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This index covers all technical items - papers, correspondence, reviews, etc. - that appeared in this periodical during 1997, and items from previous years that were commented upon or corrected in 1997.

The Author Index contains the primary entry for each item, listed under the first author's name, and cross-references from all coauthors. The Subject Index contains several entries for each item under appropriate subject headings, and subject cross-references.

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permitt. meas. of rice weevils, RF/microwave freq. *Nelson, S.O.*, + , *T-IM Aug 97* 941-946
- Codecs; cf.** Speech codecs
- Coils** externally shielded cryogenic current comparator, sensitivity meas., QHR bridges. *Early, M.D.*, + , *T-IM Apr 97* 459-462
ferrofluid fluxgate sens. magnetometer, dc mag. field intens. meas. *Baltag, O.*, + , *T-IM Apr 97* 629-631
K-factor hand-held meter, air-core CT. *Chih-Hsien Kung*, + , *T-IM Aug 97* 811-816
SQUID magnetometer sens., 3D positioning setup. *Willenberg, G.-D.*, + , *T-IM Apr 97* 621-623
- Color** light-to-freq. converter, integrat. mode photodiodes. *de Graaf, G.*, + , *T-IM Aug 97* 933-936
- Communication equipment; cf.** Receivers
- Communication equipment testing** speech codecs, objective test. *Bucci, G.*, + , *T-IM Aug 97* 831-835
- Communication system nonlinearities** two-way time/freq. transfer, earth station errors. *Ascarrunz, F.G.*, + , *T-IM Apr 97* 205-208
- Communication systems** clock stabil. charactn. and meas. in telecomms. *Bregni, S.*, *T-IM Dec 97* 1284-1294
- Communication systems; cf.** Digital communication; Optical communication; Spread spectrum communication
- Communication terminals; cf.** Satellite communication earth terminals
- Comparators** NRC AC-DC transfer capabilities, automated difference comparator. *Clark, R.F.*, + , *T-IM Apr 97* 365-368
thermal power transfer std., resistive voltage divider, comparator. *Shapiro, E.Z.*, + , *T-IM Apr 97* 412-415
thermal wattmeter, power comparator, ac power meas. *Laiz, H.*, + , *T-IM Apr 97* 420-422
wideband sampling voltmeter. *Souders, T.M.*, + , *T-IM Aug 97* 947-953
- Comparators; cf.** Current comparators; Phase comparators
- Compensation** act. HV divider with 20 μ V/V uncertainty, compressed-gas capacitor. *Petersons, O.*, + , *T-IM Apr 97* 430-434
fiber optic grating-based devices, temp. compensation. *Arya, V.*, + , *T-IM Oct 97* 1173-1177
Peltier sens. for meas. thermal cond. of fluids. *Machut, C.*, + , *T-IM Oct 97* 1128-1132
piezoresistive tactile sens. *Fiorillo, A.S.*, *T-IM Feb 97* 15-17
- Compensation; cf.** Error compensation
- Complementary circuits; cf.** CMOS integrated circuits
- Complexity theory** meas. software develop., auto-consistent environ. *Steenput, E.*, + , *T-IM Aug 97* 742-746
multisine synchronized meas. via DSP methods. *Varkonyi-Koczy, A.R.*, *T-IM Aug 97* 929-932
spectrophotometric data correction, Kalman-filter, use of splines. *Slima, M.B.*, + , *T-IM Jun 97* 685-689
- Computer aided analysis** DC nanovoltmeters and voltage ref. stds., spectral anal. *Witt, T.J.*, *T-IM Apr 97* 318-321
- Computer applications; cf.** Biomedical computing; Computer aided analysis; Design automation; Microcomputer applications; Neural network applications
- Computer interfaces** bridge-transducer interface, continuous autocalibration. *van der Goes, F.M.L.*, + , *T-IM Jun 97* 704-710
- Computers; cf.** Modular computer systems
- Conducting films; cf.** Superconducting films
- Conducting liquids** employing calculable four-electrode conductance cell to substitute for secondary standards of electrolytic conductivity. *Moron, Z.*, + , *T-IM Dec 97* 1268-1273
liq. level and leakage detect., planar capacitive precision gauge. *Toth, F.N.*, + , *T-IM Apr 97* 644-646
- Conductivity measurement** employing calculable four-electrode conductance cell to substitute for secondary standards of electrolytic conductivity. *Moron, Z.*, + , *T-IM Dec 97* 1268-1273
- Contact resistance** AlGaAs/GaAs heterostruct., IR illum., quantized Hall resist. accuracy. *Jeanneret, B.*, + , *T-IM Apr 97* 285-288
- Contacts** voltage transients meas. in distributed const. syst. *Kawamata, K.*, + , *T-IM Aug 97* 918-921
- Continuous time systems** LTI systs., nonstandard conditions, freq.-domain ident. *Pintelon, R.*, + , *T-IM Feb 97* 65-71
- Control equipment; cf.** Microcontrollers
- Control systems; cf.** Closed loop systems; Digital control; Servosystems
- Converters; cf.** Frequency conversion; Thermal converters
- Convolution** spectrometric data correction, Kalman-filter-based algms. *Massicotte, D.*, + , *T-IM Jun 97* 678-684
- Cooling** mobile cryocooled primary voltage std. without liq. He. *Yi-Hua Tang*, + , *T-IM Apr 97* 256-259
 $^{113}\text{Cd}^+$ trapped ions, laser microwave double-reson. method. *Tanaka, U.*, + , *T-IM Apr 97* 137-140
- Copper** microwave filters atten., single-electron tunneling expts. *Fukushima, A.*, + , *T-IM Apr 97* 289-293
resist. scaling, loading effects. *Elmquist, R.E.*, + , *T-IM Apr 97* 322-324
- Correlators; cf.** Acoustic correlators; Optical correlators
- Counting circuits** interpolating time counter, single-chip, 200-ps resoln. *Kalisz, J.*, + , *T-IM Aug 97* 851-856
- Coupled transmission lines** voltage transients meas. in distributed const. syst. *Kawamata, K.*, + , *T-IM Aug 97* 918-921

