

ISSN 2310-6697

toiser—open transactions on independent scientific-engineering research

# FUNKTECHNIKPLUS # JOURNAL

Théorie—Expérimentation—Métrologie—Logiciel—Applications

SATURDAY 21 NOVEMBER 2015 — YEAR 3

ONLINE

***About***

EDITION 4



*This small European Journal is  
In the Defense of Honesty in Science and Ethics in Engineering*

**Publisher** – otoiser—open transactions on independent scientific engineering research, [www.otoiser.org](http://www.otoiser.org)—[info@otoiser.org](mailto:info@otoiser.org) : Hauptstraße 52, 2831 Scheiblingkirchen, Austria

**Language** – We emphasize the origins of the Journal by using English, German and French, as well as, a Hellenic vignette in the cover page. However, since we recognize the dominance of US English in the technical literature, we adopted it as the Journal's language, although it is not our native language.

**Focus** – We consider Radio–FUNK, which still creates a vivid impression of the untouchable, and its Technology–TECHNIK, from an Advanced–PLUS point of view, Plus–PLUS Telecommunications Engineering, Electrical Engineering and Computer Science, that is, we dynamically focus at any related scientific-engineering research regarding Théorie, Expérimentation, Métrologie, Logiciel, ou Applications.

**Scope** – We emphasize this scope broadness by extending the title of the Journal with a Doppelkreuz-Zeichen # which we use as a placeholder for substitution of our Editorial Team disciplines: # Telecommunications etc. as above, or # High Voltage, # Software Engineering, # Simulation etc. as below.

**Frequency** – We publish 3 issues per year: on 31st of January, on 31st of May, and on 30th of September, as well as, an extra issue every 3 papers and a volume every 2 years.

**Editions** – We increase the edition number of an issue only when is needed to reform one or more of its papers—thus to increase their version numbers—but we keep unchanged its 1st edition date shown on its front page and we number its pages sequentially from 1. We count the editions of *About* separately.

**Format** – We use a fixed-space font, hyphenation, justification, unfixed word spacing, and the uncommon for Journals **A5** (half A4) page size to achieve WYSIWYG printing and clear reading of 2 to 4 side-by-side pages on wide-screen displays.

**Printing-on-Demand** – We can email gratis PDF files at 300-4000 dpi in booklet page scaling of brochure and book type.

**Copyright** – We publish under a Creative Commons Attribution, CC-BY 3.0 Unported or CC-BY 4.0 International, License only.

Please download the latest *About* edition from  
<http://about.ftpj.otoiser.org>

## Editorial Team

### # **Electrical Engineering**

Professor Michael Danikas, mdanikas@ee.duth.gr  
EECE, Democritus University of Thrace, Greece

# High Voltage Engineering # Insulating Materials

Assistant Professor Athanasios Karlis, akarlis@ee.duth.gr  
EECE, Democritus University of Thrace, Greece

# Electrical Machines # Renewable Energies # Electric Vehicles

### # **Computer Science**

Professor Vasilis Katos, vkatos@bournemouth.ac.uk  
Head of Computer and Informatics Dept, Bournemouth Univ, UK

# Computer Engineering # Software Engineering # Cyber Security

Lecturer Sotirios Kontogiannis, skontog@gmail.com  
Business Administration Dept, TEI, Western Macedonia, Greece

# Internet Engineering # Learning Management Systems

Dr. Apostolos Syropoulos, asyropoulos@yahoo.com  
BSc-Physics, MSc-Computer Science, PhD-Computer Science  
Independent Researcher, Xanthi, Greece

# Hypercomputation # Fuzzy Computation # Digital Typography

### # **Telecommunications Engineering**

Dr. Nikolaos Berketis, nberketis@gmail.com  
BSc-Mathematics, MSc-Applied Maths, PhD-Applied Mathematics  
Independent Researcher, Athens, Greece

# Applied EM Electromagnetics # Applied Mathematics

Dr. Nikolitsa Yannopoulou, yin@arg.op4.eu [\*]  
Diploma Eng-EE, MEng-Telecom-EECE, PhD-Eng-Antennas-EECE  
Independent Researcher, Scheiblingkirchen, Austria

