

ISSN: 2329-8421

Volume 5, Number 2, June 2017



# Open Journal of Antennas and Propagation

ISSN: 2329-8421



9 772329 842005 02

[www.scirp.org/journal/ojapr](http://www.scirp.org/journal/ojapr)

# Journal Editorial Board

ISSN: 2329-8421 (Print) ISSN: 2329-8413 (Online)

<http://www.scirp.org/journal/ojapr>

---

## Editor-in-Chief

**Prof. Ahmed M. Attiya** Electronics Research Institute, Egypt

## Editorial Board

<b>Dr. Nasimuddin</b>	Institute for Infocomm Research, Singapore
<b>Prof. Federico Alimenti</b>	University of Perugia, Italy
<b>Dr. S. W. Cheung</b>	The University of Hong Kong, China
<b>Dr. Haroldo T. Hattori</b>	The University of New South Wales, Australia
<b>Dr. Selcuk Helhel</b>	Akdeniz University, Turkey
<b>Prof. M. Ali Hooshyar</b>	University of Texas an Dallas, USA
<b>Dr. Miroslav Joler</b>	University of Rijeka, Croatia
<b>Dr. Chi-Wah Kok</b>	Hong Kong Polytechnic University, China
<b>Prof. Igor V. Minin</b>	Siberian State Geodesy Academy, Russia
<b>Dr. Vaclav Papez</b>	Czech Technical University, Czech Republic
<b>Dr. Càndid Reig</b>	University of Valencia, Spain
<b>Dr. Zaharias D. Zaharis</b>	Aristotle University of Thessaloniki, Greece
<b>Dr. Domenico Zito</b>	University College Cork, Ireland

# Table of Contents

**Volume 5    Number 2**

**June 2017**

**Reviewing the Effectiveness of Contribution of Microstrip Antenna  
in the Communication System**

R. J. Kavitha, H. S. Aravinda.....47

**Enslavement of Wireless Sensor Network to an RF Energy Harvesting System**

A. Mouapi, N. Hakem.....63

**Review of Research Techniques to Improve System Performance of Smart Antenna**

T. G. Shivapanchakshari, H. S. Aravinda.....83

# Open Journal of Antennas and Propagation (OJAPr)

## Journal Information

### SUBSCRIPTIONS

The *Open Journal of Antennas and Propagation* (Online at Scientific Research Publishing, [www.SciRP.org](http://www.SciRP.org)) is published quarterly by Scientific Research Publishing, Inc., USA.

#### Subscription rates:

Print: \$59 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### SERVICES

#### Advertisements

Advertisement Sales Department, E-mail: [service@scirp.org](mailto:service@scirp.org)

#### Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### COPYRIGHT

#### Copyright and reuse rights for the front matter of the journal:

Copyright © 2017 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 © 2017 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

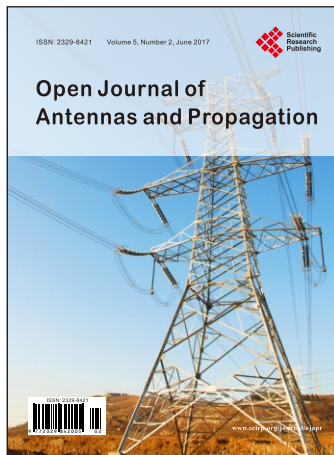
Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any 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: [ojapr@scirp.org](mailto:ojapr@scirp.org)





# Open Journal of Antennas and Propagation

ISSN: 2329-8421 (Print) ISSN: 2329-8413 (Online)

<http://www.scirp.org/journal/ojapr>

Open Journal of Antennas and Propagation (OJAPr) is an open access journal published quarterly. The goal of this journal is to provide a platform for scientists and academicians all over the world to promote, share, and discuss various new issues and developments about analysis, design, development, measurement and applications in the research of antennas and propagation.

All manuscripts must be prepared in English, and are subject to a rigorous peer-review process. Accepted papers will immediately appear online followed by printed in hard copy. The areas covered by Open Journal of Antennas and Propagation (OJAPr) include but are not limited to the following fields:

- Active and Adaptive Antennas
- Antennas Analysis and Design
- Antennas and Propagation Radiation
- Antennas Array
- Antennas Directivity
- Antennas Measurement
- Antennas Radome
- Antennas Signal Processing and Control
- Antennas Simulation
- Applications of Antennas in Propagation
- Beam Control and Steering
- Channel Modeling
- Electromagnetic Waves Propagation
- Experimental Advances in Antennas and Propagation
- Intelligent Antenna
- Method of Moment
- Microwave Antennas Techniques
- Millimeter-Wave Techniques
- Novel Antennas
- Properties and Selection of Antennas
- Radio Wave Propagation
- Theoretical Research of Antennas and Propagation
- Various Antenna Systems
- Wireless Communications

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.

## Website and E-Mail

<http://www.scirp.org/journal/ojapr>

Email: [ojapr@scirp.org](mailto:ojapr@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, by delivering superior scientific publications and scientific information solution provider that enable advancement in scientific research.

## ***What is Open Access?***

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



**Scientific  
Research  
Publishing**

**Website: <http://www.scirp.org>**

**Subscription: [sub@scirp.org](mailto:sub@scirp.org)**

**Advertisement: [service@scirp.org](mailto:service@scirp.org)**