GENERAL PURPOSE AND SCOPE: The Applied Computational Electromagnetics Society (ACES) Journal hereinafter known as the ACES Journal is devoted to the exchange of information in computational electromagnetics, to the advancement of the state-of-the-art, and the promotion of related technical activities. The primary purpose of the information exchange is to inform the scientific community on the developments of new computational electromagnetics tools and their use in electrical engineering, physics, or related areas. The technical activities promoted by this publication include code validation, performance analysis, and input/output standardization, code or technique optimization and error minimization, innovations in solution technique or in data input/output; identification of new applications for electromagnetics modeling codes and techniques; integration of computational electromagnetics techniques with new computer architectures; and correlation of computational parameters with physical mechanisms.

SUBMISSIONS: The ACES Journal welcomes original, previously unpublished papers, relating to applied computational electromagnetics. Typical papers will represent the computational electromagnetics aspects of research in electrical engineering, physics, or related disciplines. However, papers which represent research in applied computational electromagnetics itself are equally acceptable. Manuscripts are to be submitted through the upload system of ACES web site http://aces-society.org. See “Information for Authors” on inside of back cover and at ACES web site for additional information contact the Editor-in-Chief:

Dr. Atef Elsherbeni
Electrical Engineering and Computer Science Department
Colorado School of Mines
3100 Brown Building
1610 Illinois Street
Golden, CO 80401
Email: aelsher@mines.edu

SUBSCRIPTIONS: All members of the Applied Computational Electromagnetics Society are entitled to access and download the ACES Journal of any published journal article available at http://aces-society.org. Printed issues of the ACES Journal are delivered to institutional members. Non-Institutional members can request a printed copy with the pre-paid fee which covers printing and shipping fees.

Back issues, when available, are $50 each. Subscription to ACES is through the web site. Orders for back issues of the ACES Journal and change of address requests should be sent directly to ACES office at:

Shaneil Lopez
Electrical Engineering and Computer Science Department
Colorado School of Mines
310A Brown Building
1610 Illinois Street
Golden, CO 80401

Allow four weeks advance notice for change of address. Claims for missing issues will not be honored because of insufficient notice, or address change, or loss in the mail unless the ACES office is notified within 60 days of USA and Canadian subscribers, or 90 days for subscribers in other countries, from the last day of the month of publication. For information regarding reprints of individual papers or other materials, see “Information for Authors”.

LIABILITY: Neither ACES, nor the ACES Journal editors, are responsible for any consequence of misinformation or claims, express or implied, in any published material in an ACES Journal issue. This also applies to advertising, for which only camera-ready copies are accepted. Authors are responsible for information contained in their papers. If any material submitted for publication includes material which has already been published elsewhere, it is the author’s responsibility to obtain written permission to reproduce such material.

APPLICATIONS OF COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL http://aces-society.org

INFORMATION FOR AUTHORS

PUBLICATION CRITERIA Each paper is required to manifest some relation to applied computational electromagnetics. Papers may address general issues in applied computational electromagnetics, or they may focus on specific applications, techniques, codes, or computational issues. While the following list is not exhaustive, each paper will generally relate to at least one of these areas:

1. Code validation. This is done using internal checks or experimental, or other computational data. Measured data of potential utility to code validation efforts will also be considered for publication.

2. Code performance analysis. This usually involves identification of numerical accuracy or other limitations, solution convergence, numerical and physical modeling errors, and parameter trade-offs. However, it is also permissible to address issues such as ease-of-use, set-up time, run time, special outputs, or other special features.

3. Computational studies of basic physics. This involves using a code, algorithm, or computational technique to simulate reality in such a way that better, or new physical insight or understanding, is achieved.

4. New computational techniques or new applications for existing computational techniques or codes.

5. “Tricks of the trade” in selecting and applying codes and techniques.

6. New codes, algorithms, code enhancement, and code fixes. This category is self-explanatory, but includes significant changes to existing codes, such as applicability extensions, algorithm optimization, problem correction, limitation removal, or other performance improvement.

Note: Code (or algorithm) capability descriptions are not acceptable, unless they contain sufficient technical material to justify consideration.

7. Code input/output issues. This normally involves innovations in input (such as input geometry standardization, automatic mesh generation, or computer-aided design) or in output (whether it be tabular, graphical, statistical, Fourier-transformed, or otherwise signal-processed). Material dealing with input/output database management, output interpretation, or other input/output issues will also be considered for publication.

8. Computer hardware issues. This is the category for analysis of hardware capabilities and limitations of various types of electromagnetics computational requirements. Vector and parallel computational techniques and implementation are of particular interest.

Applications of interest include, but are not limited to, antennas (and their electromagnetic environments), networks, static fields, radar cross-section, inverse scattering, shielding, radiation hazards, biological effects, biomedical applications, electromagnetic pulse (EMP), electromagnetic interference (EMI), electromagnetic compatibility (EMC), power transmission, charge transport, dielectric, magnetic and nonlinear materials, microwave components, MEMS, RFID and MIMO technologies, remote sensing and geometrical and optical, radar and communications systems, sensors, fiber optics, plasmas, particle accelerators, generators and motors, electromagnetic wave propagation, non-destructive evaluation, eddy currents, and inverse scattering.

Techniques of interest include but not limited to frequency- domain and time-domain methods, integral equation and differential equation techniques, diffraction theories, physical and geometrical-optics, method of moments, finite differences and finite element methods, transmission line method, modal expansions, perturbation methods, and hybrid methods.

Where possible and appropriate, authors are required to provide statements of quantitative accuracy for measured and/or computed data. This issue is discussed in “Accuracy & Publication: Requiring, quantitative accuracy statements to accompany data,” by E. K. Miller, ACES Newsletter, Vol. 9, No. 3, pp. 23-29, 1994, ISBN 1056-9170.

SUBMITTAL PROCEDURE All submissions should be uploaded to ACES server through ACES web site (http://aces-society.org) by using the upload button, journal section. Only PDF files are accepted for submission. The file size should not be larger than 10MB, otherwise permission from the Editor-in-Chief should be obtained first. Automated acknowledgment of the electronic submission, after the upload process is successfully completed, will be sent to the corresponding author only. It is the responsibility of the corresponding author to keep the remaining authors, if applicable, informed. Email submission is not accepted and will not be processed.

EDITORIAL REVIEW In order to ensure an appropriate level of quality control, papers are peer reviewed. They are reviewed both for technical correctness and for adherence to the listed guidelines regarding information content and format.

PAPER FORMAT Only camera-ready electronic files are accepted for publication. The term “camera-ready” means that the material is neat, legible, reproducible, and in accordance with the final version format listed below.