

ID	Title	First author	Paper topics	Presentation
501	Hermetically Sealed Microwave Probe for in-situ Detection of Black Powder in Gas Pipelines	Abou-Khousa, Mohamed	Non-invasive Measurement Techniques and Instrumentation	Oral
174	Embedded Measurement System for Non-Destructive Testing using New Eddy Currents Planar Array Probe	Abrantes, Ruben	Advances in Instrumentation and Measurement Developments and Techniques	Oral
295	Flow Measurement of Gaseous CO2 Using Averaging Pitot Tubes	Adefila, Kehinde	Special Session #4: Sensors and Instrumentation for the Environment and Climate change Monitoring	Oral
462	An Efficient Prediction Based Lossless Invisible Watermarking	Agarwal, Nimisha	Signal & Image Processing Techniques	Poster
157	Portable Instrument for Eddy Currents Non Destructive Testing based on Heterodyning Techniques	Aguiam, Diogo	Measurement and Instrumentation for Industrial Applications	Oral
479	Dual Data Aggregation for Power Quality Assessment	Albu, Mihaela	Energy and Power Systems	Poster
203	Performance Study of Digital Filters Applied to the Readout System of the Neutrinos-Angra Detector	Alvarenga, Tiago	Signal & Image Processing Techniques	Oral
327	A Low Cost Multi-Sensor Approach for Early Warning in Structural Health Monitoring	Andò, Bruno	Measurement Applications	Poster
330	An event polarized paradigm for ADL detection in AAL context	Andò, Bruno	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Poster
343	A Contactless InkJet Printed Passive Touch Sensor	Andò, Bruno	Special Session #6: Printed Transducers	Oral
357	Characterisation of an Associative Memory Chip for High-Energy Physics Experiments	Andreani, Alessandro	Data Acquisition Systems and Techniques	Oral
494	Proposal and analysis of new algorithms for wideband spectrum sensing in cognitive radio	Angrisani, Leopoldo	Signal & Image Processing Techniques	Poster
366	Effects of Stray Capacitances on High Voltage Current Transformers	Aristoy, Gonzalo	Advances in Instrumentation and Measurement Developments and Techniques	Poster
367	On Site Calibration of Current Transformers	Aristoy, Gonzalo	Advances in Instrumentation and Measurement Developments and Techniques	Poster
441	Experimental characterization of series arc faults in AC and DC electrical circuits	Artale, Giovanni	Measurement Applications	Poster
10	Implementation of the IP Core AMBA-Based AHB Master/Slave Memory Controller	Assaf, Mansour	Advances in Instrumentation and Measurement Developments and Techniques	Poster
467	Photovoltaic-thermoelectric modules: a feasibility study	Attivissimo, Filippo	Energy and Power Systems	Poster

274	A Low Cost Smart Meter Network for a Smart Utility	Aurilio, Gianluca	Measurement and Instrumentation for Industrial Applications	Poster
48	Design and Implementation of Fall Detection and Voice Response Detection in a Smart Phone	Bai, Y.	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Poster
498	S-FSK modem design and experimental validation for robust narrowband powerline communication	Bali, Mohamed Chaker	Measurement Applications	Poster
124	Monte-Carlo parameter uncertainty analysis under dynamical and operational measurement conditions	Barbé, Kurt	Advances in Instrumentation and Measurement Developments and Techniques	Oral
468	Wireless image-sensor network application for population monitoring of lepidopterous insects pest (moths) in fruit crops	Barboni, Leonardo	Special Session #4: Sensors and Instrumentation for the Environment and Climate change Monitoring	Oral
268	Phase Measurement Frequency-domain Algorithms for Distribution Systems	Barchi, Grazia	Energy and Power Systems	Poster
154	Segmenting a Signal Based on a Local Property Using Multicore Processors	Barford, Lee	Signal & Image Processing Techniques	Poster
540	A bidirectional calorimetric flow meter: design and construction	Barreto Neto, Arlindo	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Oral
530	An integration OtoLeitor and Sana Platform: a mobile application for performing hearing screening and analysis of signals otoacoustic emissions	Barros, Natan	Biomedical Systems	Poster
409	A Set of Virtual Instruments to Simulate Radiation Effects in CMOS Circuits	Bartra, Walter	Virtual Measurement Systems	Oral
353	Dynamic Synchrophasor Estimation in the Presence of Decaying DC Offsets	Belega, Daniel	Energy and Power Systems	Oral
473	Harmonics Effect on Sine-Fit Algorithms Accuracy	Belega, Daniel	Measurement Applications	Oral
511	DC-Bias effect on the dielectric properties of multiwalled carbon nanotubes /PEDOT:PSS nanocomposites	Benchirouf, Abderrahamne	Measurement of Electric and Magnetic Quantities	Poster
63	Implementation of Vernier TDCs in 8-bit Microcontrollers	Bengtsson, Lars	Advances in Instrumentation and Measurement Developments and Techniques	Poster
76	External visual interface for a Nikon 6D autocollimator	Bergues, Guillermo	Measurement and Instrumentation for Industrial Applications	Poster
113	A simple portable polychromatic pupillometer for human eye annoyance measurement	Bernabei, Mario	Non-invasive Measurement Techniques and Instrumentation	Oral

393	Optimized Complex Signals for Eddy Current Testing	Betta, Giovanni	Non-invasive Measurement Techniques and Instrumentation	Oral
39	Measuring Micro-amp Inductor Currents in Switched-inductor DC-DC Power Supplies	Blanco, Andres	Energy and Power Systems	Oral
434	Signal Separation of Gas Sensor Data for Application in Counterfeit Detection	Blankenburg, Matthias	Measurement Applications	Poster
531	Improving ADC Maximum Sample Rate in Low cost DASs through Compressive Sampling	Bonavolontà, Francesco	Data Acquisition Systems and Techniques	Poster
152	A High Spatial and Temporal Resolution Film Thickness Sensor in Oil - Water Flows	Bonilla Riaño, Adriana	Measurement and Instrumentation for Industrial Applications	Poster
180	Low level locomotion control of an agricultural mobile robot	Borrero, Henry	Robotics and Controls	Poster
526	Electrodynamic Resonant Energy Harvester for Low Frequencies and Amplitudes	Bradai, Sonia	Special Session #7: Energy Harvesting for Autonomous Measurement Systems: methodologies and devices	Oral
320	Energy-autonomous wind speed smart sensor	Braquehais, Jeanne	Special Session #7: Energy Harvesting for Autonomous Measurement Systems: methodologies and devices	Oral
114	Bayesian Fusion of Multiple Sensors for Reliable Heart Rate Detection	Brusamarello, Valner	Biomedical Systems	Poster
270	Design and Optimization of a Power Inductive Link	Brusamarello, Valner	Energy and Power Systems	Poster
533	Experimental determination of the vibration transmissibility of isolator materials	Burgos, Fernando	Measurement of Materials and Mechanical Quantities	Poster
286	Improving Adjacent Channel Power Measurements of Wireless Standards	Buritica, Alejandro	Advances in Instrumentation and Measurement Developments and Techniques	Poster
464	Distribution of Relaxation Times as a Base for Effect Identification and Modeling of Impedance Spectra	Büschel, Paul	Special Session #2: Impedance Spectroscopy for Measurement and Sensor Solutions	Oral
91	Embedded Microcontroller using GPS as a Security Resource for Disabled People	Cabal-Aragon, Jesus	Measurement Applications	Oral
400	Characteristics of Baseband Digital Signal Transmission for Intrabody Communications	Cai, Zibo	Biomedical Systems	Oral
150	IPMC Frequency Dependent Multiphysics Model considering Electrodes High Surface and Fractional Effects	Caponetto, Riccardo	Transducers	Poster
72	Cooperative and Self Organizing Paradigm for Wide Area Synchronized Monitoring of Smart Grids: performance analysis in real operating scenarios	Capriglione, Domenico	Measurement Applications	Poster

