renshaw, C.*, *AES-M Sep 98* 3-7

Ecology

- energy transfer from outer space to Earth, ecological limitation. *Latshev, L.*, +, *AES-M Sep 97* 3-6
 space research future develops., expanded vision. *Braserton, W.M., Jr.*, *AES-M Mar 95* 3-8

Economics

- avionics, cost of ownership. *Hitt, E.F.*, *AES-M Nov 97* 3-7
 avionics develop., Open Systems approach, affordability. *Roark, C.*, +, *AES-M Sep 96* 15-20
 book review; The Golden Age Illusion: Rethinking Postwar Capitalism (Webber, M.J., and Rigby, D.L.; 1996). *Chamberlain, T.E.*, *AES-M Aug 99* 45-46
 C-17 appl. of existing ATE. *Sidhwa, F.*, +, *AES-M Mar 95* 29-34
 capital, energy, and time economics of automated, on-demand transportation system. *Dearien, John A.*, +, *AES-M Nov 93* 28-32
 computerizing circuit board manufacturing industry while reducing costs. *Dyre, Tom F.*, *AES-M Oct 89* 17-20
 consumer price indexes and producer price indexes, obs. *Wyczalek, F.A.*, *AES-M Apr 97* 41
 fuel cell technol. status, commercialization. *Hirschenhofer, J.H.*, *AES-M Mar 97* 23-28
 future tech. trends, Hughes experience. *Chester, A.N.*, *AES-M Apr 97* 38-39
 gas turbine based power generation in elec. utilities. *Oman, H.*, *AES-M Aug 96* 37, 39, 41, 43
 indust. appl. of behavioral sci. *Chamberlain, T.E.*, *AES-M Feb 99* 7-10
 integrated sens. systs. to support radar, EW, and CNI. *Rich, B.A.*, +, *AES-M Sep 95* 11-17
 intruder alarm systs. effectiveness for crime prevention. *Pascoe, T.*, +, *AES-M Feb 98* 8-15
 lens config. phased arrays, low-cost. *Rao, J.B.L.*, +, *AES-M Jun 97* 39-44
 microwave power systs. engng., beam safety, freq. allocation, affordability. *Dickinson, R.M.*, *AES-M May 97* 10-14
 open systs., affordability, syst. engng. perspective. *Roark, C.*, +, *AES-M Feb 97* 26-32
 Project Space Vision in retrospective. *Edin, P.*, +, *AES-M Dec 96* 13-16
 RF integrated electronics, open systs. archit. *Hooks, D.C.*, +, *AES-M Jan 99* 29-33
 software testing, academia vs indust. *Offutt, A.J.*, *AES-M Mar 98* 3-6
 space-based radar syst., low-cost. *Curry, G.R.*, *AES-M Sep 96* 21-24
 space PV, future trends. *Gledhill, K.*, +, *AES-M Dec 94* 8-11
 TQM implement. and planning, model. *Adams, M.L.*, *AES-M Feb 94* 25-27
 using commercial practices to achieve inexpensive, high-performance military equipment. *Hays, Gwen G.*, +, *AES-M Sep 92* 16-20
 VXI based breadboard module use. *Wright, B.K.*, *AES-M Sep 98* 43-47
 Zn-air batts. for forward battlefield charging. *Atwater, T.B.*, *AES-M Sep 98* 36-38
- Edge detection**
 IR imaging, bridge searching method. *Haixin Chen*, +, *AES-M Jul 98* 21-24
 magnetic resonance image enhancement using V-filter; clinical applications. *Yamamoto, Hideki*, +, *AES-M Jun 90* 31-35
- Education**
 Finnish telecomms. indust., mil. radio systs./warfare, hist. *Eskelinen, P.*, *AES-M Aug 96* 3-7
 International Space University founding and purpose. *Dion, Bernard L.*, *AES-M Sep 91* 33
 Worcester Polytechnic Institute's entries in NASA GASCAN (Get-Away Special Canister) experiment program. *RothKugel, Michael L.*, *AES-M Sep 91* 31-32

Worcester Polytechnic Institute's participation in NASA Advanced Design Program. *Jumper, George Y., Jr.*, *AES-M Sep 91* 30-31

Education; cf. Continuing education; Educational courses; Educational technology; Engineering education; Teaching; Training

Educational courses

- elec. engng. higher educ., rev. & stagnation. *Eskelinen, P.*, *AES-M Oct 99* 35-38

Educational technology

- elec. engng. higher educ., rev. & stagnation. *Eskelinen, P.*, *AES-M Oct 99* 35-38
 hybrid connectionist systs. in research and teaching. *Jain, L.C.*, *AES-M Mar 95* 14-18

Eigenvalues and eigenfunctions

- high-resolution multiple-target-angle tracking. *Yu, Kai-Bor*, *AES-M May 91* 8-12

Electric actuators

- PBW, PBW program for aircraft, motor drive technol., options and trends. *Elbuluk, M.E.*, +, *AES-M Nov 95* 37-42
 PBW program, motor drive technol., power converters & devices. *Elbuluk, M.E.*, +, *AES-M Dec 95* 31-36

Electric admittance measurement

- global avionics future trends. *Oman, H.*, *AES-M Apr 95* 14-19

Electrical engineering

- some do's and don't's for young EEs. *Fowler, Charles A.*, *AES-M Jun 93* 50-53

Electrical engineering; cf. Electrical engineering education; Electronic engineering; High-voltage engineering

Electrical engineering computing; cf. Automatic test software; Radar computing

Electrical engineering education

- higher educ. rev. & stagnation. *Eskelinen, P.*, *AES-M Oct 99* 35-38
 RF test range for engng. education. *Eskelinen, P.*, +, *AES-M Jul 95* 17-23

Electric breakdown

- MLC capacitors, energy storage, 77K. *Lawless, W.N.*, +, *AES-M May 97* 32-35

Electric current control

- IC controllers for batts. charging. *Mammano, R.A.*, *AES-M Apr 95* 20-25

Electric current measurement

- neural network based cct. fault diagnosis, current monitoring. *Kirkland, L.V.*, +, *AES-M Jan 95* 28-30

Electric drives

- Hy-Stor™ batt. design and appls. *Burghart, P.A.*, *AES-M Nov 97* 8-18
 rotor vibr. meas. in elec. drives. *Pyrhonen, O.*, +, *AES-M May 98* 21-23
 spacecraft elec. propulsion syst., direct drive options. *Hamley, J.A.*, *AES-M Feb 96* 20-24

Electric drives; cf. Motor drives

Electric fuses

- space power wiring systs., safety, maint. and protection. *Stavnes, M.W.*, +, *AES-M Jan 94* 21-27

Electric generators

- military electric generators; state of the art. *Jokl, A. L.*, *AES-M Dec 91* 56-59
 starter/generator technol. for future aerosp. appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96* 17-24

Electric generators; cf. AC generators; Asynchronous generators; Standby generators; Turbogenerators

Electricity supply industry

- gas turbine based power generation in elec. utilities. *Oman, H.*, *AES-M Aug 96* 37, 39, 41, 43

Electric motors; cf. Brushless DC motors; Permanent magnet motors; Reluctance motors; Squirrel cage motors; Stepping motors; Synchronous motors

Electric power distribution; cf. Distribution networks; Power distribution...

Electric power generation

- USAF More Electric Aircraft initiative, status. *Cloyd, J.S.*, *AES-M Apr 98* 17-22

Electric power generation; cf. Cogeneration

Electric propulsion

- AC drives for elec. vehicles, experts' opinion survey. *Chang, L.*, *AES-M Aug 94* 7-11
 batts. advanced types and commercialization. *Mader, J.*, *AES-M Jul 96* 17-22
 elec. vehicles develops. in USA. *Oman, H.*, *AES-M Jan 94* 33-35
 Ni-metal hydride bipolar batt. for hybrid vehicles. *Reisner, D.E.*, +, *AES-M May 94* 24-28
 spacecraft elec. propulsion syst., direct drive options. *Hamley, J.A.*, *AES-M Feb 96* 20-24
 torpedo elec. propulsion, Al-AgO primary batt. *Orndorff, C.M.*, +, *AES-M May 96* 27-31
 ultralight elec. vehicles, design param. *Wyczalek, F.A.*, *AES-M Jan 96* 40-44
 USAF More Electric Aircraft initiative, status. *Cloyd, J.S.*, *AES-M Apr 98* 17-22

- ZnBr batt. in elec. vehicle. *Swan, D.H.*, +, *AES-M May 94* 20-23
 Zn-flow-batts. for elec.-vehicles. *Tomazic, G.*, *AES-M Apr 94* 37-41
- Electric resistance measurement**
 Galileo probe Li-SO₂ batt. cell life testing. *Hofland, L.M.*, +, *AES-M Jun 96* 14-18
- Electric sensing devices**
 aircraft ice accretion meas., Phase I SBIR study, MM wave radar. *Lightfoot, F.M.*, +, *AES-M Aug 97* 3-9
 outdoor intrusion detect., ported coaxial cable technol. *Clifton, R.W.*, +, *AES-M May 97* 36-40
 Si μ S-CIRAS MEMS inertial rate and accel. sens., tactical grade navig. and guidance. *Hulsing, R.*, *AES-M Nov 98* 17-23
- Electric sensing devices; cf. Capacitive sensors**
- Electric strength**
 MLC capacitors, energy storage, 77K. *Lawless, W.N.*, +, *AES-M May 97* 32-35
- Electric variables control; cf. Electric current control; Voltage control**
- Electric variables measurement; cf. Charge measurement; Electric admittance measurement; Electric current measurement; Electric resistance measurement; Impedance measurement; Voltage measurement**
- Electric vehicles**
 AC drives for elec. vehicles, experts' opinion survey. *Chang, L.*, *AES-M Aug 94* 7-11
 advancements and appls., conf. report. *Oman, H.*, *AES-M Apr 94* 25-31
 aluminum-air battery advances and applications to electric vehicles. *Hamlen, R.P.*, +, *AES-M Oct 91* 11-14
 automobile energy source, H storage, water electrolyser. *Oman, H.*, *AES-M Aug 99* 44-45
 batts. develop. *Oman, H.*, +, *AES-M Feb 95* 29-35
 development of series hybrid electric vehicle for near-term applications. *Davis, Gregory W.*, +, *AES-M Nov 93* 15-20
 energy management system for improving electric vehicle range and performance. *Pavlat, Jeffrey W.*, +, *AES-M Jun 93* 3-5
 factors delaying the intro. of electric car in US. *Oman, H.*, *AES-M Apr 99* 46
 heating and cooling battery electric vehicles. *Wyczalek, Floyd A.*, *AES-M Nov 93* 9-14
 hybrid elec. vehicles, 1998 market. *Wyczalek, F.A.*, *AES-M Mar 99* 41-44
 Hy-Stor™ batt. design and appls. *Burghart, P.A.*, *AES-M Nov 97* 8-18
 issues affecting future of electric vehicles. *O'Brien, William A.*, *AES-M May 93* 38-41
 long-life batt. develop., elec. vehicle appl. *Oman, H.*, *AES-M Sep 99* 19-21
 maintenance-free nickel-cadmium traction batteries in fiber-plaque technology. *Warthmann, Wolfgang.* *AES-M May 93* 29-31
 more-elec. aircraft, power mgt. & distrib. syst., MADMEL program. *Maldonado, M.A.*, +, *AES-M Dec 99* 3-8
 Ni-metal hydride bipolar batt. for hybrid vehicles. *Reisner, D.E.*, +, *AES-M May 94* 24-28
 Ni-MH next generation portable batt., elec. vehicles, adv. mater. *Ovshinsky, S.R.*, +, *AES-M May 99* 17-23
 Ni-Zn sealed batt. for high energy-dens. appls. *Coates, D.*, +, *AES-M Jun 97* 35-38
 ovonic nickel-metal-hydride batteries for industrial and electric vehicles; advances. *Venkatesan, S.*, +, *AES-M Nov 91* 26-30
 progress in development of nickel-metal-hydride batteries. *Venkatesan, S.*, +, *AES-M May 93* 32-34
 recent developments in electric vehicles and their propulsion systems. *Chang, Liuchen.* *AES-M Dec 93* 3-6
 state-of-the-art and prospects. *Patil, Pandit G.*, *AES-M Dec 90* 15-19
 testing full-size mechanically rechargeable zinc-air battery in electric vehicle. *Goldstein, Jonathan R.*, +, *AES-M Nov 93* 34-38
 total life-cycle cost analysis of conventional and alternative fueled vehicles. *Cardullo, Mario W.*, *AES-M Nov 93* 39-43
 ultracapacitors for elec. vehicles, load-levelling batts. *Dowgiallo, E.J.*, +, *AES-M Aug 95* 26-31
 ultralight elec. vehicles, design param. *Wyczalek, F.A.*, *AES-M Jan 96* 40-44
 USAF More Electric Aircraft initiative, status. *Cloyd, J.S.*, *AES-M Apr 98* 17-22
 USA's develop., w.r.t. pollution reduction. *Oman, H.*, *AES-M Jan 94* 33-35
 ZnBr batt. in elec. vehicle. *Swan, D.H.*, +, *AES-M May 94* 20-23
 Zn-flow-batts. for elec.-vehicles. *Tomazic, G.*, *AES-M Apr 94* 37-41
- Electrochemical electrodes**
 carbon fiber electrochem. capacitors, low surface area fibers. *Lipka, S.M.*, *AES-M Jul 97* 27-30
 Li-ion solid polymer electrolyte batt. develop. *Teofilo, V.L.*, +, *AES-M Nov 99* 43-47
- Electrochemistry; cf. Electrolysis**
- Electrodes**
 aluminum-air battery advances and applications to electric vehicles. *Hamlen, R.P.*, +, *AES-M Oct 91* 11-14
- Electrodes; cf. Cathodes; Electrochemical electrodes**
- Electrodynamics**
 radiation continuum model of light, Galilean invariance of Maxwell eqns. *Renshaw, C.E.*, +, *AES-M Oct 98* 3-8
- Electrohydraulic control equipment**
 fault-tolerant electro-hydrostatic actuator architectures for aircraft control. *Sadeghi, Tom.* *AES-M Mar 92* 32-42
- Electroluminescent displays**
 flat-panel displays; state of the art. *Kmetz, Allan R.*, *AES-M Aug 87* 19-24
 radar warning receiver, flat panel display upgrade, technol. insertion prog. *Coker, B.L., Jr.*, +, *AES-M Oct 98* 33-37
 sunlight viewable electroluminescent displays for mil. aircraft appl. *Monarchie, D.*, +, *AES-M Aug 95* 21-25
- Electrolysis**
 automobile energy source, H storage, water electrolyser. *Oman, H.*, *AES-M Aug 99* 44-45
 electrolysis heat, 'zero point' effect, letter to editor/reply. *Wyczalek, F.A.*, *AES-M Apr 94* 42
- Electrolytic capacitors**
 carbon fiber electrochem. capacitors, low surface area fibers. *Lipka, S.M.*, *AES-M Jul 97* 27-30
- Electromagnetic compatibility**
 electromagnetic compatibility testing of land mobile cellular telephones. *Ehrlich, Nathan.*, +, *AES-M Apr 86* 27-31
 international cooperation; history, present status, and future plans. *Jackson, G.A.*, *AES-M Apr 87* 2-5
 international EMC cooperation in the military. *Carter, N.J.*, *AES-M Apr 87* 6-9
 microwave electrothermal thruster, efficient power supply. *Ehsani, M.*, +, *AES-M May 98* 37-42
 radars with imaging capability, thinned stepped freq. waveforms. *Freedman, A.*, +, *AES-M Nov 96* 39-43
 RF suscept. of commercial GPS receivers. *Daher, J.K.*, +, *AES-M Oct 94* 21-25
 ultrawideband microwave-radar design for missile detect., sea. *Skolnik, M.*, +, *AES-M Oct 95* 25-30
- Electromagnetic fields**
 fund. laws testing, implications for universe exploration. *Morgan, H.*, *AES-M Jan 98* 5-10
- Electromagnetic forces**
 solar power satellite, mag. inflatable, energy storage. *Ehsani, M.*, +, *AES-M Aug 95* 9-14
- Electromagnetic interference**
 electromagnetic transient protection requirements for avionics line-replacable units. *Ketterling, George W.*, +, *AES-M Apr 86* 17-26
 NASA B-757 HIRF test series low power on-the-ground tests. *Poggio, A.J.*, +, *AES-M Apr 96* 27-33
- Electromagnetic interference; cf. Radiofrequency interference**
- Electromagnetic launchers**
 accelerating hypersonic airplanes with ground power. *Oman, Henry.* *AES-M Apr 90* 9-14
- Electromagnetic wave diffraction; cf. Geometrical theory of diffraction; Physical theory of diffraction**
- Electromagnetic wave propagation; cf. Atmospheric electromagnetic wave propagation; Microwave propagation**
- Electromagnetic wave reflection**
 wingtip generated wake vortices, radar target. *Marshall, R.E.*, +, *AES-M Dec 96* 27-30
- Electromagnetic wave scattering**
 exponential approx. for small arguments, first-order. *Narayanan, R.M.*, *AES-M Feb 94* 33-35
 wingtip generated wake vortices, radar target. *Marshall, R.E.*, +, *AES-M Dec 96* 27-30
- Electromagnetic wave scattering; cf. Backscatter**
- Electromagnetism**
 exponential approx. for small arguments, first-order. *Narayanan, R.M.*, *AES-M Feb 94* 33-35
- Electron beam applications**
 Morgan phenom., electron jet propulsion principle. *Lebedev, O.*, +, *AES-M Aug 98* 3-5
- Electron beam deposition**
 Li-LiMn₂O₄ thin-film batts., fab./props. *Bates, J.B.*, +, *AES-M Apr 95* 30-32
- Electronic countermeasures**
 aircraft borne anti-jamming phase controlled antenna syst. *Eskelinen, P.*, +, *AES-M Apr 96* 8-11
 angle measurement in presence of main-beam interference. *Lin, Feng-Ling C.*, +, *AES-M Nov 90* 19-25
 CEM, radar ECCM. *Johnston, S.L.*, *AES-M Feb 95* 36-38
 ECCM model for future EW combat. *Benren, T.*, *AES-M Jun 94* 12-16
 Flight Data Analysis and Display, tool for monitoring hardware and software of multiprocessor electronic countermeasures systems. *Fenchel, Bruce.*, +, *AES-M Sep 87* 5-7

- future radar evol., space-time-freq. resource mgt. to wideband radar. *le Chevalier, F.*, *AES-M Oct 99* 9-17
- radar warning receiver, flat panel display upgrade, technol. insertion prog. *Coker, B.L., Jr.*, +, *AES-M Oct 98* 33-37
- random sig. radar develop., present & future trends. *Liu Guosui*, +, *AES-M Oct 97* 35-40
- SAR integrated precision targeting simul. *Toussaint, J.A.*, +, *AES-M Feb 99* 29-32
- Electronic design automation**
- SAR integrated precision targeting simul. *Toussaint, J.A.*, +, *AES-M Feb 99* 29-32
- Electronic engineering**
- book review; Electronic Components Selection and Application Guidelines (Meeldijk, V.; 1996). *Eskelinen, P.*, *AES-M May 99* 24
- Electronic engineering computing; cf.** Electronic design automation
- Electronic equipment manufacture**
- book review; Electronics Quality Management Handbook (Ludwig-Becker, M., Ed.). *Eskelinen, P.*, *AES-M May 98* 20
- military products from commercial lines. *Kinsella, M.E.*, +, *AES-M Sep 95* 7-10
- Electronic equipment testing**
- ATE enabling technol., Air Force outlook. *Kirkland, L.V.*, +, *AES-M Jan 94* 12-16
- flyable fiber-optic radar target generator. *Prcic, M.M.*, *AES-M Jan 94* 17-20
- Government Industry Data Exchange Program (GIDEP) data bank on electronics reliability and testing. *Richards, Edwin T.*, *AES-M July 86* 13-18
- GPS precision lightweight receiver testing. *Cosentino, B.*, *AES-M Aug 94* 17-20
- Joint STARS phased array radar antenna. *Shnitkin, H.*, *AES-M Oct 94* 34-40
- mil. avionics with INS/GPS. *Martin, M.K.*, +, *AES-M Nov 98* 41-46
- PCB diagnosis, neural networks and mag. fields. *Spence, H.F.*, *AES-M Feb 94* 20-24
- single meas. testing, pros and cons. *Miller, J.R., III*, *AES-M Mar 95* 35-39
- trends in electronic circuit testing and their implications for entry-level test professionals. *Grubbs, Albert B., Jr.*, *AES-M July 86* 2-5
- uniform test procedures for avionics line-replaceable units to ensure electromagnetic transient protection. *Ketterling, George W.*, +, *AES-M Apr 86* 17-26
- Electronic music**
- blind aiding electronic device. *de Acevedo, R.L.M.*, *AES-M Feb 99* 4-6
- Electronic publishing**
- Aircraft Stores Interface Manual, paperless inform. technol., WWW. *Rochin, J.A.G.*, +, *AES-M Jun 98* 39-43
- Electronics; cf.** Avionics; Consumer electronics; Power electronics; Space vehicle electronics
- Electronics industry**
- book review; Electronic Inventions and Discoveries: Electronics from its Earliest Beginnings to the Present Day, 4th edn. (Dummer, G.W.A.). *Chakravarthi, P.*, *AES-M Aug 98* 39
- book review; Hazeltine Corporation in World War II (Wheeler, H.A.). *Brown, L.*, *AES-M Jul 94* 40-41
- IEEE AESS Space Panel's visit to Bharat Electronics, Ltd. *French, D.E.*, +, *AES-M Feb 93* 38-40
- trends in electronic circuit testing and their implications for entry-level test professionals. *Grubbs, Albert B., Jr.*, *AES-M July 86* 2-5
- Electronic warfare**
- airborne self-protection jammer program performance prediction software for evaluating user data files. *Olliff, Don*, *AES-M Mar 92* 16-19
- electronic combat in Persian Gulf War; some early observations. *Fowler, C. A.*, *AES-M Dec 91* 12-15
- Finnish telecomms. indust., mil. radio systs./warfare, hist. *Eskelinen, P.*, *AES-M Aug 96* 3-7
- integrated sens. systs. to support radar, EW, and CNI. *Rich, B.A.*, +, *AES-M Sep 95* 11-17
- RF integrated electronics, open systs. archit. *Hooks, D.C.*, +, *AES-M Jan 99* 29-33
- role of power generation in future battlefield technology. *Thornton, C. G.*, *AES-M Dec 91* 21-25
- sig. proc. technol. advancements. *Stephens, J.P.*, *AES-M Nov 96* 31-38
- synopsis of Mobile Battlefield Power Workshop. *Iafrate, G.*, +, *AES-M Dec 91* 16-20
- Electronic warfare; cf.** Electronic countermeasures
- Electrothermal launchers**
- microwave electrothermal thruster, efficient power supply. *Ehsani, M.*, +, *AES-M May 98* 37-42
- Elemental semiconductors**
- act. matrix LCD for projection/head-mounted systs. *Spitzer, M.B.*, +, *AES-M Apr 95* 33-35
- Si μ SCIRAS MEMS inertial rate and accel. sens., tactical grade navig. and guidance. *Hulsing, R.*, *AES-M Nov 98* 17-23
- Embedded systems**
- aging avionics computers, F³I replacement strategy. *Luke, J.*, +, *AES-M Mar 99* 7-11
- aircrew embedded training program. *Hughes, Ronald G.*, *AES-M Sep 88* 3-10
- implementation-independent architecture for integrating electrical and electronic subsystems. *Furno, V. E.*, *AES-M Jun 87* 9-14
- multimode radar, low-cost technol., flexible test bed archit. *Adler, E.*, +, *AES-M Jun 99* 23-27
- Year 2000 impact on automated testing, pot. problem areas. *Waken, W.*, +, *AES-M Jul 99* 5-8
- Emergency power supply**
- batt. technol. and markets, indust. appls. *Seitz, C.W.*, *AES-M May 94* 10-15
- USAF More Electric Aircraft initiative, status. *Cloyd, J.S.*, *AES-M Apr 98* 17-22
- Employment**
- observations of A. Einstein, Thomas More, and Senator Black regarding unemployment. *AES-M Jan 92* 56-57
- pers. positioning for young professionals. *Kostek, P.J.*, *AES-M Jan 97* 3-5
- why 50-yr-old engineer returned to college. *Colclasure, D.M.*, *AES-M May 96* 39, 41
- Encoding**
- sidelobe self-interf. reduction in agile beam radar. *Urkowitz, H.*, *AES-M Nov 97* 37-46
- Encoding; cf.** Codes; Phase coding; Vector quantization; Video coding
- Energy conservation**
- CHP technol., USA mfg. carbon & energy savings. *Kaarsberg, T.M.*, +, *AES-M Jan 99* 7-12
- clocks, slowing when in motion or in gravit. well, equivalence principle. *Renshaw, C.*, *AES-M Oct 95* 2-5
- Energy conversion; cf.** Direct energy conversion
- Energy management systems**
- improving electric vehicle range and performance. *Pavlat, Jeffrey W.*, +, *AES-M Jun 93* 3-5
- Energy resources**
- technol. change need, best practice, triune brain concept. *Ausubel, J.H.*, *AES-M Oct 99* 3-8
- transfer from outer space to Earth, ecological limitation. *Latshev, L.*, +, *AES-M Sep 97* 3-6
- Energy resources; cf.** Energy conservation; Fuels; Renewable energy sources
- Energy storage**
- crit. loads mgt., AC Battery PQ2000 syst. *Corey, G.P.*, *AES-M Jun 96* 41-44
- energy storage media and techniques; comparative analysis. *Rose, M. F.*, +, *AES-M Dec 91* 26-32
- gas turbine based power generation in elec. utilities. *Oman, H.*, *AES-M Aug 96* 37, 39, 41, 43
- space power alternatives for laser radar sensor system; comparison of fire batteries and flywheel systems. *Boretz, John F.*, *AES-M Mar 90* 3-8
- Energy storage; cf.** Capacitor storage; Mechanical energy storage; Superconducting magnet energy storage; Thermal energy storage
- Engineering**
- career development of engineers; role of professional societies. *Corbin, John C.*, *AES-M Mar 88* 12-16
- falsehood of myths that aerospace engineers are useless in nondefense environments. *Oman, Henry*, +, *AES-M Sep 93* 3-5
- importance of engineering and need for engineers to play greater role in society. *Augustine, Norman R.*, *AES-M Oct 92* 3-5
- improving knowledge workers' professional environment; view on engineers' responsibilities. *Dwon, Larry*, *AES-M Mar 88* 2-5, 26
- indust. appl. of behavioral sci. *Chamberlain, T.E.*, *AES-M Feb 99* 7-10
- managing the super achiever engineer. *Russell, Robert F.*, *AES-M Mar 88* 17-20, 26
- societal needs that engineers can fulfill and problem of anti-engineering bias. *Casazza, J. A.*, *AES-M Feb 92* 3-7
- Engineering; cf.** Concurrent engineering; Design engineering; Electrical engineering; Maintenance engineering; Mechanical engineering; Project engineering; Structural engineering; Systems engineering
- Engineering computing**
- enhancement of Arnold Engineering Development Center data processing capabilities. *Bond, D. C.*, +, *AES-M Aug 89* 26-32
- exponential approxs. for small arguments, first-order. *Narayanan, R.M.*, *AES-M Feb 94* 33-35
- overview of expert systems in engineering; development and applications. *Galbraith, Lissa*, +, *AES-M Feb 88* 12-14

- Engineering computing; cf.** Aerospace computing; Control engineering computing; Naval engineering computing; Power system analysis computing; Production engineering computing; Radar computing; Structural engineering computing; Telecommunication computing; Virtual machines
- Engineering education**
 hybrid connectionist systs. in research and teaching. *Jain, L.C., AES-M Mar 95 14-18*
 improving knowledge workers' professional environment; view on educator's responsibilities. *Alexander, Charles K., AES-M Mar 88 10-11*
 why 50-yr-old engineer returned to college. *Colclasure, D.M., AES-M May 96 39, 41*
- Engineering education; cf.** Electrical engineering education
- Engineering information systems**
 office information system cost justification in engineering environments. *Sassone, Peter G., +, AES-M Aug 86 21-26*
- Engineering societies; cf.** IEEE; Societies
- Engines; cf.** Aerospace engines
- Entertainment**
 in-flight entertainment, aircraft integrat., enabling tools. *Lee, D.B., AES-M Aug 99 37-43*
- Entropy; cf.** Maximum entropy methods
- Environmental factors**
 energy transfer from outer space to Earth, ecological limitation. *Latshev, L., +, AES-M Sep 97 3-6*
 EPSAT, system analysis tool for assessing environment's effect on space power systems. *Jongeward, G. A., +, AES-M Nov 89 40-43*
 greener batts. cooperation, indust. and EPA. *Telzrow, T.N., AES-M May 95 35-36*
 multichip modules for military and adverse environment applications. *Port, R.M., AES-M Sep 93 17-19*
 safety and environmental considerations for nickel-metal-hydride and nickel-cadmium batteries used in notebook computers. *Phillips, Jeffrey, +, AES-M May 93 35-37*
 technol. change need, best practice, triune brain concept. *Ausubel, J.H., AES-M Oct 99 3-8*
- Environmental testing**
 Li-ion cell perform. under environ. extremes. *Kelly, C.O., +, AES-M Mar 99 37-40*
 valve regulated lead acid batts., operational testing, commercial aircraft. *Timmons, J.B., +, AES-M Jul 97 35-38*
- Equiripple filters**
 airborne adaptive moving target indication, whitening prevention. *Huang Yong, +, AES-M Jul 99 19-21*
- Equivalent circuits**
 LD high speed driving, exponential transm. line. *Zheng Li, +, AES-M Sep 96 4-7*
- Ergonomics**
 crew station meas. methodol., quantitat. approach, CAD model, CMM. *Purvis, B.D., +, AES-M Oct 96 14-16*
- Error analysis**
 human-machine interface design & impact concept, risk anal. *Dearden, A.M., +, AES-M Feb 97 19-25*
 using configuration control and error analysis to improve software quality used for US space shuttle avionics. *Haugh, James M., AES-M Jan 92 12-16*
- Error compensation**
 GPS appl. to space vehicles, space environ./errors anal. *Jianping Yuan, +, AES-M Jan 98 25-30*
- Estimation theory**
 book review; An Engineering Approach to Optimal Control and Estimation Theory (Siouris, G.M.; 1996). *Moiola, J.L., AES-M Jan 97 35-37*
 book review; Estimation and Tracking Principles, Techniques, and Software (Bar-Shalom, Y., and Li, X.-R.; 1993). *Zohdy, M.A., AES-M Aug 94 11*
- Exciters**
 starter/generator technol. for future aerosp. appl., review. *Elbuluk, M.E., +, AES-M Oct 96 17-24*
- Expert systems**
 hybrid connectionist systs. in research and teaching. *Jain, L.C., AES-M Mar 95 14-18*
 overview of expert systems in engineering; development and applications. *Galbraith, Lissa, +, AES-M Feb 88 12-14*
 security appl. of computer vision, technol. develop. *Sage, K., +, AES-M Apr 99 19-29*
 supportability of military knowledge-based AI systems. *Carlton, Kyp A., AES-M Dec 88 25-32*
- Expert systems; cf.** Aerospace expert systems; Diagnostic expert systems
- Explosions**
 author information for 'Explosive detection system based on thermal neutron analysis'. *Gozani, Tsahi, +, AES-M Jan 90 52-54*
 explosives detection system based on thermal neutron activation. *Gozani, Tsahi, +, AES-M Dec 89 17-20*
 TWA800 fuel tank flammability study. *Wyczalek, F.A., AES-M Jan 98 16-19*
- Exponential distribution**
 security intrusion proc., empirical model, attacker behavior. *Jonsson, E., +, AES-M Apr 97 7-17*
- Eye**
 iris recogn. technol., video-based syst., IrisCode database. *Williams, G.O., AES-M Apr 97 23-29*
- F**
- Face recognition**
 iris recogn. technol., video-based syst., IrisCode database. *Williams, G.O., AES-M Apr 97 23-29*
- Fading**
 cellular phone coverage meas., test vehicle pattern effects. *Eskelinen, P., +, AES-M Mar 97 9-11*
- Failure analysis**
 causes of aircraft electrical failures; results of survey. *Galler, Donald, +, AES-M Aug 91 3-8*
 Defense Electronics Supply Center's field failure evaluation program. *Lantz, Bradley A., +, AES-M Aug 93 22-25*
 FAA reliab.-safety requirements and alternatives. *Pecht, M., +, AES-M Feb 98 16-20*
 Hubble Space Telescope solar array change-out, mission anom. *Winslow, C., AES-M Apr 95 3-13*
 multisignal flow graphs, syst. testability anal./fault diagnosis. *Deb, S., +, AES-M May 95 14-25*
 Ni-Cd aircraft batt., sealed, life cycle testing. *Kulin, T.M., AES-M Oct 97 17-22*
 on-orbit anomalies related to deployment of spacecraft appendages and their causes. *Freeman, Michael T., AES-M Apr 93 3-15*
 operational security meas., probabilistic measures. *Brocklehurst, S., +, AES-M Oct 94 7-16*
- Failure (mechanical)**
 Hubble Space Telescope solar array change-out, mission anom. *Winslow, C., AES-M Apr 95 3-13*
- Faraday effect**
 fiber-optic current sensor for aerospace applications, using Faraday effect in fiber. *Patterson, Richard L., +, AES-M Dec 90 10-14*
- Farming; cf.** Agriculture
- Fast Fourier transforms**
 EW, sig. proc. technol. advancements. *Stephens, J.P., AES-M Nov 96 31-38*
 HF OTH radar target detect. & estim., parallel proc. subsystem. *Wang Wei, +, AES-M Apr 99 39-45*
 lin. FM radar, improved range estim., interpolation algm. *Wang Wei, +, AES-M Jul 99 45-47*
- Fault diagnosis**
 Autonomous Power System project for demonstrating application of integrated intelligent diagnosis, control, and scheduling to space power distribution systems. *Ringer, Mark J., +, AES-M Jan 93 40-47*
 built-in test and embedded diagnostics for two US Army M1A2 main battle tank subsystems. *Sallade, Rex, AES-M Feb 92 8-13*
 card testing problems, neural networks, testing strategies. *Kirkland, L.V., +, AES-M Aug 97 36-40*
 diagnostics automation for fault identification in avionic systems. *Scully, John K., AES-M Oct 89 3-6*
 integrated diagnostics; US Air Force Generic Integrated Maintenance Diagnostics program. *Seaman, Harry M., AES-M Jun 86 9-12*
 integrated diagnostics; US Navy program. *Baitaglia, Michael, AES-M Jun 86 6-9*
 integrated diagnostics programs of US Dept. of Defense; progress during past three years. *Neumann, George W., AES-M Jun 86 2-5*
 knowledge acquisition for ATE diagnosis of VLSI test systems. *Ryan, Patricia M., +, AES-M July 86 5-12*
 Logic Designer's Apprentice (LDA), knowledge-based computer aid for digital electronic circuit design. *Moskowitz, Leonard, AES-M July 86 22-26*
 methodology for real-time fault detection, isolation, and correction in large satellite communication system using expert systems. *Pensick, Ellen C., +, AES-M Jul 93 11-23*
 mil. avionics, fault diagnosis, cost efficient TPS using BIT. *Rogin, H., AES-M Dec 99 9-14*
 multisignal flow graphs, syst. testability anal./fault diagnosis. *Deb, S., +, AES-M May 95 14-25*
 neural network based cct. fault diagnosis, current monitoring. *Kirkland, L.V., +, AES-M Jan 95 28-30*
- Fault diagnosis; cf.** Computer fault diagnosis; Logic circuit fault diagnosis; Software fault diagnosis
- Fault location**
 ATE enabling technol., Air Force outlook. *Kirkland, L.V., +, AES-M Jan 94 12-16*

- flyable fiber-optic radar target generator. *Prcic, M.M.*, *AES-M Jan 94* 17-20
- neural network based cct. fault diagnosis, current monitoring. *Kirkland, L.V.*, +, *AES-M Jan 95* 28-30
- non-intrusive diagnostics, thermal/X-ray images. *Poitier, A.*, +, *AES-M Mar 94* 34-37
- PCB diagnosis, neural networks and mag. fields. *Spence, H.F.*, *AES-M Feb 94* 20-24
- space power wiring systs., safety, maint. and protection. *Stavnes, M.W.*, +, *AES-M Jan 94* 21-27
- Fault tolerance**
- distributed flight control system using Fiber Distributed Data Interface (FDDI). *Hall, Oliver Keith*, +, *AES-M Jun 92* 21-33
- electro-hydrostatic actuator architectures for aircraft control. *Sadeghi, Tom*, *AES-M Mar 92* 32-42
- fault-tolerant air data inertial reference system. *McClary, Charles R.*, *AES-M May 92* 19-23
- fault-tolerant air data/inertial reference unit for ARINC 651 integrated modular avionics. *Sheffels, Michael L.*, *AES-M Mar 93* 48-52
- reliability analysis of fault-tolerant inertial measurement unit architectures with redundant inertial sensors. *Jeerage, Mahesh K.*, *AES-M Jul 90* 23-28, 22
- triple and quadruple flight control architecture fault tolerances; impact of worst-case failures on aircraft transient response. *Sadeghi, Tom*, +, *AES-M Mar 92* 20-31
- ultra-reliable real-time control syst., future trends. *Hammitt, R.C.*, *AES-M Aug 99* 31-36
- Fault tolerant computing**
- computer-related failures/disasters; bibliographic listing. *Neumann, Peter G.*, *AES-M Oct 86* 18-19
- dependability in computer systs. engng., terminology, similarities and differences. *Prasad, D.*, +, *AES-M Jan 96* 14-21
- Flight Data Analysis and Display, tool for monitoring hardware and software of multiprocessor electronic countermeasures systems. *Fenchel, Bruce*, +, *AES-M Sep 87* 5-7
- high risk systs., human-machine interface failures minimization. *Sudano, J.J.*, *AES-M Oct 94* 17-20
- real time recovery of fault tolerant proc. elements. *Sims, T.*, *AES-M Dec 97* 13-17
- Space Station Freedom, two-fault tolerant attitude control. *Babcock, P.S.*, *IV*, *AES-M May 96* 9-22
- Fault trees**
- human-machine interface design & impact concept, risk anal. *Dearden, A.M.*, +, *AES-M Feb 97* 19-25
- FDDI**
- fault-tolerant distributed flight control system using Fiber Distributed Data Interface (FDDI). *Hall, Oliver Keith*, +, *AES-M Jun 92* 21-33
- Feature extraction**
- automatic generation of binary feature detectors. *Tamburino, Louis A.*, +, *AES-M Sep 89* 20-29
- identifying helicopter from its pulse Doppler radar signature. *Bullard, Barry D.*, +, *AES-M May 91* 28-30
- iris recogn. technol., video-based syst., IrisCode database. *Williams, G.O.*, *AES-M Apr 97* 23-29
- Feedback**
- flight control syst. neural network modeling. *He Mingyi*, +, *AES-M Sep 98* 27-29
- muscle control biofeedback device to assist learning smooth golf swings. *McCurnin, Thomas W.*, +, *AES-M Aug 86* 14-15, 18-21
- Feedforward neural nets**
- field-portable imaging syst. for scene class. *Preston, E.*, +, *AES-M Sep 94* 13-19
- Ferroelectric devices**
- lens config. phased arrays, low-cost. *Rao, J.B.L.*, +, *AES-M Jun 97* 39-44
- Fiber optic gyroscopes**
- comparison of hemispherical resonator gyro and optical gyros. *Matthews, A.*, +, *AES-M May 92* 40-46
- gyroscope, reduced min. config., land nav. appl. *Emge, S.*, +, *AES-M Apr 97* 18-21
- pointing grade fiber optic gyroscope. *Killian, K.M.*, *AES-M Jul 94* 6-10
- Fiber optic sensors**
- fiber-optic current sensor for aerospace applications, using Faraday effect in fiber. *Patterson, Richard L.*, +, *AES-M Dec 90* 10-14
- flyable fiber-optic radar target generator. *Prcic, M.M.*, *AES-M Jan 94* 17-20
- space power wiring systs., safety, maint. and protection. *Stavnes, M.W.*, +, *AES-M Jan 94* 21-27
- Field effect analog integrated circuits**
- Xs-MET fab. using complementary heterostruct. FET, space appls. *Cerny, C.L.*, +, *AES-M Mar 98* 7-14
- Field effect transistor switches**
- PBW program, motor drive technol., power converters & devices. *Elbuluk, M.E.*, +, *AES-M Dec 95* 31-36
- Field programmable gate arrays**
- beam forming antenna syst. for mobile commun. *Chiba, I.*, +, *AES-M Sep 97* 31-41
- Field strength measurement; cf. Magnetic field measurement**
- Filtering theory**
- degradation of clutter processing due to missing radar return pulses. *Steiner, Michael*, +, *AES-M May 91* 23-27
- flying obj. vel. meas., CCD sens. *Ricny, V.*, +, *AES-M Jun 94* 3-6
- Filters**
- Doppler ratio detect. radar, interclutter visibility. *Long, M.W.*, *AES-M Dec 96* 17-21
- Filters; cf. Adaptive filters; Digital filters; Equiripple filters; FIR filters; Kalman filters**
- Fingerprint identification**
- 2D opt. correlator for fingerprint ident. *Klima, M.*, +, *AES-M Jul 97* 3-9
- Finite difference methods**
- estimating high-intensity RF effects using FD-TD code to predict coupling. *Zacharias, Richard*, +, *AES-M Jan 92* 24-31
- Fires**
- pilotless aircraft navig. via GPS. *Yongsheng Wang*, +, *AES-M Aug 96* 16-20
- FIR filters**
- airborne adaptive moving target indication, whitening prevention. *Huang Yong*, +, *AES-M Jul 99* 19-21
- Fission reactors**
- Brayton cycle technol. appl., space power. *Harty, R.B.*, +, *AES-M Jan 94* 28-32
- Flameproofing**
- pilotless aircraft navig. via GPS. *Yongsheng Wang*, +, *AES-M Aug 96* 16-20
- Flat panel displays**
- large flat-panel multifunction LCD-based display for military and space applications. *Pruitt, James S.*, *AES-M Sep 92* 30-35
- radar warning receiver, flat panel display upgrade, technol. insertion prog. *Coker, B.L., Jr.*, +, *AES-M Oct 98* 33-37
- state of the art. *Kmetz, Allan R.*, *AES-M Aug 87* 19-24
- Flexible manufacturing systems**
- military products from commercial lines. *Kinsella, M.E.*, +, *AES-M Sep 95* 7-10
- Flowcharting**
- GPS satellite antenna, radiant angle computing. *Xiangpeng Li*, +, *AES-M Jul 96* 35-38
- Flow measurement**
- fast optical LDA burst analyzer. *Butefisch, Karl-Aloys*, *AES-M Feb 90* 3-9
- measurements, visualization and interpretation of 3-D flows; application within base flows. *Berner, Claude*, +, *AES-M Feb 90* 10-18
- wind detect. in microcosm, ship/aircraft environ. sens. *Platt, J.R.*, *AES-M Feb 98* 26-33
- Fluxgate magnetometers**
- parallel scanning AFM chip, CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34
- Flywheels**
- aerospace appl., flywheel technol. develop. program. *Christopher, D.A.*, +, *AES-M Jun 98* 9-14
- spacecraft energy storage, flywheel systs. *Ginter, S.*, +, *AES-M May 98* 27-32
- space power alternatives for laser radar sensor system; comparison of fire batteries and flywheel systems. *Boretz, John F.*, *AES-M Mar 90* 3-8
- technol., past, present & future projections. *Bitterly, J.G.*, *AES-M Aug 98* 13-16
- FM radar**
- lin. FM radar, improved range estim., interpolation algm. *Wang Wei*, +, *AES-M Jul 99* 45-47
- random sig. radar develop., present & future trends. *Liu Guosui*, +, *AES-M Oct 97* 35-40
- Focal planes**
- IR imaging sens., overview of develop. *Crawford, F.J.*, *AES-M Oct 98* 17-24
- pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M.*, +, *AES-M May 95* 37-42
- Focusing**
- wireless power transm., wave beam peculiarities. *Garmash, V.R.*, +, *AES-M Oct 98* 39-41
- Fog**
- pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M.*, +, *AES-M May 95* 37-42
- wingtip generated wake vortices, radar target. *Marshall, R.E.*, +, *AES-M Dec 96* 27-30
- Food processing industry**
- US FDA software safety & reliab. stand., eval., comparison & selection methodology. *Herrmann, D.S.*, *AES-M Jan 96* 3-12

Forecasting; cf. Technological forecasting**Formal specification**

- asynchronous message router spec., formal design tools. *Moller, F.*, *AES-M Mar 97* 38-44
- DSN antenna subsyst., microwave generic controller, blackboard archit. *Ramanna, S.*, *AES-M Jul 95* 12-15
- traffic light control, safety kernel. *Ammann, P.*, *AES-M Feb 96* 13-19

Formal verification

- asynchronous message router spec., formal design tools. *Moller, F.*, *AES-M Mar 97* 38-44
- syst. hardware/software, formal verif. & legacy redesign. *Young, F.C.D.*, +, *AES-M Mar 99* 31-36
- traffic light control, safety kernel. *Ammann, P.*, *AES-M Feb 96* 13-19

Fourier series

- book review; Control and Measurement of Unintentional Electromagnetic Radiation (Bennett, W.S.; 1997). *Eskelinen, P.*, *AES-M Jun 99* 46-47

Fourier transforms; cf. Discrete Fourier transforms; Fast Fourier transforms**Fractals**

- compression standards and alternative methods for video telecommunication. *Kaplan, Sidney*, *AES-M Oct 92* 27-30
- fractal interpolation of radar signatures for detecting stationary targets in ground clutter. *Butterfield, J. I.*, *AES-M Jul 91* 10-14

Free electron lasers

- power beaming, space. *Burke, R.J.*, +, *AES-M Dec 94* 18-24

Frequency allocation

- ATC, digital air/ground commun. develop. *Howland, J.W.*, *AES-M Apr 94* 20-24
- microwave power systs. engng., beam safety, freq. allocation, affordability. *Dickinson, R.M.*, *AES-M May 97* 10-14
- spectrum mgt. in radar & telecomm., tech. aspects. *Isnard, J.*, *AES-M Apr 98* 3-8

