



SENSORDEVICES 2024

The Fifteenth International Conference on Sensor Device Technologies and Applications

November 3rd - 7th, 2024

Nice, France

SENSORDEVICES 2024 Editors

Manuela Vieira, CTS-UNINOVA, Portugal

Arcady Zhukov, University Basque Country (UPV/EHU) and IKERBASQUE, Basque Foundation for Science, Bilbao, Spain

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571

Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2024) by International Academy, Research, and Industry Association (IARIA)
Please refer to the Copyright Information page.

Printed with permission by Curran Associates, Inc. (2025)

International Academy, Research, and Industry Association (IARIA)
412 Derby Way
Wilmington, DE 19810

Phone: (408) 893-6407
Fax: (408) 527-6351

petre@iaria.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

Table of Contents

Spatially Distributed Annealing as a New Tuning of Magnetic Microwires <i>Alexander Chizhik and Arcady Zhukov</i>	1
Magnetic Properties and GMI Effect in Multilayered Co-rich Microwires <i>Valentina Zhukova, Alvaro Gonzalez, Ricardo Lopez Anton, Juan Pedro Gonzalez, Juan Antonio Gonzalez, and Arcady Zhukov</i>	3
Optimization of GMI Effect and Magnetic Softness of Co-rich Microwires <i>Paula Corte-Leon, Valentina Zhukova, Alvaro Gonzalez, Juan Maria Blanco, and Arcady Zhukov</i>	8
Magnetic Steel Health Monitoring in the Nano-Scale <i>Angeliki Mpaliou, Tatiana Damatopoulou, Spyros Angelopoulos, Petros Tsakiridis, Gregory Doumenis, and Evangelos Hristoforou</i>	12
Signal-Processing Algorithms for Sensor Arrays: A Brief Review <i>Sergio Dominguez-Gimeno, Raul Igual-Catalan, and Inmaculada Plaza-Garcia</i>	19
Enhancing Urban Intersection Efficiency: Leveraging Visible Light Communication for Traffic Optimization <i>Manuel Augusto Vieira, Manuela Vieira, Paula Louro, Goncalo Galvao, and Mario Vestias</i>	24
Indoor Guidance in Multi-Terminal Airports through Visible Light Communication <i>Manuela Vieira, Manuel Augusto Vieira, Goncalo Galvao, Paula Louro, and Alessandro Fantoni</i>	30
Mobility of Autonomous Guided Vehicles Supported by Visible Light Communication <i>Paula Louro, Goncalo Galvao, Manuela Vieira, and Manuel Augusto Vieira</i>	36
Research on Structural Health Monitoring of Steel Tower Structure Using Long-term Vibration Sensing <i>Narito Kurata</i>	41
Gait Analysis of Healthy and Parkinson's Disease Patients in Elderly Population Using FMCW Radar <i>Sohaib Abdullah, Shahzad Ahmad, Chanwoo Choi, Hee Jin Kim, Kyung Hae Choi, and Sung Ho Cho</i>	48