358	Wireless Sensor Network deployment inside RA-6 Argentine Nuclear Research Reactor for environmental measurement	Carbajales, Rodrigo	Wireless Sensors and Systems	Poster
58	A Maneuverable, Configurable, Low Cost Sensor Deployment Platform	Carnegie, Dale	Data Acquisition Systems and Techniques	Oral
159	Automatic Image Detection of Halloysite Clay Nanotubes as a Future Ultrasound Theranostic Agent for Tumoral Cell Targeting and Treatment	Casciaro, Sergio	Special Session #1: Nanotechnology applications in Measurement and Instrumentation	Oral
316	Improving Availability of Distributed PMU in Electrical Substations using Wireless Redundant Process Bus	Castello, Paolo	Energy and Power Systems	Oral
443	Measurements Methodology for the Reliability Evaluation of Intelligent Power Modules	Cataliotti, Antonio	Measurement and Instrumentation for Industrial Applications	Poster
466	Experimental Investigation on PLC Signal Crossing of Power Transformers	Cataliotti, Antonio	Energy and Power Systems	Poster
231	Improved RBD analysis for reliability assessment in industrial application	Catelani, Marcantonio	Industrial Process Control	Poster
431	Photovoltaic system parameters monitoring for improving the reliability performances	Catelani, Marcantonio	Energy and Power Systems	Poster
36	A simple measuring system for early detection of haemolysis in hemodialysis	Cattini, Stefano	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Oral
38	Segmentation of Pigmented Skin Lesions Using Non-negative Matrix Factorization	Cavalcanti, Pablo	Signal & Image Processing Techniques	Poster
155	2-Stage Grid-Connected and Stand-Alone PV Inverter Implemented With a Renewable Energy Developer's KIT	Chaves, Henrique	Energy and Power Systems	Poster
82	Performance Measurement in Wireless Sensor Networks using Time-Frequency Analysis and Neural Networks	Chen, Chia-Pang	Special Session #4: Sensors and Instrumentation for the Environment and Climate change Monitoring	Oral
25	A study of bone age evaluation based on knuckles radiologram	Chen, Chih-Yen	Signal & Image Processing Techniques	Poster
554	Low Power AMT Acquisition Network Based on ZigBee and GPS	Chen, Rujun	Special Session #5: Smart Transducers and Sensors	Oral
8	A Low-power Design of a Bridge Scour Monitoring System	Chen, Yu-Chieh	Special Session #4: Sensors and Instrumentation for the Environment and Climate change Monitoring	Oral
105	Temperature Sensing and Controlling for Biological Experiments by Using One Thermoelectric Module	Chen, Yu-Chieh	Biomedical Systems	Poster

4	A CMOS Monolithic Digitized Light Detector for Light Monitoring Applications	Chiang, Cheng-Ta	Transducers	Oral
13	A CMOS Biologically Expansion/Contraction Motion Sensor and Its Implementation on Z-Motion Direction/Velocity Detection	Chiang, Cheng-Ta	Special Session #5: Smart Transducers and Sensors	Oral
290	Cure-State Monitoring of Concrete and Mortar Specimens using Smart Aggregates	Chung, Kwok	Measurement of Materials and Mechanical Quantities	Oral
335	Characterization of optical ageing effects on Ruthenium based Dye-Sensitized Solar Cells (DSSC)	Ciani, Lorenzo	Energy and Power Systems	Oral
68	A Portable Dosimetric System Based on a CMOS Image Sensor for Radiation Protection in Interventional Radiology	Conti, Elia	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Oral
324	An Arduino-based EIS with a logarithmic amplifier for corrosion monitoring	Corbellini, Simone	Special Session #2: Impedance Spectroscopy for Measurement and Sensor Solutions	Oral
523	Front-End Electronics of the Neutrinos Angra Project	Costa, José	Data Acquisition Systems and Techniques	Oral
397	A new graphic evaluator of the voltage unbalance in power networks	Crăciunescu, Aurelian	Energy and Power Systems	Poster
439	Low Cost Measurement Equipment for the Accurate Calibration of Voltage and Current Transducers	Crotti, Gabriella	Measurement of Electric and Magnetic Quantities	Oral
106	Efficient Feature Extraction for an Automatic Ultrasound Testing Decision Support System	Cruz, Fabio	Non-invasive Measurement Techniques and Instrumentation	Poster
272	A Current Sliding Mode Observer Applied to a STATCOM-Based Voltage Regulator for a Self Excited Induction Generator	da Silva, Mauricio	Energy and Power Systems	Poster
480	Water Temperature Estimation In Induction Cooker For Higher Energy Efficiency	D'Antona, Gabriele	Measurement Systems and Theory	Oral
459	Network Design and Characterization of a Wireless Active Guardrail System	Daponte, Pasquale	Wireless Sensors and Systems	Poster
447	Design and characterization of an ultrasonic indoor positioning technique	De Angelis, Alessio	Measurement and Instrumentation for Industrial Applications	Oral
455	A Particle Filter for Robust Calibration of RF Ranging Systems	De Angelis, Alessio	Wireless Sensors and Systems	Oral
362	An Accurate Indoor Position-Measurement System Using Mutually Coupled Resonating Circuits	De Angelis, Guido	Wireless Sensors and Systems	Oral
522	A controlled-temperature hot-wire anemometer with voltage feedback linearization	de Araujo, Leonardo	Measurement Applications	Oral

248	Optical properties of thin VO ₂ -films at the phase transition: design aspects for a fiber-optic thermometer	de Lima Junior, Luís Hermano Casado	Advances in Instrumentation and Measurement Developments and Techniques	Oral
229	Code detection based on Generalized Cross-Correlation in DS-CDMA Underwater Applications	De Marziani, Carlos	Signal & Image Processing Techniques	Poster
278	A Non-invasive Adaptive Sliding Mode Rotor Speed Observer for Permanent Magnet Synchronous	de Oliveira, Douglas	Non-invasive Measurement Techniques and Instrumentation	Poster
147	An Envelope Detector as a Trading Cost Technique for Radiometric Partial Discharge Detection	de Souza Neto, José Maurício	Wireless Sensors and Systems	Poster
514	Micromirror Array based optical spatial Filter Technique for fast and flexible Velocimetry	Degner, Martin	Sensors and Sensor Fusion	Oral
315	Synchronization Requirements of a Power Quality Measurement System for Distribution Grid	Della Giustina, Davide	Energy and Power Systems	Oral
110	Online visual inspection of defects in the assembly of electromechanical parts	Di Leo, Giuseppe	Signal & Image Processing Techniques	Poster
451	Spectral estimation technique for nonstationary signals of power systems	Di Nisio, Attilio	Energy and Power Systems	Poster
181	Images from high-voltage impulse discharges evaluated with a developed graphical software	Dias, Sergio	Software Development for Measurement and Instrumentation Support	Poster
313	Biocompatible Inkjet Resistive Sensors for Biomedical Applications	Dionisi, Alessandro	Special Session #6: Printed Transducers	Oral
43	Development of a Fatigue-Tracking System for Monitoring Human Body Movement	Dong, Haiwei	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Poster
182	An Adaptive Low-Power Receiver Architecture for IEEE 802.15.4 Standard	Dos Santos, Maico	Wireless Sensors and Systems	Oral
133	Use of a Lock-in Amplifier for Calibrating an Instrument Current Transformer	Draxler, Karel	Measurement Applications	Poster
442	Use of a Resonant Sensor for Differential Air Pressure Measurements	Draxler, Karel	Measurement Applications	Poster
378	Accelerometer-Based Hand Gesture Recognition System for Interaction in Digital TV	Ducloux, José	Robotics and Controls	Poster
291	An investigation of cow feeding behavior using motion sensors	Dutta, Ritaban	Non-invasive Measurement Techniques and Instrumentation	Poster
344	Robot Sensor Data Interoperability and Tasking with Semantic Technologies	Dutta, Ritaban	Robotics and Controls	Poster