Dr. Petros Zimourtopoulos, pez@arg.op4.eu [\*]  
BSc-Physics, MSc-Radio-Electronics, PhD-Antennas-EE  
Independent Researcher, Scheiblingkirchen, Austria

# Antennas # Metrology # EM Software # Simulation # Virtual Labs

# Applied EM # Education # FLOSS # Amateur Radio # Electronics

\* Copy and Layout Editing, Proof Reading, Issue and Website  
Management, Paper and About Reprints, Volumes and Web Pages

## Technical Support

Konstantinos Kondylis, kkondylis@gmail.com  
Diploma Eng-EECE, MEng-Telecom-EECE, Doha, Qatar

Christos Koutsos, ckoutsos@gmail.com  
Diploma Eng-EECE, MEng-Telecom-EECE, Bratislava, SK

## Information for Authors

This is a small, but independent, low profile Journal, in which we are all—Authors, Reviewers, Readers, and Editors—free at last to be Peers in Knowledge, without suffering from Journal roles or positions, Professional—Amateur—Academic statuses, or established "impact factorizations", under the following guiding principles:

**Authors** – We know what Work means, we respect the Work of the Independent Researcher in Science and Engineering and we want to exhibit his Work. Thus, we decided to found this Free and Open Access Journal in which to publish this Work. Furthermore, as we care indeed for the Work of the technical author—especially a young or a beginner one—we strongly support the publication of his Work, as follows:

- 1 We do not demand from the author to transfer his own copyright to us. Instead, we only consider papers resulting from original research work only, and only if the author can assure us that he owns the copyright of his own paper as well as that he submits to the Journal either an original copy or a revised version of his own paper, for possible publication after review—or even for immediate republication, if this paper has already been published after review—but, in any case under a Creative Commons Attribution, CC-BY 3 Unported or CC-BY 4 International, License, only.
- 2 We encourage the author to submit his own paper written just in Basic English plus Technical Terminology.
- 3 We encourage the author even to select a pen name, which may drop it at any time to reveal his identity.
- 4 We encourage the author to submit an accepted for publication paper, which he was forced to decline that publication because it would be based on a review with unacceptable evaluation or derogatory comments.
- 5 We encourage the author to submit any paper that was rejected after a poor, impotent, inadequate, unreasonable, irresponsible, incompetent, or "just ticking" review.
- 6 We encourage the author to submit an unreviewed paper of his own that he uploaded on some Open Access repository.
- 7 We encourage the author to upload his published paper in our Journal to at least one Truly Free Open Repository, e.g. such as <http://viXra.org> and <https://archive.org>.

## About

- 8 We provide the author with the ability to update, at any time, the reference links of his paper.
- 9 We provide the author with a decent, express, peer review process, of up to just 4 weeks, by at least 2, either anonymous or onymous, reviewers.
- 10 We provide the author with the option to choose from 2 review processes: the traditional, anonymous, close one, as well as, a contemporary, onymous, open review in our private mailing list for Peer Discussion.
- 11 Under the Clause 1 : We immediately accept for publication a research paper directly resulting from a Project Report, or a Diploma-, Master-, or PhD-thesis, which already the author has successfully defended before a committee of experts, as long as he can mention 2 members of this committee who approved his Work.
- 12 Under the Clause 1 : We immediately accept for publication any paper which is not Openly Accessible on the Internet.
- 13 We immediately publish online a paper, as soon as it is accepted for publication in the Journal.
- 14 We quickly publish an extra issue—that is in excess of the 3 issues we publish a year—as soon as the review process of 3 papers is completed.

**Reviewers** – Every peer may voluntarily become a reviewer of the Journal in his skillfulness for as long as he wishes. In addition, each author of the Journal must review one paper in his expertness for each one of his published papers.

**Readers** – Every reader is a potential post-reviewer: we welcome comments and post-reviews in our private mailing list for Peer Discussion.