Frequency dividers

- at. clocks, num. controlled, long term timing stabil. *Eskelinen, P.*, +, *AES-M Oct 97* 8-11

Frequency synthesizers; cf. Direct digital synthesis**Fried, Walter R.**

- obituary. *AES-M Dec 98* 34

Fuel

- exhaustion of fossil fuels and production of greenhouse effect; impact on photovoltaics use. *Carlson, D. E.*, *AES-M Dec 89* 3-7
- total life-cycle cost analysis of conventional and alternative fueled vehicles. *Cardullo, Mario W.*, *AES-M Nov 93* 39-43
- TWA800 fuel tank flammability study. *Wyczalek, F.A.*, *AES-M Jan 98* 16-19

Fuel cell power plants

- fuel cell technol. status, commercialization. *Hirschenhofer, J.H.*, *AES-M Mar 97* 23-28

Fuel cells

- 1994 status and develop. trends. *Hirschenhofer, J.H.*, *AES-M Nov 94* 10-15
- army batts./fuel cells, portable power source needs. *Jacobs, R.*, +, *AES-M Jun 96* 19-25
- fuel cells for tactical battlefield power. *Appleby, A. John*, *AES-M Dec 91* 49-55
- how fuel cell produces power; tutorial overview. *Hirschenhofer, John H.*, *AES-M Nov 92* 24-25
- Intersociety Energy Conversion Engineering Conference 1999, fuel cell sessions. *Oman, H.*, *AES-M Dec 99* 15-22
- proton-exchange membrane fuel cell as power source for individual soldier's equipment. *Taschek, Walter G.*, +, *AES-M May 93* 25-28
- recent progress in fuel cell technology. *Hirschenhofer, John H.*, *AES-M Nov 92* 18-23
- scaling of advanced power systems for military uses. *Wiley, Robert L.*, *AES-M Dec 91* 40-44
- status of fuel cell technology. *Hirschenhofer, John H.*, *AES-M Nov 93* 21-27
- technol. status, commercialization. *Hirschenhofer, J.H.*, *AES-M Mar 97* 23-28
- US Army Research Laboratory R&D programs for portable communication/electronic battlefield equipment power sources. *Christopher, Harold A.*, +, *AES-M May 93* 7-10

Fuel cells; cf. Proton exchange membrane fuel cells**Function approximation**

- exponential approxs. for small arguments, first-order. *Narayanan, R.M.*, *AES-M Feb 94* 33-35

Function generators; cf. Waveform generators**Fundamental law tests**

- EM fund. laws testing, implications for universe exploration. *Morgan, H.*, *AES-M Jan 98* 5-10
- Lorentz length contraction, direct test. *Renshaw, C.*, *AES-M Sep 98* 3-7

Fusion reactors

- energy transfer from outer space to Earth, ecological limitation. *Latshev, L.*, +, *AES-M Sep 97* 3-6

- space research future develop., expanded vision. *Braselton, W.M., Jr.*, *AES-M Mar 95* 3-8

Fuzzy control

- NiCd batt. pack, intell. charging, neural-fuzzy approach. *Ullah, Z.*, +, *AES-M Jun 96* 26-34
- space appls. of computational intell./soft computing. *Berenji, H.R.*, *AES-M Aug 96* 8-10

Fuzzy logic

- radar target recogn. by fuzzy logic. *Moruzzis, M.*, +, *AES-M Jul 98* 13-20
- space appls. of computational intell./soft computing. *Berenji, H.R.*, *AES-M Aug 96* 8-10

Fuzzy systems

- intell. alarm anal., sens. fusion. *Nelson, C.L.*, +, *AES-M Sep 97* 18-24
- real-time navig., Global Positioning Syst. *Simon, D.*, +, *AES-M Jan 95* 31-37

G**Gallium arsenide**

- GaInP/GaAs tandem solar cells, high-efficiency. *Bertness, K.A.*, +, *AES-M Dec 94* 12-17
- holistic design approach to GaAs technology. *Gilbert, Barry K.*, *AES-M Aug 87* 30-33

Game theory

- comments on 'Reference models of nations' by H. Chestnut (Aug 86 6-13). *Happy, Herb*, *AES-M Oct 86* 34
- reference models of nations for cybernetic understanding. *Chestnut, Harold*, *AES-M Aug 86* 6-13

Gas sensors

- microfluxgate sens., CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34

Gas turbines

- efficient power generation in elec. utilities. *Oman, H.*, *AES-M Aug 96* 37, 39, 41, 43

Gaussian noise

- optimal radar threshold determ. in Weibull clutter and Gaussian noise. *Morgan, C.J.*, +, *AES-M Mar 96* 41-43

Generators; cf. Electric generators**Geographic information systems**

- digital map set for Night Attack aircraft. *Dawson, John F.*, *AES-M Sep 86* 13-19
- radar siting and perform. prediction, software tool. *O'Hern, B.*, +, *AES-M Dec 97* 19-26
- visibility enhancing synthetic vision aids. *Moller, H.*, +, *AES-M Mar 94* 27-33

Geomagnetism

- magnetic braking of the Earth's rotation. *Oman, Henry*, *AES-M Apr 89* 3-10

Geometrical optics; cf. Ray tracing**Geometrical theory of diffraction**

- radar antenna syst., installed perform. anal., computer code. *Kim, J.J.*, +, *AES-M Jun 99* 38-42

Geometry; cf. Computational geometry**Geophysical prospecting**

- pilottless aircraft navig. via GPS. *Yongsheng Wang.* +, *AES-M Aug 96* 16-20

Geophysical signal processing

- ELDORA/ASTRAIA airborne Doppler weather radar, field test results. *Hildebrand, P.H.*, +, *AES-M Oct 96* 34-37
- radar siting and perform. prediction, software tool. *O'Hern, B.*, +, *AES-M Dec 97* 19-26

Geophysical techniques

- pilottless aircraft navig. via GPS. *Yongsheng Wang.* +, *AES-M Aug 96* 16-20

Geophysical techniques; cf. Terrain mapping**Geophysics; cf.** Meteorology**Glass**

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Global Positioning System

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- ATC in far East Russia, data link-based. *Shuvaev, A.P.*, +, *AES-M Dec 96* 9-12
- attitude determination with GPS; experimental results. *Martin-Neira, M.*, +, *AES-M Sep 90* 24-29
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- balloon gravimetry using GPS and INS. *Jekeli, Christopher, AES-M Jun 92 9-15*
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- ATC in far East Russia, data link-based. *Shuvaev, A.P.*, +, *AES-M Dec 96* 9-12
- ATM and FIS data link services. *Bauhof, C.R.*, *AES-M Mar 94* 38-42
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Gyroscopes; cf. Fiber optic gyroscopes

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- iris recogn. technol., video-based syst., IrisCode database. *Williams, G.O.*, *AES-M Apr 97* 23-29

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Heating; cf. Plasma radiofrequency heating

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Heat transfer

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Honeywell/DND Helicopter Integrated Navigation System (HINS) for antisubmarine warfare. *West-Vukovich, George*, +, *AES-M Mar 89* 18-28

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integrated flight/fire control for military attack helicopters. *Osder, Stephen*, *AES-M Jan 92* 17-23

JointSTARS develop., enemy ground forces obs. *Fowler, C.A.*, *AES-M Jun 97* 3-17

mechanical systems diagnostic design approach's impact as exemplified by development of V-22 tiltrotor military aircraft. *Balke, Rod W.*, *AES-M Jan 91* 21-27

WIDE-EYE helmet mounted display for rotorcraft. *Zintmaster, L.R.*, *AES-M Mar 94* 6-11

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Helium

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cockpit display syst., next generation, develop. *Read, B.C., III*, *AES-M Oct 96* 25-28

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practical hierarchical control system for telerobotic land vehicles. *Byrne, Raymond H.*, *AES-M Oct 92* 22-26

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High level synthesis; cf. Hardware-software codesign

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19th-century 133-Hz 3-kV generator system used for transmitting power 2.6 miles to Colorado mine. *Wright, Charles R.*, *AES-M Jan 88* 8-10

beginnings of MIT Instrumentation Laboratories. *Denhard, William G.*, *AES-M Oct 92* 6-13

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development of proximity fuze. *Brown, Louis*, *AES-M Jul 93* 3-10

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electric control of large aeroplanes; 1916 article compared with current ideas in aircraft flight control. *Thompson, Ken*, *AES-M Dec 88* 19-24

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concepts for launch vehicle control studied for Advanced Launch System program. *Sifer, J. F., +, AES-M Feb 91 23-29*
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ATE user interface design, Integrated Maintenance Information System appl. *Landseidel, P., AES-M Aug 95 15-20*
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how human factors fits in R&D organizations. *Hawkins, Walter H., AES-M Sep 90 31-33*
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hybrid amp., RF building block. *Eskelinen, P., +, AES-M Aug 96 34-36*
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reconditioning of Ni/H₂ batts., need and effect. *Suresh, M.S., +, AES-M Apr 95 26-29*
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automobile energy source, H storage, water electrolyser. *Oman, H., AES-M Aug 99 44-45*
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Aircraft Stores Interface Manual, paperless inform. technol., WWW. *Rochin, J.A.G., +, AES-M Jun 98 39-43*
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- I**
- Ice**
aircraft ice accretion meas., Phase I SBIR study, MM wave radar. *Lightfoot, F.M., +, AES-M Aug 97 3-9*
- Ice; cf. Sea ice**
- Identification**
aircraft pos. ident. at airports, FAA trials. *Castaldo, R., +, AES-M Jun 96 35-40*
- soldier ident. syst. utilizing LPI techs. *Zari, M.C., +, AES-M Jul 97 21-26*
- tracks assoc. from over horizon radar. *Bogner, R.E., +, AES-M Sep 98 31-35*
- Identification; cf. Fingerprint identification; Radar target recognition**
- IEEE**
radar conferences, history. *Hill, R.T., AES-M Jun 94 28-30*
- IEEE Aerospace and Electronic Systems Society; cf. Awards**
- IEEE standards**
Firewire, IEEE 1394 std. computer indust. interconnect for T&M. *Atchison, L., AES-M Aug 99 21-24*
- history of IEEE/AESS Gyro and Accelerometer Panel. *Campbell, A. T., AES-M Apr 93 53*
- III-V semiconductors**
GaInP/GaAs tandem solar cells, high-efficiency. *Bertness, K.A., +, AES-M Dec 94 12-17*

- Xs-MET fab. using complementary heterostruct. FET, space appls. *Cerny, C.L.*, +, *AES-M Mar 98 7-14*
- Image classification**
field-portable imaging syst. for scene class. *Preston, E.*, +, *AES-M Sep 94 13-19*
model-based vision for automatic interpretation of alarms from perimeter intrusion detection system. *Ellis, T.J.*, +, *AES-M Mar 91 14-20*
neural network research applied to image classification; recent developments at US Air Force Institute of Technology (AFIT). *Rogers, Steven K.*, +, *AES-M Sep 90 17-19*
- Image color analysis**
iris recogn. technol., video-based syst., IrisCode database. *Williams, G.O.*, *AES-M Apr 97 23-29*
- Image converters; cf. Image intensifiers**
- Image enhancement**
buried metallic mines detect., ultra-wideband ground-penetrating radar. *Earp, S.L.*, +, *AES-M Sep 96 30-39*
magnetic resonance image enhancement using V-filter; clinical applications. *Yamamoto, Hideki*, +, *AES-M Jun 90 31-35*
- Image intensifiers**
night vision devices for ground environ., driver vision enhancer. *Best, P.S.*, +, *AES-M Apr 99 5-8*
- Image motion analysis**
smart system for detecting and tracking targets in video imagery. *Horton, Rebecca D.*, *AES-M Mar 91 8-13*
surveillance appl. using multiple views of scene. *Meyer, M.*, +, *AES-M Mar 99 13-18*
- Image processing**
flying obj. vel. meas., CCD sens. *Ricny, V.*, +, *AES-M Jun 94 3-6*
hyperspectral airborne sens. systs. *Birk, R.J.*, +, *AES-M Oct 94 26-33*
Joint Service Imagery Processing System (JSIPS) for tactical reconnaissance and surveillance by US Military. *Davis, Robert L.*, *AES-M Dec 92 12-36*
non-intrusive diagnostics, thermal/X-ray images. *Poitier, A.*, +, *AES-M Mar 94 34-37*
pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M.*, +, *AES-M May 95 37-42*
planetary terrains tracking, CCD sens. *Liebe, C.C.*, *AES-M Feb 94 9-18*
- Image processing; cf. Computer vision; Image motion analysis; Image segmentation; Image sequences; Motion compensation; Radar imaging; Stereo image processing; Video signal processing**
- Image processing equipment**
field-portable imaging syst. for scene class. *Preston, E.*, +, *AES-M Sep 94 13-19*
hyperspectral airborne sens. systs. *Birk, R.J.*, +, *AES-M Oct 94 26-33*
pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M.*, +, *AES-M May 95 37-42*
Swedish JAS39 Gripen aircraft, electronic display. *Brandtberg, H.*, *AES-M Sep 94 6-12*
- Image recognition**
SAR systs. in knowledge-based environ. enhanced resoln. *Bolton, A.G.*, +, *AES-M Aug 94 33-37*
- Image segmentation**
inspection of hole solder joints, X-rays. *Pierce, B.L.*, +, *AES-M Feb 94 28-32*
IR imaging, bridge searching method. *Haixin Chen*, +, *AES-M Jul 98 21-24*
temperature-driven segmentation for autonomous antitank weapons. *Whitten, Gary*, +, *AES-M Oct 86 8-18*
video surveillance appl. using multiple views of scene. *Meyer, M.*, +, *AES-M Mar 99 13-18*
- Image sensors**
determining effects of adverse weather on performance of imaging sensors for aircraft landing systems. *Greenwood, Stuart W.*, *AES-M Apr 91 3-6*
implementation of automated minimum resolvable temperature testing. *Orlando, Harold*, +, *AES-M Feb 92 28-31*
IR imaging sens., overview of develop. *Crawford, F.J.*, *AES-M Oct 98 17-24*
multiple-function sensors for enhanced vision application in commercial aviation. *Patterson, Walter W.*, *AES-M Mar 93 27-30*
night vision devices for ground environ., driver vision enhancer. *Best, P.S.*, +, *AES-M Apr 99 5-8*
two-color temporally correl. IR background meas., missile warning sens. *Montgomery, J.B.*, +, *AES-M Apr 98 29-35*
- Image sensors; cf. CCD image sensors; Infrared image sensors**
- Image sequences**
security appl. of computer vision, technol. develop. *Sage, K.*, +, *AES-M Apr 99 19-29*
video surveillance appl. using multiple views of scene. *Meyer, M.*, +, *AES-M Mar 99 13-18*
- Image texture**
cockpit display syst., next generation, develop. *Read, B.C., III*, *AES-M Oct 96 25-28*
- Imaging**
military electronic and thermal imaging systems; analysis tools for evaluation of maintenance software. *Barber, J. M. C.*, *AES-M Oct 89 21-24*
water vapor imagery from weather satellites for weather analysis. *Rao, P. K.*, +, *AES-M Oct 87 4-9*
- Imaging; cf. Infrared imaging; Microwave imaging; Millimeter wave imaging; Optical images; Radar imaging; X-ray imaging**
- Impedance matching**
ground plane Yagi antenna tests, 3 GHz. *Eskelinen, P.*, +, *AES-M Feb 96 37-40*
- Impedance measurement**
complex impedance studies of lithium iodine batteries. *Schmidt, C.L.*, +, *AES-M Aug 90 7-12*
- Impulse testing**
Ni-Cd batt., cycled, pulse discharge behavior, satellite power systs. *Rao, G.*, +, *AES-M Aug 97 41-43*
- Incremental compilers**
aging avionics computers, F³¹ replacement strategy. *Luke, J.*, +, *AES-M Mar 99 7-11*
- Indium compounds**
GaInP/GaAs tandem solar cells, high-efficiency. *Bertness, K.A.*, +, *AES-M Dec 94 12-17*
- Induction motor drives**
PBW, PBW program for aircraft, motor drive technol., options and trends. *Elbuluk, M.E.*, +, *AES-M Nov 95 37-42*
starter/generator technol. for future aerop. appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96 17-24*
- Industrial power systems**
crit. loads mgt., AC Battery PQ2000 syst. *Corey, G.P.*, *AES-M Jun 96 41-44*
- Industrial robots**
framework for structuring strategies for incorporating automation and robotics in manufacturing. *Peters, Lloyd S.*, +, *AES-M Feb 87 12-16*
- Industries; cf. Aerospace industry; Electricity supply industry; Electronics industry; Food processing industry; Manufacturing industries; Mining industry; Pharmaceutical industry**
- Inertial navigation**
aircraft GPS/INS, reduced-order model. *Xiufeng He*, +, *AES-M Mar 98 40-45*
balloon gravimetry using GPS and INS. *Jekeli, Christopher*, *AES-M Jun 92 9-15*
differential GPS/inertial navigation approach/landing flight test results. *Snyder, Scott*, +, *AES-M May 92 3-11*
fault-tolerant air data inertial reference system. *McClary, Charles R.*, *AES-M May 92 19-23*
fault-tolerant air data/inertial reference unit for ARINC 651 integrated modular avionics. *Sheffels, Michael L.*, *AES-M Mar 93 48-52*
GPS-aided inertial navigation system. *Nielson, John T.*, +, *AES-M Mar 86 20-26*
GPS/GLONASS/INS test program. *Vieweg, S.*, +, *AES-M Jul 94 23-28*
GPS/IMU integrated syst., low-cost, develop., strapdown AHRS. *Xiufeng He*, +, *AES-M Dec 98 7-10*
GPS/IMU syst. integrat. based navig./landing syst. *Meyer-Hilberg, J.*, +, *AES-M Jul 94 11-17*
GPS/INS integration on SLAM (standoff land attack missile). *Hyslop, Greg*, +, *AES-M Jul 90 29-34*
impact of architectures and GPS/INS integration on mission accomplishment. *Lewantowicz, Zdzislaw H.*, *AES-M Jun 92 16-20*
INS/GPS operational concept demons. (OCD). *Snyder, S.*, +, *AES-M Aug 94 38-44*
LCPOS, low cost inertial/GPS integrated posn. and orient. syst., marine appls. *Scheninger, B.M.*, +, *AES-M May 97 15-19*
mil. avionics with INS/GPS. *Martin, M.K.*, +, *AES-M Nov 98 41-46*
Minitact gyroscope, low cost alternative. *Califano, H.T.*, *AES-M Aug 94 12-16*
Outrider tactical unmanned aerial vehicle, DQI-NP appl. *Martin, M.K.*, +, *AES-M Dec 98 21-24*
Pb acid maint.-free batt., aircraft inertial navig. *Johnson, W.R.*, +, *AES-M May 95 3-6*
reliability analysis of fault-tolerant inertial measurement unit architectures with redundant inertial sensors. *Jeerage, Mahesh K.*, *AES-M Jul 90 23-28, 22*
ring-laser-gyro-based navigator for space launch-vehicle guidance. *Wright, R. Joseph, Jr.*, +, *AES-M Mar 89 29-38*
Si μ SCRAS MEMS inertial rate and accel. sens., tactical grade navig. and guidance. *Hulsing, R.*, *AES-M Nov 98 17-23*
strapdown inertial measurement units for motion compensation of SARs. *Kennedy, Thomas A.*, *AES-M Oct 88 32-35*
strapdown mechanization and Kalman filter for providing ground align and INS airstart capabilities. *Pham, Tuan Manh*, *AES-M Jan 92 3-11*

- synthesis and test issues for future aircraft inertial systems integration. *Biezd, Daniel J., AES-M Sep 88 19-23*
- tactical solid state accelerometer develop. for missile guidance. *Killen, A., +, AES-M Sep 94 20-25*
- tightly-coupled GPS/INS syst. develop. *Knight, D.T., AES-M Feb 97 14-18*
- transfer-orbit-stage gyrocompass alignment algorithm robust to twist and sway environment for Mars Observer mission. *Reddy, Narotham S., +, AES-M Feb 91 3-7*
- Inference mechanisms**
intell. alarm anal., sens. fusion. *Nelson, C.L., +, AES-M Sep 97 18-24*
- Information networks**
NASA technol. accessing, World Wide Web. *Nelson, M.L., +, AES-M May 95 7-13*
- Information networks; cf. Internet**
- Information services**
Government Industry Data Exchange Program (GIDEP) data bank on electronics reliability and testing. *Richards, Edwin T., AES-M July 86 13-18*
- Information services; cf. Document delivery**
- Information systems**
777 airplane inform. mgt. syst. (AIMS), systs. integrat. *Witwer, B., AES-M Apr 96 17-21*
annunciator archit. for yr. 2000. *Adams, D.G., +, AES-M Jun 97 25-28*
ATE paperless multimedia information and data collection system. *Willis, Fred L., +, AES-M Feb 92 14-20*
requirements anal. and design, bal. approach. *Miller, R.L., AES-M Sep 95 27-32*
telecommunication media's effects on information sharing and team performance; theoretical and empirical observations. *Wellens, A. Rodney, AES-M Sep 89 13-19*
- Information systems; cf. Driver information systems; Engineering information systems; Geographic information systems; Management information systems; Military information systems; Public information systems; Traffic information systems**
- Infrared detectors**
field-portable imaging syst. for scene class. *Preston, E., +, AES-M Sep 94 13-19*
imaging sens., overview of develop. *Crawford, F.J., AES-M Oct 98 17-24*
two-color temporally correl. IR background meas., missile warning sens. *Montgomery, J.B., +, AES-M Apr 98 29-35*
- Infrared imaging**
bridge searching method. *Haixin Chen, +, AES-M Jul 98 21-24*
determining effects of adverse weather on performance of imaging sensors for aircraft landing systems. *Greenwood, Stuart W., AES-M Apr 91 3-6*
field-portable imaging syst. for scene class. *Preston, E., +, AES-M Sep 94 13-19*
forward opportune landing sites location, satellite spectral images. *Botschner, R., AES-M Apr 98 43-47*
implementation of automated minimum resolvable temperature testing. *Orlando, Harold, +, AES-M Feb 92 28-31*
Joint Service Imagery Processing System (JSIPS) for tactical reconnaissance and surveillance by US Military. *Davis, Robert L., AES-M Dec 92 12-36*
military electronic and thermal imaging systems; analysis tools for evaluation of maintenance software. *Barber, J. M. C., AES-M Oct 89 21-24*
millimeter-wave radar/forward-looking IR/automatic target-recognizer sensor fusion; proof of concept summary. *Woollett, Jerry F., AES-M Jun 88 22-25*
night vision devices for ground environ., driver vision enhancer. *Best, P.S., +, AES-M Apr 99 5-8*
non-intrusive diagnostics, thermal/X-ray images. *Poitier, A., +, AES-M Mar 94 34-37*
perimeter intruder detect., uncontrolled water access, automatic detect. *Ceng, M.S., +, AES-M Aug 97 30-32*
sens., overview of develop. *Crawford, F.J., AES-M Oct 98 17-24*
space remote sensors as component of high-level robotic systems; sensors for EDS program. *Keller, Sam, AES-M Apr 87 14-18*
temperature-driven segmentation for autonomous antitank weapons. *Whitten, Gary, +, AES-M Oct 86 8-18*
two-color temporally correl. IR background meas., missile warning sens. *Montgomery, J.B., +, AES-M Apr 98 29-35*
- Input-output programs; cf. Device drivers**
- Inspection**
inspection of hole solder joints, X-rays. *Pierce, B.L., +, AES-M Feb 94 28-32*
TbDyFe, TERFENOL-D, giant magnetostrictive materials, actuators, magnetotagging. *Jones, B., +, AES-M Mar 96 3-6*
- Installation**
tower mounted antennas for cellular commun., RF scale testing. *Eskelinen, P., AES-M Aug 98 33-35*
- Instrumentation**
beginnings of MIT Instrumentation Laboratories. *Denhard, William G., AES-M Oct 92 6-13*
- Instrumentation; cf. Aerospace instrumentation; Computerized instrumentation; Portable instruments; Virtual instrumentation**
- Instrumentation amplifiers**
3D mag. microsystem, magnetodosimeter, on-chip serial interface. *Malcovati, P., +, AES-M Sep 99 43-46*
- Instrument landing systems**
applications of slotted-cable antennas. *Watts, C. B., Jr., AES-M May 90 16-20*
case for continued implementation despite MLS implementation. *Woodward, Joseph, AES-M May 90 21-22*
equipment evolution and role of US Civil Aeronautics and Federal Aviation Administration; history. *Roepcke, Frank, AES-M May 90 9-11*
guidance signals used in airport runway approaches. *McFarland, Richard H., AES-M May 90 12-15*
- Insulated gate bipolar transistors**
driver board power supply for high power IGBT. *Liuchen Chang, AES-M Aug 96 24-28*
PBW program, motor drive technol., power converters & devices. *Elbuluk, M.E., +, AES-M Dec 95 31-36*
- Insulation testing**
space power wiring systs., safety, maint. and protection. *Stavnes, M.W., +, AES-M Jan 94 21-27*
- Integrated circuit interconnections**
holistic design approach to GaAs technology. *Gilbert, Barry K., AES-M Aug 87 30-33*
- Integrated circuit manufacture**
QML, qualified manufacturer list, mil. IC prod. and stds. *Pecht, M.G., +, AES-M Jul 97 39-42*
semiconductor industry's manufacturing environment; goals of Semiconductor Research Corporation's program. *Phillips, D. Howard, AES-M Feb 87 9-11*
- Integrated circuit packaging**
3D mag. microsystem, magnetodosimeter, on-chip serial interface. *Malcovati, P., +, AES-M Sep 99 43-46*
holistic design approach to GaAs technology. *Gilbert, Barry K., AES-M Aug 87 30-33*
hybrid amp., RF building block. *Eskelinen, P., +, AES-M Aug 96 34-36*
modular packaging technology for ICNIA (Integrated Communication Navigation Identification Avionics) digital processor subsystem. *Poradish, Frank, AES-M Jun 87 20-23*
multichip modules for military and adverse environment applications. *Port, R.M., AES-M Sep 93 17-19*
Reliability Technology to Achieve Insertion of Advanced Packaging (RELTECH) program for achieving multichip module applications. *Fayette, Daniel F., +, AES-M Aug 93 32-38*
- Integrated circuit reliability**
Reliability Technology to Achieve Insertion of Advanced Packaging (RELTECH) program for achieving multichip module applications. *Fayette, Daniel F., +, AES-M Aug 93 32-38*
- Integrated circuits; cf. Application specific integrated circuits; CMOS integrated circuits; Digital integrated circuits; Hybrid integrated circuits; Integrated optoelectronics; Microprocessor chips; Microwave integrated circuits; Power integrated circuits; VLSI**
- Integrated circuit technology**
inertial appls. of integrated MEMS sens. *Allen, J.J., +, AES-M Nov 98 36-40*
Xs-MET fab. using complementary heterostruct. FET, space appls. *Cerny, C.L., +, AES-M Mar 98 7-14*
- Integrated circuit testing**
trends in electronic circuit testing and their implications for entry-level test professionals. *Grubbs, Albert B., Jr., AES-M July 86 2-5*
- Integrated optoelectronics**
mil. avionics opt. fiber data buses, act.-coupler config. *Jian-Guo Zhang, +, AES-M Jul 99 27-33*
- Integrated software**
tower ATC, syst. integrat., user interface design. *Miller, D.L., +, AES-M Apr 96 22-26*
- Integrated voice/data communication**
ATC, digital air/ground commun. develop. *Howland, J.W., AES-M Apr 94 20-24*
ATM and FIS data link services. *Bauhof, C.R., AES-M Mar 94 38-42*
software radio technologies, architectures, model, and future directions. *Mitola, J., III, AES-M Apr 93 25-36*
UV commun. syst., solar blind, electrodeless, aircraft data/voice links. *Shute, R.D., AES-M Nov 95 2-7*
- Integrated voice/data communication; cf. ISDN**
- Intelligent actuators**
ultra-reliable real-time control syst., future trends. *Hammett, R.C., AES-M Aug 99 31-36*

Intelligent control

- automotive radar for automatic AICC. *Eriksson, L.H.*, +, *AES-M Dec 95* 13-18
- batt. charging, neural-fuzzy approach. *Ullah, Z.*, +, *AES-M Jun 96* 26-34
- DSN antenna subsyst., microwave generic controller, blackboard archit. *Ramanna, S.*, *AES-M Jul 95* 12-15
- integrated automatic vehicle location syst. *McKay, K.M.*, *AES-M Mar 97* 18-22
- intell. batt., microcontroller-based. *Bowen, L.*, +, *AES-M May 94* 16-19
- intell. vehicle highway systs., wireless commun. appl. *Kamali, B.*, *AES-M Nov 96* 8-12
- real-time expert system for space-vehicle power control in Boeing Aerospace Autonomous Power System testbed. *Spier, Robert J.*, +, *AES-M Nov 89* 33-38
- space appls. of computational intell./soft computing. *Berenji, H.R.*, *AES-M Aug 96* 8-10

Intelligent design assistants

- Logic Designer's Apprentice (LDA), knowledge-based computer aid for digital electronic circuit design. *Moskowitz, Leonard*, *AES-M July 86* 22-26

Intelligent networks

- Network Vehicle, technol. initiative in mobile multimedia. *Lind, R.*, +, *AES-M Sep 99* 27-32

Intelligent sensors

- alarm anal., sens. fusion. *Nelson, C.L.*, +, *AES-M Sep 97* 18-24
- annunciator archit. for yr. 2000. *Adams, D.G.*, +, *AES-M Jun 97* 25-28
- Rosemount smart probe, Deutsche Airbus flight test. *Hagen, F.W.*, +, *AES-M Apr 94* 7-14
- ultra-reliable real-time control syst., future trends. *Hammitt, R.C.*, *AES-M Aug 99* 31-36

Interactive systems

- interactive system for global ship monitoring combining ordnance alterations and casualty report data for PHALANX weapons systems. *Sun, Gwong*, +, *AES-M Apr 90* 15-18
- US army Interactive Electronic Technical Manuals. *Brown, J.*, *AES-M Jul 95* 24-30

Interference; cf. Electromagnetic interference**Interference suppression**

- clutter suppression approach for multifunction radar; radar resource management for clutter suppression. *Yamada, Yoshifumi*, *AES-M Jun 90* 14-16
- Doppler ratio detect. radar, interclutter visibility. *Long, M.W.*, *AES-M Dec 96* 17-21
- GPS receiver, jammer cancellation and jammer multipath. *Fante, R.L.*, +, *AES-M Nov 98* 25-28
- sidelobe self-interf. reduction in agile beam radar. *Urkowitz, H.*, *AES-M Nov 97* 37-46

Intermodulation distortion

- IRIDIUM satellite antenna array concept. *Schuss, J.J.*, +, *AES-M Dec 97* 3-12

International trade

- future of military standards in changing international economic environment. *Pecht, Michael*, +, *AES-M Jul 92* 16-19
- international perspective on digital avionics. *Spitzer, Cary R.*, *AES-M Jan 92* 44-45
- post-cold-war global competition, prescriptions for tech./economic responsiveness. *Kostek, P.J.*, *AES-M Jul 95* 41

Internet

- Aircraft Stores Interface Manual, paperless inform. technol., WWW. *Rochin, J.A.G.*, +, *AES-M Jun 98* 39-43
- NASA technol. accessing, World Wide Web. *Nelson, M.L.*, +, *AES-M May 95* 7-13
- Network Vehicle, technol. initiative in mobile multimedia. *Lind, R.*, +, *AES-M Sep 99* 27-32
- Project Space Vision in retrospective. *Edin, P.*, +, *AES-M Dec 96* 13-16
- World Wide Web methodol. in ATE prog. environ. *Hansen, P.*, *AES-M Jun 98* 35-38

Interpolation

- applying dynamic interpolation to curved path aircraft approach problem. *Jackson, Joseph W.*, +, *AES-M Feb 91* 8-13
- fractal interpolation of radar signatures for detecting stationary targets in ground clutter. *Butterfield, J. I.*, *AES-M Jul 91* 10-14
- lin. FM radar, improved range estim., interpolation algm. *Wang Wei*, +, *AES-M Jul 99* 45-47

Intersociety Energy Conversion Engineering Conference 1999

- fuel cell sessions. *Oman, H.*, *AES-M Dec 99* 15-22
- plenary session and luncheon presentations. *Oman, H.*, *AES-M Nov 99* 30-32
- report. *Oman, H.*, *AES-M Nov 99* 17-26

Intranets

- Cassini Information Access System, intranet technol. implement. *Abrahams, M.D.*, +, *AES-M Jan 98* 20-24

Invariance

- radiation continuum model of light, Galilean invariance of Maxwell eqns. *Renshaw, C.E.*, +, *AES-M Oct 98* 3-8

Inverse problems

- motion compensation for ISAR; effect of noise. *Xu, Rongqing*, +, *AES-M Jun 90* 20-22
- supportable aircraft separation stds., stat. hypothesis testing. *Haest, M.*, +, *AES-M Jun 95* 24-29

Inverters

- driver board power supply for high power IGBT. *Liuchen Chang*, *AES-M Aug 96* 24-28
- more-elec. aircraft, power mgt. & distrib. syst., MADMEL program. *Maldonado, M.A.*, +, *AES-M Dec 99* 3-8

Inverters; cf. PWM inverters**Ionospheric electromagnetic wave propagation**

- GPS appl. to space vehicles, space environ./errors anal. *Jianping Yuan*, +, *AES-M Jan 98* 25-30
- predicting ionospheric scintillation for satellite communications. *Hocutt, Anne M.*, *AES-M Apr 89* 11-13
- tracks assoc. from over horizon radar. *Bogner, R.E.*, +, *AES-M Sep 98* 31-35

Iron alloys

- TbDyFe, TERFENOL-D, giant magnetostrictive materials, actuators, magnetotagging. *Jones, B.*, +, *AES-M Mar 96* 3-6

ISDN

- CCITT ISDN standards; overview of standards approved in 1984 and those up for 1988 approval. *Quale, Jean E.*, *AES-M Jul 87* 15-17

ISDN; cf. B-ISDN**Iterative methods**

- radars with imaging capability, thinned stepped freq. waveforms. *Freedman, A.*, +, *AES-M Nov 96* 39-43

J**Jamming**

- Federal Radionavigation Plan, civ. aviation problems, IGSAGS syst. *Crow, R.P.*, *AES-M Oct 98* 9-16
- Finnish telecomms. indust., mil. radio systs./warfare, hist. *Eskelinen, P.*, *AES-M Aug 96* 3-7
- GPS receiver, jammer cancellation and jammer multipath. *Fante, R.L.*, +, *AES-M Nov 98* 25-28
- random sig. radar develop., present & future trends. *Liu Guosui*, +, *AES-M Oct 97* 35-40

Java

- DoD projects, prog. lang. selection. *Naiditch, D.*, *AES-M Sep 99* 11-14

Jitter

- at. clocks, num. controlled, long term timing stabil. *Eskelinen, P.*, +, *AES-M Oct 97* 8-11

K**Kalman filters**

- aircraft GPS/INS, reduced-order model. *Xiufeng He*, +, *AES-M Mar 98* 40-45
- book review; Kalman Filtering: With Real-Time Applications (Chui, C. K. and Chen, G.; 1987). *Siouris, G. M.*, *AES-M May 90* 55
- GPS/IMU integrated syst., low-cost, develop., strapdown AHRS. *Xiufeng He*, +, *AES-M Dec 98* 7-10
- GPS/IMU syst. integrat. based navig./landing syst. *Meyer-Hilberg, J.*, +, *AES-M Jul 94* 11-17
- GPS internal Kalman filter, bias error augmentation. *Weiss, J.D.*, *AES-M Jan 96* 23-26
- real-time navig., Global Positioning Syst. *Simon, D.*, +, *AES-M Jan 95* 31-37
- strapdown mechanization and Kalman filter for providing ground align and INS airstart capabilities. *Pham, Tuan Manh*, *AES-M Jan 92* 3-11
- tightly-coupled GPS/INS syst. develop. *Knight, D.T.*, *AES-M Feb 97* 14-18

Kinematics; cf. Ballistics**Knowledge acquisition**

- cooperating rule-based systems for automating functions and decisions associated with combat aircraft's subsystems. *Belkin, Brenda L.*, +, *AES-M Jun 91* 3-11
- knowledge acquisition for ATE diagnosis of VLSI test systems. *Ryan, Patricia M.*, +, *AES-M July 86* 5-12

Knowledge based systems

- ATE enabling technol., Air Force outlook. *Kirkland, L.V.*, +, *AES-M Jan 94* 12-16
- ATE enabling technol. for Air Force. *Kirkland, L.V.*, +, *AES-M Jan 95* 14-18
- diagnostician on-a-chip. *Nolan, M.*, +, *AES-M Jan 95* 9-13

- FINDER, complex DSS for commercial transport. *Bittermann, V.*, +, *AES-M Mar 94* 12-19
 hybrid connectionist systs. in research and teaching. *Jain, L.C.*, *AES-M Mar 95* 14-18
 SAR systs. in knowledge-based environ. enhanced resoln. *Bolton, A.G.*, +, *AES-M Aug 94* 33-37

Knowledge based systems; cf. Expert systems

L

Laboratories

- beginnings of MIT Instrumentation Laboratories. *Denhard, William G.*, *AES-M Oct 92* 6-13
 GCA radar; work of L. W. Alvarez and his crew at MIT Radiation Laboratory during World War II. *Fowler, Charles A.*, *AES-M Oct 90* 45
 invention of ground control approach radar at MIT Radiation Laboratory. *Jolley, Neal A.*, *AES-M May 93* 57
 letter from J. A. Pierce, August 1990, with personal recollections from the World War II work of the Radiation Laboratory at MIT. *Pierce, John Alvin*, *AES-M Oct 90* 37-41
 MIT Radiation Laboratory and its research during World War II; personal recollections. *Saad, T. A.*, *AES-M Oct 90* 46-51

Land mobile radio

- mm-wave safety warning syst. for in-vehicle signing. *Greneker, G.*, *AES-M Jul 98* 7-12
 mobile satellite services; plans and status, including regulatory issues. *Anderson, Roy E.*, *AES-M Mar 87* 20-24, 32
 NTT's multibeam mobile satellite communications system. *Mishima, Hiraku*, +, *AES-M Apr 89* 19-25

Land mobile radio; cf. Cellular radio

Land vehicles; cf. Road vehicles

Large-scale systems

- high risk systs., human-machine interface failures minimization. *Sudano, J.J.*, *AES-M Oct 94* 17-20

Large screen displays

- cockpit display syst., next generation, develop. *Read, B.C., III*, *AES-M Oct 96* 25-28

Laser beam applications

- avionics commun., fiber opt. commun. syst., laser requirements. *Loehr, J.*, +, *AES-M Apr 98* 9-12
 electric propulsion technology overview; power laser beaming for enhanced performance of earth orbital transporters. *Dagle, Jeffery E.*, *AES-M Nov 91* 17-20
 FEL syst. for energy transm. *Burke, R.J.*, +, *AES-M Dec 94* 18-24
 soldier ident. syst. utilizing LPI techs. *Zari, M.C.*, +, *AES-M Jul 97* 21-26
 space power by ground-based laser illumination of photovoltaic arrays. *Landis, Geoffrey A.*, *AES-M Nov 91* 3-7

Laser beam applications; cf. Optical radar; Remote sensing by laser beam

Laser ranging

- GPS/IMU syst. integrat. based navig./landing syst. *Meyer-Hilberg, J.*, +, *AES-M Jul 94* 11-17

Lasers; cf. Free electron lasers; Semiconductor lasers; Surface emitting lasers

Laser velocimeters

- fast optical LDA burst analyzer. *Buteftsch, Karl-Aloys*, *AES-M Feb 90* 3-9
 measurements, visualization and interpretation of 3-D flows; application within base flows. *Berner, Claude*, +, *AES-M Feb 90* 10-18
 wind tunnel laser Doppler velocimeter. *Seegmiller, H. Lee*, +, *AES-M May 86* 16-20

Lead

- Pb-acid batts., advanced types and commercialization. *Mader, J.*, *AES-M Jul 96* 17-22

Lead acid batteries

- applications of mathematical models in lead-acid battery design. *Gu, H.*, *AES-M Aug 90* 3-6
 long-life batt. develop., elec. vehicle appl. *Oman, H.*, *AES-M Sep 99* 19-21
 Pb acid batt., high-rate. *Juergens, T.*, +, *AES-M May 94* 7-9
 Pb acid maint.-free batt., aircraft inertial navig. *Johnson, W.R.*, +, *AES-M May 95* 3-6
 sealed lead-acid aircraft batt., life expectancy, 24-V, 15-Ah. *Vutetakis, D.G.*, +, *AES-M Aug 97* 33-35
 valve regulated lead acid batts., operational testing, commercial aircraft. *Timmons, J.B.*, +, *AES-M Jul 97* 35-38

Leaky wave antennas

- MM wave radar scanning antenna, leaky-wave periodically loaded antenna design. *Manasson, V.*, +, *AES-M Oct 96* 29-33

Learning (artificial intelligence)

- field-portable imaging syst. for scene class. *Preston, E.*, +, *AES-M Sep 94* 13-19
 flight control syst. neural network modeling. *He Mingyi*, +, *AES-M Sep 98* 27-29

Learning systems; cf. Neural nets

Legislation

- conflicts between air law and space law arising from hypersonic flight; concept of where space begins. *Schwetje, F. Kenneth*, +, *AES-M May 89* 32-36

Lens antennas

- phased arrays, low-cost. *Rao, J.B.L.*, +, *AES-M Jun 97* 39-44
 space-fed phased array for surveillance from space. *Hightower, Charles H.*, +, *AES-M May 91* 13-17

Levitation; cf. Magnetic levitation

Life cycle costing

- life-cycle methods for development and integration of avionics software-based systems at Boeing Co. *Gartz, Paul Ebner*, *AES-M Jun 87* 2-8
 phys. protection syst., cost & perform. anal., tactical decision making. *Hicks, M.J.*, +, *AES-M Apr 99* 9-13
 STEP, tool for estimating avionics life-cycle costs. *Curry, Ernest E.*, *AES-M Jan 89* 30-32
 total life-cycle cost analysis of conventional and alternative fueled vehicles. *Cardullo, Mario W.*, *AES-M Nov 93* 39-43

Life testing

- carbon fiber electrochem. capacitors, low surface area fibers. *Lipka, S.M.*, *AES-M Jul 97* 27-30
 Galileo probe batt. syst. prod. and testing. *Dagarin, B.P.*, +, *AES-M Jun 96* 6-13
 Galileo probe Li-SO₂ batt. cell life testing. *Hofland, L.M.*, +, *AES-M Jun 96* 14-18
 Li-ion cell perform. under environ. extremes. *Kelly, C.O.*, +, *AES-M Mar 99* 37-40
 Ni-Cd aircraft batt., sealed, life cycle testing. *Kulin, T.M.*, *AES-M Oct 97* 17-22
 Ni-Cd batt., cycled, pulse discharge behavior, satellite power systs. *Rao, G.*, +, *AES-M Aug 97* 41-43
 sealed lead-acid aircraft batt., life expectancy, 24-V, 15-Ah. *Vutetakis, D.G.*, +, *AES-M Aug 97* 33-35
 status of US Air Force nickel-hydrogen-battery LEO life test. *House, Shaun D.*, +, *AES-M Dec 93* 14-17

Light emitting diodes

- mil. avionics opt. fiber data buses, act.-coupler config. *Jian-Guo Zhang*, +, *AES-M Jul 99* 27-33

Lighting

- application of automatic surface lights to improve airport safety. *Lynn, Ervin F.*, *AES-M Mar 93* 14-20

Light interferometers

- fiber optic gyroscope, reduced min. config., GPS coupled land nav. appl. *Emge, S.*, +, *AES-M Apr 97* 18-21

Light interferometry

- Lorentz length contraction, direct test. *Renshaw, C.*, *AES-M Sep 98* 3-7

Light velocity

- radiation continuum model of light, Galilean invariance of Maxwell eqns. *Renshaw, C.E.*, +, *AES-M Oct 98* 3-8

Light velocity measurement

- Parker effect and navig. in space. *Parker, V.*, +, *AES-M Jan 98* 11-13

Linearization techniques

- online identification and control of linearized aircraft dynamics using multiple-objective optimization. *Rusnak, Ilan*, +, *AES-M Jul 92* 56-60

Linear quadratic control

- concepts for launch vehicle control studied for Advanced Launch System program. *Sifer, J. F.*, +, *AES-M Feb 91* 23-29

Liquid crystal devices; cf. Liquid crystal displays

Liquid crystal displays

- 8-in } 8-in full-color LCD cockpit display. *Robbins, Lionel*, +, *AES-M Sep 90* 3-6
 act. matrix LCD for projection/head-mounted systs. *Spitzer, M.B.*, +, *AES-M Apr 95* 33-35
 field-portable imaging syst. for scene class. *Preston, E.*, +, *AES-M Sep 94* 13-19
 flat-panel displays; state of the art. *Kmetz, Allan R.*, *AES-M Aug 87* 19-24
 full-color active-matrix LCD with full avionic characteristics and night-vision-goggle compatibility. *Abileah, Adi*, +, *AES-M Jul 92* 20-23
 large flat-panel multifunction LCD-based display for military and space applications. *Pruitt, James S.*, *AES-M Sep 92* 30-35
 Network Vehicle, technol. initiative in mobile multimedia. *Lind, R.*, +, *AES-M Sep 99* 27-32

Lithium

- Galileo probe Li-SO₂ batt. cell life testing. *Hofland, L.M.*, +, *AES-M Jun 96* 14-18
 ion cell perform. under environ. extremes. *Kelly, C.O.*, +, *AES-M Mar 99* 37-40
 ion satellite cell develop., past, present & future. *Kelly, C.O.*, +, *AES-M Jun 98* 21-25
 Li ion batt. charger. *Teofilo, V.L.*, +, *AES-M Nov 97* 30-36

