

## **SENSORCOMM 2020**

The Fourteenth International Conference on Sensor Technologies and Applications

November 21 - 25, 2020

## SENSORCOMM 2020 Editors

Anne-Lena Kampen, Western Norway University of Applied Sciences, Norway Cosmin Dini, IARIA, EU/USA Pedro V. Mauri, Instituto Madrileño de Investigación y Desarrollo Rural, Agrario y Alimentario (IMIDRA), 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© (2020) by International Academy, Research, and Industry Association (IARIA) Please refer to the Copyright Information page.

Printed with permission by Curran Associates, Inc. (2020)

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**

Energy Harvesting Wireless Sensor Network Edge Device Simulation Tool Cian O'Shea, Ross O'Halloran, Peter Haigh, and Mike Hayes	1
Reducing The Energy Consumed During Multihop Transmissions in Wireless Sensor Networks Anne-Lena Kampen and Knut Ovsthus	11
Inductive Communication and Localization Method for Wireless Sensors in Photobioreactors David Demetz and Alexander Sutor	19
Towards Joint Cell Selection and Task Offloading in Cellular IoT Systems with Edge Computing <i>Edgar Adrian Esquivel-Mendiola, Sergio Perez-Picazo, and Hiram Galeana-Zapien</i>	23
Rapid Detection of Toxic Emissions Using DNN Based Sensing Ibrahim Bhavnagarwala and Adam Bhavnagarwala	28
IMPAQT Miniaturized Underwater Acoustic Telemetry Platform: Transmitter Node System Design Hamed Jafarzadeh, Marco Belcastro, and Brendan O'Flynn	34