**Editors** – Every editor owns a PhD degree—to objectively prove that he really has the working experience of passing through the dominant publishing system. An editor pre-reviews a paper in order to check its compliance to our guiding principles and to select the appropriate reviewers of it. We can accept for consideration papers only in the expertise areas currently shown in the Editorial Team page, above. However, since we are very willing to amplify and extend the Scope of the Journal, we welcome the volunteer expert, in any related subject, who wants to join the Editorial Team as long as he unreservedly accepts our guiding principles.

## Electronic Publishing

We regularly use the Free Libre Open Source Software Libre Office with the Free Liberation Mono font and the Freewares PDFCreator and PDF-Xchange Viewer. We also use, with some basic html code of ours: the Free Open Source Software Open Journal System OJS by the Public Knowledge Project PKP installed in our website, and the Free Open Digital Library of Internet Archive website, where we upload Issues, Paper reprints, *About* documents, and Volumes, in both portrait and landscape orientations, for exceptionally clear online reading with the Free Open Source BookReader.

## Submissions

We can only consider papers written in the preferable and recommended odt format of LibreOffice, or even a paper in the MS Office with MathType doc format, if it would be proved that it is fully compatible with LibreOffice indeed.

**Legal Notice** – It is taken for granted that the submitter–correspondent author accepts, without any reservation, the totality of our publication conditions as they are analytically detailed here, in this *About*, as well as, that he also carries, in the case of a paper by multiple authors, the independent will of each one of his co-authors to unreservedly accept all the aforementioned conditions for their paper.

## Internet Addresses

**Submissions** : sub@ftpj.otoiser.org  
**Send Updates** : updates@ftpj.otoiser.org  
**Printing-on-Demand** : pod@ftpj.otoiser.org  
**Technical Support TS** : technical-support@ftpj.otoiser.org  
**Principal Contact** : principal-contact@ftpj.otoiser.org  
**Peer Discussion List** : www.peers.ftpj.otoiser.org  
**Editorial Team & TS List** : www.etts.ftpj.otoiser.org  
**Internet Archive Digital Library** :  
<https://archive.org/details/@funktechnikplusjournal>  
**Sample Paper Templates** : www.template.ftpj.otoiser.org  
**Reference Link Updates** : <http://updates.ftpj.otoiser.org>  
**Internet Publishing** : www.ftpj.otoiser.org

---

*This document is licensed under a Creative Commons Attribution 4.0 International License – <https://creativecommons.org/licenses/by/4.0>*

**ARG NFP AoI**

Antennas Research Group

Not-for-Profit Association of Individuals [\*]

[www.arg.op4.eu](http://www.arg.op4.eu) – [arg@op4.eu](mailto:arg@op4.eu)

Hauptstraße 52, 2831 Scheiblingkirchen, Austria

Telephone: 0 6646311483 – International: 0043 6646311483

\* The Constitution of Greece, Article 12(3) – 2008:

[www.hellenicparliament.gr/en/Vouli-ton-Ellinon/To-Politevma](http://www.hellenicparliament.gr/en/Vouli-ton-Ellinon/To-Politevma)

\* The Hellenic Supreme Court of Civil and Penal Law:

[www.areiospagos.gr/en](http://www.areiospagos.gr/en) – Court Rulings:Civil|A1|511|2008

### **FRONT COVER VIGNETTE**

A faded synthesis of an anthemion rooted in a meandros

The thirteen-leaf is a symbol for a life tree leaf.

"Herakles and Kerberos", ca. 530–500 BC,  
by Paseas, the Kerberos Painter,  
Museum of Fine Arts, Boston:  
[www.mfa.org/collections/object/plate-153852](http://www.mfa.org/collections/object/plate-153852)

The simple meandros is a symbol for eternal immortality.

"Warrior with a phiale", ca. 480–460 BC,  
by Berliner Maler,  
Museo Archeologico Regionale "Antonio Salinas" di Palermo:  
"[http://commons.wikimedia.org/wiki/File:Warrior\\_MAR\\_Palermo\\_NI2134.jpg](http://commons.wikimedia.org/wiki/File:Warrior_MAR_Palermo_NI2134.jpg)"