Crack detection

superconductive cylinder cracks eval. by impedance meas. *Yamazaki, S.*, +, *T-IM Aug 97* 873-876

Crosstalk

NWA meas. with leakage errors, direct calib. *Heuermann, H.*, +, *T-IM Oct 97* 1120-1127

Crosstalk; cf. Optical crosstalk**Cryogenic electronics**

loading effects in resist. scaling. *Elmquist, R.E.*, +, *T-IM Apr 97* 322-324
NIST charged-capacitor expt., SET pump. *Zimmerman, N.M.*, +, *T-IM Apr 97* 294-298

Cryogenics

AC resist. bridge based on cryogenic current comparator. *Seppa, H.*, +, *T-IM Apr 97* 463-466

externally shielded cryogenic current comparator, sensitivity meas., QHR bridges. *Early, M.D.*, +, *T-IM Apr 97* 459-462

sapphire cryogenic dielec. resonators, perform. and pot. *Langham, C.D.*, +, *T-IM Apr 97* 130-132

sapphire opt. cavity, thermal expansion coeff. meas. *Taylor, C.T.*, +, *T-IM Apr 97* 183-185

Crystal growth

CZ cryst. growing furnaces, laser melt-level monitoring. *Zhixin Li*, +, *T-IM Jun 97* 722-730

Crystals; cf. Sapphire**Current; cf.** Leakage currents**Current comparators**

AC resist. bridge based on cryogenic current comparator. *Seppa, H.*, +, *T-IM Apr 97* 463-466

compressed-gas capacitors meas., pot. transformer bridge. *Castelli, F.*, *T-IM Aug 97* 822-825

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mutual inductance independent of primary winding posn. and ambient fields. *Miljanic, P.N.*, *T-IM Apr 97* 471-473