433	Estimation of physiological body parameters from smart garment data	Dutta, Ritaban	Software Development for Measurement and Instrumentation Support	Poster
567	Upper arm rehabilitation for stroke patients using computer controlled functional electrical stimulation and motion sensors	Dutta, Ritaban	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Poster
197	Portable Airborne Data Acquisition for Flight Tests	Dyer, John	Data Acquisition Systems and Techniques	Oral
198	Measurement and Instrumentation in the Classroom: Damped Oscillatory Systems	Dyer, John	Measurement Systems and Theory	Oral
306	Experimental Validation of Minimum Variance Unbiased Estimator of Structural Scattering Coefficient for an RFID antenna Using Linear Model	Ebrahimi Asl, Shadi	Signal & Image Processing Techniques	Poster
402	Automated System for Classifying Hass Avocados Based on Image Processing Techniques	Edgar Eduardo Roa Guerrero, E	Signal & Image Processing Techniques	Poster
14	A Biofeedback Interactive Boxing System for Optimal Performance	Eid, Mohamad	Advances in Instrumentation and Measurement Developments and Techniques	Poster
302	Using Portable Device Sensors to Recognize Height Changing Modes of Motion	Elhoushi, Mostafa	Sensors and Sensor Fusion	Poster
282	Timestamping of IEEE 802.15.4 CSS by CORDIC-based Chirp Interpolation	Exel, Reinhard	Wireless Sensors and Systems	Oral
261	Characterization of an Arbitrary Medium Voltage Signal Generator	Faifer, Marco	Energy and Power Systems	Oral
187	Sensitivity Analysis of Wiener Filter-Based Synthetic Aperture Radar (SAR) Microwave Imaging Technique	Fallahpour, Mojtaba	Non-invasive Measurement Techniques and Instrumentation	Oral
432	Identification of Environmental Influences in Electronic Nose Measurement Data	Fechteler, Maximilian	Sensors and Sensor Fusion	Poster
517	Investigation of Electrode Surfaces of a Water Quality Sensor by Local Impedance Spectroscopy	Fendri, Ahmed	Special Session #2: Impedance Spectroscopy for Measurement and Sensor Solutions	Oral
29	Non-Target Vision Sensor for Remote Measurement of Bridge Dynamic Displacement Response	Feng, Dongming	Advances in Instrumentation and Measurement Developments and Techniques	Poster
265	Research on Dynamic Calibration and Dynamic Compensation of K-type Thermocouple	Feng, Hao	Measurement Systems and Theory	Oral
126	A precise measurement method for the position of telescope's fiber tips	Feng, MingChi	Measurement Systems and Theory	Poster

420	New Monitoring Approach for Distribution Systems	Ferdowsi, Mohsen	Energy and Power Systems	Oral
506	A Tool to Simulate Optical Lithography in NanoCMOs	Ferla, Tania	Virtual Measurement Systems	Oral
292	Flexible Wireless Sensor Network for smart lighting applications	Fernandes, Renato	Wireless Sensors and Systems	Poster
449	A Computational Intelligence approach to Solar Panel Modelling	Ferrari, Stefano	Measurement Applications	Poster
528	Data Reading and Monitoring System of Bearingless Machine	Ferreira, Jossana	Software Development for Measurement and Instrumentation Support	Poster
251	A measurement application of conditional possibility distributions	Ferrero, Alessandro	Measurement Systems and Theory	Oral
457	Measurement of Rail Current Distribution in Rail Launchers	Ferrero, Roberto	Measurement of Electric and Magnetic Quantities	Poster
132	A Simplified Approach to the Assesment of Photobiological Safety of LED sources	Fiorentin, Pietro	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Poster
134	On the Use of Broadband Ultraviolet Detector Calibration	Fiorentin, Pietro	Measurement and Instrumentation for Industrial Applications	Oral
138	Commercial TiO2 P25 activation: evaluation of efficacy in photodegration processes of different radiating sources	Fiorentin, Pietro	Measurement and Instrumentation for Industrial Applications	Oral
363	A Measurement Technique for Quality Control of Windings for Cast Resin Power Transformers	Fiorucci, Edoardo	Measurement and Instrumentation for Industrial Applications	Poster
179	Sub-pixel straight lines detection for measuring through machine vision	Flesia, Ana	Signal & Image Processing Techniques	Poster
325	A non-invasive device to detect distraction and drowsiness using time of flight technology for intelligent vehicles	Flores Calero, Marco	Signal & Image Processing Techniques	Poster
338	Application of Active Microwave Thermography to Delamination Detection	Foudazi, Ali	Non-invasive Measurement Techniques and Instrumentation	Poster
142	Reliable Noise and Vibration Data Acquisition and Processing for Automotive Applications	Fritz, Andreas	Data Acquisition Systems and Techniques	Oral
267	Low cost combined voltage and current transducer for Smart Meters	Gallo, Daniele	Measurement and Instrumentation for Industrial Applications	Oral
273	Testing Protocols for Battery Characterization	Gallo, Daniele	Measurement and Instrumentation for Industrial Applications	Poster
40	Defect Evaluation Using Phase of EC-GMR Sensor	Gao, Peng	Advances in Instrumentation and Measurement Developments and Techniques	Poster