- Li-ion batts. mgt., multichemistry systs. *Bently, W.F.*, +, *AES-M May 96* 23-26
- Li-ion batt. software safety protection. *Tsenter, B.*, +, *AES-M Sep 98* 23-25
- Li-ion cells for NASA's Mars 2001 Lander appl., perform. characts. *Smart, M.C.*, +, *AES-M Nov 99* 36-42
- Li-ion prismatic batts. *Ehrlich, G.M.*, +, *AES-M Sep 97* 7-11
- Li-ion solid polymer electrolyte batt. develop. *Teofilo, V.L.*, +, *AES-M Nov 99* 43-47
- Li-LiMn₂O₄ thin-film batts., fab./props. *Bates, J.B.*, +, *AES-M Apr 95* 30-32
- Li-SO₂ batt., Galileo probe batt. syst. *Dagarin, B.P.*, +, *AES-M Jun 96* 6-13
- Li_x-Li_{1-x}CoO₂, batts. advanced types and commercialization. *Mader, J.*, *AES-M Jul 96* 17-22
- Lithium compounds**
- Li-LiMn₂O₄ thin-film batts., fab./props. *Bates, J.B.*, +, *AES-M Apr 95* 30-32
- LiMn₂O₄ spinel for Li-ion prismatic batts. *Ehrlich, G.M.*, +, *AES-M Sep 97* 7-11
- Load dispatching**
- SMES benefit anal., prod. cost model. *Dagle, J.E.*, *AES-M Feb 94* 36-39
- Local area networks**
- avionics hybrid commun. archit., 1553 emulation, ATM. *Parish, D.J.*, +, *AES-M Mar 98* 34-39
- deterministic VXI highway interconnect, aerospace test systs. *Cleary, R.T.*, *AES-M Mar 96* 18-23
- low-cost LAN implementation for small factory; case study and suggestions for software design. *Cipher, T.J.*, *AES-M Jul 87* 18-21
- robust fiber optic active star coupler for SAE linear token-passing multiplex data bus. *Uhlhorn, R.W.*, *AES-M Jan 89* 3-11
- Local area networks; cf.** Controller area networks; Optical fiber LAN
- Logic; cf.** Fuzzy logic
- Logic CAD**
- asynchronous cct. design, protocol validation tool. *Rahardjo, B.*, +, *AES-M Jul 95* 8-11
- Logic Designer's Apprentice (LDA), knowledge-based computer aid for digital electronic circuit design. *Moskowitz, Leonard*, *AES-M July 86* 22-26
- Logic design**
- aircraft collision avoidance system logic; design concepts. *Love, W. Dwight*, +, *AES-M Jan 86* 7-12
- asynchronous cct. design, protocol validation tool. *Rahardjo, B.*, +, *AES-M Jul 95* 8-11
- holistic design approach to GaAs technology. *Gilbert, Barry K.*, *AES-M Aug 87* 30-33
- Logic testing**
- knowledge acquisition for ATE diagnosis of VLSI test systems. *Ryan, Patricia M.*, +, *AES-M July 86* 5-12
- MIL-STD-883 Procedure 5012 regarding fault coverage measurement for digital microcircuits; user's view. *Pyron, Carol*, +, *AES-M Jan 91* 6-12
- Logistics data processing**
- Aircraft Stores Interface Manual, paperless inform. technol., WWW. *Rochin, J.A.G.*, +, *AES-M Jun 98* 39-43
- modular stores management system for military aircraft ordinance control. *Radford, Clive J.*, *AES-M Apr 86* 11-16
- Lorentz transformation**
- Lorentz length contraction, direct test. *Renshaw, C.*, *AES-M Sep 98* 3-7
- radiation continuum model of light, Galilean invariance of Maxwell eqns. *Renshaw, C.E.*, +, *AES-M Oct 98* 3-8
- M**
- Machine bearings**
- spacecraft energy storage, flywheel systs. *Ginter, S.*, +, *AES-M May 98* 27-32
- Machine control**
- direct flux linkage control, large drives. *Pyrhonen, J.*, +, *AES-M Apr 98* 23-27
- spacecraft energy storage, flywheel systs. *Ginter, S.*, +, *AES-M May 98* 27-32
- Machine testing**
- switched reluctance motor drive, dyn. tests. *Silventoinen, P.*, +, *AES-M Jan 99* 25-28
- Machining; cf.** Micromachining
- Magnetic field effects; cf.** Magnetic levitation
- Magnetic field measurement**
- 3D mag. microsystem, magnetodosimeter, on-chip serial interface. *Malcovati, P.*, +, *AES-M Sep 99* 43-46
- PCB diagnosis, neural networks and mag. fields. *Spence, H.F.*, *AES-M Feb 94* 20-24
- Magnetic fields; cf.** Geomagnetism
- Magnetic flux**
- sync. motors, direct flux linkage control, large drives. *Pyrhonen, J.*, +, *AES-M Apr 98* 23-27
- Magnetic levitation**
- maglev systems; current status and future potential. *Eastham, A.R.*, +, *AES-M Jan 88* 21-30
- Transrapid, West German maglev system; recent developments. *Dickhart, William W., III*, *AES-M Feb 87* 5-8
- Magnetic resonance imaging**
- magnetic resonance image enhancement using V-filter; clinical applications. *Yamamoto, Hideki*, +, *AES-M Jun 90* 31-35
- nonlinear amplitude compression in magnetic resonance imaging; quantization noise reduction and data memory saving. *Kose, Katsumi*, +, *AES-M Jun 90* 27-30
- Magnetic sensors**
- 3D mag. microsystem, magnetodosimeter, on-chip serial interface. *Malcovati, P.*, +, *AES-M Sep 99* 43-46
- parallel scanning AFM chip, CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34
- vehicle position tracking; sensor compensation for vehicle magnetic signatures. *Whitcomb, Lawrence A.*, *AES-M Feb 89* 33-37
- Magnetic variables measurement; cf.** Magnetic field measurement
- Magnetoacoustic conversion**
- spacecraft elec. propulsion syst., direct drive options. *Hamley, J.A.*, *AES-M Feb 96* 20-24
- Magnetometers; cf.** Fluxgate magnetometers
- Magneto-optic effects; cf.** Faraday effect
- Magnetostriction**
- TbDyFe, TERFENOL-D, giant magnetostrictive materials, actuators, magnetotagging. *Jones, B.*, +, *AES-M Mar 96* 3-6
- Magnetostrictive devices**
- high-performance magnetostrictive actuators. *Bushko, Dariusz A.*, +, *AES-M Nov 91* 21-25
- TbDyFe, TERFENOL-D, giant magnetostrictive materials, actuators, magnetotagging. *Jones, B.*, +, *AES-M Mar 96* 3-6
- Magnetrons**
- microwave electrothermal thruster, efficient power supply. *Ehsani, M.*, +, *AES-M May 98* 37-42
- Maintenance engineering**
- aerospace maint. environ., wearable computers as portable maint. terminal. *Greene, S.R.*, +, *AES-M Nov 99* 33-35
- ATE user interface design, Integrated Maintenance Information System appl. *Landseadel, P.*, *AES-M Aug 95* 15-20
- Hubble Space Telescope solar array change-out, mission anom. *Winslow, C.*, *AES-M Apr 95* 3-13
- military electronic and thermal imaging systems; analysis tools for evaluation of maintenance software. *Barber, J.M.C.*, *AES-M Oct 89* 21-24
- modular integrated training system for maintenance technicians. *Stonge, James R.*, +, *AES-M Sep 88* 11-18
- naval ships, AEGIS weapon syst. integrated diagnostics. *Brazet, M.D.*, *AES-M Feb 94* 40-45
- Pb acid maint.-free batt., aircraft inertial navig. *Johnson, W.R.*, +, *AES-M May 95* 3-6
- reconditioning of Ni/H₂ batts., need and effect. *Suresh, M.S.*, +, *AES-M Apr 95* 26-29
- repair of Salyut 7 space station; chronology. *Newkirk, Dennis*, *AES-M Feb 88* 9-11
- space power wiring systs., safety, maint. and protection. *Stavnes, M.W.*, +, *AES-M Jan 94* 21-27
- systems engineering methodology for weapons-platform avionics availability; transition to two levels of maintenance. *Minei, Anthony J.*, *AES-M Oct 89* 7-11
- US army Interactive Electronic Technical Manuals. *Brown, J.*, *AES-M Jul 95* 24-30
- Maintenance engineering; cf.** Aircraft maintenance; Software maintenance
- Management**
- book review; Business Plans that Win \$\$\$ (S. R. Rich and D. Gumpert; 1985). *Sumner, George C.*, *AES-M Apr 86* 36
- career develop. reinventing. *Hanson, M.C.*, *AES-M Feb 94* 3-8
- pers. positioning for young professionals. *Kostek, P.J.*, *AES-M Jan 97* 3-5
- TPS first article acceptance testing, manager's guide. *Preiss, S.A.*, +, *AES-M Mar 96* 12-17
- TQM implement. and planning, model. *Adams, M.L.*, *AES-M Feb 94* 25-27
- Management; cf.** Cost-benefit analysis; Human resource management; Project management; Quality management; Research and development management; Risk management; Software management
- Management education**
- Master of Science Program in Systems Management at Capitol College. *Troxler, G. William*, *AES-M Apr 93* 41-43

Management information systems

Cassini Information Access System, intranet technol. implement. *Abrahams, M.D.*, +, *AES-M Jan 98* 20-24
integrated automatic vehicle location syst. *McKay, K.M.*, *AES-M Mar 97* 18-22

Management science

tech. program mgt. skills, case histories. *Fowler, C.A.*, *AES-M Oct 99* 18-28

Manganese compounds

aerospace Li-ion solid polymer batts. *Teofilo, V.L.*, +, *AES-M May 98* 33-36

Manipulators

reactive control as substrate for telerobotic systems. *Arkin, Ronald C.*, *AES-M Jun 91* 24-31

Man-machine systems

crew station meas. methodol., quantitat. approach, CAD model, CMM. *Purvis, B.D.*, +, *AES-M Oct 96* 14-16

crew-system design database of lessons learned during military aircraft design; user interface. *Moore, Gabriel*, *AES-M Jun 89* 20-25

Designer's Electronic Notebook, database covering aircraft crew-system design information. *Anderson, Arthur F.*, +, *AES-M Jun 89* 26-29

high risk systs., human-machine interface failures minimization. *Sudano, J.J.*, *AES-M Oct 94* 17-20

humane intelligence; human factors perspective for developing intelligent cockpits. *McNeese, Michael D.*, *AES-M Sep 86* 6-12

human factors R&D requirements for future aerospace cockpit systems. *Schiffler, Richard J.*, +, *AES-M Sep 87* 2-4

human-machine interface design & impact concept, risk anal. *Dearden, A.M.*, +, *AES-M Feb 97* 19-25

Manufacturing data processing

TQM, test role. *Neblett, B.*, *AES-M May 95* 26-34

Manufacturing industries

CHP technol., USA mfg. carbon & energy savings. *Kaarsberg, T.M.*, +, *AES-M Jan 99* 7-12

Manufacturing processes

manufacturability anal., subset of systs. engng. *Eskelinen, H.*, +, *AES-M Feb 99* 33-35

Marine radar

pulse radar, 3 MM wave, short-range nav., collision avoidance. *Muraviev, V.V.*, +, *AES-M Jul 99* 23-25

Marine systems

book review; The Development of Radar Equipments for the Royal Navy, and The Applications of Radar and Other Electronic Systems in the Royal Navy in World War 2 (Kingsley, F.A., Ed.; 1995). *Brown, L.*, *AES-M May 96* 42-43

fault tolerant proc. elements, real time recovery. *Sims, T.*, *AES-M Dec 97* 13-17

Marine vehicles

chart-correction computer system for automatic updating of electronic charts via satellite data transfers. *Logan, Kevin P.*, *AES-M Sep 87* 20-22

civil access to Navstar GPS. *Ellett, Michael J.*, *AES-M May 87* 26-29

extension of continental US LORAN-C coverage and incorporation in National Airspace System. *Sedlock, Andrew J.*, *AES-M Dec 87* 11-14

GPS-based vessel position monitoring and display system. *Reynolds, James C.*, +, *AES-M Jul 90* 16-22,28

present and future status of LORAN-C; worldwide activity and improved equipment. *Fuentes, Adeste F.*, *AES-M Dec 87* 8-10

status of Navstar GPS program. *Pelc, Christopher E.*, *AES-M May 87* 18-21

Marketing

mil. technol. based commercial products develop. *Deffeyes, R.J.*, *AES-M Oct 96* 3-5

Mars

power systems for first Mars outpost. *Littman, Frank*, *AES-M Dec 93* 30-34

Martin, Thomas J.

obituary. *AES-M Mar 98* 31

Materials; cf. Polymers**Mathematical morphology**

synthesis method of search for promising tech. syst. *Rakov, D.L.*, *AES-M Dec 96* 3-8

Mathematics; cf. Optimization methods**Maximum entropy methods**

airborne adaptive moving target indication, whitening prevention. *Huang Yong*, +, *AES-M Jul 99* 19-21

Maximum likelihood estimation

field-portable imaging syst. for scene class. *Preston, E.*, +, *AES-M Sep 94* 13-19

Maxwell equations

radiation continuum model of light, Galilean invariance of Maxwell eqns. *Renshaw, C.E.*, +, *AES-M Oct 98* 3-8

Measurement

single meas. testing, pros and cons. *Miller, J.R., III*, *AES-M Mar 95* 35-39

Measurement; cf. Doppler measurements; Electric variables measurement; Electromagnetic measurements; Mechanical variables measurement; Microwave measurement; Millimeter wave measurement; Phase measurement; Remote sensing; Spatial variables measurement; Temperature measurement; Time measurement

Measurement standards

moving clocks, ref. frames & twin paradox. *Renshaw, C.*, *AES-M Jan 96* 27-31

Mechanical energy storage

energy storage media and techniques; comparative analysis. *Rose, M. F.*, +, *AES-M Dec 91* 26-32

Mechanical energy storage; cf. Flywheels**Mechanical engineering**

how mechanical engineering issues affect avionics design. *Leonard, Charles T.*, *AES-M Apr 90* 3-8

mechanical systems diagnostic design approach's impact as exemplified by development of V-22 tiltrotor military aircraft. *Balke, Rod W.*, *AES-M Jan 91* 21-27

Mechanical testing

Hubble Space Telescope solar array change-out, mission anom. *Winslow, C.*, *AES-M Apr 95* 3-13

Mechanical variables control; cf. Acceleration control; Torque control**Mechanical variables measurement**

US National Transonic Facility wind tunnel; overview. *Holmes, Harlan K.*, *AES-M Feb 86* 1-7

Mechanical variables measurement; cf. Distance measurement; Flow measurement; Position measurement; Pressure measurement; Velocity measurement; Vibration measurement

Medical computing

computerized medical devices; trends, problems, and safety. *Bassen, H.*, +, *AES-M Sep 86* 20-24

min. invasive surgery, defense technol. appl. *Williams, R.*, +, *AES-M Oct 94* 3-6

morph. synthesis for promising tech. systs. *Rakov, D.L.*, *AES-M Dec 96* 3-8

Meetings

12th Annual Battery Conf., report. *Oman, H.*, *AES-M Apr 97* 30-37

13th Digital Avionics Syst. Conf., plenary/tech. session highlights. *Oman, H.*, *AES-M Feb 95* 2-7

1990 Computer Assurance Conference; meeting report. *Lubbes, H. O.*, *AES-M Nov 90* 52

1990 IEEE International Conference on Systems Engineering; meeting report. *Shenoi, B. A.*, *AES-M Nov 90* 51

1990 IEEE International Conference on Systems Engineering meeting report. *Shenoi, B.*, *AES-M Dec 90* 39

1990 Institute of Navigation Technical Meeting; meeting report. *Portney, Joseph N.*, +, *AES-M Apr 90* 19

1990 Position Location and Navigation Symposium; meeting report. *Hadfield, Michael J.*, *AES-M Jul 90* 42-44

1996 International Symposium on Phased Array Systems and Technology, highlights. *Brookner, E.*, *AES-M Mar 97* 12-17

30th International Carnahan Conference on Security Technology, conf. report. *Oman, H.*, *AES-M Jan 97* 29-34

31st Intersociety Energy Conversion Engineering Conference, conf. report. *Oman, H.*, *AES-M Jan 97* 10-19

AUTOTESTCON '96, test technol. and commercialization themes. *Schroer, R.*, *AES-M May 97* 20-23

commercial air transport control develop. in USA. *AES-M Mar 94* 2-5

EUSAR '96, current trends in SAR technol., conf. report. *Klemm, R.*, *AES-M Mar 97* 3-8

IEEE radar conferences, history. *Hill, R.T.*, *AES-M Jun 94* 28-30

international trends in Stirling engine technology development as shown by papers at 1982-1988 International Stirling Engine Conferences; overview. *Reader, Graham T.*, +, *AES-M Nov 89* 44-50

Intersociety Energy Conversion Engineering Conference 1999, fuel cell sessions. *Oman, H.*, *AES-M Dec 99* 15-22

Intersociety Energy Conversion Engineering Conference 1999, plenary session and luncheon presentations. *Oman, H.*, *AES-M Nov 99* 30-32

Intersociety Energy Conversion Engineering Conference 1999, report. *Oman, H.*, *AES-M Nov 99* 17-26

NAECON '97, develop. reported. *Oman, H.*, *AES-M Nov 97* 10-18

PLANS '94, Position, Location and Navigation Symposium '94. *Oman, H.*, *AES-M Jul 94* 2-5

report and evaluation of meeting of Los Angeles Chapter of IEEE AES Society of UFO phenomena. *AES-M Apr 91* 13-15

report on significant developments at 1992 Intersociety Energy Conversion Engineering Conference. *Oman, Henry!Associate Ed.*, *AES-M Nov 92* 2-6

synopsis of Mobile Battlefield Power Workshop. *Iafate, G.*, +, *AES-M Dec 91* 16-20

Memories; cf. Buffer storage; Random-access storage**Mercury (planet)**

moving observer gravit. pot., Mercury perihelion shift, photon deflection. *Renshaw, C.E.*, +, *AES-M Feb 97* 7-11

+ Check author entry for coauthors

Message passing

asynchronous message router spec., formal design tools. *Moller, F.*, *AES-M Mar 97* 38-44

Meteorological instruments

smart low-power instrument for measuring meteorological parameters, Sea Data Corporation's WTR-10 Weather Station. *Garcia, Edward P.*, *AES-M Sep 87* 16-19

Meteorological radar

airborne, weather/windshear detect. capability, radiated testing. *Michaels, J.F.*, *AES-M Dec 95* 25-30

ELDORA/ASTRAIA airborne Doppler weather radar, field test results. *Hildebrand, P.H.*, +, *AES-M Oct 96* 34-37

reliability testing and evaluation for Next Generation Weather Radar (NEXRAD) system. *Holt, Stephen M.*, *AES-M Apr 89* 14-18

S-band surveillance radar sidelobe suppression. *Bucci, N.J.*, +, *AES-M Aug 95* 37-43

wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9

Meteorology

Defense Meteorological Satellite Program; overview. *Curtis, Justin A.*, +, *AES-M Mar 87* 13-17

water vapor imagery from weather satellites for weather analysis. *Rao, P. K.*, +, *AES-M Oct 87* 4-9

Meters; cf. Dosimeters**Microcomputer applications**

GPS mission planner; implementation on IBM PC. *Avila, Paul G.*, +, *AES-M Jan 90* 10-18

radar detect. problems solution, MATLAB simul. *Schleher, D.C.*, *AES-M Apr 95* 36-40

star trackers for attitude determ. *Liebe, C.C.*, *AES-M Jun 95* 10-16

training simulator archit. based on distributed proc. *Shi-Yu Gong*, +, *AES-M Sep 96* 8-10

Microcomputers

portable computer power sources. *Freiman, J.F.*, *AES-M May 94* 3-6

software maintenance criteria for small microprocessor-based systems. *Howley, Paul P., Jr.*, +, *AES-M Nov 86* 16-20

Microcomputers; cf. Network computers; Portable computers; Workstations**Microcontrollers**

diagnostician on-a-chip. *Nolan, M.*, +, *AES-M Jan 95* 9-13

intell. batt., microcontroller-based. *Bowen, L.*, +, *AES-M May 94* 16-19

Micromachining

capacitive chem. sens. microsystem, CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34

microfluxgate sens., CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34

Micromechanical devices; cf. Microsensors**Micromechanical resonators**

resonant sensors for high-accuracy pressure measurement using silicon technology. *Parsons, P.*, +, *AES-M Jul 92* 45-48

Microprocessor chips

Boeing 777 microprocessor-based high lift control system. *Rea, Jon*, *AES-M Aug 93* 15-21

Viper microprocessor; design and development. *Cullyer, W.J.*, *AES-M Jun 89* 5-13

Microscopy; cf. Atomic force microscopy**Microsensors**

3D mag. microsystem, magnetodosimeter, on-chip serial interface. *Malcovati, P.*, +, *AES-M Sep 99* 43-46

capacitive chem. sens. microsystem, CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34

inertial appls. of integrated MEMS sens. *Allen, J.J.*, +, *AES-M Nov 98* 36-40

microfluxgate sens., CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34

parallel scanning AFM chip, CMOS integrated meas. syst. *Baltes, H.*, +, *AES-M Oct 99* 29-34

resonant sensors for high-accuracy pressure measurement using silicon technology. *Parsons, P.*, +, *AES-M Jul 92* 45-48

Si μ SCRAS MEMS inertial rate and accel. sens., tactical grade navig. and guidance. *Hulsing, R.*, *AES-M Nov 98* 17-23

Microstrip antenna arrays

ground plane Yagi antenna tests, 3 GHz. *Eskelinen, P.*, +, *AES-M Feb 96* 37-40

Microstrip antennas

portable approach landing syst. design. *Verma, S.K., Sr.*, *AES-M Aug 94* 21-25

Microwave amplifiers

hybrid amp., RF building block. *Eskelinen, P.*, +, *AES-M Aug 96* 34-36

Microwave antenna arrays

IRIDIUM satellite antenna array concept. *Schuss, J.J.*, +, *AES-M Dec 97* 3-12

rectifying receiving antenna for microwave energy transm. *McSpadden, J.O.*, +, *AES-M Nov 94* 36-41

S-band digital beamforming antenna. *Pettersson, L.*, +, *AES-M Nov 97* 19-29

Microwave antennas

DSN antenna subsyst., microwave generic controller, blackboard archit. *Ramanna, S.*, *AES-M Jul 95* 12-15

parab. dish reflector, perform. anal., simple photography. *Eskelinen, P.*, +, *AES-M Apr 97* 3-5

steerable plasma mirror based radar, concept and appls. *Mathew, J.*, *AES-M Oct 96* 38-44

Microwave detectors

35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22

Microwave devices; cf. Microwave switches**Microwave imaging**

commercial SAR imaging systs. *Birk, R.*, +, *AES-M Nov 95* 15-23

SIR-C/X-SAR, spaceborne imaging radar C/X-band multifaceted SAR, appls. *Stuhr, F.*, +, *AES-M Oct 95* 15-24

Microwave integrated circuits

Xs-MET fab. using complementary heterostruct. FET, space appls. *Cerny, C.L.*, +, *AES-M Mar 98* 7-14

Microwave landing systems

autonomous landing guidance system for military aircraft. *Roy, Edmond F.*, +, *AES-M May 86* 10-15

demonstration of advanced approach techniques. *Lilley, Robert W.*, *AES-M May 90* 41-46

design protecting guidance signal from reflected interference; system overview. *Kelly, R.J.*, +, *AES-M May 90* 27-39

flight safety performance. *Berninger, Daniel J.*, *AES-M May 90* 3-8

microwave landing system area navigation (MLS RNAV) system using time-reference scanning beam. *Remer, James.*, +, *AES-M Dec 87* 23

operational requirements for implementation at NY J. F. Kennedy Airport. *Arnold, Richard*, *AES-M May 90* 23-26

pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M.*, +, *AES-M May 95* 37-42

pilot's point of view seen in case study of installation at Wichita, Kansas, Mid-Continent Airport. *Rissmiller, Ralph W., Jr.*, *AES-M May 90* 47-49

portable approach landing syst. design. *Verma, S.K., Sr.*, *AES-M Aug 94* 21-25

proposed US microwave landing system; overview. *Evans, Thomas E.*, *AES-M May 86* 6-9

Microwave links

rectifying receiving antenna for microwave energy transm. *McSpadden, J.O.*, +, *AES-M Nov 94* 36-41

Microwave measurement

microwave parab. dish reflector, perform. anal., simple photography. *Eskelinen, P.*, +, *AES-M Apr 97* 3-5

pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M.*, +, *AES-M May 95* 37-42

wood characterization by microwaves. *Eskelinen, P.*, +, *AES-M Feb 98* 34-35

Microwave power transmission

energy transfer from outer space to Earth, ecological limitation. *Latshev, L.*, +, *AES-M Sep 97* 3-6

power beaming concept applied to four planned satellite constellations. *Bamberger, Judith Ann.*, +, *AES-M Nov 92* 7-11

rectifying receiving antenna for microwave energy transm. *McSpadden, J.O.*, +, *AES-M Nov 94* 36-41

syst. engng., beam safety, freq. allocation, affordability. *Dickinson, R.M.*, *AES-M May 97* 10-14

wireless power transm., solar power satellite develop. program. *Nansen, R.H.*, *AES-M Jan 96* 33-39

wireless power transm., wave beam peculiarities. *Garmash, V.R.*, +, *AES-M Oct 98* 39-41

Microwave propagation

wood characterization by microwaves. *Eskelinen, P.*, +, *AES-M Feb 98* 34-35

Military aircraft

airborne self-protection jammer program performance prediction software for evaluating user data files. *Olliff, Don*, *AES-M Mar 92* 16-19

airborne weapons platform capability assessment process. *Elengical, George.*, +, *AES-M Apr 88* 14-19

aircrew embedded training program. *Hughes, Ronald G.*, *AES-M Sep 88* 3-10

B-IDAIEN, broadband integrated digital inform. exchange networks, avionics appls. *Jian-Guo Zhang*, *AES-M Nov 98* 31-35

book review; Reflections of a Cold Warrior, From Yalta to the Bay of Pigs (Bissell, R.M., Jr., et al.). *Oman, H.*, *AES-M Feb 97* 41-42

CEPS diagnostic expert system for B1-B strategic bomber. *Davis, Kathy*, *AES-M Apr 88* 20-25

clutter rejection and transmitter-receiver requirements in airborne radar for military aircraft. *Lacomme, Philippe*, *AES-M Jun 90* 11-13

- concepts and technologies required for development of robotic air vehicle. *Blair, Jesse*, +, *AES-M Sep 87* 8-11
- cooperating rule-based systems for automating functions and decisions associated with combat aircraft's subsystems. *Belkin, Brenda L.*, +, *AES-M Jun 91* 3-11
- covert penetration systems; laser radar and automatic target recognition overview. *Fleury, Peter A.*, *AES-M Dec 86* 8-12
- crew-system design database of lessons learned during military aircraft design; user interface. *Moore, Gabriel*, *AES-M Jun 89* 20-25
- digital map set for Night Attack aircraft. *Dawson, John F.*, *AES-M Sep 86* 13-19
- fighter aircraft, future develop. trends. *Bartels, B.E.*, +, *AES-M Jan 94* 6-11
- flight control and navigation system implementation for tactical helicopters. *Bye, Charles T.*, +, *AES-M Jul 88* 27-33
- flight management system of F-117A night attack US military aircraft. *Combs, S.R.*, +, *AES-M Jul 92* 49-55
- forward opportune landing sites location, satellite spectral images. *Botschner, R.*, *AES-M Apr 98* 43-47
- fourth-generation avionics, modular approach, digital networks. *Schroeder, J.E.*, +, *AES-M Oct 95* 39-41
- future weapon systems development implications for aircraft acquisition. *Lavoie, R.P.*, +, *AES-M Nov 87* 15-19
- GPS certification requirements for sole means navigation in US Navy aircraft. *Lowenstein, George*, +, *AES-M Aug 88* 16-22
- high-fidelity research flight station simulator for future transport and military aircraft. *Sexton, George A.*, *AES-M Dec 86* 2-7
- integrated flight/fire control for military attack helicopters. *Osder, Stephen*, *AES-M Jan 92* 17-23
- JointSTARS develop., enemy ground forces obs. *Fowler, C.A.*, *AES-M Jun 97* 3-17
- loss of consciousness and spatial disorientation auto-recovery system for use in military aircraft. *Howard, John D.*, +, *AES-M Dec 86* 13-19
- mechanical systems diagnostic design approach's impact as exemplified by development of V-22 tiltrotor military aircraft. *Balke, Rod W.*, *AES-M Jan 91* 21-27
- modular avionics, open syst. concepts & technol. *The dens, J.R.*, *AES-M Oct 97* 30-34
- more-elec. aircraft, power mgt. & distrib. syst., MADMEL program. *Maldonado, M.A.*, +, *AES-M Dec 99* 3-8
- NAECON '97, develops. reported. *Oman, H.*, *AES-M Nov 97* 10-18
- ocean towers for Charleston Tactical Aircrew Combat Training System (CTACTS); design and construction. *O'Boyle, Thomas J.*, +, *AES-M Sep 87* 12-16
- Outrider tactical unmanned aerial vehicle, DQI-NP appl. *Martin, M.K.*, +, *AES-M Dec 98* 21-24
- Pb acid maint.-free batt., aircraft inertial navig. *Johnson, W.R.*, +, *AES-M May 95* 3-6
- Pilot's Associate Demonstration One program; expert systems development for tactical aircraft. *Pohlmann, Lawrence D.*, +, *AES-M Aug 88* 3-9
- RF test range for engng. education. *Eskelinen, P.*, +, *AES-M Jul 95* 17-23
- SMART std. based autotesting for commercial and mil. appls. *Knoff, R.E.*, *AES-M Jan 95* 19-22
- test maturation concepts, test program set, relational database technols. *Sudolsky, M.D.*, *AES-M Mar 96* 35-40
- US Air Force F-22 Fighter jet engines, automated test approach. *Rea, C.*, +, *AES-M Mar 96* 24-28
- Military avionics**
- 2 μ m LIDAR for laser-based rem. sens. *Wagener, T.J.*, +, *AES-M Feb 95* 23-28
- 35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22
- aging avionics computers, F³I replacement strategy. *Luke, J.*, +, *AES-M Mar 99* 7-11
- all-terrain ground collision avoidance and maneuvering terrain-following for automated low-level night attack. *Barfield, A. Finley*, +, *AES-M Mar 93* 40-47
- AN/APX-6 airborne radar for fighter aircraft. *Suffield, F.G.*, *AES-M Sep 95* 33-40
- ATE enabling technols. for Air Force. *Kirkland, L.V.*, +, *AES-M Jan 95* 14-18
- ATE software, rehosting legacy TPS. *Arena, J.J.*, *AES-M Jul 98* 43-48
- autonomous landing guidance system for military aircraft. *Roy, Edmond F.*, +, *AES-M May 86* 10-15
- avionics capabilities of eastern and western blocs; future avionics needs of US armed forces. *Weiss, Daniel H.*, *AES-M Jul 87* 11-14
- B-DAIEN, broadband integrated digital inform. exchange networks, avionics appls. *Jian-Guo Zhang*, *AES-M Nov 98* 31-35
- C-17 appl. of existing ATE. *Sidhwa, F.*, +, *AES-M Mar 95* 29-34
- cockpit display syst., next generation, develop. *Read, B.C., III*, *AES-M Oct 96* 25-28
- cost of ownership, business model. *Hitt, E.F.*, *AES-M Nov 97* 3-7
- COTS based open syst. archit. for mil. avionics. *Paul, J.T.*, *AES-M Sep 99* 37-42
- electromagnetic transient protection requirements for avionics line-replaceable units. *Ketterling, George W.*, +, *AES-M Apr 86* 17-26
- expert systems for multisensor data handling and threat assessment in future fighter aircraft. *Yannone, Ronald M.*, *AES-M Feb 86* 12-16
- fault diagnosis, cost efficient TPS using BIT. *Rogin, H.*, *AES-M Dec 99* 9-14
- fiber opt. avionics data buses, MIL-STD-1773, design issues. *Jian-Guo Zhang*, *AES-M Oct 98* 25-32
- Finnish telecomms. indust., mil. radio systs./warfare, hist. *Eskelinen, P.*, *AES-M Aug 95* 3-7
- fourth-generation avionics, modular approach, digital networks. *Schroeder, J.E.*, +, *AES-M Oct 95* 39-41
- future fighter aircraft controls and displays. *Summers, Paul I.*, *AES-M Feb 86* 17-20
- future weapon systems development implications for aircraft acquisition. *Lavoie, R.P.*, +, *AES-M Nov 87* 15-19
- Integrated Communication Navigation Identification Avionics (ICNIA) program; military customer perspective. *Harris, Robert L.*, *AES-M Jul 88* 2-9
- integrated communications, navigation, identification avionics (ICNIA); overview. *Camana, Peter*, *AES-M Aug 88* 23-26
- Integrated Inertial Navigation System/GPS. *Martin, M.K.*, +, *AES-M Nov 98* 41-46
- integrated sens. systs. to support radar, EW, and CNI. *Rich, B.A.*, +, *AES-M Sep 95* 11-17
- J-MASS Marketplace, DoD modeling/simul. software implement. *McQuay, W.K.*, *AES-M Sep 95* 23-26
- JointSTARS develop., enemy ground forces obs. *Fowler, C.A.*, *AES-M Jun 97* 3-17
- meeting MIL-STD-2165 requirements for avionics design testability. *Croke, Don*, +, *AES-M Feb 87* 23-26
- military products from commercial lines. *Kinsella, M.E.*, +, *AES-M Sep 95* 7-10
- mission/flight systems integration study to identify future avionics systems technologies and requirements. *Schneider, Bernard A.*, *AES-M Jan 89* 23-25
- modular avionics, open syst. concepts & technol. *The dens, J.R.*, *AES-M Oct 97* 30-34
- NAECON '97, develops. reported. *Oman, H.*, *AES-M Nov 97* 10-18
- Open system avionics architectures concepts, DoD level. *Roark, C.*, +, *AES-M Sep 95* 18-22
- open systs., affordability, syst. engng. perspective. *Roark, C.*, +, *AES-M Feb 97* 26-32
- opt. fiber async. CDMA, real-time data distrib., computer interconnect. *Jian-Guo Zhang*, *AES-M Jul 99* 35-42
- opt. fiber data buses, act.-coupler config. *Jian-Guo Zhang*, +, *AES-M Jul 99* 27-33
- opt. fiber data bus, MIL-STD-1773, modulation tech. *Jian-Guo Zhang*, *AES-M Apr 99* 31-38
- Outrider tactical unmanned aerial vehicle, DQI-NP appl. *Martin, M.K.*, +, *AES-M Dec 98* 21-24
- PAVE PACE, system avionics for 21st century; architecture issues. *Morgan, D. Reed*, *AES-M Jan 89* 12-22
- Pb acid maint.-free batt., aircraft inertial navig. *Johnson, W.R.*, +, *AES-M May 95* 3-6
- radar warning receiver, flat panel display upgrade, technol. insertion prog. *Coker, B.L., Jr.*, +, *AES-M Oct 98* 33-37
- RF integrated electronics, open systs. archit. *Hooks, D.C.*, +, *AES-M Jan 99* 29-33
- SMART std. based autotesting for commercial and mil. appls. *Knoff, R.E.*, *AES-M Jan 95* 19-22
- sunlight viewable electroluminescent displays for mil. aircraft appl. *Monarchie, D.*, +, *AES-M Aug 95* 21-25
- Swedish JAS39 Gripen aircraft, electronic display. *Brandtberg, H.*, *AES-M Sep 94* 6-12
- systems engineering methodology for weapons-platform avionics availability; transition to two levels of maintenance. *Minei, Anthony J.*, *AES-M Oct 89* 7-11
- tailoring MIL-STD-461B on electromagnetic interference for US Navy avionics applications. *Siefker, Robert G.*, *AES-M Aug 87* 13-18
- TALONS, 95-GHz radar sensor for autonomous military aircraft landing guidance. *Koester, Kenneth L.*, +, *AES-M Jul 92* 40-44
- test program sets re-hosting for mil. ATE. *Liguori, F.*, +, *AES-M Apr 96* 34-37
- TPS reuse library, COTS tools. *Cashar, E.E.*, *AES-M Oct 97* 12-16
- USAF More Electric Aircraft initiative, status. *Cloyd, J.S.*, *AES-M Apr 98* 17-22
- US military McDonnell Douglas C-17 flight control system overview. *Kowal, Brian W.*, +, *AES-M Jul 92* 24-31

- US military McDonnell Douglas C-17 multifunction CRT color display. *Weindorf, Paul, AES-M Jul 92 32-39*
- US Navy SF-60F helicopter ASW system avionics. *Dowell, John A., AES-M Jul 88 10-17*
- weapons syst. hardware/software, formal verif. & legacy redesign. *Young, F.C.D., +, AES-M Mar 99 31-36*
- Military communication**
- 1553-ACE series programmable communication terminal. *Friedman, Steven N., AES-M Jan 93 48-51*
- communications satellite technology and services for 1990s for both military and commercial applications. *Wu, William W., +, AES-M Sep 92 39-43*
- effect of orbit tilt on operation of UHF satellite communication. *Franke, Ernie, AES-M Dec 93 7-13*
- Finnish telecomms. indust., mil. radio systs./warfare, hist. *Eskelinen, P., AES-M Aug 96 3-7*
- integrated communications, navigation, identification avionics (ICNIA); overview. *Camana, Peter, AES-M Aug 88 23-26*
- international cooperation on electromagnetic compatibility specifications. *Carter, N. J., AES-M Apr 87 6-9*
- Joint Service Imagery Processing System (JSIPS) for tactical reconnaissance and surveillance by US Military. *Davis, Robert L., AES-M Dec 92 12-36*
- mobile mil. commun., next generation equipt., syst. engng. need. *Eskelinen, P., AES-M Jun 99 3-4*
- NAECON '97, develops. reported. *Oman, H., AES-M Nov 97 10-18*
- performance and utility of 1-, 2-, and 5-channel GPS units in military applications; field-test results. *Blank, R. W., +, AES-M Jun 88 11-21*
- soldier ident. syst. utilizing LPI techs. *Zari, M.C., +, AES-M Jul 97 21-26*
- US Navy space systems and services requirements. *Berman, E. Ann, AES-M Mar 87 17-19*
- UV commun. syst., solar blind, electrodeless, aircraft data/voice links. *Shute, R.D., AES-M Nov 95 2-7*
- Military computing**
- airborne early warning radar, knowledge-based space-time adaptive proc. *Melvin, W., +, AES-M Apr 98 37-42*
- airborne self-protection jammer program performance prediction software for evaluating user data files. *Olliff, Don, AES-M Mar 92 16-19*
- ATE paperless multimedia information and data collection system. *Willis, Fred L., +, AES-M Feb 92 14-20*
- ATE software, rehosting legacy TPS. *Arena, J.J., AES-M Jul 98 43-48*
- ATLAS TPS conversion to ANSI C, open-syst. approach. *Timcho, T.J., AES-M Jul 99 13-17*
- DoD projects, prog. lang. selection. *Naiditch, D., AES-M Sep 99 11-14*
- FIREFINDER posn. anal. syst. advanced develop. model. *DiDomizio, J., +, AES-M Sep 96 25-29*
- interactive system for global ship monitoring combining ordnance alterations and casualty report data for PHALANX weapons systems. *Sun, Gwong, +, AES-M Apr 90 15-18*
- J-MASS Marketplace, DoD modeling/simul. software implement. *McQuay, W.K., AES-M Sep 95 23-26*
- mobile mil. commun., next generation equipt., syst. engng. need. *Eskelinen, P., AES-M Jun 99 3-4*
- modular avionics, open syst. concepts & technol. *The dens, J.R., AES-M Oct 97 30-34*
- NASA technol. accessing, World Wide Web. *Nelson, M.L., +, AES-M May 95 7-13*
- naval ships, AEGIS weapon syst. integrated diagnostics. *Brazet, M.D., AES-M Feb 94 40-45*
- neural network research applied to image classification; recent developments at US Air Force Institute of Technology (AFIT). *Rogers, Steven K., +, AES-M Sep 90 17-19*
- phys. protection syst., cost & perform. anal., tactical decision making. *Hicks, M.J., +, AES-M Apr 99 9-13*
- RF integrated electronics, open systs. archit. *Hooks, D.C., +, AES-M Jan 99 29-33*
- situation assessment using cellular automata paradigm. *Glickstein, Ira, +, AES-M Jan 92 32-37*
- software quality assurance practices in US Dept. of Defense; survey results. *Day, Raymond, +, AES-M Nov 86 21-26*
- supportability of military knowledge-based AI systems. *Carlton, Kyp A., AES-M Dec 88 25-32*
- tactical C² MMI, standardization. *Alston, C.E., +, AES-M Nov 94 16-20*
- test program sets re-hosting for mil. ATE. *Liguori, F., +, AES-M Apr 96 34-37*
- US army Interactive Electronic Technical Manuals. *Brown, J., AES-M Jul 95 24-30*
- VXibus multicomputer syst. set up and use. *Wright, M., AES-M Sep 98 17-21*
- weapons syst. hardware/software, formal verif. & legacy redesign. *Young, F.C.D., +, AES-M Mar 99 31-36*
- Military computing; cf. Command and control systems**
- Military equipment**
- aerospace Li-ion solid polymer batts. *Teofilo, V.L., +, AES-M May 98 33-36*
- army batts./fuel cells, portable power source needs. *Jacobs, R., +, AES-M Jun 96 19-25*
- ATE enabling technol., Air Force outlook. *Kirkland, L.V., +, AES-M Jan 94 12-16*
- ATE software, rehosting legacy TPS. *Arena, J.J., AES-M Jul 98 43-48*
- book review; The Development of Radar Equipments for the Royal Navy, and The Applications of Radar and Other Electronic Systems in the Royal Navy in World War 2 (Kingsley, F.A., Ed.; 1995). *Brown, L., AES-M May 96 42-43*
- electric generators; state of the art. *Jokl, A. L., AES-M Dec 91 56-59*
- field-portable imaging syst. for scene class. *Preston, E., +, AES-M Sep 94 13-19*
- fuel cells for tactical battlefield power. *Appleby, A. John, AES-M Dec 91 49-55*
- GPS precision lightweight receiver testing. *Cosentino, B., AES-M Aug 94 17-20*
- integrated sens. systs. to support radar, EW, and CNI. *Rich, B.A., +, AES-M Sep 95 11-17*
- IR imaging sens., overview of develop. *Crawford, F.J., AES-M Oct 98 17-24*
- Li-ion cell perform. under environ. extremes. *Kelly, C.O., +, AES-M Mar 99 37-40*
- Li-ion prismatic batts. *Ehrlich, G.M., +, AES-M Sep 97 7-11*
- Miniatc gyroscope, low cost alternative. *Califano, H.T., AES-M Aug 94 12-16*
- modular stores management system for military aircraft ordnance control. *Radford, Clive J., AES-M Apr 86 11-16*
- multichip modules for military and adverse environment applications. *Port, R.M., AES-M Sep 93 17-19*
- NAECON '97, develops. reported. *Oman, H., AES-M Nov 97 10-18*
- night vision devices for ground environ., driver vision enhancer. *Best, P.S., +, AES-M Apr 99 5-8*
- NiH₂ Dependent Pressure Vessel cell and batt. technol. *Caldwell, D.B., +, AES-M Dec 97 27-32*
- Open system avionics architectures concepts, DoD level. *Roark, C., +, AES-M Sep 95 18-22*
- Pearl Harbor radar story, SCR-270 radar set. *West, C.P., AES-M Apr 94 3-6*
- portable approach landing syst. design. *Verma, S.K., Sr., AES-M Aug 94 21-25*
- proton-exchange membrane fuel cell as power source for individual soldier's equipment. *Taschek, Walter G., +, AES-M May 93 25-28*
- QML, qualified manufacturer list, mil. IC prod. and stds. *Pecht, M.G., +, AES-M Jul 97 39-42*
- robotic systems for aircraft servicing/maintenance during biochemical warfare. *Schultz, Edwin R., AES-M Dec 86 24-27*
- scaling of advanced power systems for military uses. *Wiley, Robert L., AES-M Dec 91 40-44*
- Si μ SCIRAS MEMS inertial rate and accel. sens., tactical grade navig. and guidance. *Hulsing, R., AES-M Nov 98 17-23*
- solid-state power controller for next generation for military platforms. *Friedman, Steven N., AES-M Sep 92 24-29*
- space batteries for mobile battlefield power applications. *O'Donnell, Patricia M., AES-M Dec 91 45-48*
- STV (surrogate teleoperated vehicle) unmanned military land vehicle design. *Myers, Scott D., AES-M Jul 91 3-9*
- tactical cockpits, three-generation develops./future outlook. *Adam, E.C., AES-M Mar 94 20-26*
- torpedo elec. propulsion, Al-AgO primary batt. *Orndorff, C.M., +, AES-M May 96 27-31*
- U.S. Army batt. needs, 1990s status and future. *Hamlen, R.P., +, AES-M Jun 95 30-33*
- US army Interactive Electronic Technical Manuals. *Brown, J., AES-M Jul 95 24-30*
- US Defense Electronics Supply Center's efforts for parts quality improvement. *Robinson, Glenda R., +, AES-M Sep 90 7-10*
- using commercial practices to achieve inexpensive, high-performance military equipment. *Hays, Gwen G., +, AES-M Sep 92 16-20*
- why the US armed services are not getting the weapons they need. *Saunders, William, AES-M Jun 93 54-59*
- Zn-air batts. for forward battlefield charging. *Atwater, T.B., AES-M Sep 98 36-38*
- Military equipment; cf. Military aircraft; Military avionics; Military radar**
- Military radar**
- airdrop ballistic winds operationally capable lidar. *Carr, J., +, AES-M May 99 31-36*
- battlefield awareness via synergistic SAR and MTI. *Fennell, M.T., +, AES-M Feb 98 39-43*