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Current density

Ar^+ ion beam from high-current ion source. *Ratschko, D.*, +, *T-IM Apr 97* 588-591

Current measurement

false-bal.-avoidance transductor for measuring large DC currents. *Ken Xu*, +, *T-IM Oct 97* 1081-1083

multiconverter modules, thin-film multijunction thermal converters. *Kinard, J.R.*, +, *T-IM Apr 97* 391-394

multistage clamp-on CT, ratio errors, low current meas. *So, E.*, +, *T-IM Apr 97* 454-458

mutual inductance independent of primary winding posn. and ambient fields. *Miljanic, P.N.*, *T-IM Apr 97* 471-473

simple built-in current sensor for current monitoring in mixed-sig. ccts. *Siskos, S.*, +, *T-IM Dec 97* 1301-1304

Current measurement; cf. Current comparators; Current transformers**Current mode logic**

BIST design of current-mode algorithmic A/D converters. *Chin-Long Wey*, *T-IM Jun 97* 667-671

Current transformers

K-factor hand-held meter, air-core CT. *Chih-Hsien Kung*, +, *T-IM Aug 97* 811-816

multistage clamp-on CT, ratio errors, low current meas. *So, E.*, +, *T-IM Apr 97* 454-458

Curve fitting

ADC, effective bit estim. methods accuracy. *Bertocco, M.*, +, *T-IM Aug 97* 1011-1015

ADC fast/accurate testing, sine wave fitting algm. *Giaquinto, N.*, +, *T-IM Aug 97* 1020-1025

open-ended coaxial probe for permitt. meas., NWA. *Blackham, D.V.*, +, *T-IM Oct 97* 1093-1099

sinewave fit algm., ADC effective bits meas. appl. *Jian Qiu Zhang*, +, *T-IM Aug 97* 1026-1030

sinewave fitting procedure for data acquisition channels characterization. *Schoukens, J.*, +, *T-IM Aug 97* 1005-1010

spectrogram interp., deconvolution/iter. optim. *Miekina, A.*, +, *T-IM Aug 97* 1049-1053

time-resolved spectra global anal., param. precision. *van Stokkum, I.H.M.*, *T-IM Aug 97* 764-768

CW lasers

crosstalk anal. of 1 m to 10 m laser phase-shift range finder. *Bosch, T.*, +, *T-IM Dec 97* 1224-1228

CW radar; cf. FM radar**Cyclotron radiation**

beam pick-up, versatile transducer for nuc. sci. *Sonck, M.*, +, *T-IM Aug 97* 857-861

D**Data acquisition**

AC voltage precision meas., sampling voltmeter. *Pogliano, U.*, *T-IM Apr 97* 369-372

chaotic behavior expts., DMA methods. *Lorrondo, H.A.*, +, *T-IM Oct 97* 1183-1188

correction to "comments on 'The modulo time plot: A useful data acquisition diagnostic tool'" (Dec 96 959). *Papay, Z.*, *T-IM Jun 97* 739
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nonlinearity of data-acquisition syst. with interleaving/multiplexing. *Simoes, J.B.*, +, *T-IM Dec 97* 1274-1279

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power meter for highly distorted three-phase systs. *Carullo, A.*, +, *T-IM Dec 97* 1262-1267

sinewave fitting procedure for data acquisition channels characterization. *Schoukens, J.*, +, *T-IM Aug 97* 1005-1010

Database systems

3D meas. using video camera and range finder. *Chavand, F.*, +, *T-IM Dec 97* 1229-1235

Data conversion; cf. Analog-digital conversion; Digital-analog conversion**Data handling; cf.** Measurement system data handling**Data models**

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Data processing; cf. Text processing**Decision-making; cf.** Pattern classification**Deconvolution**

spectrogram interp., deconvolution/iter. optim. *Miekina, A.*, +, *T-IM Aug 97* 1049-1053