121	Multiple Component Frequency Estimation with a Gradient-based Adaptive-step Algorithm	Gao, Zhifeng	Signal & Image Processing Techniques	Poster
410	Automated Sensing, Interpretation and Conversion of Facial and Mental Expressions into Text Acronyms using Brain-Computer Interface Technology	George, Kiran	Advances in Instrumentation and Measurement Developments and Techniques	Poster
412	Design, Implementation and Evaluation of a Brain-Computer Interface Controlled Mechanical Arm for Rehabilitation	George, Kiran	Biomedical Systems	Poster
413	Sensing and Decoding of Visual Stimuli using Commercial Brain Computer Interface Technology	George, Kiran	Advances in Instrumentation and Measurement Developments and Techniques	Oral
415	Modular Test RF Instrumentation and Measurement for a Hybrid Computing Digital Wideband Receiver	George, Kiran	Advances in Instrumentation and Measurement Developments and Techniques	Oral
143	Code-Division-Multiplexing Using Orthogonal Codes for Fast Electrical Impedance Tomography	Gevers, Martin	Non-invasive Measurement Techniques and Instrumentation	Oral
281	SAR Imaging for Inspection of Metallic Surfaces at Millimeter Wave Frequencies	Ghasr, Mohammad Tayeb	Non-invasive Measurement Techniques and Instrumentation	Oral
571	A Service Oriented Wireless Sensor Node Management System	Ghobakhlou, Akbar	Special Session #4: Sensors and Instrumentation for the Environment and Climate change Monitoring	Oral
271	Aegis: A Biofeedback Adaptive Alarm System Using Vibrotactile Feedback	Giakoumidis, Nikolas	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Oral
308	Embedded and Modular Video Processing Design Platform	Gonnot, Thomas	Signal & Image Processing Techniques	Poster
136	Adaptive Noise Tracking for Cognitive Radios under more realistic operation conditions	Gonzales-Fuentes, Lee	Signal & Image Processing Techniques	Oral
421	A reconfigurable CMOS pixel for applying tone mapping on high dynamic range images	Gouveia, Luiz	Advances in Instrumentation and Measurement Developments and Techniques	Oral
543	Evaluation of wavelet analysis performance in multiphase level measurement using ultrasonic sensors	Grassi, Karolie	Measurement Systems and Theory	Poster
423	Fusion of data from ultrasonic LPS and isolated beacons for improving MR navigation	Gualda, David	Robotics and Controls	Poster
34	Accelerometer Transverse Sensitivity Testing with Double Turntable Centrifuge	Guan, Wei	Advances in Instrumentation and Measurement Developments and Techniques	Oral
97	Calibration of Accelerometer with Multicomponent Inputs	Guan, Wei	Advances in Instrumentation and Measurement Developments and Techniques	Poster

448	A complete biopotential acquisition system for research and application device prototyping	Guerrero, Federico	Biomedical Systems	Poster
496	A Reconfigurable WSN Node based on ISO/IEEE 21451 Standard	Guevara, Jean	Special Session #5: Smart Transducers and Sensors	Oral
513	Analysis of the optimal grid resolution for the forecasting of wind energy in different wind farms	Gutiérrez, Alejandro	Energy and Power Systems	Oral
140	Self-Calibrating Optical 3D Pose Measurement Device for Offshore Sites	Habacher, Michael	Measurement and Instrumentation for Industrial Applications	Oral
266	Samples Covariance Matrix Eigenvalues Based Blind SNR Estimation	Hamid, Mohamed	Signal & Image Processing Techniques	Poster
49	Development of Mechanical Measurement System Applied for Electroplastic Effect Research	Han, Xiaotao	Measurement of Materials and Mechanical Quantities	Poster
317	Microwave Detection of Carbonation in Mortar Using Dielectric Property Characterization	Hashemi, Ashkan	Measurement Applications	Oral
207	Hyperspectral Image Classification with Multivariate Empirical Mode Decomposition-based Features	He, Zhi	Signal & Image Processing Techniques	Poster
230	Spectral-Spatial Hyperspectral Image Classification via SVM and Superpixel Segmentation	He, Zhi	Signal & Image Processing Techniques	Poster
186	1 GHz Automatic 2-Port Vector Network Analyzer Using Common Laboratory Instruments	Henze, Alejandro	Measurement Systems and Theory	Oral
396	Automated positioning system for temperature measurement in critical heat flux loop for performance improvement of nuclear power reactor	Hernández, Nicolás	Data Acquisition Systems and Techniques	Oral
369	Application of Open-Ended Coaxial Probes for Detection of Sand Production from Petroleum Wells	Hilgedick, Steven	Measurement and Instrumentation for Industrial Applications	Poster
15	Smartphone remote control for home automation applications based on acoustic wake-up receivers	Höflinger, Fabian	Wireless Sensors and Systems	Poster
476	Tomographic Imaging Based Measurement of Three-dimensional Geometric Parameters of a Burner Flame	Hossain, Md. Moinul	Advances in Instrumentation and Measurement Developments and Techniques	Oral

310	Online Particle Size Measurement through Acoustic Emission Detection and Signal Analysis	Hu, Yonghui	Measurement of Materials and Mechanical Quantities	Poster
234	A Sparsity-Based Radar Signal Sorting Method in Electronic Support Measures System	Huang, Guoxing	Signal & Image Processing Techniques	Poster
70	Simulation & Analysis of WirelessHART Nodes for Real-Time Actuator Application	Huang, Qixin	Wireless Sensors and Systems	Poster
552	A Single Sensor NIR Depth Camera for Gesture Control	Ionescu, Dan	Signal & Image Processing Techniques	Oral
62	MHz-Band RF Signal Propagation Characteristics on Human Body for Intra-body communication	Ishida, Masaki	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Poster
171	RFID - Hybrid Scene Analysis-Neural Network System for 3D Indoor Positioning, Optimal system arrangement approach	Jachimczyk, Bartosz	Special Session #3: Emerging methods for measuring, modelling and instrumentation in medical applications	Oral
172	RFID Chip Characterization through S-Parameter Measurements and Gene Expression Programming	Janeiro, Fernando	Measurement of Electric and Magnetic Quantities	Oral
87	Blind Recognition of SC-FDMA Signals Using Second-Order Cyclostationarity	Jerjawi, Walid	Signal & Image Processing Techniques	Oral
92	Measuring the Incidence of Packet Loss on Video Quality in Digital Television	Joskowicz, Jose	Signal & Image Processing Techniques	Oral
199	Evaluation of Comparing Algorithms used in Chopped Impulse Transformer Measurements	Joskowicz, Jose	Energy and Power Systems	Oral
371	FPGA versus DSP for Wavelet Transform based Voltage Sags Detection	Junior, Ernano	Energy and Power Systems	Poster
474	Improvement of the efficiency of MISO configuration in inductive power transmission in case of coils misalignment	Kallel, Bilel	Wireless Sensors and Systems	Oral
235	WSN Based Utility System for Effective Monitoring and Control of Household Power Consumption	Kam, Munhaw	Special Session #4: Sensors and Instrumentation for the Environment and Climate change Monitoring	Oral
191	Measurements of Microwave Reflection Properties of Early-Age Concrete and Mortar Specimens	Kharkovsky, Sergey	Non-invasive Measurement Techniques and Instrumentation	Poster
418	Microwave Imaging with a 3-Axis Multifunctional Scanning System	Kharkovsky, Sergey	Non-invasive Measurement Techniques and Instrumentation	Poster