- Joint STARS phased array radar antenna. *Shnitkin, H.*, *AES-M Oct 94* 34-40
- mil. radar, future perspective. *Zhang Xixong*, *AES-M Feb 99* 11-18
- mine detect., wide-span syst., terrain radio images. *Ivashov, S.I.*, +, *AES-M May 99* 6-8
- monopulse radar in USSR, hist. *Leonov, A.I.*, *AES-M May 98* 7-13
- multimode radar, low-cost technol., flexible test bed archit. *Adler, E.*, +, *AES-M Jun 99* 23-27
- multistatic pass. radar sens. for air/space defense, global navig. satellite systs. *Koch, V.*, +, *AES-M Nov 95* 24-32
- radar syst. technol., future conflicts, assess. *Delaney, W.P.*, *AES-M Nov 95* 8-14
- RF integrated electronics, open systs. archit. *Hooks, D.C.*, +, *AES-M Jan 99* 29-33
- space-based radar syst., low-cost. *Curry, G.R.*, *AES-M Sep 96* 21-24
- Yuma ground penetration SAR expt., 1995 results. *Jao, J.K.*, +, *AES-M Jun 99* 5-9
- Military standards**
- ATE enabling technol., Air Force outlook. *Kirkland, L.V.*, +, *AES-M Jan 94* 12-16
- ATLAS TPS conversion to ANSI C, open-syst. approach. *Timcho, T.J.*, *AES-M Jul 99* 13-17
- avionics design testability; meeting MIL-STD-2165 requirements. *Croke, Don*, +, *AES-M Feb 87* 23-26
- avionics hybrid commun. archit., 1553 emulation, ATM. *Parish, D.J.*, +, *AES-M Mar 98* 34-39
- avionics opt. fiber data buses, act.-coupler config. *Jian-Guo Zhang*, +, *AES-M Jul 99* 27-33
- avionics, opt. fiber data bus, MIL-STD-1773, modulation tech. *Jian-Guo Zhang*, *AES-M Apr 99* 31-38
- COTS based open syst. archit. for mil. avionics. *Paul, J.T.*, *AES-M Sep 99* 37-42
- fault coverage measurement for digital microcircuits; user's view of MIL-STD-883 Procedure 5012. *Pyron, Carol*, +, *AES-M Jan 91* 6-12
- fiber opt. avionics data buses, MIL-STD-1773, design issues. *Jian-Guo Zhang*, *AES-M Oct 98* 25-32
- future of military standards in changing international economic environment. *Pecht, Michael*, +, *AES-M Jul 92* 16-19
- Pb acid maint.-free batt., aircraft inertial navig. *Johnson, W.R.*, +, *AES-M May 95* 3-6
- QML, qualified manufacturer list, mil. IC prod. and stds. *Pecht, M.G.*, +, *AES-M Jul 97* 39-42
- rationale for development of UK defense standards for safety-critical computer software. *Brown, Michael J. D.*, *AES-M Nov 90* 31-37
- relationship between MIL-STD 461B and commercial EMI requirements. *Cowdell, Robert B.*, *AES-M Apr 87* 9-13
- SMART std. based autotesting for commercial and mil. appls. *Knoff, R.E.*, *AES-M Jan 95* 19-22
- tailoring MIL-STD-461B on electromagnetic interference for US Navy avionics applications. *Siefker, Robert G.*, *AES-M Aug 87* 13-18
- Military systems**
- analysis tools for evaluation of maintenance software for electronic and thermal imaging systems. *Barber, J. M. C.*, *AES-M Oct 89* 21-24
- ATE enabling technol. for Air Force. *Kirkland, L.V.*, +, *AES-M Jan 95* 14-18
- AUTOTESTCON '96, test technol. and commercialization themes. *Schroer, R.*, *AES-M May 97* 20-23
- built-in test and embedded diagnostics for two US Army M1A2 main battle tank subsystems. *Sallade, Rex*, *AES-M Feb 92* 8-13
- commercial products develop. strategy. *Deffeyes, R.J.*, *AES-M Oct 96* 3-5
- comparison of 35-GHz with 95-GHz air-to-ground fire-control systems. *Currie, Nicholas C.*, +, *AES-M Oct 88* 21-26
- defense analysis principles. *Fowler, C. A.*, *AES-M Dec 89* 21-24
- Defense Meteorological Satellite Program; overview. *Curtis, Justin A.*, +, *AES-M Mar 87* 13-17
- DoD defense acquisition syst., develops. and problems. *Fowler, C.A.*, *AES-M Aug 94* 3-6
- Honeywell/DND Helicopter Integrated Navigation System (HINS) for antisubmarine warfare. *West-Vukovich, George*, +, *AES-M Mar 89* 18-28
- integrated diagnostics; US Air Force Generic Integrated Maintenance Diagnostics program. *Seaman, Harry M.*, *AES-M Jun 86* 9-12
- integrated diagnostics; US Navy program. *Battaglia, Michael*, *AES-M Jun 86* 6-9
- integrated diagnostics programs of US Dept. of Defense; progress during past three years. *Neumann, George W.*, *AES-M Jun 86* 2-5
- J-MASS Marketplace, DoD modeling/simul. software implement. *McQuay, W.K.*, *AES-M Sep 95* 23-26
- LCPOS, low cost inertial/GPS integrated posn. and orient. syst., marine appls. *Scheninger, B.M.*, +, *AES-M May 97* 15-19
- naval ships, AEGIS weapon syst. integrated diagnostics. *Brazet, M.D.*, *AES-M Feb 94* 40-45
- non-intrusive diagnostics, thermal/X-ray images. *Poitier, A.*, +, *AES-M Mar 94* 34-37
- performance and utility of 1-, 2-, and 5-channel GPS units in military applications; field-test results. *Blank, R. W.*, +, *AES-M Jun 88* 11-21
- PLRS (position location reporting system) for users in tactical environment. *Okawa, U. S.*, +, *AES-M Aug 88* 10-15
- SDI program review and technology forecast. *Worden, Simon P.*, *AES-M Mar 87* 5-9
- space research future develops., expanded vision. *Braserton, W.M., Jr.*, *AES-M Mar 95* 3-8
- tactical C² MMI, standardization. *Alston, C.E.*, +, *AES-M Nov 94* 16-20
- two-color temporally correl. IR background meas., missile warning sens. *Montgomery, J.B.*, +, *AES-M Apr 98* 29-35
- US Army vehicular positioning system used for combat simulation; overview and commercial applications. *Gates, Harvey M.*, +, *AES-M Mar 86* 17-19
- US Navy navigation satellite system TRANSIT. *Sentman, O. L.*, *AES-M Jul 87* 25-26
- Word Storage Relay (WSR). *West, P.*, *AES-M Aug 96* 29-33
- Military systems; cf. Military aircraft; Military communication; Military radar**
- Millimeter wave antennas**
- MM wave radar scanning antenna, leaky-wave periodically loaded antenna design. *Manasson, V.*, +, *AES-M Oct 96* 29-33
- Millimeter wave devices**
- safety warning syst. for in-vehicle signing. *Greneker, G.*, *AES-M Jul 98* 7-12
- Millimeter wave generation**
- Ka-band TWTs for airborne radars, high power. *Theiss, A.J.*, +, *AES-M Nov 95* 33-36
- Millimeter wave imaging**
- determining effects of adverse weather on performance of imaging sensors for aircraft landing systems. *Greenwood, Stuart W.*, *AES-M Apr 91* 3-6
- millimeter-wave radar/forward-looking IR/automatic target-recognizer sensor fusion; proof of concept summary. *Woollett, Jerry F.*, *AES-M Jun 88* 22-25
- pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M.*, +, *AES-M May 95* 37-42
- Millimeter wave measurement**
- aircraft ice accretion meas., Phase I SBIR study, MM wave radar. *Lightfoot, F.M.*, +, *AES-M Aug 97* 3-9
- Millimeter wave phase shifters**
- MM wave radar scanning antenna, leaky-wave periodically loaded antenna design. *Manasson, V.*, +, *AES-M Oct 96* 29-33
- Millimeter wave receivers**
- safety warning syst. for in-vehicle signing. *Greneker, G.*, *AES-M Jul 98* 7-12
- Minimax techniques**
- degradation of clutter processing due to missing radar return pulses. *Steiner, Michael*, +, *AES-M May 91* 23-27
- multisignal flow graphs, syst. testability anal./fault diagnosis. *Deb, S.*, +, *AES-M May 95* 14-25
- Mining**
- 19th-century 133-Hz 3-kV generator system used for transmitting power 2.6 miles to Colorado mine. *Wright, Charles R.*, *AES-M Jan 88* 8-10
- Mirrors**
- Hubble space-based telescope, Parker Effect. *Parker, A.*, +, *AES-M Jul 98* 3-6
- steerable plasma mirror based radar, concept and appls. *Mathew, J.*, *AES-M Oct 96* 38-44
- Missile control**
- Word Storage Relay (WSR). *West, P.*, *AES-M Aug 96* 29-33
- Missile guidance**
- GPS/INS integration on SLAM (standoff land attack missile). *Hyslop, Greg*, +, *AES-M Jul 90* 29-34
- GPS navigation requirements for future US mobile, ground-based military missile systems. *Graham, Greg*, +, *AES-M May 92* 37-39
- GPS, opportunities and problems. *Oman, H.*, *AES-M Jul 95* 35, 37, 39
- multimode radar, low-cost technol., flexible test bed archit. *Adler, E.*, +, *AES-M Jun 99* 23-27
- neural network modeling of flight control syst. *He Mingyi*, +, *AES-M Sep 98* 27-29
- real-time navig., Global Positioning Syst. *Simon, D.*, +, *AES-M Jan 95* 31-37
- Si μ SCIRAS MEMS inertial rate and accel. sens., tactical grade navig. and guidance. *Hulsing, R.*, *AES-M Nov 98* 17-23
- tactical solid state accelerometer develop. for missile guidance. *Killen, A.*, +, *AES-M Sep 94* 20-25
- Missiles**
- ECCM model for future EW combat. *Benren, T.*, *AES-M Jun 94* 12-16
- GPS, CALCM in Gulf War. *Nielson, J.T.*, *AES-M Jul 94* 18-22
- INS/GPS operational concept demons. (OCD). *Snyder, S.*, +, *AES-M Aug 94* 38-44
- monopulse radar in USSR, hist. *Leonov, A.I.*, *AES-M May 98* 7-13

- planetary terrains tracking, CCD sens. *Liebe, C.C., AES-M Feb 94 9-18*
- Mobile antennas**
 aircraft borne anti-jamming phase controlled antenna syst. *Eskelinen, P., +, AES-M Apr 96 8-11*
 cellular phone coverage meas., test vehicle pattern effects. *Eskelinen, P., +, AES-M Mar 97 9-11*
 rectifying receiving antenna for microwave energy transm. *McSpadden, J.O., +, AES-M Nov 94 36-41*
 RF test range for engng. education. *Eskelinen, P., +, AES-M Jul 95 17-23*
- Mobile communication**
 mil. commun., next generation equipt., syst. engng. need. *Eskelinen, P., AES-M Jun 99 3-4*
- Mobile communication; cf.** Aircraft communication; Mobile radio
- Mobile power plants**
 electric generators; state of the art. *Jokl, A. L., AES-M Dec 91 56-59*
 fuel cells for tactical battlefield power. *Appleby, A. John, AES-M Dec 91 49-55*
 proton-exchange membrane fuel cell as power source for individual soldier's equipment. *Taschek, Walter G., +, AES-M May 93 25-28*
 scaling of advanced power systems for military uses. *Wiley, Robert L., AES-M Dec 91 40-44*
 space batteries for mobile battlefield power applications. *O'Donnell, Patricia M., AES-M Dec 91 45-48*
 US Army Research Laboratory R&D programs for portable communication/electronic battlefield equipment power sources. *Christopher, Harold A., +, AES-M May 93 7-10*
- Mobile power plants; cf.** Space vehicle power plants
- Mobile radio**
 ATC, digital air/ground commun. develop. *Howland, J.W., AES-M Apr 94 20-24*
 ATM and FIS data link services. *Bauhof, C.R., AES-M Mar 94 38-42*
 digital beam forming antenna syst. for mobile commun. *Chiba, I., +, AES-M Sep 97 31-41*
 LAN wireless technols. implement. issues. *Moore, B.J., AES-M Sep 96 11-14*
 MOBITEX wireless WAN for land-based positioning/navig. *Yang, T.T., +, AES-M Jul 94 29-35*
- Mobile radio; cf.** Land mobile radio; Mobile satellite communication
- Mobile robots**
 practical hierarchical control system for telerobotic land vehicles. *Byrne, Raymond H., AES-M Oct 92 22-26*
 reactive control as substrate for telerobotic systems. *Arkin, Ronald C., AES-M Jun 91 24-31*
 STV (surrogate teleoperated vehicle) unmanned military land vehicle design. *Myers, Scott D., AES-M Jul 91 3-9*
- Mobile satellite communication**
 aeronautical mobile satellite services, 1960s, 1990s develops. *Guangren Chen, +, AES-M Dec 94 25-36*
 capacity as consideration for providing aeronautical mobile satellite air-traffic services in US domestic airspace. *Shively, Curtis A., AES-M Jun 92 51-58*
 CONUS, high-capacity aeronautical mobile satellite system; conceptual design. *Sue, M. K., AES-M Jan 88 11-20*
 Iridium syst. based aeronautical satellite commun. *Lemme, P.W., +, AES-M Nov 99 11-16*
 mobile satellite services; plans and status, including regulatory issues. *Anderson, Roy E., AES-M Mar 87 20-24, 32*
 NTT's multibeam mobile satellite communications system. *Mishima, Hiraku, +, AES-M Apr 89 19-25*
- Modeling**
 applications of mathematical models in lead-acid battery design. *Gu, H., AES-M Aug 90 3-6*
 MARC (Modeling, Animation, Rendering, and Compositing) system for visualizing and simulating space-mission scenarios. *Stephenson, Thomas, +, AES-M Jun 89 14-19*
 software project estim. models, accuracy conundrum. *Ferens, D.V., AES-M Mar 99 23-29*
- Modules**
 ATE life cycle, independent verification/validation. *Calhoun, C.C., AES-M Jul 98 37-42*
 integrated sens. systs. to support radar, EW, and CNI. *Rich, B.A., +, AES-M Sep 95 11-17*
 START, system testability analysis and research tool for automatic test sequencing and testability analysis of complex, hierarchical, modular systems. *Pattipati, Krishna R., +, AES-M Jan 91 13-20*
 VXI based breadboard module use. *Wright, B.K., AES-M Sep 98 43-47*
- Modules; cf.** Multichip modules
- Monitoring; cf.** Computerized monitoring
- Monopole antenna arrays**
 differential GPS, array antennas, multipath rejection. *Counselman, C.C., III, AES-M Dec 98 15-19*
 ground plane Yagi antenna tests, 3 GHz. *Eskelinen, P., +, AES-M Feb 96 37-40*
- Monopole antennas**
 cellular phone coverage meas., test vehicle pattern effects. *Eskelinen, P., +, AES-M Mar 97 9-11*
- Monte Carlo methods**
 aircraft GPS/INS, reduced-order model. *Xiufeng He, +, AES-M Mar 98 40-45*
 buried metallic mines detect., ultra-wideband ground-penetrating radar. *Earp, S.L., +, AES-M Sep 96 30-39*
- Moon**
 book review; Moon Missions: Mankind's First Voyages to Another World (Melberg, W.F.). *Choi, E.M., AES-M Jun 99 44*
- Mooney, David H., Jr.**
 obituary. *AES-M Sep 98 14*
- Morgan, Harvey**
 obituary. *AES-M May 99 23*
- MOS-controlled thyristors**
 PBW program, motor drive technol., power converters & devices. *Elbuluk, M.E., +, AES-M Dec 95 31-36*
- MOS integrated circuits; cf.** CMOS integrated circuits
- Motion analysis**
 STOL Maneuver Technology Demonstrator Manned Simulation Test Program. *Feeser, Kenneth A., +, AES-M Sep 89 3-12*
- Motion compensation**
 motion compensation for ISAR; effect of noise. *Xu, Rongqing, +, AES-M Jun 90 20-22*
 SAR integrated precision targeting simul. *Toussaint, J.A., +, AES-M Feb 99 29-32*
 strapdown inertial measurement units for motion compensation of SARs. *Kennedy, Thomas A., AES-M Oct 88 32-35*
 target motion compensation in SAR. *Chen, Hern-Chung, +, AES-M Feb 91 14-18*
- Motion measurement; cf.** Tracking
- Motor drives**
 PBW program, motor drive technol., power converters & devices. *Elbuluk, M.E., +, AES-M Dec 95 31-36*
- Motor drives; cf.** AC motor drives DC motor drives Variable speed drives
- Motors; cf.** Electric motors
- Multi-access systems**
 B-IDAIEN, broadband integrated digital inform. exchange networks, avionics appls. *Jian-Guo Zhang, AES-M Nov 98 31-35*
- Multi-access systems; cf.** Code division multiple access; Time division multiple access
- Multibeam antennas**
 NTT's multibeam mobile satellite communications system. *Mishima, Hiraku, +, AES-M Apr 89 19-25*
 recent advances and future trends in communications satellite technology. *Mahle, Christoph E., +, AES-M Nov 88 3-10*
- Multichip modules**
 3D mag. micro syst., magnetodosimeter, on-chip serial interface. *Malcovati, P., +, AES-M Sep 99 43-46*
 multichip modules for military and adverse environment applications. *Port, R.M., AES-M Sep 93 17-19*
 Reliability Technology to Achieve Insertion of Advanced Packaging (RELTECH) program for achieving multichip module applications. *Fayette, Daniel F., +, AES-M Aug 93 32-38*
- Multimedia communication**
 Network Vehicle, technol. initiative in mobile multimedia. *Lind, R., +, AES-M Sep 99 27-32*
 software radio technologies, architectures, model, and future directions. *Mitola, J., III, AES-M Apr 93 25-36*
- Multimedia computing**
 World Wide Web methodol. in ATE prog. environ. *Hansen, P., AES-M Jun 98 35-38*
- Multimedia systems**
 ATE paperless multimedia information and data collection system. *Willis, Fred L., +, AES-M Feb 92 14-20*
 multimedia document server. *Christodoulakis, S., +, AES-M Nov 86 2-9*
 US army Interactive Electronic Technical Manuals. *Brown, J., AES-M Jul 95 24-30*
- Multipath channels**
 cellular phone coverage meas., test vehicle pattern effects. *Eskelinen, P., +, AES-M Mar 97 9-11*
 differential GPS, array antennas, multipath rejection. *Counselman, C.C., III, AES-M Dec 98 15-19*
 GPS receiver, jammer cancellation and jammer multipath. *Fante, R.L., +, AES-M Nov 98 25-28*
 ultrawideband microwave-radar design for missile detect., sea. *Skolnik, M., +, AES-M Oct 95 25-30*
- Multiplexing; cf.** Waveguide division multiplexing
- Multiprocessing systems**
 Flight Data Analysis and Display, tool for monitoring hardware and software of multiprocessor electronic countermeasures systems. *Fenchel, Bruce, +, AES-M Sep 87 5-7*

Multiprocessing systems; cf. Neural nets; Parallel processing; Shared memory systems;

Murray, Peter R.
obituary. *AES-M Jun 89 41*

Muscle
muscle control biofeedback device to assist learning smooth golf swings. *McCurnin, Thomas W., +, AES-M Aug 86 14-15, 18-21*

N

Nanotechnology

parallel scanning AFM chip, CMOS integrated meas. syst. *Baltes, H., +, AES-M Oct 99 29-34*

Nathanson, Fred E.

obituary. *AES-M Aug 93 46*

Natural sciences; cf.

Astronomy

Naval engineering computing

naval ships, AEGIS weapon syst. integrated diagnostics. *Brazet, M.D., AES-M Feb 94 40-45*

Navigation

1990 Position Location and Navigation Symposium; meeting report. *Hadfield, Michael J., AES-M Jul 90 42-44*

animal navigation abilities; overview. *Kayton, Myron, AES-M Mar 89 3-7*

automated route selection for road-vehicle navigation. *Mark, David M., AES-M Sep 86 2-5*

autonomous land navigation in structured environment; development and testing of hardware/software system. *Klarer, Paul R., AES-M Mar 90 9-12*

book review; Navigation Land, Sea, Air & Space (Kayton, M., Ed.). *Oman, Henry, AES-M Apr 91 23*

capabilities and functions of automobile navigation systems in 1990s. *French, Robert L., AES-M May 87 6-12*

controlling remotely piloted space vehicles using voice systems and heads-up displays. *Hartley, Craig S., +, AES-M Jul 88 18-26*

fiber optic gyroscope, reduced min. config., GPS coupled land nav. appl. *Emge, S., +, AES-M Apr 97 18-21*

IEEE Engineering Skills Assessment Program; field-specific knowledge inventory for navigation engineering. *AES-M Sep 90 38-42*

Parker effect and navig. in space. *Parker, V., +, AES-M Jan 98 11-13*

precise orbit determination of high-earth elliptical orbiters using differenced Doppler and ranging measurements. *Estefan, Jeff A., AES-M May 92 12-18*

test procedure for real-time validation of measurement and dynamic models of integrated navigation systems. *Teunissen, P. J. G., AES-M Jul 90 35-41*

vehicle position tracking; sensor compensation for vehicle magnetic signatures. *Whitcomb, Lawrence A., AES-M Feb 89 33-37*

Navigation; cf.

Aircraft navigation; Computerized navigation; Inertial navigation; Missile guidance; Radionavigation; Satellite navigation

Network computers

Network Vehicle, technol. initiative in mobile multimedia. *Lind, R., +, AES-M Sep 99 27-32*

Networks; cf.

Computer networks; Neural nets

Networks (circuits); cf.

Analog processing circuits; Driver circuits; Equivalent circuits; Printed circuits; Telecommunication networks

Network servers

NASA technol. accessing, World Wide Web. *Nelson, M.L., +, AES-M May 95 7-13*

Neural net architecture

neural network based cct. fault diagnosis, current monitoring. *Kirkland, L.V., +, AES-M Jan 95 28-30*

neural networks in nonlin. aircraft flight control. *Calise, A.J., AES-M Jul 96 5-10*

Neural nets

basic overview of neural networks. *Illingworth, William T., AES-M Sep 89 44-49*

batt. charging, neural-fuzzy approach. *Ullah, Z., +, AES-M Jun 96 26-34*

card testing problems, neural networks, testing strategies. *Kirkland, L.V., +, AES-M Aug 97 36-40*

flight control syst. neural network modeling. *He Mingyi, +, AES-M Sep 98 27-29*

hole solder joints, X-rays. *Pierce, B.L., +, AES-M Feb 94 28-32*

hybrid connectionist systs. in research and teaching. *Jain, L.C., AES-M Mar 95 14-18*

neural network research applied to image classification; recent developments at US Air Force Institute of Technology (AFIT). *Rogers, Steven K., +, AES-M Sep 90 17-19*

neural networks implement. and appls. *Vonk, E., +, AES-M Jul 96 11-16*

PCB diagnosis, neural networks and mag. fields. *Spence, H.F., AES-M Feb 94 20-24*

personal perspectives and views on potentials of neural networks. *Waaben, S., AES-M Mar 90 13-17*

space appls. of computational intell./soft computing. *Berenji, H.R., AES-M Aug 96 8-10*

tracks assoc. from over horizon radar. *Bogner, R.E., +, AES-M Sep 98 31-35*

Neuromuscular stimulation

portable electrical stimulation systems for gait restoration in stroke victims and motor-disabled persons. *Meadows, Paul, AES-M Oct 91 6-10*

Neutron activation analysis

author information for 'Explosive detection system based on thermal neutron analysis'. *Gozani, Tsahi, +, AES-M Jan 90 52-54*

explosives detection system based on thermal neutron activation. *Gozani, Tsahi, +, AES-M Dec 89 17-20*

Nickel

NiCd batt. pack. intell. charging, neural-fuzzy approach. *Ullah, Z., +, AES-M Jun 96 26-34*

Ni-MH next generation portable batt., elec. vehicles, adv. mater. *Ovshinsky, S.R., +, AES-M May 99 17-23*

Ni-Zn sealed batt. for high energy-dens. appls. *Coates, D., +, AES-M Jun 97 35-38*

reconditioning of Ni/H₂ batts., need and effect. *Suresh, M.S., +, AES-M Apr 95 26-29*

Nickel compounds

Ni:MH₂, Hy-Stor batt. design and appls. *Burghart, P.A., AES-M Nov 97 8-18*

NiCl₂-Na, advanced batts. commercialization. *Mader, J., AES-M Jul 96 17-22*

Ni-metal hydride bipolar batt. for hybrid vehicles. *Reisner, D.E., +, AES-M May 94 24-28*

NiMH batt. mgt., multichemistry systs. *Bently, W.F., +, AES-M May 96 23-26*

NiMH₂, advanced batts. commercialization. *Mader, J., AES-M Jul 96 17-22*

NiOOH-Cd aerospace batt. cells, separator syst. *Scoles, D.L., +, AES-M Jul 96 27-30*

PowerCore based satellite power supplies with NiH₂ batt. *Lyman, P.C., +, AES-M Sep 98 39-42*

Nitrogen compounds

NiH₂ Dependent Pressure Vessel cell and batt. technol. *Caldwell, D.B., +, AES-M Dec 97 27-32*

Noise; cf.

Electromagnetic interference; Gaussian noise; Optical noise; White noise

Nomenclature

dependability in computer systs. engng., terminology, similarities and differences. *Prasad, D., +, AES-M Jan 96 14-21*

Nondestructive testing

GaN/P/GaAs tandem solar cells, high-efficiency. *Bertness, K.A., +, AES-M Dec 94 12-17*

TbDyFe, TERFENOL-D, giant magnetostrictive materials, actuators, magnetotagging. *Jones, B., +, AES-M Mar 96 3-6*

wood characterization by microwaves. *Eskelinen, P., +, AES-M Feb 98 34-35*

Nonlinear control systems

neural networks in nonlin. aircraft flight control. *Calise, A.J., AES-M Jul 96 5-10*

Nonlinear differential equations

neural networks in nonlin. aircraft flight control. *Calise, A.J., AES-M Jul 96 5-10*

Nonlinear systems

online identification and control of linearized aircraft dynamics using multiple-objective optimization. *Rusnak, Ilan, +, AES-M Jul 92 56-60*

Notebook computers

Network Vehicle, technol. initiative in mobile multimedia. *Lind, R., +, AES-M Sep 99 27-32*

safety and environmental considerations for nickel-metal-hydride and nickel-cadmium batteries used in notebook computers. *Phillips, Jeffrey, +, AES-M May 93 35-37*

Nuclear power

overview of flight qualifications for space nuclear systems. *Bennett, Gary L., AES-M Nov 92 26-36*

Numerical analysis; cf.

Finite difference methods; Interpolation; Iterative methods; Runge-Kutta methods

Numerical control

at. clocks, num. controlled, long term timing stabil. *Eskelinen, P., +, AES-M Oct 97 8-11*

O

Obituaries

David H. Mooney, Jr. *AES-M Sep 98 14*

Frank Voltaggio, Jr. *AES-M Feb 91 31*

Fred E. Nathanson. *AES-M Aug 93 46*

Harvey Morgan. *AES-M May 99 23*

- John Clarke. *AES-M Mar 89 45*
 Joseph L. Ryerson. *Pratt, R.C., AES-M May 94 40*
 L. Daniel Snyder. *AES-M Jul 99 44*
 Lee A. DuBridg. *AES-M Mar 94 43*
 Nathaniel Braverman. *AES-M Oct 90 54*
 Peter R. Murray. *AES-M Jun 89 41*
 Robert M. Page. *AES-M Jul 92 61*
 Rudy Stampf. *Herz, E., AES-M Dec 94 37*
 Sven H. Dodington. *AES-M Feb 92 32*
 Thomas J. Martin. *AES-M Mar 98 31*
 Walter R. Fried. *AES-M Dec 98 34*
 W. Donald Dodd. *AES-M May 94 36*
- Object detection**
 explanations of data and photographs of supposed UFOs. *AES-M Apr 91 16-18*
 real-time monocular target tracking syst. *Baumela, L., +, AES-M Jul 95 4-7*
 report and evaluation of meeting of Los Angeles Chapter of IEEE AES Society of UFO phenomena. *AES-M Apr 91 13-15*
 smart system for detecting and tracking targets in video imagery. *Horton, Rebecca D., AES-M Mar 91 8-13*
 video surveillance appl. using multiple views of scene. *Meyer, M., +, AES-M Mar 99 13-18*
- Object detection; cf.** Buried object detection; Radar detection; Sonar detection
- Object-oriented languages; cf.** C++ language; Java
- Object-oriented methods**
 annunciator archit. for yr. 2000. *Adams, D.G., +, AES-M Jun 97 25-28*
 limitations of object-oriented design. *Kester, James E., AES-M Sep 93 14-16*
- Object-oriented programming**
 COTS based open syst. archit. for mil. avionics. *Paul, J.T., AES-M Sep 99 37-42*
 DoD projects, prog. lang. selection. *Naiditch, D., AES-M Sep 99 11-14*
- Object recognition**
 compression standards and alternative methods for video telecommunication. *Kaplan, Sidney, AES-M Oct 92 27-30*
 image understanding research for automatic target recognition. *Bhanu, Bir, +, AES-M Oct 93 15-23*
 video compression implemented using rigid and nonrigid object recognition and computer graphics animation. *Freedman, Jeffrey, AES-M Oct 92 31-37*
- Observability**
 aircraft GPS/INS, reduced-order model. *Xiufeng He, +, AES-M Mar 98 40-45*
- Oceanographic regions**
 relation of climate to sea level change; effect of changing sea level on prehistoric man. *Butt, Arthur J., +, AES-M Jul 87 8-11*
- Oceanographic techniques**
 HF radar target detect./tracking, reciprocal SAR techs. *Khan, R.H., AES-M Jan 97 40-43*
 ocean towers for Charleston Tactical Aircrew Combat Training System (CTACTS); design and construction. *O'Boyle, Thomas J., +, AES-M Sep 87 12-16*
 SAR rem. sens., spaceborne, SRTM and LightSAR. *Hilland, J.E., +, AES-M Nov 98 9-16*
 TOPEX/Poseidon elec. power syst. *Chetty, P.R.K., +, AES-M Jun 97 18-24*
- Office automation**
 office information system cost justification in engineering environments. *Sassone, Peter G., +, AES-M Aug 86 21-26*
- Office automation; cf.** Teleworking
- Online operation**
 neural networks in nonlin. aircraft flight control. *Calise, A.J., AES-M Jul 96 5-10*
- Open systems**
 ATE enabling technols., Air Force outlook. *Kirkland, L.V., +, AES-M Jan 94 12-16*
 ATE enabling technols. for Air Force. *Kirkland, L.V., +, AES-M Jan 95 14-18*
 ATLAS TPS conversion to ANSI C, open-syst. approach. *Timcho, T.J., AES-M Jul 99 13-17*
 avionics archit., DoD level. *Roark, C., +, AES-M Sep 95 18-22*
 avionics develop., Open Systems approach, affordability. *Roark, C., +, AES-M Sep 96 15-20*
 avionics open systs., affordability, syst. engng. perspective. *Roark, C., +, AES-M Feb 97 26-32*
 COTS based open syst. archit. for mil. avionics. *Paul, J.T., AES-M Sep 99 37-42*
 fourth-generation avionics, modular approach, digital networks. *Schroeder, J.E., +, AES-M Oct 95 39-41*
 integrated automatic vehicle location syst. *McKay, K.M., AES-M Mar 97 18-22*
 J-MASS Marketplace, DoD modeling/simul. software implement. *McQuay, W.K., AES-M Sep 95 23-26*
- modular avionics, open syst. concepts & technol. *The dens, J.R., AES-M Oct 97 30-34*
 RF integrated electronics, open systs. archit. *Hooks, D.C., +, AES-M Jan 99 29-33*
- Operating system kernels**
 traffic light control, safety kernel. *Ammann, P., AES-M Feb 96 13-19*
- Operating systems (computers)**
 Year 2000 impact on automated testing, pot. problem areas. *Waken, W., +, AES-M Jul 99 5-8*
- Optical backplanes**
 avionic opt. fiber async. CDMA, real-time data distrib., computer interconnect. *Jian-Guo Zhang, AES-M Jul 99 35-42*
 mil. avionics opt. fiber data buses, act.-coupler config. *Jian-Guo Zhang, +, AES-M Jul 99 27-33*
- Optical communication**
 intersatellite communications optoelectronics research at NASA Goddard Space Flight Center. *Krainak, Michael A., AES-M Sep 92 44-47*
 UV commun. syst., solar blind, electrodeless, aircraft data/voice links. *Shute, R.D., AES-M Nov 95 2-7*
- Optical communication; cf.** Optical fiber communication
- Optical computing**
 fast optical LDA burst analyzer. *Butefisch, Karl-Aloys, AES-M Feb 90 3-9*
- Optical correlation**
 2D opt. correlator for fingerprint ident. *Klima, M., +, AES-M Jul 97 3-9*
 avionic opt. fiber async. CDMA, real-time data distrib., computer interconnect. *Jian-Guo Zhang, AES-M Jul 99 35-42*
- Optical couplers; cf.** Optical fiber couplers
- Optical crosstalk**
 NASTYGLASS, glass suffering from video equivalent of audio crossover; concept and physics. *Nahin, Paul J., AES-M Dec 87 2-7*
- Optical fiber communication**
 avionics commun., fiber opt. commun. syst., laser requirements. *Loehr, J., +, AES-M Apr 98 9-12*
 LD high speed driving, exponential transm. line. *Zheng Li, +, AES-M Sep 96 4-7*
 WDM RF fiber-optical links at 6-18 GHz; GPS fiber-optic link. *Nelson, George F., AES-M Jul 92 12-15*
- Optical fiber communication; cf.** Optical fiber networks
- Optical fiber couplers**
 fiber optic gyroscope, reduced min. config., GPS coupled land nav. appl. *Emge, S., +, AES-M Apr 97 18-21*
 mil. avionics opt. fiber data buses, act.-coupler config. *Jian-Guo Zhang, +, AES-M Jul 99 27-33*
 robust fiber optic active star coupler for SAE linear token-passing multiplex data bus. *Uhlhorn, R. W., AES-M Jan 89 3-11*
- Optical fiber LAN**
 avionic opt. fiber async. CDMA, real-time data distrib., computer interconnect. *Jian-Guo Zhang, AES-M Jul 99 35-42*
 avionic opt. fiber CDMA networks, high-speed, syst. integrat. *Jian-Guo Zhang, AES-M Jun 99 15-21*
 fiber opt. avionics data buses, MIL-STD-1773, design issues. *Jian-Guo Zhang, AES-M Oct 98 25-32*
 mil. avionics opt. fiber data buses, act.-coupler config. *Jian-Guo Zhang, +, AES-M Jul 99 27-33*
 plastic opt. networks, high-speed/user-friendly. *Cirillo, J., AES-M Oct 96 10-13*
- Optical fiber networks**
 B-IDA IEN, broadband integrated digital inform. exchange networks, avionics appls. *Jian-Guo Zhang, AES-M Nov 98 31-35*
 mil. avionics, opt. fiber data bus, MIL-STD-1773, modulation tech. *Jian-Guo Zhang, AES-M Apr 99 31-38*
- Optical fiber networks; cf.** Optical fiber LAN
- Optical fibers**
 deterministic VXI highway interconnect, aerospace test systs. *Cleary, R.T., AES-M Mar 96 18-23*
 gyroscope, reduced min. config., land nav. appl. *Emge, S., +, AES-M Apr 97 18-21*
- Optical fibers; cf.** Optical fiber couplers
- Optical filters**
 two-color temporally correl. IR background meas., missile warning sens. *Montgomery, J.B., +, AES-M Apr 98 29-35*
- Optical images**
 determining effects of adverse weather on performance of imaging sensors for aircraft landing systems. *Greenwood, Stuart W., AES-M Apr 91 3-6*
 Joint Service Imagery Processing System (JSIPS) for tactical reconnaissance and surveillance by US Military. *Davis, Robert L., AES-M Dec 92 12-36*
 space remote sensors as component of high-level robotic systems; sensors for EDS program. *Keller, Sam, AES-M Apr 87 14-18*
- Optical information processing; cf.** Optical correlation
- Optical interconnections**
 deterministic VXI highway interconnect, aerospace test systs. *Cleary, R.T., AES-M Mar 96 18-23*

- optical interconnection and packaging technologies for advanced avionics systems. *Schroeder, J. E.*, +, *AES-M Sep 92* 5-9
- optical interconnections for digital systems. *Tsang, Dean Z.*, *AES-M Sep 92* 10-15
- Optical interconnections; cf.** Optical backplanes
- Optical links**
- flyable fiber-optic radar target generator. *Prcic, M.M.*, *AES-M Jan 94* 17-20
- LAN wireless technol. implement. issues. *Moore, B.J.*, *AES-M Sep 96* 11-14
- Optical modulation**
- avionics data buses, MIL-STD-1773, design issues. *Jian-Guo Zhang*, *AES-M Oct 98* 25-32
- Optical noise**
- Hubble space-based telescope, Parker Effect. *Parker, A.*, +, *AES-M Jul 98* 3-6
- Optical noise; cf.** Optical crosstalk
- Optical polymers**
- plastic opt. networks, high-speed/user-friendly. *Cirillo, J.*, *AES-M Oct 96* 10-13
- Optical properties; cf.** Brightness; Color
- Optical radar**
- 2 μm LIDAR for laser-based rem. sens. *Wagener, T.J.*, +, *AES-M Feb 95* 23-28
- airdrop ballistic winds operationally capable lidar. *Carr, J.*, +, *AES-M May 99* 31-36
- military aircraft covert penetration systems; laser radar and automatic target recognition overview. *Fleury, Peter A.*, *AES-M Dec 86* 8-12
- space power alternatives for laser radar sensor system; comparison of fire batteries and flywheel systems. *Boretz, John F.*, *AES-M Mar 90* 3-8
- Optical receivers**
- intersatellite communications optoelectronics research at NASA Goddard Space Flight Center. *Krainak, Michael A.*, *AES-M Sep 92* 44-47
- Optical scanners**
- IR imaging sens., overview of develop. *Crawford, F.J.*, *AES-M Oct 98* 17-24
- Optical sensors**
- optical angle of attack sensor. *McDevitt, T. Kevin*, +, *AES-M Feb 90* 19-27
- Optical sensors; cf.** Fiber optic sensors
- Optical tracking**
- IR imaging sens., overview of develop. *Crawford, F.J.*, *AES-M Oct 98* 17-24
- real-time monocular target tracking syst. *Baumela, L.*, +, *AES-M Jul 95* 4-7
- two-color temporally correl. IR background meas., missile warning sens. *Montgomery, J.B.*, +, *AES-M Apr 98* 29-35
- Optical transmitters**
- avionics commun., fiber opt. commun. syst., laser requirements. *Loehr, J.*, +, *AES-M Apr 98* 9-12
- fiber opt. avionics data buses, MIL-STD-1773, design issues. *Jian-Guo Zhang*, *AES-M Oct 98* 25-32
- intersatellite communications optoelectronics research at NASA Goddard Space Flight Center. *Krainak, Michael A.*, *AES-M Sep 92* 44-47
- Optimal control**
- book review; An Engineering Approach to Optimal Control and Estimation Theory (Siouris, G.M.; 1996). *Moiola, J.L.*, *AES-M Jan 97* 35-37
- Optimal control; cf.** Linear quadratic control
- Optimization**
- FINDER, complex DSS for commercial transport. *Bittermann, V.*, +, *AES-M Mar 94* 12-19
- GPS optimized carrier phase ambiguity search. *Yang Gao*, +, *AES-M Dec 96* 22-26
- morph. synthesis for promising tech. systs. *Rakov, D.L.*, *AES-M Dec 96* 3-8
- online identification and control of linearized aircraft dynamics using multiple-objective optimization. *Rusnak, Ilan*, +, *AES-M Jul 92* 56-60
- radar siting and perform. prediction, software tool. *O'Hern, B.*, +, *AES-M Dec 97* 19-26
- system optimization techniques for radar surveillance from space. *Hardin, Robert H.*, *AES-M Aug 89* 9-14
- Optimization; cf.** Minimax techniques
- Optoelectronic devices**
- book review; Optoelectronic Packaging (Mickelson, A.R., et al., Eds.; 1997). *Oman, H.*, *AES-M Aug 97* 44
- Parker effect and navig. in space. *Parker, V.*, +, *AES-M Jan 98* 11-13
- Optoelectronic devices; cf.** Integrated optoelectronics; Light emitting diodes
- Order-disorder transformations**
- Li-LiMn₂O₄ thin-film batts., fab./props. *Bates, J.B.*, +, *AES-M Apr 95* 30-32
- Organic compounds; cf.** Polymers

P

Packaging

- book review; Optoelectronic Packaging (Mickelson, A.R., et al., Eds.; 1997). *Oman, H.*, *AES-M Aug 97* 44
- high-voltage equipment for aerospace usage; design and packaging. *Dunbar, W. G.*, *AES-M Jan 86* 2-6
- NiH₂ Dependent Pressure Vessel cell and batt. technol. *Caldwell, D.B.*, +, *AES-M Dec 97* 27-32
- optical interconnection and packaging technologies for advanced avionics systems. *Schroeder, J. E.*, +, *AES-M Sep 92* 5-9

Packaging; cf. Integrated circuit packaging; Multichip modules; Thermal management (packaging)

Packet radio networks

- MOBITEX wireless WAN for land-based positioning/navig. *Yang, T.T.*, +, *AES-M Jul 94* 29-35

Page, Robert M.

obituary. *AES-M Jul 92* 61

Parallel architectures

- cockpit display syst., next generation, develop. *Read, B.C., III*, *AES-M Oct 96* 25-28
- training simulator archit. based on distributed proc. *Shi-Yu Gong*, +, *AES-M Sep 96* 8-10

Parallel processing

- HF OTH radar target detect. & estim., parallel proc. subsyst. *Wang Wei*, +, *AES-M Apr 99* 39-45

Parallel processing; cf. Multiprocessing systems

Parameter estimation

- GPS optimized carrier phase ambiguity search. *Yang Gao*, +, *AES-M Dec 96* 22-26
- online identification and control of linearized aircraft dynamics using multiple-objective optimization. *Rusnak, Ilan*, +, *AES-M Jul 92* 56-60

Parameter estimation; cf. Direction-of-arrival estimation; Maximum likelihood estimation

Patent abstracts

- aerospace technology; 12 patent abstracts. *AES-M Feb 86* 30-32
- aerospace technology; 26 patent abstracts. *AES-M Nov 86* 33-36
- aerospace technology; 7 patent abstracts. *AES-M May 86* 29-32

Patents

- claims, keeping track, dependency table. *East, T.W.R.*, *AES-M Aug 95* 32-33

Path planning; cf. Collision avoidance

Pattern classification

- tracks assoc. from over horizon radar. *Bogner, R.E.*, +, *AES-M Sep 98* 31-35

Pattern recognition

- automatic generation of binary feature detectors. *Tamburino, Louis A.*, +, *AES-M Sep 89* 20-29
- morph. synthesis for promising tech. systs. *Rakov, D.L.*, *AES-M Dec 96* 3-8
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- spacecraft attitude determination based on database of star constellation patterns using CCD star imager. *Liebe, Carl Christian*, *AES-M Jun 92* 34-41

Pattern recognition; cf. Character recognition; Computer vision; Face recognition; Object detection; Radar target recognition; Speech recognition

Pattern recognition equipment

- COUNTERFOIL high security opt. surface technol. *Atherton, P.*, *AES-M May 98* 3-6
- field-portable imaging syst. for scene class. *Preston, E.*, +, *AES-M Sep 94* 13-19

Performance evaluation

- DGPS-based aircraft flight guidance/test syst. *Huamin Jia*, +, *AES-M Jul 96* 23-26
- radar siting and perform. prediction, software tool. *O'Hern, B.*, +, *AES-M Dec 97* 19-26
- separator syst. for advanced aerospace batt. cells. *Scoles, D.L.*, +, *AES-M Jul 96* 27-30

Performance evaluation; cf. Software performance evaluation

Peripheral interfaces

- ATE life cycle, independent verification/validation. *Calhoun, C.C.*, *AES-M Jul 98* 37-42
- ATLAS TPS conversion to ANSI C, open-syst. approach. *Timcho, T.J.*, *AES-M Jul 99* 13-17
- deterministic VXI highway interconnect, aerospace test systs. *Cleary, R.T.*, *AES-M Mar 96* 18-23
- Firewire, IEEE 1394 std. computer indust. interconnect for T&M. *Atchison, L.*, *AES-M Aug 99* 21-24
- VXI based breadboard module use. *Wright, B.K.*, *AES-M Sep 98* 43-47