Delay effects

predictive IIR filters design, FIR predictors feedback extension. *Ovaska, S.J.*, +, *T-IM Oct 97* 1196-1201

two-way time/freq. transfer, earth station errors. *Ascarrunz, F.G.*, +, *T-IM Apr 97* 205-208

two-way time/freq. transfer, opt. fibers. *Jefferts, S.R.*, +, *T-IM Apr 97* 209-211

Delay estimation

accurate dist. meas. by autonomous US syst. combining TOF and phase-shift methods. *Gueuning, F.*, +, *T-IM Dec 97* 1236-1240

nonlin. delay elements determ., NARMA models, using dispersion fns. *Ho-En Liao*, +, *T-IM Aug 97* 868-872

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Delay lines

FeSiB mag. field sens., magnetostrictive delay lines. *Hristoforou, E.*, +, *T-IM Apr 97* 632-635

FPGA integrated time-to-digital converter, direct coding, nonlin. correction. *Pelka, R.*, +, *T-IM Apr 97* 449-453

FPGA time-to-digital converter, 200-ps resoln. *Kalisz, J.*, +, *T-IM Feb 97* 51-55

Delta modulation; cf. Sigma-delta modulation**Demodulation**

metastability measurement, effect on commun. sig. proc. systs. *Brown, C.*, +, *T-IM Feb 97* 61-64

Density measurement

Si dens. stds., internat. intercomparison. *Bettin, H.*, +, *T-IM Apr 97* 556-559

Si, molar vol. rel., Avogadro const. determ. *De Bievre, P.*, +, *T-IM Apr 97* 592-595

Si sphere dimens. meas., Avogadro's no. determ. *Nicolaus, R.A.*, +, *T-IM Apr 97* 563-565

Design automation

2D micromachined CMOS accelerometer. *Ahmad, H.*, +, *T-IM Feb 97* 18-26

FIR differentiators with optimum noise atten., recursive implement. *Vainio, O.*, +, *T-IM Oct 97* 1202-1207

power amp. design, RF transistor large-sig. meas. *Cheng-Yung Chiang*, +, *T-IM Oct 97* 1150-1155

Design automation software; cf. SPICE**Design for testability**

current-mode algorithmic A/D converters, BIST design. *Chin-Long Wey*, *T-IM Jun 97* 667-671

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capacitive ang.-posn. sens. optimization. *Xiujun Li*, +, *T-IM Feb 97* 8-14

capacitive press. sens. interface, oversampling sigma delta demodulation. *Yamada, M.*, +, *T-IM Feb 97* 3-7