427	Nano-Displacement Measurements of a Novel Piezoelectric Flextensional Actuator by Using a High Dynamic Range Interferometry Homodyne Method	Kitano, Claudio	Transducers	Poster
492	Evaluation of a micromirror array based sensor system for optical velocity measurements using the Spatial Filter Velocimetry approach	Krüger, Hendrik	Advances in Instrumentation and Measurement Developments and Techniques	Oral
56	Development of a mechanical strain sensor based on time reversal of ultrasonic guided waves	Kubrusly, Alan	Measurement of Materials and Mechanical Quantities	Oral
503	GEULMóvil - Real-Time Ultraviolet Radiation Data Acquisition Mobile Network	Kugelmass, Freddy	Real-Time Measurement	Oral
28	The Effect of a Particle Trajectory via the Measurement Volume on the Accuracy of the Laser Doppler Frequency Estimation	Kulon, Janusz	Advances in Instrumentation and Measurement Developments and Techniques	Poster
312	Towards flexible parallel sigma delta modulator for software defined radio receiver	Lahouli, Rihab	Wireless Sensors and Systems	Poster
349	Metrological Characterization of a Cold Plate Test Bench	Lazzaroni, Massimo	Measurement and Instrumentation for Industrial Applications	Poster
425	Point of Load for LHC experiments: Testing the Behaviour in hostile environment	Lazzaroni, Massimo	Measurement and Instrumentation for Industrial Applications	Poster
429	A Main Converter for future LHC experiments: Features Measurement and Reliability considerations	Lazzaroni, Massimo	Measurement and Instrumentation for Industrial Applications	Poster
354	Sensors Network topologies for monitoring a large physical system in cyclic mobility	Lecuire, Vincent	Wireless Sensors and Systems	Poster
558	Testing System of IEEE 1451.5-802.11 Standard-based Wireless Sensors	Lee, Kang	Special Session #5: Smart Transducers and Sensors	Oral
518	Initial Measurements and Results of a Multi-Channel, Adaptive Pre-distortion System for an Airborne Phased Array Radar	Lee, Robert	Measurement Applications	Oral
380	Study on the expansibility factor for cone flow-meters based on the effective data analysis	Li, Bo	Measurement Applications	Oral
85	Artificial Immune Algorithm Based Signal Reconstruction for Compressive Sensing	Li, Dan	Signal & Image Processing Techniques	Poster
177	Greedy Orthogonal Matching Pursuit Algorithm for Sparse Signal Recovery in Compressive Sensing	Li, Jia	Signal & Image Processing Techniques	Oral

472	Prediction of Pollutant Emissions of Biomass Flames Using Digital Imaging, Contourlet Transform and Radial Basis Function Network Techniques	Li, Nan	Measurement and Instrumentation for Industrial Applications	Poster
374	X-ray Pulsar Signal Denoising Based on EMD with Adaptive Thresholding	Li, Xiaoyu	Signal & Image Processing Techniques	Poster
347	Robust Global Minimization of Active Contour Model for Multi-object Medical Image Segmentation	Li, Xuanping	Signal & Image Processing Techniques	Oral
101	On Road Testing of Control Strategies for Semi-Active Suspensions	Liguori, Consolatina	Measurement and Instrumentation for Industrial Applications	Oral
111	Managing the uncertainty for face classification with 3D features	Liguori, Consolatina	Signal & Image Processing Techniques	Poster
44	A Structured Light Approach for 3d Surface Reconstruction with a Stereo Line-Scan System	Lilienblum, Erik	Signal & Image Processing Techniques	Oral
33	Real-time pedestrian detection system with novel thermal features at night	Lin, Chun-Fu	Real-Time Measurement	Poster
130	Pyramid based Multiscale Anisotropic Diffusion Filter for Ultrasound Image Despeckling	Liu, Ting	Signal & Image Processing Techniques	Oral
83	Evaluation of Uncertainties in Testing of Losses in Power Transformers by Monte Carlo Method	Lourenço, Marcelo	Measurement of Electric and Magnetic Quantities	Poster
118	Map Building of Unknown Environment Using PSO-Tuned Enhanced ICP Algorithm	Lu, Yin-Yu	Robotics and Controls	Poster
37	Digital Assessment of Facial Acne Vulgaris	Malik, Aamir	Biomedical Systems	Oral
381	Applications of Smart Metering and Home Appliances' Power Signatures	Marcu, Marius	Measurement Applications	Oral
342	Measurement of bottom velocities and shear stresses by ferrofluids at the sea bottom	Marletta, Vincenzo	Measurement Applications	Poster
398	Frequency dependent failure region definition for supercapacitors	Marracci, Mirko	Measurement Applications	Poster
253	Heat Therapy HIFU Transducer Electrical Impedance Modeling by using FEM	Martinez, Raquel	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Oral
565	A New Approach to Noise Measurement and Analysis in an Industrial Facility	Martins, Daniel	Measurement and Instrumentation for Industrial Applications	Poster
461	Liquid Level Measurement System based on a Coherent Optical Sensor	Melchionni, Dario	Measurement and Instrumentation for Industrial Applications	Poster

356	Closed-Loop Control Systems in a Platform for Fouling Detection	Melo, Thamiles	Measurement and Instrumentation for Industrial Applications	Poster
491	An ASIC for the Measurement of Low Frequency Noise in MOS Transistors	Miguez, Matias	Advances in Instrumentation and Measurement Developments and Techniques	Oral
139	Design and Simulation of 10 Mhz MEMS Oscillator	Mohd Taufik, Muhammad Syamsi	Special Session #1: Nanotechnology applications in Measurement and Instrumentation	Oral
392	Normalizing Transducer Signals: An Overview of a Proposed Standard	Monte, Gustavo	Special Session #5: Smart Transducers and Sensors	Oral
478	Performance Modeling and Evaluation of BPEL4People based on Queueing Petri Nets	Morais, Anderson	Advances in Instrumentation and Measurement Developments and Techniques	Poster
500	A Smart Energy Meter for Power Grids	Morello, Rosario	Special Session #5: Smart Transducers and Sensors	Oral
365	Algorithm for Estimation of Energy consumption of Industrial Wireless Sensor Networks Nodes	Müller, Ivan	Wireless Sensors and Systems	Oral
372	Two-Step Procedures for Wide-Area Distribution System State Estimation	Muscas, Carlo	Energy and Power Systems	Oral
527	Design of a vibration energy harvester using twin lateral piezoelectric transducers	Naifar, Slim	Special Session #7: Energy Harvesting for Autonomous Measurement Systems: methodologies and devices	Oral
399	Design and construction of a loop for detailed pressure drop measurements in channels with complex geometries	Nalín, Oscar	Energy and Power Systems	Poster
536	Output Dynamic Range of Radiometers Based on Thermoresistive Sensors	Nascimento, Vanuza	Measurement Applications	Poster
532	Indoor Positioning of Wheeled Devices for Ambient Assisted Living: a Case Study	Nazemzadeh, Payam	Sensors and Sensor Fusion	Oral
299	Comparison between radial and axial flux permanent magnet generators for low speed application	Neumann, Velington	Energy and Power Systems	Oral
329	Estimation of a 4-Port Scatter Matrix from 2-Port Measurements	Neumayer, Markus	Measurement Applications	Oral
331	Bayesian Estimation of Electrical Transformer Parameters	Neumayer, Markus	Measurement Systems and Theory	Oral
561	On the Usage of Dirac Delta Functions with Nonlinear Argument in High Order I/O Integrals	Nieto-Chaupis, Huber	Measurement Systems and Theory	Oral
377	Morphological Analysis of Activated Sludge Floccs and Filaments	Nisar, Humaira	Signal & Image Processing Techniques	Oral
167	Capacitive Sensor Interface with Improved Dynamic Range and Stability	Nojdelov, Roumen	Measurement and Instrumentation for Industrial Applications	Oral
521	Optical System for Drop Volume Measurement	Norgia, Michele	Biomedical Systems	Poster