- VXibus instrum., past, present & future. *Sarfi, T.*, *AES-M Jun 99* 35-37
 VXibus multicomputer syst. set up and use. *Wright, M.*, *AES-M Sep 98* 17-21
 VXIplug&play, integrat. VXI resources problems. *Gooding, M.*, *AES-M Jul 99* 9-12
- Permanent magnet motors**
 AC drives for elec. vehicles, experts' opinion survey. *Chang, L.*, *AES-M Aug 94* 7-11
 hybrid elec. vehicles, 1998 market. *Wyczalek, F.A.*, *AES-M Mar 99* 41-44
 Miniatat gyroscope, low cost alternative. *Califano, H.T.*, *AES-M Aug 94* 12-16
- Permittivity**
 MLC capacitors, energy storage, 77K. *Lawless, W.N.*, +, *AES-M May 97* 32-35
- Personnel**
 career develop. reinventing. *Hanson, M.C.*, *AES-M Feb 94* 3-8
 managing the super achiever engineer. *Russell, Robert F.*, *AES-M Mar 88* 17-20, 26
- Pharmaceutical industry**
 US FDA software safety & reliab. stand., eval., comparison & selection methodology. *Herrmann, D.S.*, *AES-M Jan 96* 3-12
- Phase coding**
 mil. avionics, opt. fiber data bus, MIL-STD-1773, modulation tech. *Jian-Guo Zhang*, *AES-M Apr 99* 31-38
- Phased array radar**
 airborne radar, STAP algm., real-time demons. *Linderman, M.H.*, +, *AES-M Mar 98* 15-31
 clutter suppression approach for multifunction radar; radar resource management for clutter suppression. *Yamada, Yoshifumi*, *AES-M Jun 90* 14-16
 experimental ELRA phased array radar with extended flexibility; system overview. *Groger, I.*, +, *AES-M Nov 90* 26-30
 PAVE PACE, system avionics for 21st century; architecture issues. *Morgan, D. Reed*, *AES-M Jan 89* 12-22
 sidelobe self-interf. reduction in agile beam radar. *Urkowitz, H.*, *AES-M Nov 97* 37-46
- Phased arrays**
 1996 International Symposium on Phased Array Systems and Technology, highlights. *Brookner, E.*, *AES-M Mar 97* 12-17
- Phased arrays; cf.** Antenna phased arrays
- Phase locked loops; cf.** Digital phase locked loops
- Phase locked oscillators**
 at. clocks, num. controlled, long term timing stabil. *Eskelinen, P.*, +, *AES-M Oct 97* 8-11
- Phase measurement**
 optimized carrier phase ambiguity search. *Yang Gao*, +, *AES-M Dec 96* 22-26
 satellite interference location system for locating terrestrial uplink stations using differential time and phase measurements. *Smith, William Whitfield, Jr.*, +, *AES-M Mar 91* 3-7
- Phase shifters**
 aircraft borne anti-jamming phase controlled antenna syst. *Eskelinen, P.*, +, *AES-M Apr 96* 8-11
 lens config. phased arrays, low-cost. *Rao, J.B.L.*, +, *AES-M Jun 97* 39-44
- Phase shifters; cf.** Millimeter wave phase shifters
- Phase shift keying**
 techniques for transmitting digital data on space shuttle Orbiter's analog video channel. *Smith, Dean Lance*, +, *AES-M May 93* 42-50
 techniques for transmitting space shuttle Orbiter data over composite video channel. *Smith, Dean Lance*, +, *AES-M Apr 93* 16-24
- Philosophical aspects**
 aesthetics of computers (New Horizons). *Rucinski, Andrzej*, *AES-M Aug 89* 33-35
- Photodetectors**
 IR imaging sens., overview of develop. *Crawford, F.J.*, *AES-M Oct 98* 17-24
- Photographic applications**
 microwave parab. dish reflector, perform. anal., simple photography. *Eskelinen, P.*, +, *AES-M Apr 97* 3-5
- Photovoltaic power systems**
 characteristics of battery charge controllers in stand-alone photovoltaic systems. *Harrington, Steve*, +, *AES-M Aug 92* 15-21
 cost-effectiveness issues in space PV. *Gledhill, K.*, +, *AES-M Dec 94* 8-11
 develop. trends. *Brandhorst, H.W.*, *AES-M Nov 94* 21-25
 electrical power subsystem initial sizing for spacecraft using solar cells. *Moser, R. L.*, *AES-M Dec 90* 29-34
 electric propulsion technology overview; power laser beaming for enhanced performance of earth orbital transporters. *Dagle, Jeffery E.*, *AES-M Nov 91* 17-20
 GaInP/GaAs tandem solar cells develops. *Bertness, K.A.*, +, *AES-M Dec 94* 12-17
 Hubble Space Telescope solar array change-out, mission anom. *Winslow, C.*, *AES-M Apr 95* 3-13
- International Space Station elec. power syst., status, archit., future technol. *Gholdston, E.*, +, *AES-M Feb 96* 25-30
 large-area solar cells for future space power systems. *Lillington, D. R.*, +, *AES-M Jan 90* 25-29
 lightweight (AlGaAs)GaAs/CuInSe₂ tandem junction solar cells for space applications. *Kim, Nansoo P.*, +, *AES-M Nov 89* 23-32
 nickel-hydrogen battery for PV systems. *Bush, Donald M.*, *AES-M Aug 90* 27-30
 overview of photovoltaic technology; history and future goals. *Ralph, E. L.*, *AES-M Oct 86* 2-7
 parametric cost model for solar and dynamic isotope space power systems. *Meisl, Claus J.*, *AES-M Dec 93* 24-29
 power needs for commercial satellites by year 2000. *Billerbeck, W. J.*, *AES-M Oct 86* 20-28
 radioisotope powered AMTEC systs. *Ivanenok, J.F., III*, +, *AES-M Nov 94* 29-35
 remote stand-alone photovoltaic systems. *O'Neill, Walter*, *AES-M Oct 91* 15-19
 solar-AMTEC power syst. design & integrat., advanced GPS. *Johnson, G.*, +, *AES-M Feb 97* 33-40
 Solar Dynamic Flight Demonstration Project plan, Joint US/Russian syst. *Wanhainen, J.S.*, +, *AES-M Feb 96* 31-36
 solar power satellite, mag. inflatable, energy storage. *Ehsani, M.*, +, *AES-M Aug 95* 9-14
 spacecraft elec. propulsion syst., direct drive options. *Hamley, J.A.*, *AES-M Feb 96* 20-24
 space power by ground-based laser illumination of photovoltaic arrays. *Landis, Geoffrey A.*, *AES-M Nov 91* 3-7
 space station Freedom solar array design development. *Winslow, Cindy*, *AES-M Jan 93* 3-8
 thermionic/AMTEC cascade converter concept for high-efficiency space power. *Van Hagan, T.H.*, +, *AES-M Jul 97* 10-15
 TOPEX/Posidon elec. power syst. *Chetty, P.R.K.*, +, *AES-M Jun 97* 18-24
 wireless power transm., solar power satellite develop. program. *Nansen, R.H.*, *AES-M Jan 96* 33-39
- Physical instrumentation control**
 at. clocks, num. controlled, long term timing stabil. *Eskelinen, P.*, +, *AES-M Oct 97* 8-11
- Physical theory of diffraction**
 radar antenna syst., installed perform. anal., computer code. *Kim, J.J.*, +, *AES-M Jun 99* 38-42
- Physics computing**
 exponential approxs. for small arguments, first-order. *Narayanan, R.M.*, *AES-M Feb 94* 33-35
- Physics fundamentals**
 Parker effect and navig. in space. *Parker, V.*, +, *AES-M Jan 98* 11-13
 radiation continuum model of light, Galilean invariance of Maxwell eqns. *Renshaw, C.E.*, +, *AES-M Oct 98* 3-8
- Physiological models**
 ion parametric model of biol. effects from mag. fields. *Blanchard, J.P.*, *AES-M Feb 96* 6-10
- p-i-n photodiodes**
 mil. avionics opt. fiber data buses, act.-coupler config. *Jian-Guo Zhang*, +, *AES-M Jul 99* 27-33
- Planetary satellites; cf.** Moon
- Planetary surfaces**
 planetary terrains tracking, CCD sens. *Liebe, C.C.*, *AES-M Feb 94* 9-18
- Planets; cf.** Asteroids; Earth; Mars; Mercury (planet)
- Planning**
 book review; Business Plans that Win \$\$\$ (S. R. Rich and D. Gumpert; 1985). *Sumner, George C.*, *AES-M Apr 86* 36
 mission/flight systems integration study to identify future avionics systems technologies and requirements. *Schneider, Bernard A.*, *AES-M Jan 89* 23-25
 PAVE PACE, system avionics for 21st century; architecture issues. *Morgan, D. Reed*, *AES-M Jan 89* 12-22
- Planning; cf.** Power system planning; Strategic planning
- Planning (artificial intelligence)**
 FINDER, complex DSS for commercial transport. *Bittermann, V.*, +, *AES-M Mar 94* 12-19
- Plasma applications**
 steerable plasma mirror based radar, concept and appls. *Mathew, J.*, *AES-M Oct 96* 38-44
- Plasma displays**
 flat-panel displays; state of the art. *Kmetz, Allan R.*, *AES-M Aug 87* 19-24
- Plasma radiofrequency heating**
 microwave electrothermal thruster, efficient power supply. *Ehsani, M.*, +, *AES-M May 98* 37-42
- Plastics**
 plastic opt. networks, high-speed/user-friendly. *Cirillo, J.*, *AES-M Oct 96* 10-13

Pointing systems

- comparison of 35-GHz with 95-GHz air-to-ground fire-control systems. *Currie, Nicholas C.*, +, *AES-M Oct 88* 21-26
 multi-spacecraft syst., relative navig., GPS. *Jianping Yuan*, +, *AES-M Dec 98* 25-28
 pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong*, *AES-M Dec 98* 3-6

Poles and towers

- tower mounted antennas for cellular commun., RF scale testing. *Eskelinen, P.*, *AES-M Aug 98* 33-35

Poles and zeros

- high-resolution multiple-target-angle tracking. *Yu, Kai-Bor*, *AES-M May 91* 8-12

Police

- intruder alarm systs. effectiveness for crime prevention. *Pascoe, T.*, +, *AES-M Feb 98* 8-15
 mm-wave safety warning syst. for in-vehicle signing. *Greneker, G.*, *AES-M Jul 98* 7-12
 surveillance, walls and opaque materials. *Frazier, L.M.*, *AES-M Oct 96* 6-9

Politics

- book review; The Myths of August - A Personal Exploration of Our Tragic Cold War Affair with the Atom (Udall, S.L.). *Oman, H.*, *AES-M Oct 99* 45-46

Pollution

- greener batts. cooperation, indust. and EPA. *Telzrow, T.N.*, *AES-M May 95* 35-36
 orbiting debris detect. radar, conceptual design. *Graves, R.H.W.*, *AES-M Dec 95* 19-24

Polymers

- aerospace Li-ion solid polymer batts. *Teofilo, V.L.*, +, *AES-M May 98* 33-36
 Li-ion solid polymer electrolyte batt. develop. *Teofilo, V.L.*, +, *AES-M Nov 99* 43-47

Polymers; cf. Optical polymers**Portable computers**

- aerospace maint. environ., wearable computers as portable maint. terminal. *Greene, S.R.*, +, *AES-M Nov 99* 33-35
 power sources. *Freiman, J.F.*, *AES-M May 94* 3-6

Portable computers; cf. Notebook computers**Portable instruments**

- Hy-Stor™ batt. design and appls. *Burghart, P.A.*, *AES-M Nov 97* 8-18

Position control

- 35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22
 FIREFINDER posn. anal. syst. advanced develop. model. *DiDomizio, J.*, +, *AES-M Sep 96* 25-29
 unmanned space vehicle navig. by GPS. *Xiaorong Sun*, +, *AES-M Jul 96* 31-34

Position control; cf. Collision avoidance**Position measurement**

- coordinate conversion problem for radio navigation receivers (reprinted from Navigation vol. 33, no. 4, Winter 86-87). *Roerber, J.F.*, *AES-M Aug 89* 15-17
 demonstration of sub-meter GPS orbit determination and high-precision user positioning. *Bertiger, Willy I.*, +, *AES-M Feb 89* 16-25
 determining ground emitter location using Multiple Sample Correlation (MSC) algorithm for passive bearing-angle information. *Fu, S.J.*, +, *AES-M Dec 88* 15-18
 FIREFINDER posn. anal. syst. advanced develop. model. *DiDomizio, J.*, +, *AES-M Sep 96* 25-29
 Parker effect and navig. in space. *Parker, V.*, +, *AES-M Jan 98* 11-13
 PLANS '94, Position, Location and Navigation Symposium '94. *Oman, H.*, *AES-M Jul 94* 2-5
 position-fixing using USSR's GLONASS C/A code. *Dale, Stephen A.*, +, *AES-M Feb 89* 3-10
 smart probe, Deutsche Airbus flight test. *Hagen, F.W.*, +, *AES-M Apr 94* 7-14

Power cable testing

- space power wiring systs., safety, maint. and protection. *Stavnes, M.W.*, +, *AES-M Jan 94* 21-27

Power capacitors

- high-energy-density double-layer capacitors for energy storage applications. *Lai, Jih-Sheng*, +, *AES-M Apr 92* 14-19
 ultracapacitors for elec. vehicles, load-levelling batts. *Dowgiallo, E.J.*, +, *AES-M Aug 95* 26-31

Power converters

- high-power, lightweight transformers and converters for power conditioning systems. *Gilmour, A. S., Jr.*, *AES-M Dec 91* 33-39
 International Space Station elec. power syst., status, archit., future technol. *Ghoddston, E.*, +, *AES-M Feb 96* 25-30
 microwave power systs. engng., beam safety, freq. allocation, affordability. *Dickinson, R.M.*, *AES-M May 97* 10-14

- PBW program for aircraft, motor drive technols., options and trends. *Elbuluk, M.E.*, +, *AES-M Nov 95* 37-42

- PBW program, motor drive technol., power converters & devices. *Elbuluk, M.E.*, +, *AES-M Dec 95* 31-36

- thermionic/AMTEC cascade converter concept for high-efficiency space power. *Van Hagan, T.H.*, +, *AES-M Jul 97* 10-15

- Power converters; cf. DC-AC power converters; DC-DC power converters; Inverters; PWM power converters; Resonant power converters**

- Power distribution; cf. Distribution networks**

Power distribution control

- Autonomous Power System project for demonstrating application of integrated intelligent diagnosis, control, and scheduling to space power distribution systems. *Ringer, Mark J.*, +, *AES-M Jan 93* 40-47
 solid-state power controller for next generation for military platforms. *Friedman, Steven N.*, *AES-M Sep 92* 24-29

Power distribution faults

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Power distribution protection

- space power wiring systs., safety, maint. and protection. *Stavnes, M.W.*, +, *AES-M Jan 94* 21-27

Power electronics

- aerospace variable speed const. freq. starter/generator technols. *Elbuluk, M.E.*, +, *AES-M May 97* 24-31
 starter/generator technol. for future aerospace appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96* 17-24
 USAF More Electric Aircraft initiative, status. *Cloyd, J.S.*, *AES-M Apr 98* 17-22

Power field effect transistors

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Power generation

- role of power generation in future battlefield technology. *Thornton, C. G.*, *AES-M Dec 91* 21-25
 synopsis of Mobile Battlefield Power Workshop. *Iafrate, G.*, +, *AES-M Dec 91* 16-20

Power integrated circuits

- high-voltage IC (HVIC) for aircraft actuation systems. *Lyford, Jon R.*, *AES-M Dec 86* 20-24

Power MOSFET

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- Power plants; cf. Fuel cell power plants; Mobile power plants; Space vehicle power plants; Waste-to-energy power plants**

- Power semiconductor devices; cf. Power field effect transistors; Thyristors**

Power semiconductor switches

- driver board power supply for high power IGBT. *Liuchen Chang*, *AES-M Aug 96* 24-28
 high-voltage IC (HVIC) for aircraft actuation systems. *Lyford, Jon R.*, *AES-M Dec 86* 20-24

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- Power stations; cf. Combined cycle power stations**

Power supplies to apparatus

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 FAA lithium batt. tech. std. for aircraft equip. *Donaldson, G.J.*, +, *AES-M May 97* 3-5
 global avionics future trends. *Oman, H.*, *AES-M Apr 95* 14-19

- history and status of resonant power supplies. *Chetty, P. R. K.*, *AES-M Apr 92* 23-29

- Hy-Stor™ batt. design and appls. *Burghart, P.A.*, *AES-M Nov 97* 8-18

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driver board power supply for high power IGBT. *Liuchen Chang*, *AES-M Aug 96* 24-28
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worldwide review of power disturbances; survey results. *Salzer, John M.*, *AES-M Apr 88* 2-5
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wireless power transm., solar power satellite develop. program. *Nansen, R.H.*, *AES-M Jan 96* 33-39
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crit. loads mgt., AC Battery PQ2000 syst. *Corey, G.P.*, *AES-M Jun 96* 41-44
International Space Station elec. power syst., status, archit., future technol. *Gholdston, E.*, +, *AES-M Feb 96* 25-30
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fuel cell technol. status, commercialization. *Hirschenhofer, J.H.*, *AES-M Mar 97* 23-28
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crit. loads mgt., AC Battery PQ2000 syst. *Corey, G.P.*, *AES-M Jun 96* 41-44
Galileo probe batt. syst. prod. and testing. *Dagarin, B.P.*, +, *AES-M Jun 96* 6-13
worldwide review of power disturbances; survey results. *Salzer, John M.*, *AES-M Apr 88* 2-5
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high-power, lightweight transformers and converters for power conditioning systems. *Gilmour, A. S., Jr.*, *AES-M Dec 91* 33-39
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DC and AC electric and magnetic field effects on people and animals. *Farmer, Laurie E.*, +, *AES-M Sep 91* 26-29
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nonlinear arms race model with transition from predictability to chaos. *Saperstein, Alvin M.*, *AES-M Jun 86* 18-24
real-time monocular target tracking syst. *Baumela, L.*, +, *AES-M Jul 95* 4-7
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smart probe, Deutsche Airbus flight test. *Hagen, F.W.*, +, *AES-M Apr 94* 7-14
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resonant sensors for high-accuracy pressure measurement using silicon technology. *Parsons, P.*, +, *AES-M Jul 92* 45-48
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NiH₂ Dependent Pressure Vessel cell and batt. technol. *Caldwell, D.B.*, +, *AES-M Dec 97* 27-32
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advances and trends in primary/small secondary batts. *Powers, R.A.*, *AES-M Apr 94* 32-36
army batts./fuel cells, portable power source needs. *Jacobs, R.*, +, *AES-M Jun 96* 19-25
Galileo probe batt. syst. prod. and testing. *Dagarin, B.P.*, +, *AES-M Jun 96* 6-13
Galileo probe Li-SO₂ batt. cell life testing. *Hofland, L.M.*, +, *AES-M Jun 96* 14-18
greener batts. cooperation, indust. and EPA. *Telzrow, T.N.*, *AES-M May 95* 35-36
portable computer power sources. *Freiman, J.F.*, *AES-M May 94* 3-6
torpedo elec. propulsion, Al-AgO primary batt. *Orndorff, C.M.*, +, *AES-M May 96* 27-31
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computerizing circuit board manufacturing industry while reducing costs. *Dyre, Tom F.*, *AES-M Oct 89* 17-20
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inspection of hole solder joints, X-rays. *Pierce, B.L.*, +, *AES-M Feb 94* 28-32
non-intrusive diagnostics, thermal/X-ray images. *Poitier, A.*, +, *AES-M Mar 94* 34-37
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benefits of ATE for testing printed circuit boards. *Dorf, Richard C.*, +, *AES-M Oct 89* 12-16
card testing problems, neural networks, testing strategies. *Kirkland, L.V.*, +, *AES-M Aug 97* 36-40
inspection of hole solder joints, X-rays. *Pierce, B.L.*, +, *AES-M Feb 94* 28-32
non-intrusive diagnostics, thermal/X-ray images. *Poitier, A.*, +, *AES-M Mar 94* 34-37
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MATLAB simul., PC appl. *Schleher, D.C.*, *AES-M Apr 95* 36-40
operational security meas., probabilistic measures. *Brocklehurst, S.*, +, *AES-M Oct 94* 7-16
orbiting debris detect. radar, conceptual design. *Graves, R.H.W.*, *AES-M Dec 95* 19-24
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smart probe, Deutsche Airbus flight test. *Hagen, F.W.*, +, *AES-M Apr 94* 7-14
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asynchronous message router spec., formal design tools. *Moller, F.*, *AES-M Mar 97* 38-44
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military products from commercial lines. *Kinsella, M.E.*, +, *AES-M Sep 95* 7-10
- Process control; cf.** Statistical process control
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C-17 appl. of existing ATE. *Sidhwa, F.*, +, *AES-M Mar 95* 29-34
future tech. trends, Hughes experience. *Chester, A.N.*, *AES-M Apr 97* 38-39
military products from commercial lines. *Kinsella, M.E.*, +, *AES-M Sep 95* 7-10
mil. technol. based commercial products develop. *Deffeyes, R.J.*, *AES-M Oct 96* 3-5
TPS reuse library, COTS tools. *Cashar, E.E.*, *AES-M Oct 97* 12-16
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TQM, test role. *Neblett, B.*, *AES-M May 95* 26-34
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ATE systs. develop., reusable test programs. *Neblett, B.*, *AES-M Jun 97* 29-34
certification of production-representative and production software-intensive systems for dedicated tests and evaluation. *Shumskas, Anthony F.*, *AES-M Sep 91* 9-14
Galileo probe batt. syst. prod. and testing. *Dagarin, B.P.*, +, *AES-M Jun 96* 6-13
radar syst. factory testing, design integrat. test reuse. *Dadin, L.E.*, *AES-M Jun 99* 29-33
TQM, test role. *Neblett, B.*, *AES-M May 95* 26-34
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career development of engineers; role of professional societies. *Corbin, John C.*, *AES-M Mar 88* 12-16
career world for engineers, mid-90s prospects. *Oman, H.*, *AES-M Jul 94* 36-39
improving knowledge workers' professional environment; view on educator's responsibilities. *Alexander, Charles K.*, *AES-M Mar 88* 10-11
improving knowledge workers' professional environment; view on employer's responsibilities. *Thompson, K. Reed*, *AES-M Mar 88* 6-9
improving knowledge workers' professional environment; view on engineers' responsibilities. *Dwon, Larry*, *AES-M Mar 88* 2-5, 26
pers. positioning for young professionals. *Kostek, P.J.*, *AES-M Jan 97* 3-5
software testing, academia vs indust. *Offutt, A.J.*, *AES-M Mar 98* 3-6
some do's and don't's for young EEs. *Fowler, Charles A.*, *AES-M Jun 93* 50-53
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- Professional societies; cf.** Societies
- Program compilers; cf.** Incremental compilers
- Program debugging**
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- Programming**
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Programming; cf. Object-oriented programming; Program testing; Software tools

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Propulsion; cf. Aerospace propulsion; Rockets

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Protection; cf. Power distribution protection

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- RF test range for engng. education. *Eskelinen, P.*, +, *AES-M Jul 95* 17-23
Yuma ground penetration SAR expt., 1995 results. *Jao, J.K.*, +, *AES-M Jun 99* 5-9
- Radar detection**
adaptive filters for foliage penetration radar. *Nanis, J.G.*, +, *AES-M Aug 95* 34-36
bistatic adaptive space-based radar, ground/airborne target detect. *Fante, R.*, *AES-M Oct 99* 39-44
building struct. & works, RF band high resoln. sounding. *Vasiliev, I.A.*, +, *AES-M May 99* 25-29
CESM, radar ECCM. *Johnston, S.L.*, *AES-M Feb 95* 36-38
fractal interpolation of radar signatures for detecting stationary targets in ground clutter. *Butterfield, J. I.*, *AES-M Jul 91* 10-14
future radar evol., space-time-freq. resource mgt. to wideband radar. *le Chevalier, F.*, *AES-M Oct 99* 9-17
HF OTH radar target detect. & estim., parallel proc. subsyst. *Wang Wei*, +, *AES-M Apr 99* 39-45
HF radar target detect./tracking, reciprocal SAR techs. *Khan, R.H.*, *AES-M Jan 97* 40-43
lin. FM radar, improved range estim., interpolation algm. *Wang Wei*, +, *AES-M Jul 99* 45-47
MATLAB simul., PC appl. *Schleher, D.C.*, *AES-M Apr 95* 36-40
mine detect., wide-span syst., terrain radio images. *Ivashov, S.I.*, +, *AES-M May 99* 6-8
mm-wave safety warning syst. for in-vehicle signing. *Greneker, G.*, *AES-M Jul 98* 7-12
multimode radar, low-cost technol., flexible test bed archit. *Adler, E.*, +, *AES-M Jun 99* 23-27
optimal polarimetric detection of radar target in slowly fluctuating environment of clutter. *Pottier, E.*, +, *AES-M Nov 90* 4-9
orbiting debris detect. radar, conceptual design. *Graves, R.H.W.*, *AES-M Dec 95* 19-24
Pearl Harbor radar story, SCR-270 radar set. *West, C.P.*, *AES-M Apr 94* 3-6
performance of polarimetric target detection algorithms. *Chaney, R.D.*, +, *AES-M Nov 90* 10-15
pulse radar, 3 MM wave, short-range nav., collision avoidance. *Muraviev, V.V.*, +, *AES-M Jul 99* 23-25
radar detect. problems solution, MATLAB simul. *Schleher, D.C.*, *AES-M Apr 95* 36-40
side zone automotive radar, cost effective design approach. *Reed, J.C.*, *AES-M Jun 98* 3-7
siting and perform. prediction, software tool. *O'Hern, B.*, +, *AES-M Dec 97* 19-26
surveillance, walls and opaque materials. *Frazier, L.M.*, *AES-M Oct 96* 6-9
wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9
- Radar displays**
airfields over-the-horizon radar surveillance, counterdrug appls. *Ciboci, J.W.*, *AES-M Jan 98* 31-34
Swedish JAS39 Gripen aircraft, electronic display. *Brandtberg, H.*, *AES-M Sep 94* 6-12
- Radar equipment**
adaptive filters for foliage penetration radar. *Nanis, J.G.*, +, *AES-M Aug 95* 34-36
AN/APS-6 airborne radar for fighter aircraft. *Suffield, F.G.*, *AES-M Sep 95* 33-40
book review; The Development of Radar Equipments for the Royal Navy, and The Applications of Radar and Other Electronic Systems in the Royal Navy in World War 2 (Kingsley, F.A., Ed.; 1995). *Brown, L.*, *AES-M May 96* 42-43
factory testing, design integrat. test reuse. *Dadin, L.E.*, *AES-M Jun 99* 29-33
Joan-Eleanor code for WWII airborne receiver-transmitter. *Gross, A.*, *AES-M Aug 97* 28-29
multimode radar, low-cost technol., flexible test bed archit. *Adler, E.*, +, *AES-M Jun 99* 23-27
Pearl Harbor radar story, SCR-270 radar set. *West, C.P.*, *AES-M Apr 94* 3-6
- Radar equipment; cf.** Radar antennas; Radar displays; Radar receivers; Radar transmitters
- Radar imaging**
beamwidth reduction techs. *Suzuki, T.*, *AES-M May 98* 43-48
building struct. & works, RF band high resoln. sounding. *Vasiliev, I.A.*, +, *AES-M May 99* 25-29
buried metallic mines detect., ultra-wideband ground-penetrating radar. *Earp, S.L.*, +, *AES-M Sep 96* 30-39
commercial SAR imaging systs. *Birk, R.*, +, *AES-M Nov 95* 15-23
ERIM interferometric SAR, IFSARE. *Adams, G.F.*, +, *AES-M Dec 96* 31-35
JointSTARS develop., enemy ground forces obs. *Fowler, C.A.*, *AES-M Jun 97* 3-17
millimeter-wave radar/forward-looking IR/automatic target-recognizer sensor fusion; proof of concept summary. *Woolett, Jerry F.*, *AES-M Jun 88* 22-25
mine detect., wide-span syst., terrain radio images. *Ivashov, S.I.*, +, *AES-M May 99* 6-8
Radarsat Antarctic Mapping Mission, SAR images. *Choi, E.M.*, *AES-M May 99* 3-5
SIR-C/X-SAR, spaceborne imaging radar C/X-band multifaceted SAR, appls. *Stuhr, F.*, +, *AES-M Oct 95* 15-24
smuggling interdiction, AN/APG-76 multimode radar adaptation. *Tobin, M.E.*, +, *AES-M Nov 96* 19-24
steerable plasma mirror based radar, concept and appls. *Mathew, J.*, *AES-M Oct 96* 38-44
synthetic vision system based on 35-GHz imaging radar, to allow aircraft landing in low visibility. *Burgess, Malcolm A.*, +, *AES-M Mar 93* 6-13
thinned stepped freq. waveforms. *Freedman, A.*, +, *AES-M Nov 96* 39-43
ultrawideband radar for target observation. *Astanin, Lev Y.*, +, *AES-M Mar 92* 12-15
Yuma ground penetration SAR expt., 1995 results. *Jao, J.K.*, +, *AES-M Jun 99* 5-9
- Radar interference**
sidelobe self-interf. reduction in agile beam radar. *Urkowitz, H.*, *AES-M Nov 97* 37-46
- Radar interference; cf.** Radar clutter
- Radar polarimetry**
clutter rejection method using robust polarimetric CFAR-detector. *Wanielik, G.*, +, *AES-M Jun 90* 7-10
optimal polarimetric detection of radar target in slowly fluctuating environment of clutter. *Pottier, E.*, +, *AES-M Nov 90* 4-9
P-3 ultra-wideband SAR, polarimetric imagery. *Sheen, D.R.*, +, *AES-M Nov 96* 25-30
performance of polarimetric target detection algorithms. *Chaney, R.D.*, +, *AES-M Nov 90* 10-15
radar polarimetry and its applications in remote sensing; state-of-the-art review. *Boerner, Wolfgang-M.*, +, *AES-M Jun 90* 3-6
radar target classification and interpretation using structural descriptions of backscatter. *Silverstein, Paul B.*, +, *AES-M May 91* 3-7
- Radar receivers**
CESM, radar ECCM. *Johnston, S.L.*, *AES-M Feb 95* 36-38
clutter rejection and transmitter-receiver requirements in airborne radar for military aircraft. *Lacomme, Philippe*, *AES-M Jun 90* 11-13
digital radar receivers design. *Yuanbin Wu*, +, *AES-M Jan 98* 35-41
mm-wave safety warning syst. for in-vehicle signing. *Greneker, G.*, *AES-M Jul 98* 7-12
optimal radar threshold determ. in Weibull clutter and Gaussian noise. *Morgan, C.J.*, +, *AES-M Mar 96* 41-43
radar warning receiver, flat panel display upgrade, technol. insertion prog. *Coker, B.L., Jr.*, +, *AES-M Oct 98* 33-37
side zone automotive radar, cost effective design approach. *Reed, J.C.*, *AES-M Jun 98* 3-7
- Radar resolution**
lin. FM radar, improved range estim., interpolation algm. *Wang Wei*, +, *AES-M Jul 99* 45-47
multimode radar, low-cost technol., flexible test bed archit. *Adler, E.*, +, *AES-M Jun 99* 23-27
RF band high resoln. sounding of building struct. & works. *Vasiliev, I.A.*, +, *AES-M May 99* 25-29
SAR systs. in knowledge-based environ. enhanced resoln. *Bolton, A.G.*, +, *AES-M Aug 94* 33-37
ultrawideband radar for target observation. *Astanin, Lev Y.*, +, *AES-M Mar 92* 12-15
- Radar signal processing**
airborne adaptive moving target indication, whitening prevention. *Huang Yong*, +, *AES-M Jul 99* 19-21
airborne early warning radar, knowledge-based space-time adaptive proc. *Melvin, W.*, +, *AES-M Apr 98* 37-42
airborne SAR, data acquisition syst., DDS & DSP tech. *Yeo, T.S.*, +, *AES-M May 99* 37-41
airfields over-the-horizon radar surveillance, counterdrug appls. *Ciboci, J.W.*, *AES-M Jan 98* 31-34
analog radar cancellation algorithms for dynamic range reduction. *Moyer, Lee R.*, +, *AES-M Oct 93* 10-14
book review; Adaptive Signal Processing for Radar (Nitzberg, R.; 1992). *Brookner, E.*, *AES-M Jan 94* 39
book review; Antenna-Based Signal Processing Techniques for Radar Systems (Farina, A.; 1992). *Brookner, Eli*, *AES-M Oct 93* 31
civ. ATC radar, sig. anal. and modellization. *Piazza, E.*, *AES-M Jan 99* 35-40
degradation of clutter processing due to missing radar return pulses. *Steiner, Michael*, +, *AES-M May 91* 23-27
digital radar receivers design. *Yuanbin Wu*, +, *AES-M Jan 98* 35-41
Doppler ratio detect. radar, interclutter visibility. *Long, M.W.*, *AES-M Dec 96* 17-21
ELDORA/ASTRAIA airborne Doppler weather radar, field test results. *Hildebrand, P.H.*, +, *AES-M Oct 96* 34-37

- flexible beamforming processor for digital adaptive array radar. *Teitelbaum, Kenneth, AES-M May 91 18-22*
- fractal interpolation of radar signatures for detecting stationary targets in ground clutter. *Butterfield, J. I., AES-M Jul 91 10-14*
- future radar evol., space-time-freq. resource mgt. to wideband radar. *le Chevalier, F., AES-M Oct 99 9-17*
- HF OTH radar target detect. & estim., parallel proc. subsyst. *Wang Wei, +, AES-M Apr 99 39-45*
- mil. radar, future perspective. *Zhang Xixong, AES-M Feb 99 11-18*
- mm-wave car anticollision radars, sig. proc. procedures. *Groll, H.P., +, AES-M Aug 97 15-19*
- multimode radar, low-cost technol., flexible test bed archit. *Adler, E., +, AES-M Jun 99 23-27*
- PAVE PACE, system avionics for 21st century; architecture issues. *Morgan, D. Reed, AES-M Jan 89 12-22*
- phased array airborne radar, STAP algm., real-time demons. *Linderman, M.H., +, AES-M Mar 98 15-31*
- radar detect. problems solution, MATLAB simul. *Schleher, D.C., AES-M Apr 95 36-40*
- random sig. radar develop., present & future trends. *Liu Guosui, +, AES-M Oct 97 35-40*
- S-band surveillance radar sidelobe suppression. *Bucci, N.J., +, AES-M Aug 95 37-43*
- side zone automotive radar, cost effective design approach. *Reed, J.C., AES-M Jun 98 3-7*
- siting and perform. prediction, software tool. *O'Hern, B., +, AES-M Dec 97 19-26*
- supportable aircraft separation stds., stat. hypothesis testing. *Haest, M., +, AES-M Jun 95 24-29*
- target recogn. by fuzzy logic. *Moruzzis, M., +, AES-M Jul 98 13-20*
- tracks assoc. from over horizon radar. *Bogner, R.E., +, AES-M Sep 98 31-35*
- ultra-wideband impulse radar, overview of principles. *Hussain, M.G.M., AES-M Sep 98 9-14*
- ultrawideband microwave-radar design for missile detect., sea. *Skolnik, M., +, AES-M Oct 95 25-30*
- wind shear detect., airport surveillance radars. *Weber, M.E., +, AES-M Jun 95 3-9*
- wingtip generated wake vortices, radar target. *Marshall, R.E., +, AES-M Dec 96 27-30*
- Radar signal processing; cf. Radar imaging; Radar resolution; Radar target recognition**
- Radar target recognition**
- adaptive filters for foliage penetration radar. *Nanis, J.G., +, AES-M Aug 95 34-36*
- airfields over-the-horizon radar surveillance, counterdrug appls. *Ciboci, J.W., AES-M Jan 98 31-34*
- fuzzy logic appl. *Moruzzis, M., +, AES-M Jul 98 13-20*
- HF OTH radar target detect. & estim., parallel proc. subsyst. *Wang Wei, +, AES-M Apr 99 39-45*
- identifying helicopter from its pulse Doppler radar signature. *Bullard, Barry D., +, AES-M May 91 28-30*
- image understanding research for automatic target recognition. *Bhanu, Bir, +, AES-M Oct 93 15-23*
- military aircraft covert penetration systems; laser radar and automatic target recognition overview. *Fleury, Peter A., AES-M Dec 86 8-12*
- millimeter-wave radar/forward-looking IR/automatic target-recognizer sensor fusion; proof of concept summary. *Woollett, Jerry F., AES-M Jun 88 22-25*
- multimode radar, low-cost technol., flexible test bed archit. *Adler, E., +, AES-M Jun 99 23-27*
- radar characterization of ship-wake signatures and ambient ocean clutter features. *Schurmann, Stuart R., AES-M Aug 89 3-8*
- radar target classification and interpretation using structural descriptions of backscatter. *Silverstein, Paul B., +, AES-M May 91 3-7*
- side zone automotive radar, cost effective design approach. *Reed, J.C., AES-M Jun 98 3-7*
- smuggling interdiction, AN/APG-76 multimode radar adaptation. *Tobin, M.E., +, AES-M Nov 96 19-24*
- ultra-wideband impulse radar, overview of principles. *Hussain, M.G.M., AES-M Sep 98 9-14*
- ultrawideband radar for target observation. *Astanin, Lev Y., +, AES-M Mar 92 12-15*
- Yuma ground penetration SAR expt., 1995 results. *Jao, J.K., +, AES-M Jun 99 5-9*
- Radar theory**
- imaging capability, thinned stepped freq. waveforms. *Freedman, A., +, AES-M Nov 96 39-43*
- ultra-wideband impulse radar, overview of principles. *Hussain, M.G.M., AES-M Sep 98 9-14*
- Radar tracking**
- airborne adaptive moving target indication, whitening prevention. *Huang Yong, +, AES-M Jul 99 19-21*
- airborne early warning radar, knowledge-based space-time adaptive proc. *Melvin, W., +, AES-M Apr 98 37-42*
- aircraft pos. ident. at airports, FAA trials. *Castaldo, R., +, AES-M Jun 96 35-40*
- airfields over-the-horizon radar surveillance, counterdrug appls. *Ciboci, J.W., AES-M Jan 98 31-34*
- angle measurement in presence of main-beam interference. *Lin, Feng-Ling C., +, AES-M Nov 90 19-25*
- ARTEMIS, positioning syst., automatic ranging theodolite with microwave sigs. *Goldbohm, E., AES-M Aug 97 20-22*
- battlefield awareness via synergistic SAR and MTI. *Fennell, M.T., +, AES-M Feb 98 39-43*
- book review; Multiple-Target Tracking With Radar Applications (Blackman, S. S.; 1986). *Brookner, Eli, AES-M Aug 88 36-37*
- book review; Radar Data Processing, Vol. 1 Introduction and Tracking (Farina, A. and Studer, F. A.; 1985). *Brookner, Eli, AES-M May 86 24*
- combining adaptive null-steering with high-resolution angle estimation under main-lobe interference conditions. *Theil, A., AES-M Nov 90 16-18*
- electrical power system for 30-kW space-based radar satellite for tracking aircraft. *Maskell, Craig A., AES-M Jan 92 46-50*
- FIREFINDER posn. anal. syst. advanced develop. model. *DiDomizio, J., +, AES-M Sep 96 25-29*
- HF OTH radar target detect. & estim., parallel proc. subsyst. *Wang Wei, +, AES-M Apr 99 39-45*
- HF radar target detect./tracking, reciprocal SAR techs. *Khan, R.H., AES-M Jan 97 40-43*
- high-resolution multiple-target-angle tracking. *Yu, Kai-Bor, AES-M May 91 8-12*
- low-cost concept and appls. *Curry, G.R., AES-M Sep 96 21-24*
- mil. radar appls. in future conflicts, assess. *Delaney, W.P., AES-M Nov 95 8-14*
- mil. radar, future perspective. *Zhang Xixong, AES-M Feb 99 11-18*
- multimode radar, low-cost technol., flexible test bed archit. *Adler, E., +, AES-M Jun 99 23-27*
- multistatic pass. radar sens. for air/space defense, global navig. satellite systs. *Koch, V., +, AES-M Nov 95 24-32*
- over the horizon radar, tracks assoc. *Bogner, R.E., +, AES-M Sep 98 31-35*
- SAR integrated precision targeting simul. *Toussaint, J.A., +, AES-M Feb 99 29-32*
- smuggling interdiction, AN/APG-76 multimode radar adaptation. *Tobin, M.E., +, AES-M Nov 96 19-24*
- ultrawideband microwave-radar design for missile detect., sea. *Skolnik, M., +, AES-M Oct 95 25-30*
- ultrawideband radar for target observation. *Astanin, Lev Y., +, AES-M Mar 92 12-15*
- wingtip generated wake vortices, radar target. *Marshall, R.E., +, AES-M Dec 96 27-30*
- Radar transmitters**
- clutter rejection and transmitter-receiver requirements in airborne radar for military aircraft. *Lacomme, Philippe, AES-M Jun 90 11-13*
- Ka-band TWTs for airborne radars, high power. *Theiss, A.J., +, AES-M Nov 95 33-36*
- Radiation hardening (electronics)**
- Xs-MET fab. using complementary heterostruct. FET, space appls. *Cerny, C.L., +, AES-M Mar 98 7-14*
- Radioaltimeters**
- 35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C., +, AES-M Feb 95 19-22*
- Radio applications**
- RF integrated electronics, open systs. archit. *Hooks, D.C., +, AES-M Jan 99 29-33*
- Radioastronomical techniques**
- radar beamwidth reduction techs. *Suzuki, T., AES-M May 98 43-48*
- VLBI Space Observatory Programme satellite. *Hirosawa, H., +, AES-M Jun 95 17-23*
- Radio broadcasting**
- broadcast protocol for LEO store-and-forward satellites in amateur radio service. *Diarsing, Robert J., +, AES-M Jan 93 21-30*
- Radiocommunication**
- aircraft traffic mgt., airport surface, VHF data link. *Hambly, R.M., +, AES-M Mar 95 9-13*
- personal recollections on early radio industry. *Richardson, Avery G., AES-M Feb 88 2-8*
- software radio technologies, architectures, model, and future directions. *Mitola, J., III, AES-M Apr 93 25-36*
- Radiocommunication; cf. Aircraft communication; Digital radio; Mobile radio; Radio networks; Radio telemetry; Satellite communication; Spread spectrum communication; Wireless LAN**
- Radio data systems**
- MOBITEX wireless WAN for land-based positioning/navig. *Yang, T.T., +, AES-M Jul 94 29-35*

Radio direction-finding

determining ground emitter location using Multiple Sample Correlation (MSC) algorithm for passive bearing-angle information. *Fu, S. J., +, AES-M Dec 88 15-18*

Radiofrequency amplifiers

hybrid amp., RF building block. *Eskelinen, P., +, AES-M Aug 96 34-36*

Radiofrequency amplifiers; cf. Microwave amplifiers**Radiofrequency interference**

design protecting guidance signal from reflected interference; system overview. *Kelly, R. J., +, AES-M May 90 27-39*

interference control in cellular systems; fundamentals. *Brenig, T., AES-M Mar 86 6-9*

NASA B-757 HIRF test series low power on-the-ground tests. *Poggio, A.J., +, AES-M Apr 96 27-33*

potential interference sources to GPS; solutions appropriate for applications to civil aviation. *Johannessen, R., +, AES-M Jan 90 3-9*

relationship between MIL-STD 461B and commercial EMI requirements. *Cowdell, Robert B., AES-M Apr 87 9-13*

RF suscept. of commercial GPS receivers. *Daher, J.K., +, AES-M Oct 94 21-25*

tailoring MIL-STD-461B on electromagnetic interference for US Navy avionics applications. *Siefker, Robert G., AES-M Aug 87 13-18*

tools and techniques for estimating high-intensity RF effects. *Zacharias, Richard, +, AES-M Jan 92 24-31*

Radioisotopes

Brayton cycle technol. appl., space power. *Harty, R.B., +, AES-M Jan 94 28-32*

Radioisotope thermoelectric generators

high-efficiency dynamic radioisotope power systems for space exploration; status report. *Hunt, M. E., AES-M Dec 93 18-23*

overview of flight qualifications for space nuclear systems. *Bennett, Gary L., AES-M Nov 92 26-36*

parametric cost model for solar and dynamic isotope space power systems. *Meisl, Claus J., AES-M Dec 93 24-29*

power systems for first Mars outpost. *Littman, Frank, AES-M Dec 93 30-34*

radioisotope powered AMTEC systs. *Ivanenok, J.F., III, +, AES-M Nov 94 29-35*

Radio links

cockpit I/O terminal for general-aviation ground/air data link. *Ragland, Michael A., AES-M Jun 87 15-16, 18-19*

Radiometers

Landsat-6 satellite remote sensing systems overview; description of Enhanced Thematic Mapper sensor and bus subsystems. *Mowle, Edward W., +, AES-M Jun 91 18-23*

Radiometry

pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M., +, AES-M May 95 37-42*

Radionavigation

1990 Institute of Navigation Technical Meeting; meeting report. *Portney, Joseph N., +, AES-M Apr 90 19*

aircraft pos. ident. at airports, FAA trials. *Castaldo, R., +, AES-M Jun 96 35-40*

automotive radar for automatic AICC. *Eriksson, L.H., +, AES-M Dec 95 13-18*

commercial air transport control develops. in USA. *AES-M Mar 94 2-5*

coordinate conversion problem for radio navigation receivers (reprinted from Navigation vol. 33, no. 4, Winter 86-87). *Roeber, J. F., AES-M Aug 89 15-17*

development of Omega radio navigation system; personal recollections. *Pierce, John Alvin, AES-M Jul 89 34*

extension of continental US LORAN-C coverage and incorporation in National Airspace System. *Sedlock, Andrew J., AES-M Dec 87 11-14*

Federal Radionavigation Plan, civ. aviation problems, IGSAGS syst. *Crow, R.P., AES-M Oct 98 9-16*

GPS and Loran-C performance for road vehicle navigation in Canadian Rockies. *Lachapelle, G., +, AES-M May 92 24-28*

Gulf War, Conventional Air Launched Cruise Missile navig. *Nielson, J.T., AES-M Jul 94 18-22*

history and development of Loran; tutorial review (reprint of 1946 paper). *Pierce, J. A., AES-M Oct 90 16-33*

ICNIA (integrated communications navigation identification avionics) for military aircraft; overview. *Camana, Peter, AES-M Aug 88 23-26*

integrated CIS-VLF/Omega receiver design. *Peterson, Benjamin, +, AES-M Jan 93 9-20*

John Alvin Pierce, Omega and Loran pioneer; personal recollections. *Swanson, E. R., AES-M Jul 89 3*

joint Soviet/American Loran operations along Bering Sea chain. *Westling, Gary R., AES-M Feb 89 11-15*

Loran and Wild Goose Association; history. *Culbertson, Jim, AES-M Jun 90 37-38*

LORAN-C for general aviation; implementation and future. *Jackson, Elijah, AES-M Aug 87 7-8*

mm-wave car anticollision radars, sig. proc. procedures. *Groll, H.P., +, AES-M Aug 97 15-19*

MOBITEX wireless WAN for land-based positioning/navig. *Yang, T.T., +, AES-M Jul 94 29-35*

Omega global radionavigation (special issue). *AES-M Jul 89 3-34*

Omega system status; 1988 update. *Wenzel, Robert J., AES-M Jul 89 24-33*

origin of Omega radio navigation system; personal recollections (reprinted from Omega Society Newsletter). *Pierce, John Alvin, AES-M Jul 89 14-23*

PLRS (position location reporting system) for users in tactical environment. *Okawa, U. S., +, AES-M Aug 88 10-15*

present and future status of LORAN-C; worldwide activity and improved equipment. *Fuentes, Adeste F., AES-M Dec 87 8-10*

relative navigation and data registration in US military services' Joint Tactical Information Distribution System. *Altrichter, Wayne W., AES-M Jun 92 42-50*

reprint of 1965 IEEE T-AES paper describing Omega radio navigation system. *Pierce, John Alvin, AES-M Jul 89 4-13*

Soviet RBSN short-range radio navigation system comparison with TACAN. *Pakholkov, Georgiy A., +, AES-M Jan 88 2-7*

US Army vehicular positioning system used for combat simulation; overview and commercial applications. *Gates, Harvey M., +, AES-M Mar 86 17-19*

Wild Goose Association objectives and work. *Illgen, John D., AES-M Dec 89 29-31*

Radio networks

cellular radio network planning design program. *Gamst, A., +, AES-M Feb 86 8-11*