- dielec. meas. using coaxial resonator, L-band automated syst. *Galwas, B.A., +, T-IM Apr 97 511-514*
- liq. level and leakage detect., planar capacitive precision gauge. *Toth, F.N., +, T-IM Apr 97 644-646*
- low-speed meas., multiple-electrode capacitive sens. *Xianjun Li, +, T-IM Apr 97 636-639*
- microwave pulse meas., resistive sens. *Dagys, M., +, T-IM Apr 97 499-502*
- Peltier sens. for meas. thermal cond. of fluids. *Machut, C., +, T-IM Oct 97 1128-1132*
- piezoresistive tactile sens. *Fiorillo, A.S., T-IM Feb 97 15-17*
- self-sens. mag. bearings, param. estim. *Noh, M.D., +, T-IM Feb 97 45-50*
- smart capacitive ang.-posn. sens., self-calib. *Li, X., +, T-IM Aug 97 888-892*
- transients monitoring probe for gas insulated substation. *Osmokrovic, P., +, T-IM Feb 97 36-44*
- transimpedance filter topol. for instrumentation. *Carlosena, A., +, T-IM Aug 97 862-867*
- Dielectric breakdown; cf.** Gas discharges
- Dielectric devices; cf.** Capacitors; Dielectric resonator oscillators
- Dielectric films**
precision microwave testing of dielec. substrs. *Yushchenko, A.G., +, T-IM Apr 97 507-510*
- Dielectric losses**
FRDC, fast-reversed DC transfer difference meas., thermal converters, time consts. *Sasaki, H., +, T-IM Apr 97 377-381*
- Dielectric materials; cf.** Dielectric films
- Dielectric measurements**
permitt. meas. of rice weevils, RF/microwave freq. *Nelson, S.O., +, T-IM Aug 97 941-946*
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- Dielectric measurements; cf.** Permittivity measurement
- Dielectric resonator oscillators**
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- Difference equations**
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- Differential amplifiers**
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neural Euclidean classifier, charge based synaptic matrix. *Onat, B.M., +, T-IM Jun 97 672-677*
- Differential equations; cf.** Stochastic differential equations
- Differentiating circuits**
FIR differentiators with optimum noise atten., recursive implement. *Vainio, O., +, T-IM Oct 97 1202-1207*
- Diffraction; cf.** Electromagnetic diffraction
- Diffusion processes; cf.** Electromigration
- Digital-analog conversion**
direct digital synthesizer, jittered clock. *Yih-Chyun Jeng, T-IM Jun 97 653-655*
multiple digital sig. generators, noise-adaptive digital null detector. *Tarach, D., +, T-IM Apr 97 435-438*
transimpedance filter topol. for instrumentation. *Carlosena, A., +, T-IM Aug 97 862-867*
voltage source eval., calculable RMS outputs. *Lapuh, R., +, T-IM Aug 97 784-788*
wideband sampling voltmeter. *Souders, T.M., +, T-IM Aug 97 947-953*
- Digital circuits; cf.** Digital filters
- Digital communication**
metastability measurement, effect on commun. sig. proc. systs. *Brown, C., +, T-IM Feb 97 61-64*
- Digital communication; cf.** Synchronous Digital Hierarchy
- Digital control**
irrigation control, computerized water detect. *Turnell, D.J., +, T-IM Aug 97 986-990*
- Digital filters**
predictive IIR filters design, FIR predictors feedback extension. *Ovaska, S.J., +, T-IM Oct 97 1196-1201*
- Digital filters; cf.** FIR digital filters; IIR digital filters; Recursive digital filters
- Digital integrated circuits; cf.** Mixed analog-digital integrated circuits
- Digital measurements**
clock stabil. charactn. and meas. in telecomms. *Bregni, S., T-IM Dec 97 1284-1294*
digital impedance bridge based on two-phase generator. *Muciek, A., T-IM Apr 97 467-470*
- digital meas. systs., quantization error predetermination. *Vujicic, V.V., +, T-IM Apr 97 439-441*
- multiple digital sig. generators, noise-adaptive digital null detector. *Tarach, D., +, T-IM Apr 97 435-438*
- num. method for transit time meas. in US sensor appls. *Bucci, G., +, T-IM Dec 97 1241-1246*
- opt. digital correlator for solid surfaces vel. meas. *Zeitler, R., T-IM Aug 97 803-806*
- wideband wattmeter based on RMS voltage meas. *Waltrip, B.C., +, T-IM Aug 97 781-783*
- Digital radio; cf.** Spread spectrum communication
- Digital signal processors**
power meter for highly distorted three-phase systs. *Carullo, A., +, T-IM Dec 97 1262-1267*
- Dipole antennas**
factor calib., primary stds., site atten. meas. *Garn, H., +, T-IM Apr 97 544-548*
low-uncertainty dipole/monopole std. antennas, insertion loss, antenna factors. *Alexander, M.J., +, T-IM Apr 97 539-543*
- Directive antennas; cf.** Horn antennas
- Discrete Fourier transforms**
ADC, effective bit estim. methods accuracy. *Bertocco, M., +, T-IM Aug 97 1011-1015*
multiple-target FM CW ranging by eval. of impulse response phase. *Stolle, R., +, T-IM Apr 97 426-429*
multisine synchronized meas. via DSP methods. *Varkonyi-Koczy, A.R., T-IM Aug 97 929-932*
- Poisson sampled meas., spectral anal. methods. *Banning, R., T-IM Aug 97 882-887*
power syst. freq. real-time determ. *Lobos, T., +, T-IM Aug 97 877-881*
sinewave optimized test of waveform digitizers, DFT approach. *Bertocco, M., +, T-IM Aug 97 970-974*
waveform digitizers, SNR testing, sine-fit vs. DFT algms. *Bertocco, M., +, T-IM Apr 97 445-448*
- Discrete time systems; cf.** Sampled data systems
- Discrete transforms; cf.** Discrete Fourier transforms
- Displacement measurement**
capacitance-based displacement meas., AC current source, input shielding. *Nerino, R., +, T-IM Apr 97 640-643*
fiber optic sens. for surface roughness/displacement meas. *Zhang, K., +, T-IM Aug 97 899-902*
- laser displacement sens. for modal anal./defect detect. *Servagent, N., +, T-IM Aug 97 847-850*
- posn.-sensitive detectors in atmos. turbulence, retroreflected beam. *Makynen, A., +, T-IM Oct 97 1133-1136*
- X-ray/laser interferometry, beam-astigmatism. *Bergamin, A., +, T-IM Apr 97 196-200*
- Distance measurement; cf.** Acoustic distance measurement; Optical distance measurement; Radar distance measurement
- Distortion**
power meter for highly distorted three-phase systs. *Carullo, A., +, T-IM Dec 97 1262-1267*
scan conversion-based transient digitizers, improved sig. extraction. *Arpaia, P., +, T-IM Aug 97 893-898*
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- Distortion; cf.** Harmonic distortion; Jitter; Phase distortion
- Distributed feedback lasers**
freq. std., ⁸⁷Rb D₂-line/SHG. *Poulin, M., +, T-IM Apr 97 157-161*
- Dither techniques**
autoscaling feedback in mixed-sig. ccts., stat. anal. *Hejn, K., +, T-IM Aug 97 913-917*
dither-based quantizing systs. design. *Carbone, P., T-IM Jun 97 656-659*
- Doppler effect**
Cs beam freq. stds., Ramsey pattern anal. *Makdissi, A., +, T-IM Apr 97 112-116*
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- DRAM chips**
neural Euclidean classifier, charge based synaptic matrix. *Onat, B.M., +, T-IM Jun 97 672-677*
- Dynamic response**
opt. digital correlator for solid surfaces vel. meas. *Zeitler, R., T-IM Aug 97 803-806*
- Dynamic response; cf.** Transient response