237	Non-contact Conductance Measurement of Nanosize Objects using Resonant Cavity	Obrzut, Jan	Advances in Instrumentation and Measurement Developments and Techniques	Oral
249	Ultrasonic Velocity Profiler Developing Environment	Ofuchi, Cesar	Non-invasive Measurement Techniques and Instrumentation	Poster
95	Optimization of Multisine Excitation for a Bioimpedance Measurement Device	Ojarand, Jaan	Special Session #2: Impedance Spectroscopy for Measurement and Sensor Solutions	Oral
116	Glucose Characterization Based on Electrochemical Impedance Spectroscopy	Olarte, Oscar	Special Session #2: Impedance Spectroscopy for Measurement and Sensor Solutions	Oral
78	Inverse Boundary Value Problems with Uncertain Boundary Values and Their Relevance to Inclinometer Measurements	O'Leary, Paul	Measurement Systems and Theory	Oral
483	QoS Analysis of Routing Protocols in Wireless Sensor Networks in the Monitoring of Wind Farms	Oliveira, Felipe	Wireless Sensors and Systems	Poster
481	A reconfigurable control system using EMG	Oliveira, Juliette	Biomedical Systems	Poster
406	Neutrinos-Angra Detector Slow-Control Module Design and Implementation Status	Oliveira, Karine	Measurement Applications	Poster
334	Integrated programmable analog front-end architecture for physiological signal acquisition	Oreggioni, Julian	Special Session #3: Emerging methods for measuring, modelling and instrumentation in medical applications	Oral
71	State-dependent and distributed pedestrian tracking using the (C)PHD filter	Pallauf, Johannes	Sensors and Sensor Fusion	Oral
257	Finite Element Aided Measurement of Stress Fields in Different Bone Layers Subject to Therapeutic Ultrasonic Excitation	Pan, Wenlei	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Poster
269	Sputtered thermocouple array for vial temperature mapping	Parvis, Marco	Measurement and Instrumentation for Industrial Applications	Oral
236	Improved data extraction algorithm for biosensors utilizing surface plasmon resonance sensing	Pereira, Eduardo	Advances in Instrumentation and Measurement Developments and Techniques	Oral
376	Implementation of a FPGA-based data acquisition and processing system for image sensors employed in SPR biosensing	Pereira, Eduardo	Advances in Instrumentation and Measurement Developments and Techniques	Oral
542	Sensor of freshwater suspended solid for the environmental management of agriculture soil erosion	Perez, Ceclia	Special Session #4: Sensors and Instrumentation for the Environment and Climate change Monitoring	Oral
438	Fluxgate magnetometer vector feedback homogeneity and its influence on sensor parameters	Petrucha, Vojtech	Measurement of Electric and Magnetic Quantities	Poster

326	Impact of pseudo-measurements from new load profiles on state estimation in distribution	Ponci, Ferdinanda	Energy and Power Systems	Poster
559	Environmental Gas Sensing in Complex Environments	Preethichandra, Daluwathu	Special Session #4: Sensors and Instrumentation for the Environment and Climate change Monitoring	Oral
430	A Platform for Multipurpose Goniometric Measurements	Presso, Matias	Measurement Applications	Poster
471	Artificial Neural Network based FPGA System for Blood Glucose Sensing	Ramasahayam, Swathi	Non-invasive Measurement Techniques and Instrumentation	Oral
305	GMR Versus Differential Coils in Velocity Induced Eddy Current Testing	Ramos, Helena	Non-invasive Measurement Techniques and Instrumentation	Oral
84	Differential Optical Absorption Spectroscopy System for multi purpose applications	Ramos, Javier	Special Session #4: Sensors and Instrumentation for the Environment and Climate change Monitoring	Oral
127	Simultaneous Multi-Camera Calibration Based on Phase-Shift Measurements on Planar Surfaces	Rapczynski, Michal	Measurement Systems and Theory	Oral
534	Characterization of Magnetite Nanoparticles	Raspolli Galletti, Anna Maria	Measurement of Electric and Magnetic Quantities	Poster
59	A Non-Isolated DC-DC converter for Renewable Energy Based Portable Measuring Instruments	Rehman, Zubair	Special Session #7: Energy Harvesting for Autonomous Measurement Systems: methodologies and devices	Oral
158	Comparative analysis between impulsive detection methods applied on partial discharge acoustic signals	Reis, Clovis	Signal & Image Processing Techniques	Poster
475	GF(2 4) Multiplier in Hardware Using Discrete Neural Network	Reis, Vanderson	Special Session #1: Nanotechnology applications in Measurement and Instrumentation	Oral
509	Measuring the Excitation Current in Transformers Using Hall Effect Sensors	Reis, Vanderson	Measurement and Instrumentation for Industrial Applications	Poster
502	FPGA-based Matrix Inversion Using an Iterative Chebyshev-type Method in the Context of Compressed Sensing	Rico-Aniles, Hector	Signal & Image Processing Techniques	Poster
79	DC-compensated Current Transformer	Ripka, Pavel	Measurement of Electric and Magnetic Quantities	Oral
45	Enhanced Plastic Optical Fiber Sensor for Refractometry Based on Amplitude Modulation	Rodrigues, Domingos	Industrial Process Control	Oral
548	Proposal for a system based on neural networks for characterization of motion segment of hand-arm	Rosa Maria Jimenez Bermudez, Rosa Maria	Signal & Image Processing Techniques	Poster
337	Transducer with Thermal Sigma-Delta Modulator	Rosa, Valter	Transducers	Poster

436	Temperature Controlled Measurement System for Precise Characterization of Electronic Circuits and Devices	Rossi-Aicardi, Conrado	Data Acquisition Systems and Techniques	Oral
422	Performance Comparison of Correlation-based Receive Filters in an Ultrasonic Indoor Positioning System	Ruiz, F. Daniel	Robotics and Controls	Poster
460	Multichannel EMG acquisition system for arm and forearm signal detection	Ruvalcaba Granados, José	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Poster
239	New rules generation from Measurement Data using an Expert System in a Power Station	Sai, Tk	Data Acquisition Systems and Techniques	Oral
336	Body Sensor Network for Posturometric Studies	Sala, Marco	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Oral
328	An application of the Random-Fuzzy variables for the safeguard of underwater cultural heritage	Salicone, Simona	Measurement Applications	Oral
280	Unstable gait assessment with a portable analysis system	San Román, Cecilia	Special Session #3: Emerging methods for measuring, modelling and instrumentation in medical applications	Oral
193	Visual Aircraft Tracking System for Departures	Sandmann, David	Signal & Image Processing Techniques	Oral
470	Test Point Optimization Process for a Real-Time Vibration Monitoring System on a Differential Axle Fixed Rig	Santacruz, Martin	Real-Time Measurement	Poster
277	Switched-Capacitor Pulse-Width Programmable Gain Integrating Amplifier	Santana de Deus, Michel	Data Acquisition Systems and Techniques	Poster
487	Software Development for Acquisition and Data Management in Optical Sensor Networks	Santos, Adam	Software Development for Measurement and Instrumentation Support	Poster
458	Bubble shape estimation in gas-liquid slug flow using wire-mesh sensor and advanced data processing	Santos, Eduardo	Measurement and Instrumentation for Industrial Applications	Oral
185	Embedded Viscosity Measurement System using a Vibrating-Wire Sensor	Santos, José	Special Session #2: Impedance Spectroscopy for Measurement and Sensor Solutions	Oral
463	Energy harvesting using magnetic induction considering different core materials	Santos, Maraiza	Special Session #7: Energy Harvesting for Autonomous Measurement Systems: methodologies and devices	Oral
508	Indoor Positioning System Using Geo-Magnetic Field	Saxena, Abhinav	Real-Time Measurement	Oral
456	Wideband Measurement Method for Failure Prognosis in Electronic Soldering	Scarano, Valeria	Measurement and Instrumentation for Industrial Applications	Poster

