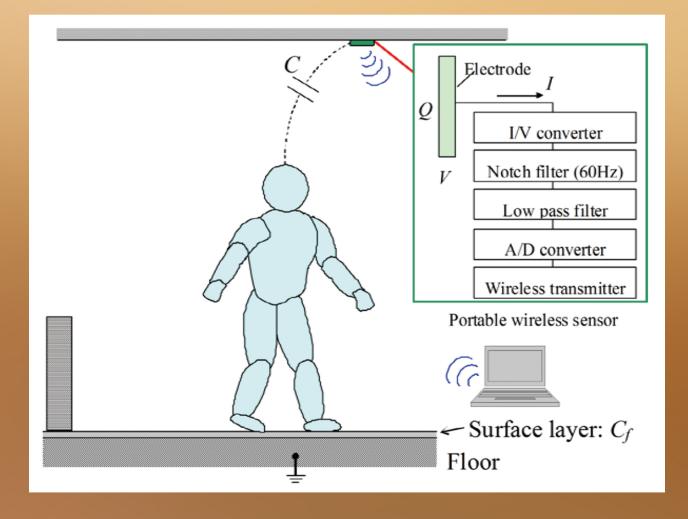


# Journal of Sensor Technology





www.scirp.org/journal/jst

## **Journal Editorial Board**

ISSN: 2161-122X (Print), ISSN: 2161-1238 (Online) http://www.scirp.org/journal/jst

#### **Editor-in-Chief**

Prof. Ashok Srvastava

Louisiana State University, USA

#### **Editorial Board**

Dr. Bruno Andò	The University of Catania, Italy
Prof. Aytunç Ates	Yildirim Beyazit University, Turkey
Dr. Nada Farouk Atta	University of Cairo, Egypt
Prof. Saad Belkhiat	Setif University, Algeria
Prof. İsmail Hakkl Boyaci	Hacettepe University, Turkey
Prof. Vinod Kumar Gupta	Indian Institute of Technology, India
Prof. Chang-Sik Ha	Pusan National University, South Korea
Prof. Kamaruzaman Jusoff	Universiti Putra Malaysia, Malaysia
Dr. Dae-Sik Lee	Electronics and Telecommunications Research Institute, South Korea
Dr. Weihua Li	University of Wollongong, Austria
Dr. Qingjun Liu	Zhejiang University, China
Prof. Xiaobing Luo	Huazhong University of Science and Technology, China
Dr. Graça M. H. Minas	University of Minho, Portugal
Dr. Sandeep Negi	University of Utah, USA
Prof. Yiqing Ni	The Hong Kong Polytechnic University, China
Dr. Dongning Wang	The Hong Kong Polytechnic University, China
Dr. Wenming Zhang	Shanghai Jiao Tong University, China
Prof. Yong Zhang	Xi'an Jiaotong University, China
Prof. Yong Zhao	Northeastern University, China



### **Table of Contents**

#### Volume 4 Number 3

#### September 2014

Temperature Effects on Gas Sensing Properties of Electrodeposited Chlorine Doped and Undoped n-Type Cuprous Oxide Thin Films	
N. Bandara, C. Jayathilaka, D. Dissanayaka, S. Jayanetti	119
Link Budget Design with Performance Evaluation of Tunable Impulse-Based Ultra Wideband to Support the Integration of Wireless Sensing and Identifications Infrastructures	
M. S. Jawad, W. Ismail, A. Hajjawi, O. A. Rani, A. Saleh	127
Human Physical Activity Measurement Method Based on Electrostatic Induction	
K. Kurita	139
A Piezoelectric Sensor-Based System for Objective Analyzing of the Preparation of Fluid Foods	
H. Iwamori, I. Ashida, Y. Miyaoka	148
DVL/RPM Based Velocity Filter Aiding in the Underwater Vehicle Integrated Inertial Navigation System	
Т. S. Yoo	154

The figure on the front cover is from the article published in Journal of Sensor Technology, 2014, Vol. 4, No. 3, pp. 139-147 by Koichi Kurita.

#### Journal of Sensor Technology (JST)

#### **Journal Information**

#### **SUBSCRIPTIONS**

The *Journal of Sensor Technology* (Online at Scientific Research Publishing, <u>www.SciRP.org</u>) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates: Print: \$69 per issue. To subscribe, please contact Journals Subscriptions Department, E-mail: <a href="mailto:sub@scirp.org">sub@scirp.org</a>

#### SERVICES

Advertisements Advertisement Sales Department, E-mail: <u>service@scirp.org</u>

Reprints (minimum quantity 100 copies) Reprints Co-ordinator, Scientific Research Publishing, Inc., USA. E-mail: <u>sub@scirp.org</u>

#### COPYRIGHT

#### COPYRIGHT AND REUSE RIGHTS FOR THE FRONT MATTER OF THE JOURNAL:

Copyright © 2014 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY). http://creativecommons.org/licenses/by/4.0/

#### COPYRIGHT FOR INDIVIDUAL PAPERS OF THE JOURNAL:

Copyright © 2014 by author(s) and Scientific Research Publishing Inc.

#### **REUSE RIGHTS FOR INDIVIDUAL PAPERS:**

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

#### DISCLAIMER OF LIABILITY

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

#### **PRODUCTION INFORMATION**

For manuscripts that have been accepted for publication, please contact: E-mail: jst@scirp.org

## **Call for Papers**



## Journal of Sensor Technology (JST)

ISSN 2161-122X (Print) ISSN 2161-1238 (Online) http://www.scirp.org/journal/jst

**Journal of Sensor Technology** should be the international journal devoted to research on sensor technologies including sensor design, implementation, characterizations and application oriented technical development. It is an interdisciplinary journal serving professionals with an interest in the exploitation of biological materials and designs in novel sensor diagnostic, supervision (or surveillance), and electronic devices including sensors, DNA chips, electronic noses, lab-on-a-chip, etc. Research of physical effects, measurement, theory, modeling and simulation of sensors, is welcome.

#### Editor-in-Chief

Prof. Ashok Srvastava

Louisiana State University, USA

#### Subject Coverage

The journal publishes original papers including but not limited to the following fields:

- Arrayed Sensors
- Biosensors
- Flow Sensors
- Interferometry Based Sensors
- MEMS Pressure Sensors
- Micro Accelerometers Mems Gyroscopes
- Microelectromechanical Systems (MEMS)
- Multi-Sensor Data Fusion

- Nano-Photonic Based Sensors
- Optical Fiber Based Sensors
- Sensor Fabrication and Packaging Techniques
- Sensor Networks
- Sensor Signal Processing
- Surface Enhanced Raman Scattering (SERS) Sensors
- Surface Plasmon Based Sensors
- Ultrasonic Transducers

We are also interested in: 1) Short reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book reviews—Comments and critiques.

#### **Notes for Intending Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

#### Website and E-mail

http://www.scirp.org/journal/jst E-mail: jst@scirp.org

#### What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

#### What is Open Access?

Art and Design Review

Advances in

dvances in Biological bemistry Entomolog

Applied Mathematics

Engineering

UNIT O

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

• High visibility for maximum global exposure with open access publishing model

Soft

ĥh

- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



Website: http://www.scirp.org Subscription: sub@scirp.org Advertisement: service@scirp.org