E**Echo interference**plane reflectors localization, wide-beamwidth US transducer. *Ming Yang, +, T-IM Jun 97 711-716*

Electric field measurement

fiber optic elec. field probe, liq. crysts. *Lacquet, B.M.*, + , *T-IM Feb 97* 31-35

Electric fields

capacitive ang.-posn. sens. optimization. *Xiujun Li*, + , *T-IM Feb 97* 8-14

Electric variables; cf. Attenuation; Inductance**Electric variables measurement**

sig. samplers phase-distortion error quantification. *Verspecht, J.*, *T-IM Jun 97* 660-666

Electric variables measurement; cf. Attenuation measurement; Capacitance

measurement; Conductivity measurement; Current measurement; Dielectric measurements; Electric field measurement; Energy measurement; Gain measurement; Impedance measurement; Power measurement; Resistance measurement; Voltage measurement

Electrochemical processes

employing calculable four-electrode conductance cell to substitute for secondary standards of electrolytic conductivity. *Moron, Z.*, + , *T-IM Dec 97* 1268-1273

Electromagnetic compatibility

LF mag. EMC meas., fluxgate magnetometer. *Weyand, K.*, + , *T-IM Apr 97* 617-620

low-uncertainty dipole-monopole std. antennas, insertion loss, antenna factors. *Alexander, M.J.*, + , *T-IM Apr 97* 539-543

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voltage transients meas. in distributed const. syst. *Kawamata, K.*, + , *T-IM Aug 97* 918-921