55	Phase-Shift and Information Measures for Retinal Motion Detection and Compensation with Optimized Parameter Selection	Schardosim, Lucas	Signal & Image Processing Techniques	Poster
332	High precision on-loom yarn density measurement in woven fabrics	Schneider, Dorian	Signal & Image Processing Techniques	Poster
32	Alignment and Interconnection of Photovoltaics on Electric and Hybrid Electric Vehicles	Schuss, Christian	Energy and Power Systems	Oral
67	Improvement of Interconnections of Low-cost, Low-power Photovoltaics	Schuss, Christian	Energy and Power Systems	Oral
301	Highly Sensitive Microwave Resonant Near-Field Sensor for Precise Aqueous Glucose Detection in Microfluidic Medical Applications	Schwerthoeffer, Udo	Non-invasive Measurement Techniques and Instrumentation	Oral
490	Thermal Characterization of a Thin Film Heater on Glass Substrate for Lab-on-Chip Applications	Scorzoni, Andrea	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Poster
538	CRYSEED: An Automatic 8-bit Cryptographic Algorithm Developed with Genetic Programming	Semente, Rodrigo	Wireless Sensors and Systems	Poster
304	Inclinometer Based Low-cost Biofeedback Balanceboard for Injury Rehabilitation	Sen Gupta, Gourab	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Oral
256	QWT Enhanced SVM for Hyperspectral Image Classification	Shen, Yue	Signal & Image Processing Techniques	Oral
30	Detection and Location of Single Cable Fault by Impedance Spectroscopy	Shi, Qinghai	Special Session #2: Impedance Spectroscopy for Measurement and Sensor Solutions	Oral
408	Using Intelligent Systems in Experimental Signal Analysis for Power Transformer Diagnosis	Silva, Ivan	Energy and Power Systems	Poster
546	Thermal Property Measurement Using a Thermal Wave Generator	Silva, Tassio	Measurement and Instrumentation for Industrial Applications	Poster
493	Flexible A/D Converter Architecture Targetting Sparse Signal	Silva, Veronica	Data Acquisition Systems and Techniques	Oral
145	Torque Estimation Using Rotor Slots Harmonics on a Three-Phase Induction Motor	Silva, Wilton	Non-invasive Measurement Techniques and Instrumentation	Poster
283	Anterior Cruciate Ligament Reconstruction Follow-up Instrumentation based on Centre of Rotation Videofluoroscopy Determination: Development of an original equipment, CINARTRO, and first clinical use	Simini, Franco	Non-invasive Measurement Techniques and Instrumentation	Oral

109	A Context Based Algorithm Selection Method for Removing Salt and Pepper Noise from Images	Singla, Ashutosh	Signal & Image Processing Techniques	Poster
359	Performance assessment of vibration sensing using smartdevices	Sisinni, Emiliano	Measurement and Instrumentation for Industrial Applications	Oral
403	Performance Evaluation of a Sensor-Based System Devised to Minimize Commercial Losses in Street Lighting Networks	Soares, Guilherme Marcio	Measurement Applications	Oral
370	Texture Analysis for the Segmentation of Sugar Cane Multispectral Images	Solano, Agustín	Signal & Image Processing Techniques	Poster
163	Laser Fluence and Exposure Time Effects on Optoacoustic Signal from Gold Nanorods for Enhanced Medical Imaging	Soloperto, Giulia	Special Session #1: Nanotechnology applications in Measurement and Instrumentation	Oral
387	Analysis and Implementation of Low-cost FPGA-Based Digital Pulse-width Modulators	Sotta, Gonzalo	Energy and Power Systems	Oral
149	Measurement Platform of Zero Crossing Period for Powerline Communication	Souissi, Souha	Measurement and Instrumentation for Industrial Applications	Poster
11	In vivo measurements for construction an anatomical atlas for Electrical Impedance Tomography (EIT)	Sousa, Thais	Non-invasive Measurement Techniques and Instrumentation	Poster
401	Evaluating the signal processing chain employed in surface plasmon resonance biosensing	Sousa, Tiago	Signal & Image Processing Techniques	Oral
311	Smartphone based, portable optical biosensor utilizing surface plasmon resonance	Sousa-Filho, Carlos	Advances in Instrumentation and Measurement Developments and Techniques	Oral
497	Heterostructure of Memory Shape and Piezoelectric Materials	Souto, Cícero	Measurement of Materials and Mechanical Quantities	Oral
263	A System for Dynamic Contact Resistance with Arduino Platform on MV and HV Circuit Breaker	Souza, Ronimack	Measurement and Instrumentation for Industrial Applications	Poster
135	Time-efficient dynamic analysis of structures exhibiting nonlinear peak bending	Sprock, Christian	Measurement of Materials and Mechanical Quantities	Oral
482	Relative Positioning System Using Inter-Robot Ultrasonic Localization Turret	Stancovici, Andrei	Robotics and Controls	Oral
204	Numerical Simulation and Experimental Research of Flow Around a Bluff Body in Horizontal Gas-liquid Two-phase Flow	Sun, Hongjun	Measurement Systems and Theory	Oral

258	Feature Selection and Classification Algorithm for Non-destructive Detecting of High-speed Rail Defects Based on Vibration Signals	Sun, Mingjian	Advances in Instrumentation and Measurement Developments and Techniques	Oral
289	Non-destructive Photoacoustic Detecting Method for High-speed Rail Surface Defects	Sun, Mingjian	Advances in Instrumentation and Measurement Developments and Techniques	Oral
348	Non-intrusive Sensing Based Multi-model Collaborative Load Identification in Cyber-Physical Energy Systems	Sun, Xinyao	Energy and Power Systems	Oral
293	Precise and fast time-to-digital converter with multi-edge coding in independent coding lines	Szplet, Ryszard	Measurement Applications	Poster
541	Design and implementation of sensor data fusion for an autonomous quadrotor	Tailanián, Matías	Sensors and Sensor Fusion	Oral
407	Measuring Skin-electrode Impedance Variation of Conductive Textile Electrodes under Pressure	Taji, Bahareh	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Poster
24	An improved scale factor calibration model of MEMS gyroscopes	Tang, Qijian	Measurement Applications	Poster
279	An Inexpensive Attitude Determination System for the Uruguayan Cubesat, AntelSat	Tassano, Matias	Signal & Image Processing Techniques	Poster
175	Wireless Sensor Network and Web based Information System for Asthma Trigger Factors Monitoring	Teixeira, Ana	Special Session #4: Sensors and Instrumentation for the Environment and Climate change Monitoring	Oral
303	Texture Analysis Using Income Inequality Metrics	Thomas, Gabriel	Signal & Image Processing Techniques	Poster
411	Low Frequency Ultrasound NDT of Power Cable Insulation	Thomas, Gabriel	Non-invasive Measurement Techniques and Instrumentation	Oral
3	Accurate DC-DC Power Converters as Hydro Turbine Speed Governor Power Supply	Thomasset Trakalo, Pablo	Measurement and Instrumentation for Industrial Applications	Poster
259	Hurst Parameter Based Detection of Multiple Super Regenerative Receivers Using MVDR	Thotla, Vivek	Real-Time Measurement	Oral
454	Development Of Low Cost Gas Sensors For Fruits Flavors Detection	Tiggemann, Lúdia	Sensors and Sensor Fusion	Poster
255	Ultrasonic Time-of-Flight Estimation based on Maximum Likelihood Data Fusion using Triangular Distribution	Toledo, Lucas	Sensors and Sensor Fusion	Poster
275	Prototype for the Estimation and Evaluation of Walking Velocity Using Acceleration Transducers	Tondo, Felipe	Advances in Instrumentation and Measurement Developments and Techniques	Poster

