

IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT

A PUBLICATION OF THE IEEE INSTRUMENTATION AND MEASUREMENT SOCIETY

AUGUST 2010

VOLUME 59

NUMBER 8

IEIMAO

(ISSN 0018-9456)



REGULAR PAPERS

Acoustics and Ultrasonics Instrumentation and Measurement

- SDFT-Based Ultrasonic Range Finder Using AM Continuous Wave and Online Parameter Estimation *P. Sumathi and P. A. Janakiraman* 1994

A/D and D/A Conversion, Analog, and Digital Instrumentation

- Background Calibration of Gain Errors in $\Pi\Delta\Sigma$ A/D Converters *A. Delić-Ibukić and D. M. Hummels* 2005

Analog and Digital Data, and Signal Processing

- Analysis and Measurement of Crosstalk Effects on Mixed-Signal CMOS ICs With Different Mounting Technologies *V. Ferragina, N. Ghittori, G. Torelli, G. Boselli, G. Trucco, and V. Liberali* 2015

Instrumentation for and Measurement of Electric Power Systems, Energy Metering, and Electric Power Quality

- A Robust Technique for Frequency Estimation of Distorted Signals in Power Systems *C.-H. Huang, C.-H. Lee, K.-J. Shih, and Y.-J. Wang* 2026

- A Review of Flicker Severity Assessment by the IEC Flickermeter *J. Ruiz, J. J. Gutierrez, A. Lazkano, and S. Ruiz de Gauna* 2037

Uncertainty Analysis, Accuracy, Precision, and Parameter Estimation

- The Evaluation of Scan-Derived Anthropometric Measurements *J.-M. Lu and M.-J. J. Wang* 2048

Built-in Self-Test, Design-for-Testing, Fault Diagnosis, and Fault-Tolerance

- Approach to Fault Identification for Electronic Products Using Mahalanobis Distance *S. Kumar, T. W. S. Chow, and M. Pecht* 2055

- Diagnosis of Induction Motor Faults in the Fractional Fourier Domain *M. Pineda-Sanchez, M. Riera-Guasp, J. A. Antonino-Daviu, J. Roger-Folch, J. Perez-Cruz, and R. Puche-Panadero* 2065

- Application of Predictive Oscillation-Based Test to a CMOS OpAmp *K. Suenaga, E. Isern, R. Picos, S. Bota, M. Roca, and E. García-Moreno* 2076

Computational Imaging Techniques

- An Adaptive Approach for the Progressive Integration of Spatial and Spectral Features When Training Ground-Based Hyperspectral Imaging Classifiers *A. Prieto, F. Bellas, R. J. Duro, and F. López-Peña* 2083

Measurement of Materials and Applications

- Support Vector Regression for the Determination of the Nutritional Components of Edible Oil by Terahertz Spectroscopy *J. Li* 2094

(Contents Continued on Page 1993)

请阅后放回:

排架号 **E151** 处



Medical and Biomedical Instrumentation and Applications

Design of a Novel Efficient Human-Computer Interface: An Electrooculogram Based Virtual Keyboard *A. B. Usakli and S. Gurkan* 2099

Measurement Techniques

Characterization of Component Under DC Biasing Condition Using an Inductive Coupling Approach *W.-Y. Chang, K.-Y. See, and B. Hu* 2109

ADC Static Characterization Using Nonlinear Ramp Signal *S. C. Vora and L. Satish* 2115

A Measurement Technique for Verifying the Match Condition of Assembled RFID Tags *S.-L. Chen, K.-H. Lin, and R. Mitra* 2123

An Online and Noninvasive Technique for the Condition Monitoring of Capacitors in Boost Converters *G. M. Buiatti, J. A. Martín-Ramos, C. H. Rojas García, A. M. R Amaral, and A. J. Marques Cardoso* 2134

Metrology, Standards, and Calibration

A Triaxial Accelerometer Calibration Method Using a Mathematical Model. *S. P. Won and F. Golnaraghi* 2144

Networking, Networks, and Sensor Networks

Online Packet Loss Measurement and Estimation for VPN-Based Services *D. Zhang and D. Ionescu* 2154

Nondestructive Evaluation and Remote Sensing

Automatic Monitoring System for Singularity Detection in Dikes By DTS Data Measurement *A. A. Khan, V. Vrabie, J. I. Mars, A. Girard, and G. D'Urso* 2167

Optical Instrumentation, Measurement, and Systems

Three-Dimensional Color Pattern Recognition Using Fringe-Adjusted Joint Transform Correlation With CIELab Coordinates *M. S. Alam, S. F. Goh, and S. Dacharaju* 2176

Calibration of Line-Scan Cameras *C. A. Luna, M. Mazo, J. L. Lázaro, and J. F. Vázquez* 2185

RF, Microwave, Millimeter Wave, and Tera-Hertz

Extending the Interrogation Range of a Passive UHF RFID System With an External Continuous Wave Transmitter *J.-S. Park, J.-W. Jung, S.-Y. Ahn, H.-H. Roh, H.-R. Oh, Y.-R. Seong, Y.-D. Lee, and K. Choi* 2191

Millimeter-Wave Transmittance and Reflectance Measurement on Pure and Diluted Carbonyl Iron *K. A. Korolev, S. Chen, Z. Li, and M. N. Afsar* 2198

A Robust Microwave Rain Gauge *T. Mansheim, A. Kruger, J. Niemeier, and A. J. B. Brysiewicz* 2204

Sensors, Sensor Fusion, and Transducers

D-Dot Probe for Fast-Front High-Voltage Measurement *I. A. Metwally* 2211

Signals, Systems, and System Identification

Nonlinear System Identification Using Exponential Swept-Sine Signal . . . *A. Novák, L. Simon, F. Kadlec, and P. Lotton* 2220

Virtual Measurements and Systems and Synthetic Instrumentation

Classification of Black Tea Taste and Correlation With Tea Taster's Mark Using Voltammetric Electronic Tongue
M. Palit, B. Tudu, P. K. Dutta, A. Dutta, A. Jana, J. K. Roy, N. Bhattacharyya, R. Bandyopadhyay, and A. Chatterjee 2230

CORRESPONDENCE

Adaptive Ultrasonic Distance Measurement Technique for Handwriting Digitization Using Reconfigurable Analog Blocks *C. H. Han, J. Chung, and S. H. Hong* 2240

Distillation of Essential Oil From Leaves of *Eucalyptus camaldulensis* by Using Microwave Power Source *M. Gunes and M. H. Alma* 2243