Electromagnetic diffraction

dielec. props. meas. at mm-wavelength, free-space. *Friedsam, G.L.*, + , *T-IM Apr 97* 515-518

Electromagnetic diffraction; cf. Optical diffraction**Electromagnetic fields**

bandlimited fn. reconstruction, Hilbert transform, EM fields. *Boche, H.*, + , *T-IM Apr 97* 442-444

Electromagnetic interference

IC metallization meas. ultralow-noise data acquisition. *Ciofi, C.*, + , *T-IM Aug 97* 789-793

SAW sens., wirelessly interrogable, vehicular appls. *Pohl, A.*, + , *T-IM Aug 97* 1031-1038

Electromagnetic interference; cf. Power distribution electromagnetic interference**Electromagnetic measurements**

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Electromagnetic measurements; cf. Microwave measurements; Millimeter wave measurements; UHF measurements; VHF measurements**Electromagnetic radiation; cf.** Antenna radiation patterns; Cyclotron radiation**Electromagnetic reflection; cf.** Microwave reflectometry; Optical reflection**Electromagnetic refraction; cf.** Optical refraction**Electromagnetic scattering; cf.** Radar scattering**Electromagnetic transient analysis; cf.** Switching transients**Electromigration**

IC metallization meas. ultralow-noise data acquisition. *Ciofi, C.*, + , *T-IM Aug 97* 789-793

Electronic equipment testing

sinewave fit algm., ADC effective bits meas. appl. *Jian Qiu Zhang*, + , *T-IM Aug 97* 1026-1030

sinewave optimized test of waveform digitizers, DFT approach. *Bertocco, M.*, + , *T-IM Aug 97* 970-974

Electronic equipment testing; cf. Communication equipment testing**Electronics; cf.** Road vehicle electronics**Electron microscopy**

complex electron wave reconstruction, param. estim. *vand den Bos, A.*, *T-IM Aug 97* 826-830

Electrostatic measurements; cf. Charge measurement**Encoding**

FPGA time-to-digital converter, 200-ps resoln. *Kalisz, J.*, + , *T-IM Feb 97* 51-55

position estim. of mobile robots based on coded IR sig. transm. *Eren, H.*, + , *T-IM Dec 97* 1280-1283

Encoding; cf. Image coding; Multidimensional coding; Speech codecs**Energy measurement**

comments on "Accurate measurement of power, energy, and true RMS voltage using synchronous counting" by J.K. Kolanko (Jun 93 752-754). *Maurizen, D.W.*, + , *T-IM Dec 97* 1300-1301

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Environmental factors

irrigation control, computerized water detect. *Turnell, D.J.*, + , *T-IM Aug 97* 986-990

Epitaxial growth

GaAs/AlGaAs quantized Hall devices fab. for metrology. *Inglis, A.D.*, + , *T-IM Apr 97* 281-284

Equations; cf. Difference equations; Integral equations; Stochastic differential equations

Equivalent circuits

FRDC, fast-reversed DC transfer difference meas., thermal converters, time consts. *Sasaki, H.*, + , *T-IM Apr 97* 377-381

Error analysis

ADC, effective bit estim. methods accuracy. *Bertocco, M.*, + , *T-IM Aug 97* 1011-1015

ADC fast/accurate testing, sine wave fitting algm. *Giaquinto, N.*, + , *T-IM Aug 97* 1020-1025

A/D converters quantization-noise estim. uncertainties. *Chiorboli, G.*, + , *T-IM Feb 97* 56-60

CZ cryst. growing furnaces, laser melt-level monitoring. *Zhixin Li*, + , *T-IM Jun 97* 722-730

freq. transfer, geostationary broadcasting satellite. *Morikawa, T.*, + , *T-IM Apr 97* 216-219

high-speed ADC error estim. *Muginov, G.D.*, + , *T-IM Aug 97* 980-985

sinewave fit algm., ADC effective bits meas. appl. *Jian Qiu Zhang*, + , *T-IM Aug 97* 1026-1030

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