Radio networks; cf. Packet radio networks**Radio receivers**

GPS precision lightweight receiver testing. *Cosentino, B., AES-M Aug 94 17-20*

GPS receivers, RF suscept. charact. *Daher, J.K., +, AES-M Oct 94 21-25*

integrated CIS-VLF/Omega receiver design. *Peterson, Benjamin, +, AES-M Jan 93 9-20*

next-generation digital GPS receiver. *Frank, G. B., +, AES-M Jul 90 10-15*

receiver autonomous integrity monitoring capability for sole-means GPS navigation in oceanic phase of flight. *Lee, Young C., AES-M May 92 29-36*

safety warning syst. for in-vehicle signing. *Grekeker, G., AES-M Jul 98 7-12*

urban area performance of GPS receiver that tracks as many as eight satellites simultaneously. *Rothblatt, Martin, AES-M Aug 92 29-33*

Radio spectrum management

interference control in cellular systems; fundamentals. *Brenig, T., AES-M Mar 86 6-9*

mobile satellite services; plans and status, including regulatory issues. *Anderson, Roy E., AES-M Mar 87 20-24, 32*

techniques for increasing frequency spectrum utilization in mobile systems. *Sekiguchi, H., +, AES-M Mar 86 1-5*

Radiotelemetry

airborne ground clutter measurement system design considerations. *Wicks, Michael, +, AES-M Oct 88 27-31*

low-cost Tracking and Data Relay Satellite System communications for NASA's long-duration balloon project. *Israel, David J., AES-M Feb 93 43-47*

rotor vibr. meas. in elec. drives. *Pyrhonen, O., +, AES-M May 98 21-23*

terrobotics (supervised autonomy) for space applications. *Otaguro, W. S., +, AES-M Nov 88 11-15*

Radiotelemetry; cf. Satellite telemetry**Radiotelescopes**

VLBI Space Observatory Programme satellite. *Hirosawa, H., +, AES-M Jun 95 17-23*

Radio transmitters

mm-wave safety warning syst. for in-vehicle signing. *Grekeker, G., AES-M Jul 98 7-12*

Radiowave interferometers

VLBI Space Observatory Programme satellite. *Hirosawa, H., +, AES-M Jun 95 17-23*

Radiowave interferometry

ERIM interferometric SAR, IFSARE. *Adams, G.F., +, AES-M Dec 96 31-35*

instantaneous attitude determination using GPS measurements. *Brown, Ronald A., AES-M Jun 92 3-8*

Joint STARS phased array radar antenna. *Shnitkin, H., AES-M Oct 94 34-40*

P-3 ultra-wideband SAR, polarimetric imagery. *Sheen, D.R., +, AES-M Nov 96 25-30*

SAR rem. sens., spaceborne, SRTM and LightSAR. *Hilland, J.E., +, AES-M Nov 98 9-16*

satellite interference location system for locating terrestrial uplink stations using differential time and phase measurements. *Smith, William Whitfield, Jr., +, AES-M Mar 91 3-7*

- Radomes**
 differential GPS, array antennas, multipath rejection. *Counselman, C.C., III, AES-M Dec 98 15-19*
 radar antenna syst., installed perform. anal., computer code. *Kim, J.J., +, AES-M Jun 99 38-42*
- Rail traffic**
 mainline railroads, commun.-based Advanced capability. *Pollack, M.W., AES-M Nov 96 13-18*
- Railways**
 capital, energy, and time economics of automated, on-demand transportation system. *Dearien, John A., +, AES-M Nov 93 28-32*
 mainline railroads, commun.-based Advanced capability. *Pollack, M.W., AES-M Nov 96 13-18*
 Transrapid, West German maglev system; recent developments. *Dickhart, William W., III, AES-M Feb 87 5-8*
- Rain**
 ELDORA/ASTRAIA airborne Doppler weather radar, field test results. *Hildebrand, P.H., +, AES-M Oct 96 34-37*
- Random-access storage**
 fault tolerant proc. elements, real time recovery. *Sims, T., AES-M Dec 97 13-17*
- Rapid transit systems**
 integrated automatic vehicle location syst. *McKay, K.M., AES-M Mar 97 18-22*
- Rayleigh scattering**
 wingtip generated wake vortices, radar target. *Marshall, R.E., +, AES-M Dec 96 27-30*
- Ray tracing**
 radar antenna syst., installed perform. anal., computer code. *Kim, J.J., +, AES-M Jun 99 38-42*
- Readout electronics; cf. Digital readout**
- Real-time systems**
 book review; Kalman Filtering: With Real-Time Applications (Chui, C. K. and Chen, G.; 1987). *Siouris, G. M., AES-M May 90 55*
 fault tolerant proc. elements, real time recovery. *Sims, T., AES-M Dec 97 13-17*
 field-portable imaging syst. for scene class. *Preston, E., +, AES-M Sep 94 13-19*
 methodology for real-time fault detection, isolation, and correction in large satellite communication system using expert systems. *Pensick, Ellen C., +, AES-M Jul 93 11-23*
 modeling real-time software failure characterization for aerospace vehicle. *Dunham, Janet R., +, AES-M Nov 90 38-44*
 monocular target tracking syst. *Baumela, L., +, AES-M Jul 95 4-7*
 pass. mm-wave camera, low visibility aircraft landing. *Showcri, M., +, AES-M May 95 37-42*
 phased array airborne radar, STAP algm., real-time demons. *Linderman, M.H., +, AES-M Mar 98 15-31*
 real-time expert system for space-vehicle power control in Boeing Aerospace Autonomous Power System testbed. *Spier, Robert J., +, AES-M Nov 89 33-38*
 real-time navig., Global Positioning Syst. *Simon, D., +, AES-M Jan 95 31-37*
 ultra-reliable real-time control syst., future trends. *Hammitt, R.C., AES-M Aug 99 31-36*
 unmanned space vehicle navig. by GPS. *Xiaorong Sun, +, AES-M Jul 96 31-34*
- Real-time systems; cf. Embedded systems**
- Receivers; cf. Optical receivers; Radar receivers; Radio receivers; Transceivers**
- Receiving antennas**
 cellular phone coverage meas., test vehicle pattern effects. *Eskelinen, P., +, AES-M Mar 97 9-11*
 differential GPS, array antennas, multipath rejection. *Counselman, C.C., III, AES-M Dec 98 15-19*
 rectifying receiving antenna for microwave energy transm. *McSpadden, J.O., +, AES-M Nov 94 36-41*
 wireless power transm., wave beam peculiarities. *Garmash, V.R., +, AES-M Oct 98 39-41*
- Reduced order systems**
 aircraft GPS/INS, reduced-order model. *Xiufeng He, +, AES-M Mar 98 40-45*
- Redundancy**
 aerospace variable speed const. freq. starter/generator technols. *Elbuluk, M.E., +, AES-M May 97 24-31*
 FAA reliab.-safety requirements and alternatives. *Pecht, M., +, AES-M Feb 98 16-20*
 fault-tolerant air data/inertial reference unit for ARINC 651 integrated modular avionics. *Sheffels, Michael L., AES-M Mar 93 48-52*
 fault tolerant proc. elements, real time recovery. *Sims, T., AES-M Dec 97 13-17*
- reliability analysis of fault-tolerant inertial measurement unit architectures with redundant inertial sensors. *Jeerage, Mahesh K., AES-M Jul 90 23-28, 22*
 starter/generator technol. for future aerosp. appl., review. *Elbuluk, M.E., +, AES-M Oct 96 17-24*
 ultra-reliable real-time control syst., future trends. *Hammitt, R.C., AES-M Aug 99 31-36*
- Reed relays**
 Word Storage Relay (WSR). *West, P., AES-M Aug 96 29-33*
- Reflector antenna feeds**
 array-feed distortion compensation techniques for reflector antennas. *Rahmat-Samii, Yahya, AES-M Jun 91 12-17*
 microwave parab. dish reflector, perform. anal., simple photography. *Eskelinen, P., +, AES-M Apr 97 3-5*
- Reflector antennas**
 microwave parab. dish reflector, perform. anal., simple photography. *Eskelinen, P., +, AES-M Apr 97 3-5*
 Millstone Hill radar of Lincoln Laboratories (about the cover). *AES-M Oct 89 36*
 space-based radar syst., low-cost. *Curry, G.R., AES-M Sep 96 21-24*
 steerable plasma mirror based radar, concept and appls. *Mathew, J., AES-M Oct 96 38-44*
 tower mounted antennas for cellular commun., RF scale testing. *Eskelinen, P., AES-M Aug 98 33-35*
- Refrigeration**
 electrolysis heat, 'zero point' effect, letter to editor/reply. *Wyczalek, F.A., AES-M Apr 94 42*
 Stirling machines, emerging technol. and appls. *Ross, B., AES-M Jun 95 34-39*
- Relational databases**
 mil. aircraft BIT maturation, test program set, relational database technols. *Sudolsky, M.D., AES-M Mar 96 35-40*
- Relativity**
 GPS appl. to space vehicles, space environ./errors anal. *Jianping Yuan, +, AES-M Jan 98 25-30*
 solar grazing photon, time delay determ. *Renshaw, C., AES-M Aug 96 21-23*
- Relay control**
 Word Storage Relay (WSR). *West, P., AES-M Aug 96 29-33*
- Reliability**
 book review; Electronic Component Reliability (Jensen, F.; 1996). *Eskelinen, P., AES-M May 99 30*
 dependability in computer systs. engng., terminology, similarities and differences. *Prasad, D., +, AES-M Jan 96 14-21*
 FAA reliab.-safety requirements and alternatives. *Pecht, M., +, AES-M Feb 98 16-20*
 Government Industry Data Exchange Program (GIDEP) data bank on electronics reliability and testing. *Richards, Edwin T., AES-M July 86 13-18*
 manufacturability anal., subset of systs. engng. *Eskelinen, H., +, AES-M Feb 99 33-35*
 NEXRAD (Next Generation Weather Radar) system reliability testing and evaluation. *Holt, Stephen M., AES-M Apr 89 14-18*
 Ni-Cd aircraft batt., sealed, life cycle testing. *Kulin, T.M., AES-M Oct 97 17-22*
 PBW, PBW program for aircraft, motor drive technols., options and trends. *Elbuluk, M.E., +, AES-M Nov 95 37-42*
 satellite commun. syst. act. phased arrays, design-oriented reliab. model. *Ruggieri, M., AES-M Oct 97 23-29*
 test procedure for real-time validation of measurement and dynamic models of integrated navigation systems. *Teunissen, P. J. G., AES-M Jul 90 35-41*
 thermionic/AMTEC cascade converter concept for high-efficiency space power. *Van Hagan, T.H., +, AES-M Jul 97 10-15*
 TWT reliability in space applications. *Illokken, E., AES-M Jul 87 22-24*
 US Defense Electronics Supply Center's efforts for parts quality improvement. *Robinson, Glenda R., +, AES-M Sep 90 7-10*
 valve regulated lead acid batts., operational testing, commercial aircraft. *Timmons, J.B., +, AES-M Jul 97 35-38*
- Reliability; cf. Aircraft reliability; Computer reliability; Fault tolerance; Integrated circuit reliability; Power system reliability; Software reliability**
- Reliability theory**
 GPS optimized carrier phase ambiguity search. *Yang Gao, +, AES-M Dec 96 22-26*
 human-machine interface design & impact concept, risk anal. *Dearden, A.M., +, AES-M Feb 97 19-25*
 satellite commun. syst. act. phased arrays, design-oriented reliab. model. *Ruggieri, M., AES-M Oct 97 23-29*
 security intrusion proc., empirical model, attacker behavior. *Jonsson, E., +, AES-M Apr 97 7-17*

Reluctance generators

aerospace variable speed const. freq. starter/generator technols. *Elbuluk, M.E.*, +, *AES-M May 97* 24-31
 starter/generator technol. for future aerosp. appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96* 17-24

Reluctance motor drives

PBW, PBW program for aircraft, motor drive technols., options and trends. *Elbuluk, M.E.*, +, *AES-M Nov 95* 37-42
 starter/generator technol. for future aerosp. appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96* 17-24
 switched reluctance motor drive, dyn. tests. *Silventoinen, P.*, +, *AES-M Jan 99* 25-28

Reluctance motors

vehicles propulsion, experts' opinion survey. *Chang, L.*, *AES-M Aug 94* 7-11

Remotely operated vehicles

avionics for small remotely piloted vehicle. *Vandersteen, A. D.*, *AES-M Jun 87* 24-30
 controlling remotely piloted space vehicles using voice systems and heads-up displays. *Hartley, Craig S.*, +, *AES-M Jul 88* 18-26
 Outrider tactical unmanned aerial vehicle, DQI-NP appl. *Martin, M.K.*, +, *AES-M Dec 98* 21-24
 pilotless aircraft navig. via GPS. *Yongsheng Wang*, +, *AES-M Aug 96* 16-20
 pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong*, *AES-M Dec 98* 3-6
 STV (surrogate teleoperated vehicle) unmanned military land vehicle design. *Myers, Scott D.*, *AES-M Jul 91* 3-9
 unmanned aircraft, simul. training syst. *Huang Yong*, +, *AES-M Dec 98* 11-13

Remote sensing

field-portable imaging syst. for scene class. *Preston, E.*, +, *AES-M Sep 94* 13-19
 forward opportune landing sites location, satellite spectral images. *Botschner, R.*, *AES-M Apr 98* 43-47
 functions and capabilities of Indian National Remote Sensing Agency. *Lewis, Donald A.*, +, *AES-M Feb 93* 31-36
 IRS-1C Indian Remote Sensing Satellite, on-board computer, PC based test syst. *Dinesh Kumar, G.*, +, *AES-M Oct 95* 35-38
 Landsat-6 satellite remote sensing systems overview; description of Enhanced Thematic Mapper sensor and bus subsystems. *Mowle, Edward W.*, +, *AES-M Jun 91* 18-23
 pilotless aircraft navig. via GPS. *Yongsheng Wang*, +, *AES-M Aug 96* 16-20
 space remote sensors as component of high-level robotic systems; sensors for EDS program. *Keller, Sam*, *AES-M Apr 87* 14-18

Remote sensing; cf. Remote sensing by laser beam; Remote sensing by radar; Terrain mapping; Vegetation mapping

Remote sensing by laser beam

2 μ m LIDAR for laser-based rem. sens. *Wagener, T.J.*, +, *AES-M Feb 95* 23-28
 airdrop ballistic winds operationally capable lidar. *Carr, J.*, +, *AES-M May 99* 31-36

Remote sensing by radar

airborne Doppler radar, weather/windshear detect. capability, testing. *Michaels, J.F.*, *AES-M Dec 95* 25-30
 beamwidth reduction techs. *Suzuki, T.*, *AES-M May 98* 43-48
 building struct. & works, RF band high resoln. sounding. *Vasiliev, I.A.*, +, *AES-M May 99* 25-29
 C/X-band airborne SAR developed for Canada Centre for Remote Sensing. *Livingstone, C. E.*, +, *AES-M Oct 88* 11-20
 ELDORA/ASTRAIA airborne Doppler radar, field test results. *Hildebrand, P.H.*, +, *AES-M Oct 96* 34-37
 ERIM interferometric SAR, IFSARE. *Adams, G.F.*, +, *AES-M Dec 96* 31-35
 mine detect., wide-span syst., terrain radio images. *Ivashov, S.I.*, +, *AES-M May 99* 6-8
 P-3 ultra-wideband SAR, polarimetric imagery. *Sheen, D.R.*, +, *AES-M Nov 96* 25-30
 radar polarimetry and its applications in remote sensing; state-of-the-art review. *Boerner, Wolfgang-M.*, +, *AES-M Jun 90* 3-6
 Radarsat Antarctic Mapping Mission, SAR images. *Choi, E.M.*, *AES-M May 99* 3-5
 SAR rem. sens., spaceborne, SRTM and LightSAR. *Hilland, J.E.*, +, *AES-M Nov 98* 9-16
 SAR systs. in knowledge-based environ. enhanced resoln. *Bolton, A.G.*, +, *AES-M Aug 94* 33-37
 SIR-C/X-SAR, spaceborne imaging radar C/X-band multifaceted SAR, appls. *Stuhr, F.*, +, *AES-M Oct 95* 15-24
 space-based three-frequency-band SAR for earth remote sensing. *Misezhnikov, G. S.*, +, *AES-M Mar 92* 3-4
 surveillance, walls and opaque materials. *Frazier, L.M.*, *AES-M Oct 96* 6-9

system optimization techniques for radar surveillance from space. *Hardin, Robert H.*, *AES-M Aug 89* 9-14

wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9

Yuma ground penetration SAR expt., 1995 results. *Jao, J.K.*, +, *AES-M Jun 99* 5-9

Rendering (computer graphics)

cockpit display syst., next generation, develop. *Read, B.C., III*, *AES-M Oct 96* 25-28

Renewable energy sources

use of bimode uninterruptible power supplies in renewable hybrid energy systems. *Bower, Ward*, +, *AES-M Aug 90* 16-22

Renewable energy sources; cf. Hydrogen economy**Research and development management**

book review; System Engineering Management, 2nd Edn. (Blanchard, B.S.; 1998). *Majid, I.*, *AES-M Jan 99* 43-44

book review; System Engineering Management (Blanchard, B.S.). *Oman, H.*, *AES-M Feb 98* 46

future tech. trends, Hughes experience. *Chester, A.N.*, *AES-M Apr 97* 38-39

guiding technology development and transition to products responsive to end-user needs. *Young, Eric A.*, *AES-M Aug 93* 10-14

how human factors fits in R&D organizations. *Hawkins, Walter H.*, *AES-M Sep 90* 31-33

hybrid connectionist systs. in research and teaching. *Jain, L.C.*, *AES-M Mar 95* 14-18

mil. technol. based commercial products develop. *Deffeyes, R.J.*, *AES-M Oct 96* 3-5

weapon syst. testing, vert. support, R&D effort. *Liguori, F.*, *AES-M Jul 97* 31-34

Research initiatives

future tech. trends, Hughes experience. *Chester, A.N.*, *AES-M Apr 97* 38-39

International Space Station, federal funding and policy implications. *Tea Wee Ang*, *AES-M Jul 98* 24a-24p

operations of US Army Corps of Engineers' Manhattan Project as example of success in R&D. *Oman, Henry*, *AES-M Jan 92* 51-53

power and energy research for remote areas of less developed countries at Windfarm Laboratory on Martha's Vineyard, MA. *Oman, Henry*, *AES-M Oct 91* 3-5

Project Space Vision in retrospective. *Edin, P.*, +, *AES-M Dec 96* 13-16

SDI program review and technology forecast. *Worden, Simon P.*, *AES-M Mar 87* 5-9

Solar Dynamic Flight Demonstration Project plan, Joint US/Russian syst. *Wanhainen, J.S.*, +, *AES-M Feb 96* 31-36

USAF More Electric Aircraft initiative, status. *Cloyd, J.S.*, *AES-M Apr 98* 17-22

US Army Research Laboratory R&D programs for portable communication/electronic battlefield equipment power sources. *Christopher, Harold A.*, +, *AES-M May 93* 7-10

Resonant power converters

history and status of resonant power supplies. *Chetty, P. R. K.*, *AES-M Apr 92* 23-29

microwave electrothermal thruster, efficient power supply. *Ehsani, M.*, +, *AES-M May 98* 37-42

PBW program, motor drive technol., power converters & devices. *Elbuluk, M.E.*, +, *AES-M Dec 95* 31-36

Reviews

avionics commun., fiber opt. commun. syst., laser requirements. *Loehr, J.*, +, *AES-M Apr 98* 9-12

flywheel energy storage technol., past, present & future projections. *Bitterly, J.G.*, *AES-M Aug 98* 13-16

future radar evol., space-time-freq. resource mgt. to wideband radar. *le Chevalier, F.*, *AES-M Oct 99* 9-17

IR imaging sens., overview of develop. *Crawford, F.J.*, *AES-M Oct 98* 17-24

Li-ion satellite cell develop., past, present & future. *Kelly, C.O.*, +, *AES-M Jun 98* 21-25

random sig. radar develop., present & future trends. *Liu Guosui*, +, *AES-M Oct 97* 35-40

starter/generator technol. for future aerosp. appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96* 17-24

VXibus instrum., past, present & future. *Sarfi, T.*, *AES-M Jun 99* 35-37

Reviews; cf. Book reviews**Risk management**

human-machine interface design & impact concept, risk anal. *Dearden, A.M.*, +, *AES-M Feb 97* 19-25

phys. protection syst., cost & perform. anal., tactical decision making. *Hicks, M.J.*, +, *AES-M Apr 99* 9-13

Year 2000 impact on automated testing, pot. problem areas. *Waken, W.*, +, *AES-M Jul 99* 5-8

Road traffic

integrated automatic vehicle location syst. *McKay, K.M.*, *AES-M Mar 97* 18-22

traffic light control, safety kernel. *Ammann, P.*, *AES-M Feb 96* 13-19

Road vehicle radar

- automotive radar for automatic AICC. *Eriksson, L.H.*, +, *AES-M Dec 95* 13-18
 mm-wave car anticollision radars, sig. proc. procedures. *Groll, H.P.*, +, *AES-M Aug 97* 15-19
 side zone automotive radar, cost effective design approach. *Reed, J.C.*, *AES-M Jun 98* 3-7

Road vehicles

- automated route selection for road-vehicle navigation. *Mark, David M.*, *AES-M Sep 86* 2-5
 bicycle as principle means of transportation in China. *Oman, Henry*, *AES-M Oct 91* 24-2
 Dakota Sun, next generation solar powered racing vehicle. *Riisnaes, A.*, +, *AES-M Nov 96* 3-6
 GPS and Loran-C performance for road vehicle navigation in Canadian Rockies. *Lachapelle, G.*, +, *AES-M May 92* 24-28
 satellite navigation systems for land vehicles; experimental system using GPS receiver. *Dork, Ronald A.*, *AES-M May 87* 2-5

Road vehicles; cf. Automobiles**Robots; cf. Aerospace robotics; Manipulators; Mobile robots; Telerobotics****Robot vision**

- telerobotics (supervised autonomy) for space applications. *Otaguro, W. S.*, +, *AES-M Nov 88* 11-15

Robust control

- book review; Robust Systems Theory and Application (Sanchez-Pena, R.S., and Sznajder, M.; 1998). *Majid, I.*, *AES-M Jun 99* 43-44

Rocket engines

- Morgan phenom., electron jet propulsion principle. *Lebedev, O.*, +, *AES-M Aug 98* 3-5

Rockets

- rectifying receiving antenna for microwave energy transm. *McSpadden, J.O.*, +, *AES-M Nov 94* 36-41
 ring-laser-gyro-based navigator for space launch-vehicle guidance. *Wright, R. Joseph, Jr.*, +, *AES-M Mar 89* 29-38

Rotating bodies

- magnetic braking of the Earth's rotation. *Oman, Henry*, *AES-M Apr 89* 3-10

Rotors

- vibr. meas. in elec. drives. *Pyrhonen, O.*, +, *AES-M May 98* 21-23

Runge-Kutta methods

- GPS/IMU integrated syst., low-cost, develop., strapdown AHRS. *Xiufeng He*, +, *AES-M Dec 98* 7-10

Ryerson, Joseph L.

- obituary. *Pratt, R.C.*, *AES-M May 94* 40

S**Safety**

- author information for 'Explosive detection system based on thermal neutron analysis'. *Gozani, Tsahi*, +, *AES-M Jan 90* 52-54
 checker for validating safe schedules and selecting error recovery schedules for satellite control systems. *Peters, James F., III*, +, *AES-M Oct 92* 14-21
 correction to 'Verifying command sequences for satellite systems' (Oct 92 14-21). *Peters, J. F., III*, +, *AES-M Apr 93* 40
 electronic tracking bracelets, review. *Dobson, D.B.*, *AES-M Jul 96* 2-4
 explosives detection system based on thermal neutron activation. *Gozani, Tsahi*, +, *AES-M Dec 89* 17-20
 FAA reliab.-safety requirements and alternatives. *Pecht, M.*, +, *AES-M Feb 98* 16-20
 issues affecting future of electric vehicles. *O'Brien, William A.*, *AES-M May 93* 38-41
 microwave power systs. engng., beam safety, freq. allocation, affordability. *Dickinson, R.M.*, *AES-M May 97* 10-14
 mil. avionics with INS/GPS. *Martin, M.K.*, +, *AES-M Nov 98* 41-46
 MLS flight safety performance. *Berninger, Daniel J.*, *AES-M May 90* 3-8
 pilot error in automated systs., altitude deviation reports. *Ritter, R.D.*, *AES-M Apr 94* 15-19
 safety and environmental considerations for nickel-metal-hydride and nickel-cadmium batteries used in notebook computers. *Phillips, Jeffrey*, +, *AES-M May 93* 35-37
 space power wiring systs., safety, maint. and protection. *Stavnes, M.W.*, +, *AES-M Jan 94* 21-27
 supportable aircraft separation stds., stat. hypothesis testing. *Haest, M.*, +, *AES-M Jun 95* 24-29
 TWA800 fuel tank flammability study. *Wyczalek, F.A.*, *AES-M Jan 98* 16-19
 UV commun. syst., solar blind, electrodeless, aircraft data/voice links. *Shute, R.D.*, *AES-M Nov 95* 2-7
 wind detect. in microcosm, ship/aircraft environ. sens. *Platt, J.R.*, *AES-M Feb 98* 26-33

Safety; cf. Biomedical equipment safety; Product safety**Safety-critical software**

- analysis of selected software safety standards. *Wallace, Dolores R.*, +, *AES-M Aug 92* 3-14
 design-for-validation approach to designing computer hardware and software for flight-critical avionics for civil air-transport. *Johnson, Sally C.*, +, *AES-M Jan 92* 38-43
 modeling real-time software failure characterization for aerospace vehicle. *Dunham, Janet R.*, +, *AES-M Nov 90* 38-44
 rationale for development of UK defense standards for safety-critical computer software. *Brown, Michael J. D.*, *AES-M Nov 90* 31-37
 testing for security during develop., software engng. anal. tech. *McGraw, G.*, *AES-M Apr 98* 13-15
 traffic light control, safety kernel. *Ammann, P.*, *AES-M Feb 96* 13-19
 training, career development, and registration for safety-critical software systems specialists. *Taylor, J. A.*, *AES-M Sep 91* 3-8
 US FDA software safety & reliab. stand., eval., comparison & selection methodology. *Herrmann, D.S.*, *AES-M Jan 96* 3-12

Safety systems

- 35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22
 AMETHYST automatic alarm assess. *Horner, M.*, +, *AES-M Jul 98* 31-36
 annunciator archit. for yr. 2000. *Adams, D.G.*, +, *AES-M Jun 97* 25-28
 avionic ground proximity warning syst. *Breen, B.C.*, *AES-M Jan 99* 19-24
 computer vision appl. in security, technol. develop. *Sage, K.*, +, *AES-M Apr 99* 19-29
 intell. alarm anal., sens. fusion. *Nelson, C.L.*, +, *AES-M Sep 97* 18-24
 intruder alarm systs. effectiveness for crime prevention. *Pascoe, T.*, +, *AES-M Feb 98* 8-15
 model-based vision for automatic interpretation of alarms from perimeter intrusion detection system. *Ellis, T. J.*, +, *AES-M Mar 91* 14-20
 outdoor intrusion detect., ported coaxial cable technol. *Clifton, R.W.*, +, *AES-M May 97* 36-40
 perimeter intruder detect., uncontrolled water access, automatic detect. *Ceng, M.S.*, +, *AES-M Aug 97* 30-32
 pseudo-tomographic X-ray imaging for aviation security. *Evans, J.P.O.*, +, *AES-M Jul 98* 25-30
 video surveillance appl. using multiple views of scene. *Meyer, M.*, +, *AES-M Mar 99* 13-18

Sampling methods; cf. Signal sampling**Satellite antennas**

- act. phased arrays, design-oriented reliab. model. *Ruggieri, M.*, *AES-M Oct 97* 23-29
 GPS satellite antenna, radiant angle computing. *Xiangpeng Li*, +, *AES-M Jul 96* 35-38
 IRIDIUM satellite antenna array concept. *Schuss, J.J.*, +, *AES-M Dec 97* 3-12
 space-fed phased array for surveillance from space. *Hightower, Charles H.*, +, *AES-M May 91* 13-17

Satellite applications; cf. Military satellites; Satellite communication; Satellite navigation systems**Satellite communication**

- commercial air transport control develops. in USA. *AES-M Mar 94* 2-5
 communications satellite technology and services for 1990s for both military and commercial applications. *Wu, William W.*, +, *AES-M Sep 92* 39-43
 differential GPS, real time Van Carrier Location System. *Evers*, +, *AES-M Aug 94* 26-32
 effect of orbit tilt on operation of UHF satellite communication. *Franke, Ernie*, *AES-M Dec 93* 7-13
 emerging broadband-ISDN services; satellites' role and NASA ACTS high-data-rate experiments. *vonDeak, Thomas*, *AES-M Oct 92* 38-42
 GPS/GLONASS/INS test program. *Vieweg, S.*, +, *AES-M Jul 94* 23-28
 GPS/IMU syst. integrat. based navig./landing syst. *Meyer-Hilberg, J.*, +, *AES-M Jul 94* 11-17
 GPS precision lightweight receiver testing. *Cosentino, B.*, *AES-M Aug 94* 17-20
 GPS receivers, RF suscept. charact. *Daher, J.K.*, +, *AES-M Oct 94* 21-25
 Gulf War, Conventional Air Launched Cruise Missile navig. *Nielson, J.T.*, *AES-M Jul 94* 18-22
 INS/GPS operational concept demons. (OCD). *Snyder, S.*, +, *AES-M Aug 94* 38-44
 low-cost Tracking and Data Relay Satellite System communications for NASA's long-duration balloon project. *Israel, David J.*, *AES-M Feb 93* 43-47
 methodology for real-time fault detection, isolation, and correction in large satellite communication system using expert systems. *Pensick, Ellen C.*, +, *AES-M Jul 93* 11-23
 MOBITEX wireless WAN for land-based positioning/navig. *Yang, T.T.*, +, *AES-M Jul 94* 29-35
 predicting ionospheric scintillation for satellite communications. *Hocutt, Anne M.*, *AES-M Apr 89* 11-13

- recent advances and future trends in communications satellite technology. *Mahle, Christoph E.*, +, *AES-M Nov 88* 3-10
- systems approach to satellite operations problem using IntellISTAR processing architecture. *Gathmann, Thomas P.*, +, *AES-M Dec 90* 20-24
- US Navy space systems and services requirements. *Berman, E. Ann.*, *AES-M Mar 87* 17-19
- Satellite communication**; cf. Direct broadcasting by satellite; Mobile satellite communication
- Satellite ground stations**
- aeronautical mobile satellite services, 1960s, 1990s develops. *Guangren Chen*, +, *AES-M Dec 94* 25-36
- low-cost satellite ground control facility design. *Landis, Scott J.*, +, *AES-M Jun 93* 35-49
- satellite interference location system for locating terrestrial uplink stations using differential time and phase measurements. *Smith, William Whitfield, Jr.*, +, *AES-M Mar 91* 3-7
- Satellite links**
- intersatellite communications optoelectronics research at NASA Goddard Space Flight Center. *Krainak, Michael A.*, *AES-M Sep 92* 44-47
- Project Trinidad, establishment of first intercontinental satellite communications link. *Ryerson, Joseph L.*, +, *AES-M Aug 93* 2-5
- satellite interference location system for locating terrestrial uplink stations using differential time and phase measurements. *Smith, William Whitfield, Jr.*, +, *AES-M Mar 91* 3-7
- Satellite navigation**
- airlines' requirements for GPS/GLONASS receivers. *AES-M Aug 90* 31-32
- CNS/ATM, Communications Navigation Surveillance Air Traffic Management, MTSAT. *Sukegawa, S.*, *AES-M Mar 97* 33-37
- GPS/GLONASS/INS test program. *Vieweg, S.*, +, *AES-M Jul 94* 23-28
- INMARSAT integrity channels for Global Navigation Satellite System. *Kinal, George V.*, +, *AES-M Aug 92* 22-25
- NAVSAT, European Space Agency's global satellite-based navigation system. *Rosetti, C.*, +, *AES-M Dec 87* 15-21
- NAVSTAR GPS and GLONASS onboard clocks. *Daly, P.*, +, *AES-M Jul 90* 3-9
- position-fixing using USSR's GLONASS C/A code. *Dale, Stephen A.*, +, *AES-M Feb 89* 3-10
- Soviet Union's GLONASS navigation satellites; orbital features and RF signal characteristics. *Dale, S. A.*, +, *AES-M May 87* 13-17
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- Satellite navigation**; cf. Global Positioning System
- Satellites**; cf. Artificial satellites
- Satellite telemetry**
- IRS-1C Indian Remote Sensing Satellite, on-board computer, PC based test syst. *Dinesh Kumar, G.*, +, *AES-M Oct 95* 35-38
- Satellite tracking**
- automated software configuration management on US Dept. of Defense satellite ground system. *Christian, Kathleen B.*, +, *AES-M Nov 86* 10-15
- Indian tracking and data acquisition facilities for LEO and geosynchronous satellites. *Lewis, Donald*, *AES-M Feb 93* 19-27
- intersatellite communications optoelectronics research at NASA Goddard Space Flight Center. *Krainak, Michael A.*, *AES-M Sep 92* 44-47
- precise orbit determination of high-earth elliptical orbiters using differenced Doppler and ranging measurements. *Estefan, Jeff A.*, *AES-M May 92* 12-18
- urban area performance of GPS receiver that tracks as many as eight satellites simultaneously. *Rothblatt, Martin*, *AES-M Aug 92* 29-33
- Scanning antennas**
- MM wave radar scanning antenna, leaky-wave periodically loaded antenna design. *Manasson, V.*, +, *AES-M Oct 96* 29-33
- satellite commun. syst. act. phased arrays, design-oriented reliab. model. *Ruggieri, M.*, *AES-M Oct 97* 23-29
- Scanning probe microscopy**; cf. Atomic force microscopy
- Scheduling**
- Autonomous Power System project for demonstrating application of integrated intelligent diagnosis, control, and scheduling to space power distribution systems. *Ringer, Mark J.*, +, *AES-M Jan 93* 40-47
- checker for validating safe schedules and selecting error recovery schedules for satellite control systems. *Peters, James F., III*, +, *AES-M Oct 92* 14-21
- correction to 'Verifying command sequences for satellite systems' (Oct 92 14-21). *Peters, J. F., III*, +, *AES-M Apr 93* 40
- Screens (display)**; cf. Touch sensitive screens
- Sea ice**
- HF radar target detect./tracking, reciprocal SAR techs. *Khan, R.H.*, *AES-M Jan 97* 40-43
- Search problems**
- GPS optimized carrier phase ambiguity search. *Yang Gao*, +, *AES-M Dec 96* 22-26
- Search radar**
- airfields over-the-horizon radar surveillance, counterdrug appls. *Ciboci, J.W.*, *AES-M Jan 98* 31-34
- AN/APS-6 airborne radar for fighter aircraft. *Suffield, F.G.*, *AES-M Sep 95* 33-40
- battlefield awareness via synergistic SAR and MTI. *Fennell, M.T.*, +, *AES-M Feb 98* 39-43
- bistatic adaptive space-based radar, ground/airborne target detect. *Fante, R.*, *AES-M Oct 99* 39-44
- future radar evol., space-time-freq. resource mgt. to wideband radar. *le Chevalier, F.*, *AES-M Oct 99* 9-17
- HF OTH radar target detect. & estim., parallel proc. subsyst. *Wang Wei*, +, *AES-M Apr 99* 39-45
- HF radar target detect./tracking, reciprocal SAR techs. *Khan, R.H.*, *AES-M Jan 97* 40-43
- multimode radar, low-cost technol., flexible test bed archit. *Adler, E.*, +, *AES-M Jun 99* 23-27
- random sig. radar develop., present & future trends. *Liu Guosui*, +, *AES-M Oct 97* 35-40
- S-band surveillance radar sidelobe suppression. *Bucci, N.J.*, +, *AES-M Aug 95* 37-43
- siting and perform. prediction, software tool. *O'Hern, B.*, +, *AES-M Dec 97* 19-26
- space-based radar syst., low-cost. *Curry, G.R.*, *AES-M Sep 96* 21-24
- surveillance, walls and opaque materials. *Frazier, L.M.*, *AES-M Oct 96* 6-9
- system optimization techniques for radar surveillance from space. *Hardin, Robert H.*, *AES-M Aug 89* 9-14
- wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9
- Yuma ground penetration SAR expt., 1995 results. *Jao, J.K.*, +, *AES-M Jun 99* 5-9
- Secondary cells**
- advanced types and commercialization. *Mader, J.*, *AES-M Jul 96* 17-22
- advancements and appls., conf. report. *Oman, H.*, *AES-M Apr 94* 25-31
- advances and trends in primary/small secondary batts. *Powers, R.A.*, *AES-M Apr 94* 32-36
- aerospace Li-ion solid polymer batts. *Teofilo, V.L.*, +, *AES-M May 98* 33-36
- aluminum-air battery advances and applications to electric vehicles. *Hamlen, R. P.*, +, *AES-M Oct 91* 11-14
- army batts./fuel cells, portable power source needs. *Jacobs, R.*, +, *AES-M Jun 96* 19-25
- batt. technols. and markets, indust. appls. *Seitz, C.W.*, *AES-M May 94* 10-15
- crit. loads mgt., AC Battery PQ2000 syst. *Corey, G.P.*, *AES-M Jun 96* 41-44
- FAA lithium batt. tech. std. for aircraft equipt. *Donaldson, G.J.*, +, *AES-M May 97* 3-5
- global avionics future trends. *Oman, H.*, *AES-M Apr 95* 14-19
- hybrid elec. vehicles, 1998 market. *Wyczalek, F.A.*, *AES-M Mar 99* 41-44
- Hy-Stor batt. design and appls. *Burghart, P.A.*, *AES-M Nov 97* 8-18
- IC controllers for batts. charging. *Mammano, R.A.*, *AES-M Apr 95* 20-25
- intell. batt., microcontroller-based. *Bowen, L.*, +, *AES-M May 94* 16-19
- International Space Station elec. power syst., status, archit., future technol. *Gholdston, E.*, +, *AES-M Feb 96* 25-30
- Li ion batt. charger. *Teofilo, V.L.*, +, *AES-M Nov 97* 30-36
- Li-ion batts. rgt., multichemistry systs. *Bently, W.F.*, +, *AES-M May 96* 23-26
- Li-ion batt. software safety protection. *Tsenter, B.*, +, *AES-M Sep 98* 23-25
- Li-ion cell perform. under environ. extremes. *Kelly, C.O.*, +, *AES-M Mar 99* 37-40
- Li-ion cells for NASA's Mars 2001 Lander appl., perform. characts. *Smart, M.C.*, +, *AES-M Nov 99* 36-42
- Li-ion prismatic batts. *Ehrlich, G.M.*, +, *AES-M Sep 97* 7-11
- Li-ion satellite cell develop., past, present & future. *Kelly, C.O.*, +, *AES-M Jun 98* 21-25
- Li-ion solid polymer electrolyte batt. develop. *Teofilo, V.L.*, +, *AES-M Nov 99* 43-47
- Li-LiMn₂O₄ thin-film batts., fab./props. *Bates, J.B.*, +, *AES-M Apr 95* 30-32
- long-life batt. develop., elec. vehicle appl. *Oman, H.*, *AES-M Sep 99* 19-21
- maintenance-free nickel-cadmium traction batteries in fiber-plaque technology. *Warthmann, Wolfgang*, *AES-M May 93* 29-31
- Ni-Cd aircraft: batt., sealed, life cycle testing. *Kulin, T.M.*, *AES-M Oct 97* 17-22
- Ni-Cd batt., cycled, pulse discharge behavior, satellite power systs. *Rao, G.*, +, *AES-M Aug 97* 41-43
- NiCd batt. mgt., multichemistry systs. *Bently, W.F.*, +, *AES-M May 96* 23-26
- NiH₂ batt., PowerCore based satellite power supplies. *Lyman, P.C.*, +, *AES-M Sep 98* 39-42
- NiH₂ Dependent Pressure Vessel cell and batt. technol. *Caldwell, D.B.*, +, *AES-M Dec 97* 27-32
- Ni-metal hydride bipolar batt. for hybrid vehicles. *Reisner, D.E.*, +, *AES-M May 94* 24-28
- NiMH batt. mgt., multichemistry systs. *Bently, W.F.*, +, *AES-M May 96* 23-26

- Ni-MH next generation portable batt., elec. vehicles, adv. mater. *Ovshinsky, S.R.*, +, *AES-M May 99 17-23*
- Ni-Zn sealed batt. for high energy-dens. appls. *Coates, D.*, +, *AES-M Jun 97 35-38*
- ovonic nickel-metal-hydride batteries for industrial and electric vehicles; advances. *Venkatesan, S.*, +, *AES-M Nov 91 26-30*
- progress in development of nickel-metal-hydride batteries. *Venkatesan, S.*, +, *AES-M May 93 32-34*
- reconditioning of Ni/H₂ batts., need and effect. *Suresh, M.S.*, +, *AES-M Apr 95 26-29*
- separator syst. for advanced aerospace batt. cells. *Scoles, D.L.*, +, *AES-M Jul 96 27-30*
- testing full-size mechanically rechargeable zinc-air battery in electric vehicle. *Goldstein, Jonathan R.*, +, *AES-M Nov 93 34-38*
- ultracapacitors for elec. vehicles, load-levelling batts. *Dowgiallo, E.J.*, +, *AES-M Aug 95 26-31*
- ultralight elec. vehicles, design param. *Wyczalek, F.A.*, *AES-M Jan 96 40-44*
- vehicles propulsion, develop. trends. *Oman, H.*, +, *AES-M Feb 95 29-35*
- Zn-air batts. for forward battlefield charging. *Atwater, T.B.*, *AES-M Sep 98 36-38*
- ZnBr batt. in elec. vehicle. *Swan, D.H.*, +, *AES-M May 94 20-23*
- Zn-flow-batts. for elec.-vehicles. *Tomazic, G.*, *AES-M Apr 94 37-41*
- Secondary cells; cf. Lead acid batteries**
- Security**
- 30th International Carnahan Conference on Security Technology, conf. report. *Oman, H.*, *AES-M Jan 97 29-34*
- computer vision appl. in security, technol. develop. *Sage, K.*, +, *AES-M Apr 99 19-29*
- COUNTERFOIL high security opt. surface technol. *Atherton, P.*, *AES-M May 98 3-6*
- phys. protection syst., cost & perform. anal., tactical decision making. *Hicks, M.J.*, +, *AES-M Apr 99 9-13*
- surveillance, walls and opaque materials. *Frazier, L.M.*, *AES-M Oct 96 6-9*
- Security; cf. Alarm systems; Safety systems; Telecommunication security**
- Security of data**
- integrating computer security with software quality assurance practice. *Carr, Richard*, +, *AES-M Sep 91 15-19*
- operational security meas., probabilistic measures. *Brocklehurst, S.*, +, *AES-M Oct 94 7-16*
- software security problems. *Knight, J.C.*, *AES-M Feb 98 6-7*
- testing for security during develop., software engng. anal. tech. *McGraw, G.*, *AES-M Apr 98 13-15*
- wrapper technol. develop. *Badger, L.*, *AES-M Mar 98 32-33*
- Semiconductor device manufacture**
- GaN/P/GaAs tandem solar cells, high-efficiency. *Bertness, K.A.*, +, *AES-M Dec 94 12-17*
- Semiconductor device models**
- LD high speed driving, exponential transm. line. *Zheng Li*, +, *AES-M Sep 96 4-7*
- Semiconductor device testing**
- LIPS III, solar cell test bed used in space. *Severns, J. G.*, +, *AES-M Dec 89 8-12*
- space performance of silicon vertical-junction solar cells on LIPS-III satellite. *Statler, Richard L.*, +, *AES-M Dec 89 13-16*
- wireless power transm., solar power satellite develop. program. *Nansen, R.H.*, *AES-M Jan 96 33-39*
- Semiconductor diodes; cf. Light emitting diodes**
- Semiconductor lasers**
- LD high speed driving, exponential transm. line. *Zheng Li*, +, *AES-M Sep 96 4-7*
- Semiconductor technology**
- GaN/P/GaAs tandem solar cells, high-efficiency. *Bertness, K.A.*, +, *AES-M Dec 94 12-17*
- Sensor fusion**
- annunciator archit. for yr. 2000. *Adams, D.G.*, +, *AES-M Jun 97 25-28*
- book review; Multitarget-Multisensor Tracking: Principles and Techniques (Bar-Shalom, Y., and Li, X.-R.; 1995). *Daum, F.*, *AES-M Feb 96 41-44*
- buried metallic mines detect., ultra-wideband ground-penetrating radar. *Earp, S.L.*, +, *AES-M Sep 96 30-39*
- expert systems for multisensor data handling and threat assessment in future fighter aircraft. *Yannone, Ronald M.*, *AES-M Feb 86 12-16*
- field-portable imaging syst. for scene class. *Preston, E.*, +, *AES-M Sep 94 13-19*
- hyperspectral airborne sens. systs. *Birk, R.J.*, +, *AES-M Oct 94 26-33*
- integrated sens. systs. to support radar, EW, and CNI. *Rich, B.A.*, +, *AES-M Sep 95 11-17*
- intell. alarm anal., sens. fusion. *Nelson, C.L.*, +, *AES-M Sep 97 18-24*
- Joint Service Imagery Processing System (JSIPS) for tactical reconnaissance and surveillance by US Military. *Davis, Robert L.*, *AES-M Dec 92 12-36*
- millimeter-wave radar/forward-looking IR/automatic target-recognizer sensor fusion; proof of concept summary. *Woolett, Jerry F.*, *AES-M Jun 88 22-25*
- mission-crit. systs., cost-effective software fault tolerance. *Kreutzfeld, R.J.*, +, *AES-M Sep 97 25-30*
- pass. mm-wave camera, low visibility aircraft landing. *Shoucri, M.*, +, *AES-M May 95 37-42*
- radar target recogn. by fuzzy logic. *Moruzzis, M.*, +, *AES-M Jul 98 13-20*
- RF integrated electronics, open systs. archit. *Hooks, D.C.*, +, *AES-M Jan 99 29-33*
- Sensors**
- amorphous Si thin-film transistors and sensors and their applications. *Thompson, Malcolm J.*, +, *AES-M Aug 87 25-29*
- wind detect. in microcosm, ship/aircraft environ. sens. *Platt, J.R.*, *AES-M Feb 98 26-33*
- Sensors; cf. Gas sensors; Image sensors; Intelligent sensors; Magnetic sensors; Microsensors; Optical sensors; Pressure sensors**
- Sensory aids**
- blind aiding electronic device. *de Acevedo, R.L.M.*, *AES-M Feb 99 4-6*
- Sequences; cf. Image sequences**
- Series (mathematics); cf. Fourier series**
- Servomechanisms**
- act. sidestick controllers for aircraft flight control. *Hegg, J.W.*, +, *AES-M Jul 95 31-34*
- pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong*, *AES-M Dec 98 3-6*
- Shared memory systems**
- VXIbus multicomputer syst. set up and use. *Wright, M.*, *AES-M Sep 98 17-21*
- Shear flow**
- wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95 3-9*
- Ships**
- history of Hamilton and Scourge, sunken ships from War of 1812. *Cain, Emily*, *AES-M Jul 87 2-7*
- interactive system for global ship monitoring combining ordnance alterations and casualty report data for PHALANX weapons systems. *Sun, Gwong*, +, *AES-M Apr 90 15-18*
- LCPOS, low cost inertial/GPS integrated posn. and orient. syst., marine appls. *Scheninger, B.M.*, +, *AES-M May 97 15-19*
- monopulse radar in USSR, hist. *Leonov, A.I.*, *AES-M May 98 7-13*
- naval ships, AEGIS weapon syst. integrated diagnostics. *Brazet, M.D.*, *AES-M Feb 94 40-45*
- radar characterization of ship-wake signatures and ambient ocean clutter features. *Schurmann, Stuart R.*, *AES-M Aug 89 3-8*
- wind detect. in microcosm, ship/aircraft environ. sens. *Platt, J.R.*, *AES-M Feb 98 26-33*
- Short-circuit currents**
- Hubble Space Telescope solar array change-out, mission anom. *Winslow, C.*, *AES-M Apr 95 3-13*
- Signal detection; cf. Adaptive signal detection; Distributed detection; Radar detection; Sonar detection**
- Signal flow graphs**
- multisignal flow graphs, syst. testability anal./fault diagnosis. *Deb, S.*, +, *AES-M May 95 14-25*
- Signal processing**
- annunciator archit. for yr. 2000. *Adams, D.G.*, +, *AES-M Jun 97 25-28*
- fast wideband search for spurious responses. *Cassidy, Kevin*, +, *AES-M Feb 92 21-27*
- intell. alarm anal., sens. fusion. *Nelson, C.L.*, +, *AES-M Sep 97 18-24*
- software radio technologies, architectures, model, and future directions. *Mitola, J., III*, *AES-M Apr 93 25-36*
- Signal processing; cf. Adaptive signal processing; Array signal processing; Filtering; Filters; Geophysical signal processing; Image processing; Radar signal processing; Sensor fusion; Signal sampling; Speech processing; Video signal processing**
- Signal processing equipment**
- S-band digital beamforming antenna. *Pettersson, L.*, +, *AES-M Nov 97 19-29*
- simulator for basic radar sigs., low-cost. *Eskelinen, E.*, +, *AES-M Jun 94 7-11*
- star trackers for attitude determ. *Liebe, C.C.*, *AES-M Jun 95 10-16*
- Signal processing equipment; cf. Image processing equipment; Voice equipment**
- Signal resolution; cf. Radar resolution**
- Signal sampling**
- ELDORA/ASTRAIA airborne Doppler weather radar, field test results. *Hildebrand, P.H.*, +, *AES-M Oct 96 34-37*
- multimode radar, low-cost technol., flexible test bed archit. *Adler, E.*, +, *AES-M Jun 99 23-27*
- Silicon**
- act. matrix LCD for projection/head-mounted systs. *Spitzer, M.B.*, +, *AES-M Apr 95 33-35*

