IEEE INSTRUMENTATION AND MEASUREMENT MAGAZINE
Vol. 13 - 2010

SPIS TREŚCI

nr 1

FEATURES
15   Load Cells in Force Sensing Analysis. Theory and a Novel Application / Ivan Muller, Renato Machado de Brito, Carlos Eduardo Pereira, Valner Brusamarello
23   Tutorial 22: Software Defined Radio / Fred Harris, Wade Lowdermilk

COLUMNS
4    From the Editor's Bench
6    President's Perspectives
33   Instrumentation Notes
39   My Favorite Experiment
42   Recalibration

DEPARTMENTS
47   Membership Notes
48   New Products
54   Society News
58   Calendar
60   Society Officers
FEATURES
8 Synthesizing Accurate Voltages with Superconducting Quantum-Based Standards / Sam Benz
14 Possibilities for Continuous Glucose Monitoring by a Functional Contact Lens / Ilkka Lahdesmaki, Angela J. Shum, Babak A. Parviz
22 The Role of Measurements in the Smart Grid Era / Lorenzo Peretto

COLUMNS
4 From the Editor's Bench
6 President's Perspectives
33 Instrumentation Notes
38 History of Physical Standards
43 My Favorite Experiment

DEPARTMENTS
46 New Products
53 Membership Notes
54 TC Listing
55 Calendar
56 Society News
60 Society Officers
FEATURES
8  Implementing Serial Bus Interfaces Using General Purpose Digital Instrumentation / Dale Johnson
14 Common S²EIMCE Maintenance / Simon M. Jessop, Johan Reimann, Patrick W. Kalgren
22 Instrument Design that Solves the Challenges of 22 Both Legacy and Emerging Test Requirements / Carl Heide, David Kaushansky
28 Efficient Techniques for Reducing Error Latency in On-line Periodic Built-in Self-Test / Hussain Al-Asaad
34 Test Program Set Data Collection and Data Mining / Ian Williams, Susan Moran
42 Advanced Testing and Prognostics of Ball Grid Array Components with a Stand-alone Monitor 1C / Anuj Bhatia, James P. Hofmeister, Justin Judkins, Doug Goodman

COLUMNS
4  From the Editor’s Bench
6  Welcome to AUTOTESTCON / Marina Ruggieri, Kim Fowler

DEPARTMENTS
40  Calendar
41  TC Listing 2009 I&M Fellows
48  New Products
56  Membership Notes
58  2009 I&M Fellows
60  I&M Society Awards
64  Society Officers
FEATURES
8  Smart Sensor Demonstration Payload / John Schmalzel, Andrew Bracey, Stephen Rawls, Jon Morris, Mark Turowski, Richard Franzl, Fernando Figueroa
19  Power Quality Monitoring in Modern Electric Distribution Systems / Carlo Muscas
28  Nanophysics and Nanotechnology Applied to Sensors Part 2: Tutorial 26 / Edward L. Wolf

COLUMNS
4  From the Editor's Bench
6  President's Perspectives
45  Instrumentation Notes

DEPARTMENTS
36  Calendar
58  TC News
50  New Products
61  TC Listing
56  Membership Notes
62  Society News
72  Society Officers
FEATURES
8 The Wave Glider: A New Concept for Deploying Ocean Instrumentation / Justin Manley, Scott Willcox
14 Structural Health Monitoring of Bridges Using Wireless Sensor Networks / Tyler Harms, Sahra Sedigh, Filippo Bastianini
19 Correlation Dimension Analysis: A Non-linear Time Series Analysis for Data Processing: Tutorial 28 / Ruqiang Van, Yongbin Liu, Robert X. Gao
26 Calorimeters and Techniques Used for Power Loss Measurements in Electrical Machines: Tutorial 29 / Wenping Cao, Greg M. Asher, Xiaoyan Huang, He Zhang, Ian French, Jianyong Zhang, Michael Short

COLUMNS
4 From the Editor's Bench
6 President's Perspectives
34 Instrumentation Notes
40 Recalibration
46 History of Physical Standards
50 My Favorite Experiment

DEPARTMENTS
39 Society News
54 New Products
60 Calendar
61 TC Listing
62 Membership Notes
64 Society Officers

Oprac. BPK