

SENSORCOMM 2021

The Fifteenth International Conference on Sensor Technologies and Applications

November 14 - 18, 2021

Athens, Greece

SENSORCOMM 2021 Editors

Anne-Lena Kampen, Western Norway University of Applied Sciences, Norway
Oana Dini, IARIA, EU/USA
Hesham Ali, University of Nebraska at Omaha, USA
Laura Garcia, Universitat Politècnica de València (UPV), 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© (2021) by International Academy, Research, and Industry Association (IARIA) Please refer to the Copyright Information page.

Printed with permission by Curran Associates, Inc. (2023)

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

LiDAR-Based Cooperative Scan Matching for Relative Pose Estimation of Multiple Vehicles in GNSS-Denied Environments	1
Ryoga Takahashi, Masafumi Hashimoto, and Kazuhiko Takahashi	
Development and Application of an Energy Harvesting Power Factor and Apparent Power Sensor Takaya Yoshitake, Shunkichi Takamatsu, and Shinichiro Mito	8
Recent Advances in IoT-Based Wearable Systems for Biosignals Monitoring – Application to Elderly Care Emmanouel Michailidis, Panagiotis Pikasis, and Grigoris Kaltsas	11
On Exploring the Use of Mobility Parameters in the Analysis of Early Childhood Developmental Disorders Rama Krishna Thelagathoti and Hesham H.Ali	15
Field Monitoring of Atmospheric Icing Events - A Case Study Adeel Yousuf, Pavlo Sokolov, and Muhammad Shakeel Virk	22
Wave Height Estimation Using a Novel Seaweed-Attached Sensor Masoud Emam, Caroline Press, Hamed Jafarzadeh, Marco Belcastro, Brendan O'Flynn, Joanne Casserly, and Frank Kane	28
Tensor-Based Recursive Least-Squares Algorithm with Low Computational Complexity Ionut-Dorinel Ficiu, Cristian-Lucian Stanciu, Laura-Maria Dogariu, Camelia Elisei-Iliescu, and Constantin Paleologu	32
Protocols for Underwater Wireless Sensor Networks - Challenges and Solutions Anne-Lena Kampen	34