- amorphous Si thin-film transistors and sensors and their applications. *Thompson, Malcolm J.*, +, *AES-M Aug 87* 25-29
- resonant sensors for high-accuracy pressure measurement using silicon technology. *Parsons, P.*, +, *AES-M Jul 92* 45-48
- Si μ SCIRAS MEMS inertial rate and accel. sens., tactical grade navig. and guidance. *Hulsing, R.*, *AES-M Nov 98* 17-23
- Silver compounds**
- Al-AgO primary batt., torpedo propulsion appl. *Orndorff, C.M.*, +, *AES-M May 96* 27-31
- Simulation**
- morph. synthesis for promising tech. systs. *Rakov, D.L.*, *AES-M Dec 96* 3-8
- neural networks implement. and appls. *Vonk, E.*, +, *AES-M Jul 96* 11-16
- optimizing PWM inverter for UPS using space-state-based computer model. *Perra, Andre*, *AES-M Apr 92* 20-22
- Simulation; cf.** Aerospace simulation; Digital simulation
- Slot antenna arrays**
- ILS applications of slotted-cable antennas. *Watts, C. B., Jr.*, *AES-M May 90* 16-20
- Smart pixels**
- cockpit display syst., next generation, develop. *Read, B.C., III*, *AES-M Oct 96* 25-28
- Snubbers**
- PBW program, motor drive technol., power converters & devices. *Elbuluk, M.E.*, +, *AES-M Dec 95* 31-36
- Snyder, L. Daniel**
- obituary. *AES-M Jul 99* 44
- Societies**
- career development of engineers; role of professional societies. *Corbin, John C.*, *AES-M Mar 88* 12-16
- Societies; cf.** IEEE
- Socio-economic effects**
- book review; The Invention That Changed the World (Buderi, R.; 1996). *Hill, R.T.*, *AES-M Apr 97* 42-44
- comments on 'Sociotechnical systems evolution and international stability: 1885-2001' by K. B. De Greene (Jun 86 13-18). *Toomay, J. C.*, *AES-M Oct 86* 34-35
- comments on 'The global systems: Conditions for peace, stability, and social justice' by W. W. Harman (Aug 86 2-6). *Happy, Herb*, *AES-M Oct 86* 34
- conditions for peace, stability, and social justice; global system approach. *Harman, Willis W.*, *AES-M Aug 86* 2-6
- future tech. trends, Hughes experience. *Chester, A.N.*, *AES-M Apr 97* 38-39
- importance of engineering and need for engineers to play greater role in society. *Augustine, Norman R.*, *AES-M Oct 92* 3-5
- societal needs that engineers can fulfill and problem of anti-engineering bias. *Casazza, J. A.*, *AES-M Feb 92* 3-7
- sociotechnical systems evolution and relation to international stability, 1885-2001; overview and projection. *De Greene, Kenyon B.*, *AES-M Jun 86* 13-18
- telecommunication media's effects on information sharing and team performance; theoretical and empirical observations. *Wellens, A. Rodney*, *AES-M Sep 89* 13-19
- Sodium**
- Na-NiCl₂ advanced batts. commercialization. *Mader, J.*, *AES-M Jul 96* 17-22
- Software; cf.** Automatic test software
- Software cost estimation**
- project estim. models, accuracy conundrum. *Ferens, D.V.*, *AES-M Mar 99* 23-29
- test program sets re-hosting for mil. ATE. *Liguori, F.*, +, *AES-M Apr 96* 34-37
- Software development management**
- ATE life cycle, independent verification/validation. *Calhoun, C.C.*, *AES-M Jul 98* 37-42
- testing for security during develop., software engng. anal. tech. *McGraw, G.*, *AES-M Apr 98* 13-15
- Software engineering**
- GPS satellite antenna, radiant angle computing. *Xiangpeng Li*, +, *AES-M Jul 96* 35-38
- Space Station Freedom, two-fault tolerant attitude control. *Babcock, P.S., IV*, *AES-M May 96* 9-22
- Software engineering; cf.** Formal verification; Programming environments; Software cost estimation; Software maintenance; Software reliability; Software tools
- Software fault tolerance**
- mission-crit. systs., cost-effective software fault tolerance. *Kreuzfeld, R.J.*, +, *AES-M Sep 97* 25-30
- Software libraries**
- TPS reuse library, COTS tools. *Cashar, E.E.*, *AES-M Oct 97* 12-16
- Software maintenance**
- project estim. models, accuracy conundrum. *Ferens, D.V.*, *AES-M Mar 99* 23-29
- software maintenance criteria for small microprocessor-based systems. *Howley, Paul P., Jr.*, +, *AES-M Nov 86* 16-20
- truths about technology from Y2K problem. *Ceruzzi, P.*, *AES-M Apr 99* 3-4
- Software management**
- automated software configuration management on US Dept. of Defense satellite ground system. *Christian, Kathleen B.*, +, *AES-M Nov 86* 10-15
- Y2K readiness testing in computer systs., tech. and mgt. issues. *Downing, W.D.*, +, *AES-M Nov 99* 3-9
- Software packages**
- tightly-coupled GPS/INS syst. develop. *Knight, D.T.*, *AES-M Feb 97* 14-18
- Software performance evaluation**
- ATE test environ. eval., Ada/ATLAS/LabVIEW. *Gooding, M.*, +, *AES-M Sep 97* 12-17
- Software portability**
- mil. ATE software, rehosting legacy TPS. *Arena, J.J.*, *AES-M Jul 98* 43-48
- syst. engng. software tools, inter-operation, middleware technol. *Chow, E.Y.*, *AES-M Nov 98* 3-6
- Software prototyping**
- LabVIEW rapid prototyping environ. for avionics syst. teaching. *Reeves-Hardcastle, P.*, +, *AES-M Dec 95* 9-12
- tactical C² MMI, standardization. *Alston, C.E.*, +, *AES-M Nov 94* 16-20
- Software quality**
- integrating computer security with software quality assurance practice. *Carr, Richard*, +, *AES-M Sep 91* 15-19
- military electronic and thermal imaging systems; analysis tools for evaluation of maintenance software. *Barber, J. M. C.*, *AES-M Oct 89* 21-24
- software quality assurance practices in US Dept. of Defense; survey results. *Day, Raymond*, +, *AES-M Nov 86* 21-26
- using configuration control and error analysis to improve software quality used for US space shuttle avionics. *Haugh, James M.*, *AES-M Jan 92* 12-16
- Software reliability**
- dependability in computer systs. engng., terminology, similarities and differences. *Prasad, D.*, +, *AES-M Jan 96* 14-21
- error-free software development for US space shuttle missions. *Kolkhorst, B. G.*, +, *AES-M Nov 88* 25-31
- high risk systs., human-machine interface failures minimization. *Sudano, J.J.*, *AES-M Oct 94* 17-20
- operational security meas., probabilistic measures. *Brocklehurst, S.*, +, *AES-M Oct 94* 7-16
- US FDA software safety & reliab. stand., eval., comparison & selection methodology. *Herrmann, D.S.*, *AES-M Jan 96* 3-12
- using Ada on US space station. *Humphrey, Terry D.*, *AES-M Nov 88* 21-24
- Y2K readiness testing in computer systs., tech. and mgt. issues. *Downing, W.D.*, +, *AES-M Nov 99* 3-9
- Software reusability**
- ATE systs. develop., reusable test programs. *Neblett, B.*, *AES-M Jun 97* 29-34
- tactical C² MMI, standardization. *Alston, C.E.*, +, *AES-M Nov 94* 16-20
- TPS reuse library, COTS tools. *Cashar, E.E.*, *AES-M Oct 97* 12-16
- Software standards**
- analysis of selected software safety standards. *Wallace, Dolores R.*, +, *AES-M Aug 92* 3-14
- ATLAS TPS conversion to ANSI C, open-syst. approach. *Timcho, T.J.*, *AES-M Jul 99* 13-17
- COTS based open syst. archit. for mil. avionics. *Paul, J.T.*, *AES-M Sep 99* 37-42
- US FDA software safety & reliab. stand., eval., comparison & selection methodology. *Herrmann, D.S.*, *AES-M Jan 96* 3-12
- VXIplug&play, integrat. VXI resources problems. *Gooding, M.*, *AES-M Jul 99* 9-12
- Software tools**
- ATLAS TPS conversion to ANSI C, open-syst. approach. *Timcho, T.J.*, *AES-M Jul 99* 13-17
- syst. engng. software tools, inter-operation, middleware technol. *Chow, E.Y.*, *AES-M Nov 98* 3-6
- test program sets re-hosting for mil. ATE. *Liguori, F.*, +, *AES-M Apr 96* 34-37
- tower ATC, syst. integrat., user interface design. *Miller, D.L.*, +, *AES-M Apr 96* 22-26
- TPS reuse library, COTS tools. *Cashar, E.E.*, *AES-M Oct 97* 12-16
- Solar cell arrays**
- Dakota Sun, next generation solar powered racing vehicle. *Riisnaes, A.*, +, *AES-M Nov 96* 3-6
- develop. trends. *Brandhorst, H.W.*, *AES-M Nov 94* 21-25
- GaNp/GaAs tandem solar cells, high-efficiency. *Bertness, K.A.*, +, *AES-M Dec 94* 12-17
- Hubble Space Telescope solar array change-out, mission anom. *Winslow, C.*, *AES-M Apr 95* 3-13
- International Space Station elec. power syst., status, archit., future technol. *Gholdston, E.*, +, *AES-M Feb 96* 25-30
- TOPEX/Possidon elec. power syst. *Chetty, P.R.K.*, +, *AES-M Jun 97* 18-24

- wireless power transm., solar power satellite develop. program. *Nansen, R.H.*, AES-M Jan 96 33-39
- Solar cells**
 Dakota Sun, next generation solar powered racing vehicle. *Riisnaes, A.*, +, AES-M Nov 96 3-6
 exhaustion of fossil fuels and production of greenhouse effect; impact on photovoltaics use. *Carlson, D.E.*, AES-M Dec 89 3-7
 geom. prop., tessellation, intercell spacing. *Bisaccio, G.A.*, AES-M Jul 99 4
 large-area solar cells for future space power systems. *Lillington, D.R.*, +, AES-M Jan 90 25-29
 lightweight (AlGaAs)GaAs/CuInSe₂ tandem junction solar cells for space applications. *Kim, Nansoo P.*, +, AES-M Nov 89 23-32
 LIPS III, solar cell test bed used in space. *Severns, J.G.*, +, AES-M Dec 89 8-12
 space performance of silicon vertical-junction solar cells on LIPS-III satellite. *Statler, Richard L.*, +, AES-M Dec 89 13-16
 tandem solar cells with 31%(AM0) and 37%(AM1.5D) energy conversion efficiencies. *Fraas, Lewis M.*, +, AES-M Nov 89 3-9
 wireless power transm., solar power satellite develop. program. *Nansen, R.H.*, AES-M Jan 96 33-39
- Solar energy concentrators**
 Brayton cycle technol. appl., space power. *Harty, R.B.*, +, AES-M Jan 94 28-32
- Solar energy conversion; cf. Solar cells**
- Solar power**
 Brayton cycle technol. appl., space power. *Harty, R.B.*, +, AES-M Jan 94 28-32
 brushless motors and controllers designed for GM Sunrayce solar powered vehicle competition. *Cambrier, Craig S.*, AES-M Aug 90 13-15
 Dakota Sun, next generation solar powered racing vehicle. *Riisnaes, A.*, +, AES-M Nov 96 3-6
 thermionic/AMTEC cascade converter concept for high-efficiency space power. *Van Hagan, T.H.*, +, AES-M Jul 97 10-15
- Solar power generation; cf. Photovoltaic power systems**
- Solar power satellites**
 centralized power supply concept. *Bourgasov, M.P.*, +, AES-M Oct 97 3-7
 mag. inflatable SPS. energy storage. *Ehsani, M.*, +, AES-M Aug 95 9-14
 TOPEX/Poseidon elec. power syst. *Chetty, P.R.K.*, +, AES-M Jun 97 18-24
 wireless power transm., solar power satellite develop. program. *Nansen, R.H.*, AES-M Jan 96 33-39
 wireless power transm., wave beam peculiarities. *Garmash, V.R.*, +, AES-M Oct 98 39-41
- Soldering**
 inspection of hole solder joints, X-rays. *Pierce, B.L.*, +, AES-M Feb 94 28-32
- Solid electrolytes**
 AMTEC, alkali metal thermoelec. converters, heat pipe. *Kalendarishvili, A.G.*, AES-M Aug 97 23-27
- Sonar detection**
 antisubmarine warfare weapons system avionics on US Navy SH-60F helicopter. *Dowell, John A.*, AES-M Jul 88 10-17
- Spaceborne radar**
 bistatic adaptive space-based radar, ground/airborne target detect. *Fante, R.*, AES-M Oct 99 39-44
 electrical power distribution on space-based radar satellites; 240-V/20-kHz distribution network for 30-kW source. *Moody, Malcolm H.*, +, AES-M Nov 89 10-16
 electrical power system for 30-kW space-based radar satellite for tracking aircraft. *Maskell, Craig A.*, AES-M Jan 92 46-50
 evaluation of nickel-hydrogen battery cells for space-based radar satellites. *Maskell, Craig A.*, +, AES-M Nov 92 37-42
 mil. radar, future perspective. *Zhang Xixong*, AES-M Feb 99 11-18
 orbiting debris detect. radar, conceptual design. *Graves, R.H.W.*, AES-M Dec 95 19-24
 SAR rem. sens., spaceborne, SRTM and LightSAR. *Hilland, J.E.*, +, AES-M Nov 98 9-16
 SIR-C/X-SAR, spaceborne imaging radar C/X-band multifaceted SAR, appls. *Stuhr, F.*, +, AES-M Oct 95 15-24
 space-based radar syst., low-cost. *Curry, G.R.*, AES-M Sep 96 21-24
 US shuttle rendezvous Ku-band radar; performance evaluation and simulation. *Griffin, John W.*, +, AES-M Mar 89 8-17
- Space communication links**
 DSN antenna subsyst., microwave generic controller, blackboard archit. *Ramanna, S.*, AES-M Jul 95 12-15
 techniques for transmitting digital data on space shuttle Orbiter's analog video channel. *Smith, Dean Lance*, +, AES-M May 93 42-50
 techniques for transmitting space shuttle Orbiter data over composite video channel. *Smith, Dean Lance*, +, AES-M Apr 93 16-24
 US Space Station's orbiting platform communication and data management systems. *Clark, Walton*, +, AES-M Oct 87 24-29
- Space debris**
 orbiting debris detect. radar, conceptual design. *Graves, R.H.W.*, AES-M Dec 95 19-24
- Space power generation**
 electrical power subsystem initial sizing for spacecraft using solar cells. *Moser, R.L.*, AES-M Dec 90 29-34
 electrical power system for 30-kW space-based radar satellite for tracking aircraft. *Maskell, Craig A.*, AES-M Jan 92 46-50
 electric propulsion technology overview; power laser beaming for enhanced performance of earth orbital transporters. *Dagle, Jeffery E.*, AES-M Nov 91 17-20
 energy transfer from outer space to Earth, ecological limitation. *Latshev, L.*, +, AES-M Sep 97 3-6
 large-area solar cells for future space power systems. *Lillington, D.R.*, +, AES-M Jan 90 25-29
 lightweight (AlGaAs)GaAs/CuInSe₂ tandem junction solar cells for space applications. *Kim, Nansoo P.*, +, AES-M Nov 89 23-32
 nickel-hydrogen battery for PV systems. *Bush, Donald M.*, AES-M Aug 90 27-30
 overview of flight qualifications for space nuclear systems. *Bennett, Gary L.*, AES-M Nov 92 26-36
 power beaming concept applied to four planned satellite constellations. *Bamberger, Judith Ann*, +, AES-M Nov 92 7-11
 power needs for commercial satellites by year 2000. *Billerbeck, W.J.*, AES-M Oct 86 20-28
 power systems for first Mars outpost. *Littman, Frank*, AES-M Dec 93 30-34
 space power alternatives for laser radar sensor system; comparison of fire batteries and flywheel systems. *Boretz, John F.*, AES-M Mar 90 3-8
 space power by ground-based laser illumination of photovoltaic arrays. *Landis, Geoffrey A.*, AES-M Nov 91 3-7
 space station Freedom solar array design development. *Winslow, Cindy*, AES-M Jan 93 3-8
 space systems requirements and issues for 1990s. *Massie, Lowell D.*, AES-M Dec 90 4-9
 US Space Station Freedom's power system; design. *Thomas, Ronald L.*, +, AES-M Jan 90 19-24
- Space power generation; cf. Space vehicle power plants**
- Space research**
 book review; Magill's Survey of Science; Space Exploration Series (Magill, F.N., Ed.; 1989). *French, Philip N.*, +, AES-M May 90 56
 book review; Moon Missions: Mankind's First Voyages to Another World (Melberg, W.F.). *Choi, E.M.*, AES-M Jun 99 44
 EM fund. laws testing, implications for universe exploration. *Morgan, H.*, AES-M Jan 98 5-10
 events leading Philip J. Klass to investigating UFO claims. *Dobson, D.*, AES-M Jul 99 2
 future space programs outlook. *Braselton, W.M., Jr.*, AES-M Mar 95 3-8
 International Space University founding and purpose. *Dion, Bernard L.*, AES-M Sep 91 33
 MARC (Modeling, Animation, Rendering, and Compositing) system for visualizing and simulating space-mission scenarios. *Stephenson, Thomas*, +, AES-M Jun 89 14-19
 Mars 2001 Lander, perform. characts. of Li-ion cells. *Smart, M.C.*, +, AES-M Nov 99 36-42
 naming of asteroid for Philip J. Klass, UFO investigator (reprinted from Skeptical Inquirer", vol. 23, no. 3, May/June 99). *Frazier, K.*, AES-M Jul 99 3
 Philip J. Klass' recollections on becoming skeptical UFO investigator [letter]. *Klass, P.J.*, AES-M Aug 99 12
 planetary terrains tracking, CCD sens. *Liebe, C.C.*, AES-M Feb 94 9-18
 Project Space Vision in retrospective. *Edin, P.*, +, AES-M Dec 96 13-16
 US planetary explorations since 1962; history. *O'Donnell, Franklin*, AES-M Aug 87 2-6
 Worcester Polytechnic Institute's entries in NASA GASCAN (Get-Away Special Canister) experiment program. *RothKugel, Michael L.*, AES-M Sep 91 31-32
 Worcester Polytechnic Institute's participation in NASA Advanced Design Program. *Jumper, George Y., Jr.*, AES-M Sep 91 30-31
- Space stations; cf. Artificial satellites**
- Space-time adaptive processing**
 bistatic adaptive space-based radar, ground/airborne target detect. *Fante, R.*, AES-M Oct 99 39-44
 future radar evol., space-time-freq. resource mgt. to wideband radar. *le Chevalier, F.*, AES-M Oct 99 9-17
 GPS receiver, jammer cancellation and jammer multipath. *Fante, R.L.*, +, AES-M Nov 98 25-28
- Space-time configurations**
 moving observer gravit. pot., Mercury perihelion shift, photon deflection. *Renshaw, C.E.*, +, AES-M Feb 97 7-11
- Space vehicle electronics**
 book review; Aerospace Avionics Systems: A Modern Synthesis (Siouris, G.M.; 1993). *Chen, Guanrong*, AES-M Sep 93 21-22
 controlling remotely piloted space vehicles using voice systems and heads-up displays. *Hartley, Craig S.*, +, AES-M Jul 88 18-26
 Deep Space 1 Mission, multifunctional struct. technol. expt. *Barnett, D.M.*, +, AES-M Jan 99 13-18

- environment for the integration and test of the US space station distributed avionics systems. *Barry, Thomas*, +, *AES-M Nov 88* 16-20
- large flat-panel multifunction LCD-based display for military and space applications. *Pruitt, James S.*, *AES-M Sep 92* 30-35
- Parker effect and navig. in space. *Parker, V.*, +, *AES-M Jan 98* 11-13
- TWT reliability in space applications. *Illokken, E.*, *AES-M Jul 87* 22-24
- unmanned space vehicle navig. by GPS. *Xiaorong Sun*, +, *AES-M Jul 96* 31-34
- using configuration control and error analysis to improve software quality used for US space shuttle avionics. *Haugh, James M.*, *AES-M Jan 92* 12-16
- Xs-MET fab. using complementary heterostruct. FET, space appls. *Cerny, C.L.*, +, *AES-M Mar 98* 7-14
- Space vehicle power plants**
- advancements and appls., conf. report. *Oman, H.*, *AES-M Apr 94* 25-31
- AMTEC cells, design challenges for deep-space missions. *Oman, H.*, *AES-M May 99* 43-46
- Autonomous Power System project for demonstrating application of integrated intelligent diagnosis, control, and scheduling to space power distribution systems. *Ringer, Mark J.*, +, *AES-M Jan 93* 40-47
- Brayton cycle technol. appl., space power. *Harty, R.B.*, +, *AES-M Jan 94* 28-32
- centralized power supply concept. *Bourgasov, M.P.*, +, *AES-M Oct 97* 3-7
- develop. trends. *Brandhorst, H.W.*, *AES-M Nov 94* 21-25
- effect of KOH concentration on LEO cycle life of IPV nickel-hydrogen flight cell. *Smithrick, John J.*, +, *AES-M Apr 92* 9-13
- EPSAT, system analysis tool for assessing environment's effect on space power systems. *Jongeward, G. A.*, +, *AES-M Nov 89* 40-43
- evaluation of nickel-hydrogen battery cells for space-based radar satellites. *Maskell, Craig A.*, +, *AES-M Nov 92* 37-42
- FEL syst. for energy transm. *Burke, R.J.*, +, *AES-M Dec 94* 18-24
- flywheel systs. for energy storage. *Ginter, S.*, +, *AES-M May 98* 27-32
- flywheel technol. develop. program for aerospace appl. *Christopher, D.A.*, +, *AES-M Jun 98* 9-14
- future trends in US space power technology. *Massie, Lowell D.*, *AES-M Nov 91* 8-13
- GainP/GaAs tandem solar cells, high-efficiency. *Bertness, K.A.*, +, *AES-M Dec 94* 12-17
- Galileo probe batt. syst. prod. and testing. *Dagarin, B.P.*, +, *AES-M Jun 96* 6-13
- Galileo probe Li-SO₂ batt. cell life testing. *Hofland, L.M.*, +, *AES-M Jun 96* 14-18
- global avionics future trends. *Oman, H.*, *AES-M Apr 95* 14-19
- high-efficiency dynamic radioisotope power systems for space exploration; status report. *Hunt, M. E.*, *AES-M Dec 93* 18-23
- high-energy-density capacitors for space-vehicle power conditioning. *Rose, M. Frank*, *AES-M Nov 89* 17-22
- high-voltage equipment for aerospace usage; design and packaging. *Dunbar, W. G.*, *AES-M Jan 86* 2-6
- Hubble Space Telescope solar array change-out, mission anom. *Winslow, C.*, *AES-M Apr 95* 3-13
- International Space Station elec. power syst., status, archit., future technol. *Gholdston, E.*, +, *AES-M Feb 96* 25-30
- Intersociety Energy Conversion Engineering Conference 1999, report. *Oman, H.*, *AES-M Nov 99* 17-26
- Li-ion cells for NASA's Mars 2001 Lander appl., perform. characts. *Smart, M.C.*, +, *AES-M Nov 99* 36-42
- Li-ion satellite cell develop., past, present & future. *Kelly, C.O.*, +, *AES-M Jun 98* 21-25
- Li ion solid polymer batts. *Teofilo, V.L.*, +, *AES-M May 98* 33-36
- microwave electrothermal thruster, efficient power supply. *Ehsani, M.*, +, *AES-M May 98* 37-42
- Ni-Cd batt., cycled, pulse discharge behavior, satellite power systs. *Rao, G.*, +, *AES-M Aug 97* 41-43
- nickel-hydrogen battery industry survey; five-year update. *Milden, Martin J.*, *AES-M Nov 91* 14-16
- nickel-hydrogen multicell common pressure vessel battery development; update. *Zagrodnik, Jeffrey P.*, +, *AES-M Nov 92* 43-48
- NiH₂ Dependent Pressure Vessel cell and batt. technol. *Caldwell, D.B.*, +, *AES-M Dec 97* 27-32
- Ni-Zn sealed batt. for high energy-dens. appls. *Coates, D.*, +, *AES-M Jun 97* 35-38
- parametric cost model for solar and dynamic isotope space power systems. *Meisl, Claus J.*, *AES-M Dec 93* 24-29
- PowerCore based satellite power supplies with NiH₂ batt. *Lyman, P.C.*, +, *AES-M Sep 98* 39-42
- radioisotope AMTEC power system designs for spacecraft applications. *Ivanenok, Joseph F., III*, +, *AES-M Dec 93* 35-39
- radioisotope powered AMTEC systs. *Ivanenok, J.F., III*, +, *AES-M Nov 94* 29-35
- real-time expert system for space-vehicle power control in Boeing Aerospace Autonomous Power System testbed. *Spier, Robert J.*, +, *AES-M Nov 89* 33-38
- reconditioning of Ni/H₂ batts., need and effect. *Suresh, M.S.*, +, *AES-M Apr 95* 26-25
- separator syst. for advanced aerospace batt. cells. *Scoles, D.L.*, +, *AES-M Jul 96* 27-30
- solar-AMTEC power syst. design & integrat., advanced GPS. *Johnson, G.*, +, *AES-M Feb 97* 33-40
- Solar Dynamic Flight Demonstration Project plan, Joint US/Russian syst. *Wanhainen, J.S.*, +, *AES-M Feb 96* 31-36
- solar power satellite, mag. inflatable, energy storage. *Ehsani, M.*, +, *AES-M Aug 95* 9-14
- spacecraft elec. propulsion syst., direct drive options. *Hamley, J.A.*, *AES-M Feb 96* 20-24
- space PV, future trends. *Gledhill, K.*, +, *AES-M Dec 94* 8-11
- Space Station Freedom, two-fault tolerant attitude control. *Babcock, P.S., IV*, *AES-M May 96* 9-22
- Space Station power requirements, US/Russian cooperation. *Huckins, E.*, +, *AES-M Dec 94* 3-7
- supercond. space power systs. archits. *Ehsani, M.*, +, *AES-M Aug 95* 3-8
- thermionic/AMTEC cascade converter concept for high-efficiency space power. *Van Hagan, T.H.*, +, *AES-M Jul 97* 10-15
- TOPEX/Poseidon elec. power syst. *Chetty, P.R.K.*, +, *AES-M Jun 97* 18-24
- validation test of 125-Ah, individual-pressure-cell, nickel-hydrogen batteries for long-term LEO spacecraft missions. *Smithrick, John J.*, +, *AES-M May 93* 11-15
- wireless power transm., solar power satellite develop. program. *Nansen, R.H.*, *AES-M Jan 96* 33-39
- Space vehicles**
- ASPS-American suborbital passenger syst. 2005. *Wyczalek, F.A.*, *AES-M Nov 94* 26-23
- attitude determination based on database of star constellation patterns using CCD star imager. *Liebe, Carl Christian*, *AES-M Jun 92* 34-41
- book review; Spacecraft Systems Engineering, 2nd Edn. (Fortescue, P., and Stark, J.P.W., Eds.) *Oman, H.*, *AES-M Apr 96* 39
- controlling remotely piloted space vehicles using voice systems and heads-up displays. *Hartley, Craig S.*, +, *AES-M Jul 88* 18-26
- Deep Space 1 Mission, multifunctional struct. technol. expt. *Barnett, D.M.*, +, *AES-M Jan 99* 13-18
- error-free software development for US space shuttle missions. *Kolkhorst, B. G.*, +, *AES-M Nov 88* 25-31
- expert systems for spacecraft; overview of two early experimental systems. *Toussaint, A. L.*, +, *AES-M May 86* 2-5
- future space programs outlook. *Braselton, W.M., Jr.*, *AES-M Mar 95* 3-8
- microwave power systs. engng., beam safety, freq. allocation, affordability. *Dickinson, R.M.*, *AES-M May 97* 10-14
- recognition of star constellations for spacecraft attitude determination. *Liebe, Carl Christian*, *AES-M Jan 93* 31-39
- techniques for transmitting space shuttle Orbiter data over composite video channel. *Smith, Dean Lance*, +, *AES-M Apr 93* 16-24
- US shuttle rendezvous Ku-band radar; performance evaluation and simulation. *Griffin, John W.*, +, *AES-M Mar 89* 8-17
- wiring failures, reliab. and maintainability, mgt. *Stavnes, M.W.*, +, *AES-M Jan 94* 21-27
- Space vehicles; cf. Artificial satellites; Space shuttles**
- S-parameters**
- clutter rejection method using robust polarimetric CFAR-detector. *Wanielik, G.*, +, *AES-M Jun 90* 7-10
- optimal polarimetric detection of radar target in slowly fluctuating environment of clutter. *Pottier, E.*, +, *AES-M Nov 90* 4-9
- performance of polarimetric target detection algorithms. *Chaney, R. D.*, +, *AES-M Nov 90* 10-15
- Spatial filters**
- fast optical LDA burst analyzer. *Butefisch, Karl-Aloys*, *AES-M Feb 90* 3-9
- Spatial variables control; cf. Attitude control**
- Spatial variables measurement**
- crew station meas. methodol., quantitat. approach, CAD model, CMM. *Purvis, B.D.*, +, *AES-M Oct 96* 14-16
- Spatial variables measurement; cf. Attitude measurement**
- Special issues and sections**
- hypersonic flight; selected papers from 1988 International Conference on Hypersonic flight in the 21st Century. *AES-M May 89* 1-36
- Omega global radionavigation (special issue). *AES-M Jul 89* 3-34
- Special purpose computers**
- space appls. of computational intell./soft computing. *Berenji, H.R.*, *AES-M Aug 96* 8-10
- unmanned space vehicle navig. by GPS. *Xiaorong Sun*, +, *AES-M Jul 96* 31-34
- Special purpose computers; cf. Aircraft computers**
- Special relativity**
- moving clocks, ref. frames & twin paradox. *Renshaw, C.*, *AES-M Jan 96* 27-31
- Specification languages**
- ATLAS lang., test equipt., spec., transportable test programs. *Hulme, A.M.B.*, *AES-M Mar 96* 29-34

- avionics hardware/software codesign, multi-formalisms approach. *Sahraoui, A.E.K.*, +, *AES-M May 96* 33-38
- Specification languages; cf.** Hardware description languages
- Spectral analysis**
- civ. ATC radar, sig. anal. and modellization. *Piazza, E.*, *AES-M Jan 99* 35-40
- fast wideband search for spurious responses. *Cassidy, Kevin*, +, *AES-M Feb 92* 21-27
- imaging of compact range using autoregressive spectral estimation. *Walton, Eric K.*, +, *AES-M Jul 91* 15-20
- lin. FM radar, improved range estim., interpolation algm. *Wang Wei*, +, *AES-M Jul 99* 45-47
- S-band surveillance radar sidelobe suppression. *Bucci, N.J.*, +, *AES-M Aug 95* 37-43
- Speech processing**
- reconstruction of mutilated speech using sum of computer-generated sinusoids. *Kabrisky, Matthew*, +, *AES-M Sep 89* 39-43
- Speech recognition**
- controlling remotely piloted space vehicles using voice systems and heads-up displays. *Hartley, Craig S.*, +, *AES-M Jul 88* 18-26
- evaluation of voice interaction for workstation applications aboard spacecraft. *Morris, Randy B.*, +, *AES-M Aug 93* 26-31
- Speech synthesis**
- controlling remotely piloted space vehicles using voice systems and heads-up displays. *Hartley, Craig S.*, +, *AES-M Jul 88* 18-26
- SPICE**
- LD high speed driving, exponential transm. line. *Zheng Li*, +, *AES-M Sep 96* 4-7
- Splines (mathematics)**
- applying dynamic interpolation to curved path aircraft approach problem. *Jackson, Joseph W.*, +, *AES-M Feb 91* 8-13
- Sport**
- muscle control biofeedback device to assist learning smooth golf swings. *McCurnin, Thomas W.*, +, *AES-M Aug 86* 14-15, 18-21
- Spread spectrum communication**
- EW, sig. proc. technol. advancements. *Stephens, J.P.*, *AES-M Nov 96* 31-38
- soldier ident. syst. utilizing LPI techs. *Zari, M.C.*, +, *AES-M Jul 97* 21-26
- Spread spectrum radar**
- 35 GHz forward looking altimeter for terrain avoidance. *Becker, R.C.*, +, *AES-M Feb 95* 19-22
- multistatic pass. radar sens. for air/space defense, global navig. satellite systs. *Koch, V.*, +, *AES-M Nov 95* 24-32
- Squirrel cage motors**
- starter/generator technol. for future aerosp. appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96* 17-24
- Stability**
- comments on 'Sociotechnical systems evolution and international stability: 1885-2001' by K. B. De Greene (Jun 86 13-18). *Toomay, J.C.*, *AES-M Oct 86* 34-35
- comments on 'The global systems: Conditions for peace, stability, and social justice' by W. W. Harman (Aug 86 2-6). *Happy, Herb*, *AES-M Oct 86* 34
- conditions for peace, stability, and social justice; global system approach. *Harman, Willis W.*, *AES-M Aug 86* 2-6
- digital radar receivers design. *Yuanbin Wu*, +, *AES-M Jan 98* 35-41
- manufacturability anal., subset of systs. engng. *Eskelinen, H.*, +, *AES-M Feb 99* 33-35
- sociotechnical systems evolution and relation to international stability, 1885-2001; overview and projection. *De Greene, Kenyon B.*, *AES-M Jun 86* 13-18
- Stability; cf.** Robust control
- Stampfl, Rudy**
- obituary. *Herz, E.*, *AES-M Dec 94* 37
- Standardization**
- ATE life cycle, independent verification/validation. *Calhoun, C.C.*, *AES-M Jul 98* 37-42
- tactical C² MMI, standardization. *Alston, C.E.*, +, *AES-M Nov 94* 16-20
- tactical C² MMI standardization. *Alston, C.E.*, +, *AES-M Jun 95* 40-44
- tightly-coupled GPS/INS syst. develop. *Knight, D.T.*, *AES-M Feb 97* 14-18
- tower ATC, syst. integrat., user interface design. *Miller, D.L.*, +, *AES-M Apr 96* 22-26
- Standards**
- ATE systs. develop., reusable test programs. *Neblett, B.*, *AES-M Jun 97* 29-34
- ATLAS lang., test equipt., spec., transportable test programs. *Hulme, A.M.B.*, *AES-M Mar 96* 29-34
- FAA lithium batt. tech. std. for aircraft equipt. *Donaldson, G.J.*, +, *AES-M May 97* 3-5
- redesign, safety testing, and certification of switching power supply to conform to international standards. *Michael, Arthur E.*, *AES-M Apr 86* 8-10
- supportable aircraft separation stds., stat. hypothesis testing. *Haest, M.*, +, *AES-M Jun 95* 24-29
- Standards; cf.** Code standards; IEEE standards; Measurement standards; Military standards; Software standards; Telecommunication standards
- Standby generators**
- efficient power generation in elec. utilities. *Oman, H.*, *AES-M Aug 96* 37, 39, 41, 43
- Starting**
- aerospace variable speed const. freq. starter/generator technols. *Elbuluk, M.E.*, +, *AES-M May 97* 24-31
- starter/generator technol. for future aerosp. appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96* 17-24
- valve regulated lead acid batts., operational testing, commercial aircraft. *Timmons, J.B.*, +, *AES-M Jul 97* 35-38
- State estimation**
- online identification and control of linearized aircraft dynamics using multiple-objective optimization. *Rusnak, Ilan*, +, *AES-M Jul 92* 56-60
- State-space methods**
- optimizing PWM inverter for UPS using space-state-based computer model. *Perra, Andre*, *AES-M Apr 92* 20-22
- Statistical analysis**
- flying obj. vel. meas., CCD sens. *Ricny, V.*, +, *AES-M Jun 94* 3-6
- supportable aircraft separation stds., stat. hypothesis testing. *Haest, M.*, +, *AES-M Jun 95* 24-29
- Statistical process control**
- TQM, test role. *Neblett, B.*, *AES-M May 95* 26-34
- Stepping motors**
- pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong*, *AES-M Dec 98* 3-6
- Stereo image processing**
- pseudo-tomographic X-ray imaging for aviation security. *Evans, J.P.O.*, +, *AES-M Jul 98* 25-30
- Stirling engines**
- book review; Introduction to Stirling Engines and Introduction to Low-Temperature Differential Stirling Engines (Senft, J.R.). *Oman, H.*, *AES-M Nov 97* 27
- commercialization of Stirling-engine-based heat pump. *Ross, Brad*, *AES-M Nov 89* 52-53
- emerging technols./appls. *Ross, B.*, *AES-M Jun 95* 34-39
- international trends in Stirling engine technology development as shown by papers at 1982-1988 International Stirling Engine Conferences; overview. *Reader, Graham T.*, +, *AES-M Nov 89* 44-50
- power and energy research for remote areas of less developed countries at Windfarm Laboratory on Martha's Vineyard, MA. *Oman, Henry*, *AES-M Oct 91* 3-5
- Stock control**
- modular stores management system for military aircraft ordinance control. *Radford, Clive J.*, *AES-M Apr 86* 11-16
- Storage management; cf.** Buffer storage
- Storms**
- ELDORA/ASTRAIA airborne Doppler weather radar, field test results. *Hildebrand, P.H.*, +, *AES-M Oct 96* 34-37
- Storms; cf.** Thunderstorms
- Strategic planning**
- future tech. trends, Hughes experience. *Chester, A.N.*, *AES-M Apr 97* 38-39
- phys. protection syst., cost & perform. anal., tactical decision making. *Hicks, M.J.*, +, *AES-M Apr 99* 9-13
- Structural engineering**
- morph. synthesis for promising tech. systs. *Rakov, D.L.*, *AES-M Dec 96* 3-8
- Structural engineering computing**
- morph. synthesis for promising tech. systs. *Rakov, D.L.*, *AES-M Dec 96* 3-8
- Sulfur compounds**
- Li-SO₂ batt., Galileo probe batt. syst. *Dagarin, B.P.*, +, *AES-M Jun 96* 6-13
- SO₂-Li batt. cell for Galileo probe, life testing. *Hofland, L.M.*, +, *AES-M Jun 96* 14-18
- Superconducting magnet energy storage**
- magnetic energy storage devices using high-T_c superconductors for small-scale applications. *Kumar, Binod*, *AES-M Nov 92* 12-17
- prod. cost model, Puget Sound appl. *Dagle, J.E.*, *AES-M Feb 94* 36-39
- solar power satellite, mag. inflatable, energy storage. *Ehsani, M.*, +, *AES-M Aug 95* 9-14
- space supercond. power syst. archits. *Ehsani, M.*, +, *AES-M Aug 95* 3-8
- Surface emitting lasers**
- vertical-cavity surface-emitting lasers for avionics applications. *Wang, S.C.*, +, *AES-M Aug 93* 39-43
- Surface mount technology**
- amp., RF building block. *Eskelinen, P.*, +, *AES-M Aug 96* 34-36
- Surgery**
- computer assisted min. invasive surgery, defense technol. appl. *Williams, R.*, +, *AES-M Oct 94* 3-6
- morph. synthesis for promising tech. systs. *Rakov, D.L.*, *AES-M Dec 96* 3-8
- Surveillance**
- aeronautical mobile satellite services, 1960s, 1990s develops. *Guangren Chen*, +, *AES-M Dec 94* 25-36