276	A Space Vector Based Approach for Synchrophasor Measurement	Toscani, Sergio	Energy and Power Systems	Oral
364	Standard for Electric Distorted Waveforms	Trigo, Leonardo	Advances in Instrumentation and Measurement Developments and Techniques	Poster
477	Characterization of different nonlinear transduction mechanisms for piezoelectric energy harvesting	Trigona, Carlo	Special Session #7: Energy Harvesting for Autonomous Measurement Systems: methodologies and devices	Oral
102	The Evaluation of Blood Flow Velocity and Heart Rate by the Frequency of Oxygen Saturation Fluctuation in Skin Tissue	Tsai, Hsin-Yi	Non-invasive Measurement Techniques and Instrumentation	Poster
486	Loading Effects on the Photoelectric Response of Dry Bacteriorhodopsin Sensors	Tukiainen, Teemu	Measurement Systems and Theory	Poster
318	Broken Bar Detection on Squirrel Cage Induction Motors with MCSA and EMD	Valles-Novo, Ricardo	Signal & Image Processing Techniques	Poster
341	Neck Model Optimization using Genetic Algorithms with Objective Function Output Feedback	Vargas, Javier	Measurement, Instrumentation & Methodologies Related to Healthcare Systems	Poster
190	Acceleration with FPGA for blocks and subblocks edge pattern classification in DCT domain images	Vega-Pineda, Javier	Signal & Image Processing Techniques	Poster
445	A modular pipelined processor for nuclear and particle physics experiments	Veiga, Alejandro	Data Acquisition Systems and Techniques	Poster
435	Development of NIR optical tomography system for the investigation of two-phase flows	Vendruscolo, Tiago	Non-invasive Measurement Techniques and Instrumentation	Poster
73	Simulation of Shading Effects on the Power Output of Solar Modules for Enhanced Efficiency in Photovoltaic Energy Generation	Viehweger, Christian	Wireless Sensors and Systems	Oral
550	A Web-based Virtual Environment for Teaching in Engineering	Villa-López, Farah Helúe	Measurement Applications	Poster
168	Self-energy meter in duty-cycle battery operated sensor nodes	Villaverde, Jorge	Wireless Sensors and Systems	Poster
252	Evaluation of Transducer Configurations for Ultrasound Cross-Correlation Flowmeters	Vogt, Michael	Measurement and Instrumentation for Industrial Applications	Poster
247	Sensor system for unsteady flow characteristics in sonic nozzle with the vapor condensation	Wang, Chao	Measurement Systems and Theory	Oral
556	Representation of Induced and Transferred Charge in Measurement Signal of Electrostatic Sensors	Wang, Chao	Non-invasive Measurement Techniques and Instrumentation	Poster

201	Robust Fault Detection for Linear Switched Interval Systems	Wang, Jiawei	Measurement Systems and Theory	Poster
296	Performance Assessment of the Rotational Speed Measurement System Based on a Single Electrostatic Sensor	Wang, Lijuan	Measurement and Instrumentation for Industrial Applications	Poster
309	Floating Point Hardware and Software Realization for Adaptive FIR Fetal ECG Estimation	Wang, Sizhou	Signal & Image Processing Techniques	Oral
183	Development of an automatic sleep-wake staging method for rats	Wei, Ting-Ying	Biomedical Systems	Poster
7	Detection and Monitoring of Leakage Currents in Distribution Line Insulators	Werneck, Marcelo	Measurement of Electric and Magnetic Quantities	Poster
346	Identification of Multiple Harmonic Sources in Cyber-Physical Energy System using Supervised Independent Component Analysis	Wu, Jiangwei	Energy and Power Systems	Oral
555	Automatic prismatic refractive power measuring instrument for eye-protector	Wu, Wen-Hong	Measurement Applications	Poster
23	Design of an Isolated Medium-frequency Medium-voltage High-power Three-level H Bridge DC/DC Converter	Xiao, Fei	Energy and Power Systems	Poster
94	Bearing estimation of coherent signals using compressive sampling array	Yan, Jing	Sensors and Sensor Fusion	Oral
382	Real-time Ultrasonic Imaging for Multi-layer Objects with New Synthetic Aperture Focusing Technique	Yang, Chun	Real-Time Measurement	Oral
99	Noise analysis and characterization of a charge-balancing-based capacitive sensor interface with resistive reference	Yang, Ruimin	Measurement and Instrumentation for Industrial Applications	Oral
108	Measurement imperfections impact on the performance of digitally predistorted power amplifiers	Yang, Tingxiao	Measurement Applications	Oral
51	An Online Approach to Monitor the Integrity of the High-speed Cutting Tool with Coatings	Yating, Yu	Measurement Applications	Oral
128	Surface Weather Observation via Distributed Devices	Zamora, Jane Louie	Data Acquisition Systems and Techniques	Oral
294	Effect of the Wingtip Shape on the Performance of an Averaging Pitot Tube Flow Sensor	Zan, Huanjie	Measurement and Instrumentation for Industrial Applications	Oral

47	An approach to measure coating thickness and conductivity of multi-layered structure by using eddy current technique	Zhang, Dejun	Measurement and Instrumentation for Industrial Applications	Oral
103	Filter Coordinate Frame Based EKF Method for Celestial Autonomous Orbit Determination	Zhang, Miao	Robotics and Controls	Oral
373	The on-site DGA Detecting and Analysis System Based on the Fourier Transform Infrared Instrument	Zhao, AnXin	Measurement Applications	Poster
386	Measurement of Pipeline Direction Using Internal Magnetic Field	Zhao, Wei	Measurement of Electric and Magnetic Quantities	Oral
564	A resonant micro-cantilever frequency tracking system based on dynamic phase difference	Zhao, Wei	Special Session #4: Sensors and Instrumentation for the Environment and Climate change Monitoring	Oral
100	Optimization Design for Coercivity Characteristic of Spin Valve Giant Magneto Resistance	Zhao, Xiaodong	Sensors and Sensor Fusion	Oral
323	Range Expansion of Mobile Wireless System by Cooperative Transmission based on Glowworm Swarm Optimization	Zheng, Wenbin	Wireless Sensors and Systems	Poster
176	Introducing Molecular Selectivity in Rapid Impedimetric Sensing of Phthalates	Zia, Asif	Special Session #2: Impedance Spectroscopy for Measurement and Sensor Solutions	Oral
205	GMI Magnetic Sensor Operating with A Direct Digital Synthesizer (DDS)	Zidi, Manel	Measurement of Electric and Magnetic Quantities	Oral
505	Calibration procedure for triaxial magnetometers without a compensating system or moving parts	Zikmund, Ales	Measurement of Electric and Magnetic Quantities	Poster
184	Condition Monitoring of Brushless DC Motors with Non-Stationary Dynamic Conditions	Zubizarreta-Rodriguez, Jose	Measurement and Instrumentation for Industrial Applications	Poster