- aircraft pos. ident. at airports, FAA trials. *Castaldo, R.*, +, *AES-M Jun 96* 35-40
- aircraft traffic mgt., airport surface, VHF data link. *Hambly, R.M.*, +, *AES-M Mar 95* 9-13
- ATC in far East Russia, data link-based. *Shuvaev, A.P.*, +, *AES-M Dec 96* 9-12
- aviation surveillance systs., ADS, GPS navig. sigs. *Donohue, G.*, *AES-M Oct 95* 8-14
- computer vision appl. in security, technol. develop. *Sage, K.*, +, *AES-M Apr 99* 19-29
- Federal Radionavigation Plan, civ. aviation problems, IGSAGS syst. *Crow, R.P.*, *AES-M Oct 98* 9-16
- forward opportune landing sites location, satellite spectral images. *Botschner, R.*, *AES-M Apr 98* 43-47
- HF radar target detect./tracking, reciprocal SAR techs. *Khan, R.H.*, *AES-M Jan 97* 40-43
- perimeter intruder detect., uncontrolled water access, automatic detect. *Ceng, M.S.*, +, *AES-M Aug 97* 30-32
- radar surveillance, walls and opaque materials. *Frazier, L.M.*, *AES-M Oct 96* 6-9
- S-band surveillance radar sidelobe suppression. *Bucci, N.J.*, +, *AES-M Aug 95* 37-43
- space-fed phased array for surveillance from space. *Hightower, Charles H.*, +, *AES-M May 91* 13-17
- video surveillance appl. using multiple views of scene. *Meyer, M.*, +, *AES-M Mar 99* 13-18
- VIDEQUAL, automated meas. syst. for fixed CCTV surveillance. *Ceng, M.S.*, +, *AES-M Mar 97* 29-32
- wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9
- Surveying**
building struct. & works, RF band high resoln. sounding. *Vasiliev, I.A.*, +, *AES-M May 99* 25-29
- Switched mode power supplies**
microwave electrothermal thruster, efficient power supply. *Ehsani, M.*, +, *AES-M May 98* 37-42
- Switches; cf.** Bipolar transistor switches; Field effect transistor switches; Microwave switches; Power semiconductor switches
- Switchgear**
high-voltage power switching with GTOs; recent advances. *Podlesak, Thomas F.*, +, *AES-M Dec 90* 25-28
- Switchgear; cf.** Circuit breakers
- Synchronization**
airborne SAR, data acquisition syst., DDS & DSP tech. *Yeo, T.S.*, +, *AES-M May 99* 37-41
- moving clocks, ref. frames & twin paradox. *Renshaw, C.*, *AES-M Jan 96* 27-31
- SDH networks, additive time sync. syst. *Serizawa, Y.*, *AES-M Feb 99* 19-28
- Synchronous digital hierarchy**
networks, additive time sync. syst. *Serizawa, Y.*, *AES-M Feb 99* 19-28
- Synchronous motor drives**
direct flux linkage control, large drives. *Pyrhonen, J.*, +, *AES-M Apr 98* 23-27
- Synchronous motor drives; cf.** Reluctance motor drives
- Synchronous motors**
hybrid elec. vehicles, 1998 market. *Wyczalek, F.A.*, *AES-M Mar 99* 41-44
- Synchronous motors; cf.** Reluctance motors
- Synthetic aperture radar**
adaptive filters for foliage penetration radar. *Nanis, J.G.*, +, *AES-M Aug 95* 34-36
- airborne SAR, data acquisition syst., DDS & DSP tech. *Yeo, T.S.*, +, *AES-M May 99* 37-41
- battlefield awareness via synergistic SAR and MTI. *Fennell, M.T.*, +, *AES-M Feb 98* 39-43
- beamwidth reduction techs. *Suzuki, T.*, *AES-M May 98* 43-48
- commercial SAR imaging systs. *Birk, R.*, +, *AES-M Nov 95* 15-23
- C/X-band airborne SAR developed for Canada Centre for Remote Sensing. *Livingstone, C. E.*, +, *AES-M Oct 88* 11-20
- ERIM interferometric SAR, IFSARE. *Adams, G.F.*, +, *AES-M Dec 96* 31-35
- EUSAR '96, current trends in SAR technol., conf. report. *Klemm, R.*, *AES-M Mar 97* 3-8
- future radar evol., space-time-freq. resource mgt. to wideband radar. *le Chevalier, F.*, *AES-M Oct 99* 9-17
- HF radar target detect./tracking, reciprocal SAR techs. *Khan, R.H.*, *AES-M Jan 97* 40-43
- integrated precision targeting simul. *Toussaint, J.A.*, +, *AES-M Feb 99* 29-32
- Joint Service Imagery Processing System (JSIPS) for tactical reconnaissance and surveillance by US Military. *Davis, Robert L.*, *AES-M Dec 92* 12-36
- knowledge-based environ., slant range resoln. enhancement. *Bolton, A.G.*, +, *AES-M Aug 94* 33-37
- motion compensation for ISAR; effect of noise. *Xu, Rongqing*, +, *AES-M Jun 90* 20-22
- narrowband SAR imaging using coherent Doppler tomography technique. *McCoy, J. W.*, +, *AES-M Feb 91* 19-22
- P-3 ultra-wideband SAR, polarimetric imagery. *Sheen, D.R.*, +, *AES-M Nov 96* 25-30
- Radarsat Antarctic Mapping Mission, SAR images. *Choi, E.M.*, *AES-M May 99* 3-5
- rem. sens., spaceborne, SRTM and LightSAR missions. *Hilland, J.E.*, +, *AES-M Nov 98* 9-16
- SAR image formation from compressed data using convolution technique. *Read, Christopher J.*, +, *AES-M Oct 88* 3-10
- SIR-C/X-SAR, spaceborne imaging radar C/X-band multifaceted SAR, appls. *Stuhr, F.*, +, *AES-M Oct 95* 15-24
- smuggling interdiction, AN/APG-76 multimode radar adaptation. *Tobin, M.E.*, +, *AES-M Nov 96* 19-24
- space-based radar syst., low-cost. *Curry, G.R.*, *AES-M Sep 96* 21-24
- space-based three-frequency-band SAR for earth remote sensing. *Misezhnikov, G. S.*, +, *AES-M Mar 92* 3-4
- space remote sensors as component of high-level robotic systems; sensors for EDS program. *Keller, Sam*, *AES-M Apr 87* 14-18
- strapdown inertial measurement units for motion compensation of SARs. *Kennedy, Thomas A.*, *AES-M Oct 88* 32-35
- target motion compensation in SAR. *Chen, Hern-Chung*, +, *AES-M Feb 91* 14-18
- theory and experiments on hard-limited SAR imaging. *Franceschetti, Giorgio*, +, *AES-M Jun 90* 17-19
- Yuma ground penetration SAR expt., 1995 results. *Jao, J.K.*, +, *AES-M Jun 99* 5-9
- System buses**
avionic opt. fiber async. CDMA, real-time data distrib., computer interconnect. *Jian-Guo Zhang*, *AES-M Jul 99* 35-42
- avionics hybrid commun. archit., 1553 emulation, ATM. *Parish, D.J.*, +, *AES-M Mar 98* 34-39
- COTS based open syst. archit. for mil. avionics. *Paul, J.T.*, *AES-M Sep 99* 37-42
- fiber opt. avionics data buses, MIL-STD-1773, design issues. *Jian-Guo Zhang*, *AES-M Oct 98* 25-32
- Landsat-6 satellite remote sensing systems overview; description of Enhanced Thematic Mapper sensor and bus subsystems. *Mowle, Edward W.*, +, *AES-M Jun 91* 18-23
- mil. avionics opt. fiber data buses, act.-coupler config. *Jian-Guo Zhang*, +, *AES-M Jul 99* 27-33
- mil. avionics, opt. fiber data bus, MIL-STD-1773, modulation tech. *Jian-Guo Zhang*, *AES-M Apr 99* 31-38
- multimode radar, low-cost technol., flexible test bed archit. *Adler, E.*, +, *AES-M Jun 99* 23-27
- SAFEbus backplane for Boeing 777 integrated avionics system. *Hoyme, Kenneth*, +, *AES-M Mar 93* 34-39
- ultra-reliable real-time control syst., future trends. *Hammitt, R.C.*, *AES-M Aug 99* 31-36
- System recovery**
checker for validating safe schedules and selecting error recovery schedules for satellite control systems. *Peters, James F., III*, +, *AES-M Oct 92* 14-21
- correction to 'Verifying command sequences for satellite systems' (Oct 92 14-21). *Peters, J. F., III*, +, *AES-M Apr 93* 40
- mission-crit. systs., cost-effective software fault tolerance. *Kreutzfeld, R.J.*, +, *AES-M Sep 97* 25-30
- Systems analysis; cf.** Systems re-engineering; User centered design
- Systems engineering**
1990 IEEE International Conference on Systems Engineering; meeting report. *Shenoi, B. A.*, *AES-M Nov 90* 51
- 1990 IEEE International Conference on Systems Engineering meeting report. *Shenoi, B.*, *AES-M Dec 90* 39
- ATE life cycle, independent verification/validation. *Calhoun, C.C.*, *AES-M Jul 98* 37-42
- avionics develop., Open Systems approach, affordability. *Roark, C.*, +, *AES-M Sep 96* 15-20
- avionics open systs., affordability, syst. engng. perspective. *Roark, C.*, +, *AES-M Feb 97* 26-32
- avionics requirements-definition process at conceptual levels. *Paskin, Harvey M.*, *AES-M Nov 87* 5-9
- book review; Command, Control, and Communications: Systems Engineering (Beam, W. R.; 1989). *Doepfner, Thomas W.*, *AES-M Jun 89* 46
- book review; System Engineering Management, 2nd Edn. (Blanchard, B.S.; 1998). *Majid, I.*, *AES-M Jan 99* 43-44
- book review; System Engineering Management (Blanchard, B.S.). *Oman, H.*, *AES-M Feb 98* 46
- dependability in computer systs. engng., terminology, similarities and differences. *Prasad, D.*, +, *AES-M Jan 96* 14-21

guiding technology development and transition to products responsive to end-user needs. *Young, Eric A., AES-M Aug 93 10-14*
 implementation-independent architecture for integrating electrical and electronic subsystems. *Furno, V. E., AES-M Jun 87 9-14*
 innovation proc., interpreting customer requirements. *Adler, T.R., AES-M Jun 94 17-25*
 integrating avionics in conceptual design phase. *Quinn, Gordon F., +, AES-M Nov 87 2-4*
 issues arising in system integration. *Farrell, James L., AES-M Sep 93 10-13*
 LabVIEW rapid prototyping environ. for avionics syst. teaching. *Reeves-Hardcastle, P., +, AES-M Dec 95 9-12*
 life-cycle methods for development and integration of avionics software-based systems at Boeing Co. *Gartz, Paul Ebner, AES-M Jun 87 2-8*
 manufacturability anal., subset of systs. engng. *Eskelinen, H., +, AES-M Feb 99 33-35*
 microwave power systs. engng., beam safety, freq. allocation, affordability. *Dickinson, R.M., AES-M May 97 10-14*
 mobile mil. commun., next generation equipt., syst. engng. need. *Eskelinen, P., AES-M Jun 99 3-4*
 morph. synthesis for promising tech. systs. *Rakov, D.L., AES-M Dec 96 3-8*
 NAECON '97, develops. reported. *Oman, H., AES-M Nov 97 10-18*
 software tools, inter-operation, middleware technol. *Chow, E.Y., AES-M Nov 98 3-6*
 systems approach to satellite operations problem using IntelliSTAR processing architecture. *Gathmann, Thomas P., +, AES-M Dec 90 20-24*
 trends in avionics technology and systems and their role in systems development. *Borky, John M., AES-M Nov 87 10-15*

Systems re-engineering

ATE systs. develop., reusable test programs. *Neblett, B., AES-M Jun 97 29-34*
 avionics open systs., affordability, syst. engng. perspective. *Roark, C., +, AES-M Feb 97 26-32*
 test program sets re-hosting for mil. ATE. *Liguori, F., +, AES-M Apr 96 34-37*
 weapons syst. hardware/software, formal verif. & legacy redesign. *Young, F.C.D., +, AES-M Mar 99 31-36*

Systems software; cf. Operating systems (computers)

T

Target tracking

HF OTH radar target detect. & estim., parallel proc. subsyst. *Wang Wei, +, AES-M Apr 99 39-45*
 IR imaging sens., overview of develop. *Crawford, F.J., AES-M Oct 98 17-24*
 neural network modeling of flight control syst. *He Mingyi, +, AES-M Sep 98 27-29*
 pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong, AES-M Dec 98 3-6*
 real-time monocular target tracking syst. *Baumela, L., +, AES-M Jul 95 4-7*
 SAR integrated precision targeting simul. *Toussaint, J.A., +, AES-M Feb 99 29-32*

Task analysis

human-machine interface design & impact concept, risk anal. *Dearden, A.M., +, AES-M Feb 97 19-25*

Teaching

hybrid connectionist systs. in research and teaching. *Jain, L.C., AES-M Mar 95 14-18*

Technological forecasting

ATLAS lang., test equipt., spec., transportable test programs. *Hulme, A.M.B., AES-M Mar 96 29-34*
 batt. technols. and markets, indust. appls. *Seitz, C.W., AES-M May 94 10-15*
 COTS based open syst. archit. for mil. avionics. *Paul, J.T., AES-M Sep 99 37-42*
 electric vehicles; state-of-the-art and prospects. *Patil, Pandit G., AES-M Dec 90 15-19*
 Flight 2000 avionics suite, operational improvements, free flight. *Kirkman, D.A., +, AES-M Dec 98 29-33*
 flywheel energy storage technol., past, present & future projections. *Bitterly, J.G., AES-M Aug 98 13-16*
 future radar evol., space-time-freq. resource mgt. to wideband radar. *le Chevalier, F., AES-M Oct 99 9-17*
 future tech. trends, Hughes experience. *Chester, A.N., AES-M Apr 97 38-39*
 mil. radar appls. in future conflicts, assess. *Delaney, W.P., AES-M Nov 95 8-14*
 mil. radar, future perspective. *Zhang Xixong, AES-M Feb 99 11-18*
 power needs for commercial satellites by year 2000. *Billerbeck, W. J., AES-M Oct 86 20-28*
 radar into next millennium, 1999 Radar Conf. banquet address. *Swerling, P., AES-M Aug 99 7-11*

role of power generation in future battlefield technology. *Thornton, C. G., AES-M Dec 91 21-25*
 SDI program review and technology forecast. *Worden, Simon P., AES-M Mar 87 5-9*
 space research future develop., expanded vision. *Braselton, W.M., Jr., AES-M Mar 95 3-8*
 space supercond. power syst. archits. *Ehsani, M., +, AES-M Aug 95 3-8*
 space systems requirements and issues for 1990s. *Massie, Lowell D., AES-M Dec 90 4-9*
 space technology options in 1990s. *Gooch, Lawrence L., AES-M Mar 87 2-4*
 synthesis and test issues for future aircraft inertial systems integration. *Biezad, Daniel J., AES-M Sep 88 19-23*
 technol. change need, best practice, triune brain concept. *Ausubel, J.H., AES-M Oct 99 3-8*

Technology transfer

security appl. of computer vision, technol. develop. *Sage, K., +, AES-M Apr 99 19-29*
 why testing technology is not transferred to industry. *Payne, J.E., AES-M Jan 98 3-4*

Telecommunication

book review; Communications and Radar Systems (Tzannes, N. S.; 1985). *Sumner, George C., AES-M Feb 86 29*
 telecommunication media's effects on information sharing and team performance; theoretical and empirical observations. *Wellens, A. Rodney, AES-M Sep 89 13-19*

Telecommunication; cf. Business communication; Data communication; Integrated voice/data communication; Military communication; Mobile communication; Multimedia communication; Optical communication; Radiocommunication; Telecommunication...; Television

Telecommunication channels; cf. Multipath channels

Telecommunication computing

aircraft borne anti-jamming phase controlled antenna syst. *Eskelinen, P., +, AES-M Apr 96 8-11*
 DSN antenna subsyst., microwave generic controller, blackboard archit. *Ramanna, S., AES-M Jul 95 12-15*
 mobile mil. commun., next generation equipt., syst. engng. need. *Eskelinen, P., AES-M Jun 99 3-4*
 radar siting and perform. prediction, software tool. *O'Hern, B., +, AES-M Dec 97 19-26*
 software radio technologies, architectures, model, and future directions. *Mitola, J., III, AES-M Apr 93 25-36*

Telecommunication control

aircraft borne anti-jamming phase controlled antenna syst. *Eskelinen, P., +, AES-M Apr 96 8-11*
 DSN antenna subsyst., microwave generic controller, blackboard archit. *Ramanna, S., AES-M Jul 95 12-15*
 steerable plasma mirror based radar, concept and appls. *Mathew, J., AES-M Oct 96 38-44*

Telecommunication equipment; cf. Data communication equipment; Receivers; Transceivers; Transmitters

Telecommunication equipment testing

ATC in far East Russia, data link-based. *Shuvaev, A.P., +, AES-M Dec 96 9-12*
 DGPS-based aircraft flight guidance/test syst. *Huamin Jia, +, AES-M Jul 96 23-26*
 electromagnetic compatibility testing of land mobile cellular telephones. *Ehrlich, Nathan, +, AES-M Apr 86 27-31*
 tower mounted antennas for cellular commun., RF scale testing. *Eskelinen, P., AES-M Aug 98 33-35*
 VXI based breadboard module use. *Wright, B.K., AES-M Sep 98 43-47*

Telecommunication links; cf. Microwave links; Radio links; Satellite links; Space communication links

Telecommunication network planning

cellular radio network planning design program. *Gamst, A., +, AES-M Feb 86 8-11*

Telecommunication networks

SDH networks, additive time sync. syst. *Serizawa, Y., AES-M Feb 99 19-28*
Telecommunication networks; cf. Broadband networks; Computer networks; Intelligent networks; Optical fiber networks; Packet radio networks

Telecommunication power supplies

IRIDIUM satellite antenna array concept. *Schuss, J.J., +, AES-M Dec 97 3-12*

Telecommunication security

system quality factors for low probability of intercept communications. *Gutman, Lawrence L., +, AES-M Dec 89 25-28*

Telecommunication signaling

mainline railroads, commun.-based Advanced capability. *Pollack, M.W., AES-M Nov 96 13-18*

Telecommunication standards

ISDN standards; overview and update. *Quale, Jean E., AES-M Jul 87 15-17*

Telecommunication switching

LEO store-and-forward satellites in amateur radio service. *Diersing, Robert J.*, +, *AES-M Jan 93* 21-30
 recent advances and future trends in communications satellite technology. *Mahle, Christoph E.*, +, *AES-M Nov 88* 3-10

Telecommunication terminals

1553-ACE series programmable communication terminal. *Friedman, Steven N.*, *AES-M Jan 93* 48-51

Teleconferencing

compression standards and alternative methods for video telecommunication. *Kaplan, Sidney*, *AES-M Oct 92* 27-30

Telecontrol

Network Vehicle, technol. initiative in mobile multimedia. *Lind, R.*, +, *AES-M Sep 99* 27-32
 pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong*, *AES-M Dec 98* 3-6

Telemetry

pilotless aircraft navig. via GPS. *Yongsheng Wang*, +, *AES-M Aug 96* 16-20
 pilotless aircraft, telemetering antenna, tracking syst. design. *Huang Yong*, *AES-M Dec 98* 3-6

Telemetry; cf. Radiotelemetry**Telephone sets**

electromagnetic compatibility testing of land mobile cellular telephones. *Ehrlich, Nathan*, +, *AES-M Apr 86* 27-31

Telerobotics

practical hierarchical control system for telerobotic land vehicles. *Byrne, Raymond H.*, *AES-M Oct 92* 22-26
 reactive control as substrate for telerobotic systems. *Arkin, Ronald C.*, *AES-M Jun 91* 24-31
 STV (surrogate teleoperated vehicle) unmanned military land vehicle design. *Myers, Scott D.*, *AES-M Jul 91* 3-9
 supervised autonomy for space applications. *Otaguro, W. S.*, +, *AES-M Nov 88* 11-15

Telescopes; cf. Astronomical telescopes; Radiotelescopes**Television**

compression standards and alternative methods for video telecommunication. *Kaplan, Sidney*, *AES-M Oct 92* 27-30

Television; cf. Closed circuit television**Television applications**

perimeter intruder detect., uncontrolled water access, automatic detect. *Ceng, M.S.*, +, *AES-M Aug 97* 30-32
 VIDEQUAL, automated meas. syst. for fixed CCTV surveillance. *Ceng, M.S.*, +, *AES-M Mar 97* 29-32

Television broadcasting

techniques for transmitting digital data on space shuttle Orbiter's analog video channel. *Smith, Dean Lance*, +, *AES-M May 93* 42-50
 techniques for transmitting space shuttle Orbiter data over composite video channel. *Smith, Dean Lance*, +, *AES-M Apr 93* 16-24

Television picture tubes

high-resolution hologram-like 3-D stereoscopic video display based on color CRT. *Holmes, Richard E.*, *AES-M Sep 91* 20-25

Teleworking

Network Vehicle, technol. initiative in mobile multimedia. *Lind, R.*, +, *AES-M Sep 99* 27-32

Temperature measurement

implementation of automated minimum resolvable temperature testing. *Orlando, Harold*, +, *AES-M Feb 92* 28-31
 intell. batt., microcontroller-based. *Bowen, L.*, +, *AES-M May 94* 16-19

Terbium alloys

TbDyFe, TERFENOL-D, giant magnetostrictive materials, actuators, magnetotagging. *Jones, B.*, +, *AES-M Mar 96* 3-6

Terrain mapping

Radarsat Antarctic Mapping Mission, SAR images. *Choi, E.M.*, *AES-M May 99* 3-5
 SAR rem. sens., spaceborne, SRTM and LightSAR. *Hilland, J.E.*, +, *AES-M Nov 98* 9-16

Terrestrial atmosphere; cf. Ionosphere**Test equipment; cf. Automatic test equipment; Battery testers****Test facilities**

GPS precision lightweight receiver testing. *Cosentino, B.*, *AES-M Aug 94* 17-20

Test facilities; cf. Aerospace test facilities**Testing**

EM fund. laws testing, implications for universe exploration. *Morgan, H.*, *AES-M Jan 98* 5-10
 fast wideband search for spurious responses. *Cassidy, Kevin*, +, *AES-M Feb 92* 21-27
 global avionics future trends. *Oman, H.*, *AES-M Apr 95* 14-19
 INS/GPS operational concept demons. (OCD). *Snyder, S.*, +, *AES-M Aug 94* 38-44
 model QA3000 Q-Flex accelerometer high performance test results. *Foote, Steven A.*, +, *AES-M Jun 92* 59-67

NEXRAD (Next Generation Weather Radar) system reliability testing and evaluation. *Holt, Stephen M.*, *AES-M Apr 89* 14-18

performance and utility of 1-, 2-, and 5-channel GPS units in military applications; field-test results. *Blank, R. W.*, +, *AES-M Jun 88* 11-21

real-time validation of measurement and dynamic models of integrated navigation systems. *Teunissen, P. J. G.*, *AES-M Jul 90* 35-41

synthesis and test issues for future aircraft inertial systems integration. *Biezad, Daniel J.*, *AES-M Sep 88* 19-23

testing full-size mechanically rechargeable zinc-air battery in electric vehicle. *Goldstein, Jonathan R.*, +, *AES-M Nov 93* 34-38

Testing; cf. Aerospace testing; Aircraft testing; Antenna testing; Automatic testing; Built-in self test; Computer testing; Conformance testing; Electronic equipment testing; Environmental testing; Impulse testing; Insulation testing; Integrated circuit testing; Life testing; Logic testing; Machine testing; Nondestructive testing; Power cable testing; Printed circuit testing; Production testing; Program testing; Semiconductor testing

Thermal energy storage

energy storage media and techniques; comparative analysis. *Rose, M. F.*, +, *AES-M Dec 91* 26-32

Thermal management (packaging)

Deep Space 1 Mission, multifunctional struct. technol. expt. *Barnett, D.M.*, +, *AES-M Jan 99* 13-18

Thermal stability

MLC capacitors, energy storage, 77K. *Lawless, W.N.*, +, *AES-M May 97* 32-35

Thermionic conversion

AMTEC/thermionic cascade converter concept for high-efficiency space power. *Van Hagan, T.H.*, +, *AES-M Jul 97* 10-15

future trends in US space power technology. *Massie, Lowell D.*, *AES-M Nov 91* 8-13

Thermoelectric conversion

AMTEC, alkali metal thermoelec. converters, heat pipe. *Kalendarishvili, A.G.*, *AES-M Aug 97* 23-27

AMTEC cells, design challenges for deep-space missions. *Oman, H.*, *AES-M May 99* 43-46

Brayton cycle technol. appl., space power. *Harty, R.B.*, +, *AES-M Jan 94* 28-32

electrolysis heat, 'zero point' effect, letter to editor/reply. *Wyczalek, F.A.*, *AES-M Apr 94* 42

solar-AMTEC power syst. design & integrat., advanced GPS. *Johnson, G.*, +, *AES-M Feb 97* 33-40

Thermoelectric devices

AMTEC, alkali metal thermoelec. converters, heat pipe. *Kalendarishvili, A.G.*, *AES-M Aug 97* 23-27

Thin film devices

Li-LiMn₂O₄ thin-film batts., fab./props. *Bates, J.B.*, +, *AES-M Apr 95* 30-32

Thin film transistors

amorphous Si thin-film transistors and sensors and their applications. *Thompson, Malcolm J.*, +, *AES-M Aug 87* 25-29

Three-dimensional displays

cockpit display syst., next generation, develop. *Read, B.C., III*, *AES-M Oct 96* 25-28

high-resolution hologram-like 3-D stereoscopic video display based on color CRT. *Holmes, Richard E.*, *AES-M Sep 91* 20-25

Thunderstorms

wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9

Thyristors

high-voltage power switching with GTOs; recent advances. *Podlesak, Thomas F.*, +, *AES-M Dec 90* 25-28

Thyristors; cf. MOS-controlled thyristors**Time division multiple access**

DGPS-based aircraft flight guidance/test syst. *Huamin Jia*, +, *AES-M Jul 96* 23-26

Time division multiplexing; cf. Synchronous digital hierarchy**Time-frequency analysis**

EW, sig. proc. technol. advancements. *Stephens, J.P.*, *AES-M Nov 96* 31-38

Time measurement

clocks, slowing when in motion or in gravit. well, equivalence principle. *Renshaw, C.*, *AES-M Oct 95* 2-5

satellite interference location system for locating terrestrial uplink stations using differential time and phase measurements. *Smith, William Whitfield, Jr.*, +, *AES-M Mar 91* 3-7

Token networks

robust fiber optic active star coupler for SAE linear token-passing multiplex data bus. *Uhlhorn, R. W.*, *AES-M Jan 89* 3-11

Tomography

narrowband SAR imaging using coherent Doppler tomography technique. *McCoy, J. W.*, +, *AES-M Feb 91* 19-22

Tomography; cf. Computerized tomography

Topography (Earth)

ERIM interferometric SAR, IFSARE. *Adams, G.F., +, AES-M Dec 96 31-35*

SAR rem. sens., spaceborne, SRTM and LightSAR. *Hilland, J.E., +, AES-M Nov 98 9-16*

Torque control

sync. motors, direct flux linkage control, large drives. *Pyrhonen, J., +, AES-M Apr 98 23-27*

Touch sensitive screens

Network Vehicle, technol. initiative in mobile multimedia. *Lind, R., +, AES-M Sep 99 27-32*

Tracking

book review; Estimation and Tracking Principles, Techniques, and Software (Bar-Shalom, Y., and Li, X.-R.; 1993). *Zohdy, M.A., AES-M Aug 94 11*

book review; Multitarget-Multisensor Tracking: Principles and Techniques (Bar-Shalom, Y., and Li, X.-R.; 1995). *Daum, F., AES-M Feb 96 41-44*

electronic tracking bracelets, review. *Dobson, D.B., AES-M Jul 96 2-4*
GPS-based vessel position monitoring and display system. *Reynolds, James C., +, AES-M Jul 90 16-22, 28*

low-cost Tracking and Data Relay Satellite System communications for NASA's long-duration balloon project. *Israel, David J., AES-M Feb 93 43-47*

security appl. of computer vision, technol. develop. *Sage, K., +, AES-M Apr 99 19-29*

smart system for detecting and tracking targets in video imagery. *Horton, Rebecca D., AES-M Mar 91 8-13*

vehicle position tracking; sensor compensation for vehicle magnetic signatures. *Whitcomb, Lawrence A., AES-M Feb 89 33-37*

Tracking; cf. Radar tracking; Satellite tracking; Target tracking

Traction

batt. technol. and markets, indust. appls. *Seitz, C.W., AES-M May 94 10-15*

Traffic control

integrated automatic vehicle location syst. *McKay, K.M., AES-M Mar 97 18-22*

mainline railroads, commun.-based Advanced capability. *Pollack, M.W., AES-M Nov 96 13-18*

security appl. of computer vision, technol. develop. *Sage, K., +, AES-M Apr 99 19-29*

traffic light control, safety kernel. *Ammann, P., AES-M Feb 96 13-19*

Traffic control; cf. Air traffic control

Traffic engineering computing

traffic light control, safety kernel. *Ammann, P., AES-M Feb 96 13-19*

Traffic information systems

integrated automatic vehicle location syst. *McKay, K.M., AES-M Mar 97 18-22*

intell. vehicle highway systs., wireless commun. appl. *Kamali, B., AES-M Nov 96 8-12*

Traffic information systems; cf. Driver information systems

Training

aircrew embedded training program. *Hughes, Ronald G., AES-M Sep 88 3-10*

career develop. reinventing. *Hanson, M.C., AES-M Feb 94 3-8*

generic training for ATE technicians. *Scully, Timothy M., +, AES-M Jun 89 36-37*

high-fidelity acceleration environment research. *Cammarota, Joseph P., AES-M Sep 89 30-38*

modular integrated training system for maintenance technicians. *Stonge, James R., +, AES-M Sep 88 11-18*

ocean towers for Charleston Tactical Aircrew Combat Training System (CTACTS); design and construction. *O'Boyle, Thomas J., +, AES-M Sep 87 12-16*

pilot error in automated systs., altitude deviation reports. *Ritter, R.D., AES-M Apr 94 15-19*

simulator for basic radar sigs., low-cost. *Eskelinen, E., +, AES-M Jun 94 7-11*

training, career development, and registration for safety-critical software systems specialists. *Taylor, J. A., AES-M Sep 91 3-8*

Training; cf. Computer based training

Transceivers

soldier ident. syst. utilizing LPI techs. *Zari, M.C., +, AES-M Jul 97 21-26*

Transducers

rotor vibr. meas. in elec. drives. *Pyrhonen, O., +, AES-M May 98 21-23*

Transformers; cf. Power transformers

Transforms

compression standards and alternative methods for video telecommunication. *Kaplan, Sidney, AES-M Oct 92 27-30*

Transforms; cf. Discrete Fourier transforms; Fast Fourier transforms; Wavelet transforms

Transient analysis

triple and quadruple flight control architecture fault tolerances; impact of worst-case failures on aircraft transient response. *Sadeghi, Tom, +, AES-M Mar 92 20-31*

Transients

electromagnetic transient protection requirements for avionics line-replacable units. *Ketterling, George W., +, AES-M Apr 86 17-26*
fault tolerant proc. elements, real time recovery. *Sims, T., AES-M Dec 97 13-17*

Transients; cf. Power system transients

Transistors

capsule history of transistor and its role. *Cross, M.A., AES-M Feb 98 13*

Transistors; cf. Insulated gate bipolar transistors; Power field effect transistors; Thin film transistors

Transits

moving observer gravit. pot., Mercury perihelion shift, photon deflection. *Renshaw, C.E., +, AES-M Feb 97 7-11*

Transmission line theory

LD high speed driving, exponential transm. line. *Zheng Li, +, AES-M Sep 96 4-7*

Transmitters; cf. Optical transmitters; Radar transmitters; Radio transmitters; Transceivers

Transportation

ASPS-American suborbital passenger syst. 2005. *Wyczalek, F.A., AES-M Nov 94 26-28*

batt. technol. and markets, indust. appls. *Seitz, C.W., AES-M May 94 10-15*
mm-wave safety warning syst. for in-vehicle signing. *Greneker, G., AES-M Jul 98 7-12*

Transport control

fault tolerant proc. elements, real time recovery. *Sims, T., AES-M Dec 97 13-17*

Transport control; cf. Computerized navigation; Traffic control

Traveling wave tubes

Ka-band TWTs for airborne radars, high power. *Theiss, A.J., +, AES-M Nov 95 33-36*

TWT reliability in space applications. *Illokken, E., AES-M Jul 87 22-24*

Turbines; cf. Gas turbines

Turbogenerators

scaling of advanced power systems for military uses. *Wiley, Robert L., AES-M Dec 91 40-44*

U

Underwater object detection; cf. Sonar detection; Underwater vehicle detection and tracking

Underwater vehicles

Honeywell/DND Helicopter Integrated Navigation System (HINS) for antisubmarine warfare. *West-Vukovich, George, +, AES-M Mar 89 18-28*

Uninterruptible power supplies

crit. loads mgt., AC Battery PQ2000 syst. *Corey, G.P., AES-M Jun 96 41-44*

optimizing PWM inverter for UPS using space-state-based computer model. *Perra, Andre, AES-M Apr 92 20-22*

use of bimode uninterruptible power supplies in renewable hybrid energy systems. *Bower, Ward, +, AES-M Aug 90 16-22*

User centered design

pilot-centered autoflight syst. concept, user-centered design. *Riley, V., +, AES-M Sep 99 3-6*

User interface management systems

pilot-centered autoflight syst. concept, user-centered design. *Riley, V., +, AES-M Sep 99 3-6*

tower ATC, syst. integrat., user interface design. *Miller, D.L., +, AES-M Apr 96 22-26*

User interfaces

Aircraft Stores Interface Manual, paperless inform. technol., WWW. *Rochin, J.A.G., +, AES-M Jun 98 39-43*

annunciator archit. for yr. 2000. *Adams, D.G., +, AES-M Jun 97 25-28*
ATE enabling technol. for Air Force. *Kirkland, L.V., +, AES-M Jan 95 14-18*

avionics engineers approach to automation, human factors. *Riley, V., AES-M May 96 3-8*

crew-system design database of lessons learned during military aircraft design; user interface. *Moore, Gabriel, AES-M Jun 89 20-25*

radar siting and perform. prediction, software tool. *O'Hern, B., +, AES-M Dec 97 19-26*

SAR integrated precision targeting simul. *Toussaint, J.A., +, AES-M Feb 99 29-32*

user interface design, Integrated Maintenance Information System appl. *Landseadel, P., AES-M Aug 95 15-20*

- World Wide Web methodol. in ATE prog. environ. *Hansen, P.*, *AES-M Jun 98* 35-38
- User interfaces; cf.** Graphical user interfaces; User interface management systems
- User manuals**
US army Interactive Electronic Technical Manuals. *Brown, J.*, *AES-M Jul 95* 24-30
- Utility programs; cf.** Application program interfaces

V

- Vapor deposited coatings**
Li-LiMn₂O₄ thin-film batts., fab./props. *Bates, J.B.*, +, *AES-M Apr 95* 30-32
- Variable speed drives**
aerospace variable speed const. freq. starter/generator technol. *Elbuluk, M.E.*, +, *AES-M May 97* 24-31
starter/generator technol. for future aerop. appl., review. *Elbuluk, M.E.*, +, *AES-M Oct 96* 17-24
- Vector quantization**
SAR image formation using vector quantized data with convolution technique. *Read, Christopher J.*, +, *AES-M Oct 88* 3-10
- Vegetation mapping**
SAR rem. sens., spaceborne, SRTM and LightSAR. *Hilland, J.E.*, +, *AES-M Nov 98* 9-16
- Vehicles**
US Army vehicular positioning system used for combat simulation; overview and commercial applications. *Gates, Harvey M.*, +, *AES-M Mar 86* 17-19
vehicle position tracking; sensor compensation for vehicle magnetic signatures. *Whitcomb, Lawrence A.*, *AES-M Feb 89* 33-37
- Vehicles; cf.** Aircraft; Automatic guided vehicles; Electric vehicles; Marine vehicles; Remotely operated vehicles; Road vehicles; Space vehicles
- Velocity measurement**
flying obj. vel. meas., CCD sens. *Ricny, V.*, +, *AES-M Jun 94* 3-6
wind shear detect., airport surveillance radars. *Weber, M.E.*, +, *AES-M Jun 95* 3-9
- Velocity measurement; cf.** Light velocity measurement
- VHF devices**
outdoor intrusion detect., ported coaxial cable technol. *Clifton, R.W.*, +, *AES-M May 97* 36-40
- Vibration measurement**
rotor vibr. meas. in elec. drives. *Pyrhonen, O.*, +, *AES-M May 98* 21-23
- Video coding**
compression standards and alternative methods for video telecommunication. *Kaplan, Sidney*, *AES-M Oct 92* 27-30
iris recogn. technol., video-based syst., IrisCode database. *Williams, G.O.*, *AES-M Apr 97* 23-29
- Video signal processing**
cockpit display syst., next generation, develop. *Read, B.C., III*, *AES-M Oct 96* 25-28
smart system for detecting and tracking targets in video imagery. *Horton, Rebecca D.*, *AES-M Mar 91* 8-13
surveillance appl. using multiple views of scene. *Meyer, M.*, +, *AES-M Mar 99* 13-18
- Video signals**
VIDEQUAL, automated meas. syst. for fixed CCTV surveillance. *Ceng, M.S.*, +, *AES-M Mar 97* 29-32
- Virtual instrumentation**
ATLAS TPS conversion to ANSI C, open-syst. approach. *Timcho, T.J.*, *AES-M Jul 99* 13-17
VLSTA virtual instrum. std. test archit. *Tondre, H.*, +, *AES-M Mar 95* 19-28
VXIplug&play, integrat. VXI resources problems. *Gooding, M.*, *AES-M Jul 99* 9-12
- Virtual machines**
aging avionics computers, F³I replacement strategy. *Luke, J.*, +, *AES-M Mar 99* 7-11
avionics hybrid commun. archit., 1553 emulation, ATM. *Parish, D.J.*, +, *AES-M Mar 98* 34-39
- Vision; cf.** Active vision; Computer vision; Visual perception
- Visual databases**
iris recogn. technol., video-based syst., IrisCode database. *Williams, G.O.*, *AES-M Apr 97* 23-29
radar siting and perform. prediction, software tool. *O'Hern, B.*, +, *AES-M Dec 97* 19-26
visibility enhancing synthetic vision aids. *Moller, H.*, +, *AES-M Mar 94* 27-33
- Visualization; cf.** Data visualization
- Visual languages**
LabVIEW rapid prototyping environ. for avionics syst. teaching. *Reeves-Hardcastle, P.*, +, *AES-M Dec 95* 9-12

+ Check author entry for coauthors

- Visual perception**
blind aiding electronic device. *de Acevedo, R.L.M.*, *AES-M Feb 99* 4-6
HUD, enhanced vision, image quality issues. *Todd, J.*, +, *AES-M Mar 95* 40-44
wide angle HUD for synthetic vision. *Wisely, P.L.*, *AES-M Feb 95* 13-18
- Visual programming**
VLSTA virtual instrum. std. test archit. *Tondre, H.*, +, *AES-M Mar 95* 19-28
- VLSI**
knowledge acquisition for ATE diagnosis of VLSI test systems. *Ryan, Patricia M.*, +, *AES-M July 86* 5-12
migration of digital ASIC from first attempt to VLSI in three generations. *Lowinski, W. B.*, +, *AES-M Sep 92* 21-23
- Voice equipment**
Network Vehicle, technol. initiative in mobile multimedia. *Lind, R.*, +, *AES-M Sep 99* 27-32
- Voltage control**
IC controllers for batts. charging. *Mammano, R.A.*, *AES-M Apr 95* 20-25
Li-ion batt. software safety protection. *Tsenter, B.*, +, *AES-M Sep 98* 23-25
- Voltage-controlled oscillators**
at. clocks, num. controlled, long term timing stabil. *Eskelinen, P.*, +, *AES-M Oct 97* 8-11
- Voltage measurement**
Galileo probe Li-SO₂ batt. cell life testing. *Hofland, L.M.*, +, *AES-M Jun 96* 14-18
intell. batt., microcontroller-based. *Bowen, L.*, +, *AES-M May 94* 16-19
- Voltaggio, Frank Jr.**
obituary. *AES-M Feb 91* 31
- Vortices**
wingtip generated wake vortices, radar target. *Marshall, R.E.*, +, *AES-M Dec 96* 27-30

W

- Wakes**
radar characterization of ship-wake signatures and ambient ocean clutter features. *Schurmann, Stuart R.*, *AES-M Aug 89* 3-8
wingtip generated wake vortices, radar target. *Marshall, R.E.*, +, *AES-M Dec 96* 27-30
- Walsh functions**
sidelobe self-interf. reduction in agile beam radar. *Urkowitz, H.*, *AES-M Nov 97* 37-46
- Waste-to-energy power plants**
CHP technol., USA mfg. carbon & energy savings. *Kaarsberg, T.M.*, +, *AES-M Jan 99* 7-12
- Waveform analysis**
EW, sig. proc. technol. advancements. *Stephens, J.P.*, *AES-M Nov 96* 31-38
LD high speed driving, exponential transm. line. *Zheng Li*, +, *AES-M Sep 96* 4-7
radars with imaging capability, thinned stepped freq. waveforms. *Freedman, A.*, +, *AES-M Nov 96* 39-43
- Waveform analysis; cf.** Spectral analysis
- Waveform generators**
multimode radar, low-cost technol., flexible test bed archit. *Adler, E.*, +, *AES-M Jun 99* 23-27
- Waveguide antennas**
radar scanning antenna, leaky-wave periodically loaded antenna design. *Manasson, V.*, +, *AES-M Oct 96* 29-33
RF test range for engng. education. *Eskelinen, P.*, +, *AES-M Jul 95* 17-23
- Wavelength division multiplexing**
B-IDAIEN, broadband integrated digital inform. exchange networks, avionics appls. *Jian-Guo Zhang*, *AES-M Nov 98* 31-35
RF fiber-optical links at 6-18 GHz; GPS fiber-optic link. *Nelson, George F.*, *AES-M Jul 92* 12-15
- Wavelet transforms**
EW, sig. proc. technol. advancements. *Stephens, J.P.*, *AES-M Nov 96* 31-38
- Weapons**
antisubmarine warfare weapons system avionics on US Navy SH-60F helicopter. *Dowell, John A.*, *AES-M Jul 88* 10-17
ATE software, rehosting legacy TPS. *Arena, J.J.*, *AES-M Jul 98* 43-48
book review: Japanese Radars and Related Weapons of World War II (Nakagawa, J.). *West, C.P.*, *AES-M Aug 98* 39-40
buried metallic mines detect., ultra-wideband ground-penetrating radar. *Earp, S.L.*, +, *AES-M Sep 96* 30-39
C-17 appl. of existing ATE. *Sidhwa, F.*, +, *AES-M Mar 95* 29-34
CASS, design for supportability. *Mena, A.C.*, *AES-M Jan 95* 23-27
comments on 'SCR 584 radar & Mk.56 gunfire control' by I. Getting. *Johnson, Frithiof V.*, *AES-M Apr 91* 12
design agent process strategy for acquisition management. *Delaney, William J.*, *AES-M Nov 87* 20-24
development of proximity fuze. *Brown, Louis*, *AES-M Jul 93* 3-10

- fault diagnosis, cost efficient TPS using BIT. *Rogin, H.*, *AES-M Dec 99* 9-14
- fighter aircraft, future develop. trends. *Bartels, B.E.*, + , *AES-M Jan 94* 6-11
- FIREFINDER posn. anal. syst. advanced develop. model. *DiDomizio, J.*, + , *AES-M Sep 96* 25-29
- future weapon systems development implications for aircraft acquisition. *Lavoie, R. P.*, + , *AES-M Nov 87* 15-19
- GPS, CALCM in Gulf War. *Nielson, J.T.*, *AES-M Jul 94* 18-22
- INS/GPS operational concept demons. (OCD). *Snyder, S.*, + , *AES-M Aug 94* 38-44
- interactive system for global ship monitoring combining ordnance alterations and casualty report data for PHALANX weapons systems. *Sun, Gwong.*, + , *AES-M Apr 90* 15-18
- modular avionics, open syst. concepts & technol. *The dens, J.R.*, *AES-M Oct 97* 30-34
- modular stores management system for military aircraft ordnance control. *Radford, Clive J.*, *AES-M Apr 86* 11-16
- naval ships, AEGIS weapon syst. integrated diagnostics. *Brazet, M.D.*, *AES-M Feb 94* 40-45
- nonlinear arms race model with transition from predictability to chaos. *Saperstein, Alvin M.*, *AES-M Jun 86* 18-24
- operations of US Army Corps of Engineers' Manhattan Project as example of success in R&D. *Oman, Henry*, *AES-M Jan 92* 51-53
- SCR-584 radar and Mark 56 naval gun fire control system (reprint of 1975 paper). *Getting, Ivan A.*, *AES-M Oct 90* 3-15
- temperature-driven segmentation for autonomous antitank weapons. *Whitten, Gary.*, + , *AES-M Oct 86* 8-18
- test program sets re-hosting for mil. ATE. *Liguori, F.*, + , *AES-M Apr 96* 34-37
- weapons syst. hardware/software, formal verif. & legacy redesign. *Young, F.C.D.*, + , *AES-M Mar 99* 31-36
- weapon syst. testing, vert. support, R&D effort. *Liguori, F.*, *AES-M Jul 97* 31-34
- Weather**
determining effects of adverse weather on performance of imaging sensors for aircraft landing systems. *Greenwood, Stuart W.*, *AES-M Apr 91* 3-6
- Weibull distribution**
optimal radar threshold determ. in Weibull clutter and Gaussian noise. *Morgan, C.J.*, + , *AES-M Mar 96* 41-43
- White noise**
random sig. radar develop., present & future trends. *Liu Guosui.*, + , *AES-M Oct 97* 35-40
- Wide area networks**
MOBITEX wireless WAN for land-based positioning/navig. *Yang, T.T.*, + , *AES-M Jul 94* 29-35
- Wind**
2 μ m LIDAR for laser-based rem. sens. *Wagener, T.J.*, + , *AES-M Feb 95* 23-28
- airdrop ballistic winds operationally capable lidar. *Carr, J.*, + , *AES-M May 99* 31-36
- detect. in microcosm, ship/aircraft environ. sens. *Platt, J.R.*, *AES-M Feb 98* 26-33
- low altitude wind shear detect., airport surveillance radar. *Weber, M.E.*, + , *AES-M Jun 95* 3-9
- wingtip generated wake vortices, radar target. *Marshall, R.E.*, + , *AES-M Dec 96* 27-30
- Wind power**
power and energy research for remote areas of less developed countries at Windfarm Laboratory on Martha's Vineyard, MA. *Oman, Henry*, *AES-M Oct 91* 3-5
- Wind tunnels**
deterministic VXI highway interconnect, aerospace test systs. *Cleary, R.T.*, *AES-M Mar 96* 18-23
- intelligent wind tunnel testing; characteristics and realization issues. *Kornjeeva, Tatjana V.*, + , *AES-M Feb 90* 28-32
- US National Transonic Facility wind tunnel; overview. *Holmes, Harlan K.*, *AES-M Feb 86* 1-7
- wind tunnel laser Doppler velocimeter. *Seegmiller, H. Lee.*, + , *AES-M May 86* 16-20
- Wireless LAN**
implement. issues. *Moore, B.J.*, *AES-M Sep 96* 11-14
- Wiring**
space power wiring systs., safety, maint. and protection. *Stavnes, M.W.*, + , *AES-M Jan 94* 21-27
- Wood**
characterization by microwaves. *Eskelinen, P.*, + , *AES-M Feb 98* 34-35
- Workstations**
controlling remotely piloted space vehicles using voice systems and heads-up displays. *Hartley, Craig S.*, + , *AES-M Jul 88* 18-26
- evaluation of voice interaction for workstation applications aboard spacecraft. *Morris, Randy B.*, + , *AES-M Aug 93* 26-31
- X**
- Xenon**
Brayton cycle technol. appl., space power. *Harty, R.B.*, + , *AES-M Jan 94* 28-32
- X-ray applications**
inspection of hole solder joints, X-rays. *Pierce, B.L.*, + , *AES-M Feb 94* 28-32
- X-ray imaging**
non-intrusive diagnostics, thermal/X-ray images. *Poitier, A.*, + , *AES-M Mar 94* 34-37
- pseudo-tomographic X-ray imaging for aviation security. *Evans, J.P.O.*, + , *AES-M Jul 98* 25-30
- Y**
- Yagi antenna arrays**
ground plane Yagi antenna tests, 3 GHz. *Eskelinen, P.*, + , *AES-M Feb 96* 37-40
- Z**
- Zinc**
Ni-Zn sealed batt. for high energy-dens. appls. *Coates, D.*, + , *AES-M Jun 97* 35-38
- Zn-air batts. for forward battlefield charging. *Atwater, T.B.*, *AES-M Sep 98* 36-38
- Zn-flow-batts. for elec.-vehicles. *Tomazic, G.*, *AES-M Apr 94* 37-41
- Zinc compounds**
ZnBr batt. in elec. vehicle. *Swan, D.H.*, + , *AES-M May 94* 20-23
- Zoology**
animal navigation abilities; overview. *Kayton, Myron*, *AES-M Mar 89* 3-7