TABLE OF CONTENTS

- Description p.1
- Audience p.3
- Impact Factor p.3
- Abstracting and Indexing p.3
- Editorial Board p.3
- Guide for Authors p.5

DESCRIPTION

Scope:

The scope of JEPE is focused on electrical power generation, transmission, distribution and utilization, from the viewpoints of individual power system elements and their integration, interaction and technological advancement. The scope covers modelling of power system elements, their design, analysis of their performance and their implementation in specific aspects typical for modern electrical power and energy systems of various size and complexity. Research focused on new technologies changing power systems and determining their performance and operation is of particular interest. The following list of topics is not intended to be exhaustive, but rather to indicate topics that fall within the journal purview:

I. Modern Substations

1) Instrumentation and novel sensor technology for advanced monitoring of power systems
2) Primary and secondary plant in modern EHV/HV/MV/LV substations
3) Substation automation and control
4) Power plants automation and control
5) Electromagnetic compatibility

II. Traditional Power System Disciplines

1) Power system metering
2) Power system protection
3) Power quality
4) Power system dynamic performance (system stability analysis and controls)
5) Power System Operations, Planning & Economics
6) Energy conversion and Electric machines

III. Integration of AC and DC grids

1) Flexible AC Transmission Systems (FACTS)
2) High Voltage DC Transmission and Low Voltage DC Distribution networks
3) Mixed AC-DC transmission networks, their interaction (from "micro" to "mega") and technologies for their optimal operation
4) DC and AC traction distribution systems for railways
IV. Green Power and Energy Technologies and Systems

1) Renewable Energy Technologies (e.g., wind, biomass, solar, hydro), clean fossil fuel technologies (e.g., carbon capture) and their integration in modern power systems
2) Energy storage technologies and system operation and planning
3) Interaction and integration of electricity with other energy vectors and sectors (heat, cooling, gas, hydrogen, or transport)
4) Technologies to enhance flexibility in future energy systems

V. Smart Transmission Grids

1) Wide area monitoring, protection and control (WAMPAC); basic WAMPAC building blocks, including PMUs, communication infrastructure, Data Concentrator solutions, management and processing of big data, knowledge extraction from big data, cyber security
2) System Integrity Protection Schemes (SIPS) - Special Protection Schemes; Remedial Action Schemes
3) Design of modern Energy Management Systems (EMS) and Distribution Management Systems (DMS), their applications and links between them
4) Technologies for real-time dynamic security assessment, situational awareness, prevention of power system blackouts and approaches for power system restoration
5) New concepts of robust, secure, reliable, self-healing and resilient power systems
6) Technologies and new solutions for ancillary services support in power systems

VI. Power System Transients and Testing

1) Transient processes in power systems (slow, fast and very fast transients); electro-magnetic transients (EMT); electro-mechanical transients
2) Simulation of power systems transients and power electronics: off-line and real-time simulators, hybrid simulation (stability and EMT) of large scale systems, Co-simulation of power systems and telecommunication infrastructures
3) Methodologies and technologies for testing power system components, as well as complex protection and control schemes, including Information and Communication Technology (ICT) testing; hardware in the loop testing
4) Harmonics and power quality; solution methods, algorithms and parameter identification.
5) Advanced modelling of power system components

VII. Smart Distributed and Autonomous Energy Systems

6) Nanogrids, Microgrids, DC Microgrids, Autonomous, islanded and remote networks
7) Smart buildings, district and cities
8) Integration of Consumer-Side Resource Systems and Prosumer Resource Systems
9) Automated demand response technologies
10) Smart distribution networks, active network management and advanced monitoring, control and automation schemes
11) AC microgrids and DC microgrids
12) Future Power distributions systems in ships and aircrafts
13) Electric vehicles and charging networks
14) Distributed energy storage systems and DER (Distributed Energy Resources)

VIII. Information and Communication infrastructure for future power systems

1) Communication technology and communication protocols
2) Cyber-security technologies for robust solutions
3) Cyber-physical systems modelling and simulation
4) Home Area Network (HAN) / Home Energy Management Systems (HEMS)
5) AMI Metering System

IX. Standardisation and new energy policies in using novel technologies for future power systems
JEPE publishes original papers, short contributions and book reviews, as well as selected review articles by invitation and/or approval of the Editor-in-Chief. JEPE encourages publication of themed special issues. Proposals for review articles and special issues are welcome for consideration by the Editor-in-Chief.

*Mission statement*: The International Journal of Electrical Power & Energy Systems (JEPE) is an international journal for dissemination of the newest technologies and theoretical research in the area of electrical power and energy systems, aiming at inspiring interdisciplinary research across academia and industry and contributing to the prosperity of modern societies.

**AUDIENCE**

Researchers in academia and industry, electrical and utility engineers, plant and design engineers.

**IMPACT FACTOR**

2019: 3.588 © Clarivate Analytics Journal Citation Reports 2020

**ABSTRACTING AND INDEXING**

Current Contents  
EI Engineering  
INSPEC  
Energy Science and Technology  
Fuel and Energy Abstracts  
Environmental Abstracts  
EI Compendex Plus  
Pascal Francis  
Web of Science  
Scopus  
GeoRef  
Academic Search (EBSCO)  
Compendex  
OCLC Contents Alert  
TEMA - Technik und Management  
Engineering Index Monthly  
Science Citation Index Expanded  
Web of Science  
Referativnyi Zhurnal VINTI-RAN (Russian Academy of Sciences)

**EDITORIAL BOARD**

*Editor-in-Chief*  
Vladimir Terzija, The University of Manchester, Manchester, United Kingdom

*Managing Editor*  
Pablo Arboleya, University of Oviedo Department of Electrical Electronic and Computer and Systems Engineering, Gijon - Asturias, Spain

*Deputy Editor-in-Chief*  
Qiuwei Wu, Technical University of Denmark, Kgs Lyngby, Denmark

*Associate Editors*  
Sadegh Azizi, University of Leeds, Leeds, United Kingdom  
Rasoul Azizipanah-Abarghoee, The University of Manchester, Manchester, United Kingdom  
Y. Christine Chen, The University of British Columbia, Vancouver, British Columbia, Canada  
Lei Ding, Shandong University, Jinan, China
Jorge Garcia, University of Oviedo Department of Electrical Electronic and Computer and Systems Engineering, Gijon - Asturias, Spain
Innocent Kamwa, Hydro-Quebec's Research Institute, Varennes, Quebec, Canada
Yanli Liu, Tianjin University, Tianjin, China
Chao Lu, Tsinghua University, Beijing, China
Marjan Popov, TU Delft, Delft, Netherlands
Athula Rajapakse, University of Manitoba, Winnipeg, Manitoba, Canada
Xiaorong Xie, Tsinghua University, Beijing, China
Junbo Zhao, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, United States

Advisory Editorial Board
Göran Andersson, Swiss Federal Polytechnic Institute Zurich Power Systems Laboratory, Zurich, Switzerland
Luiz Augusto Barroso, PSR Solutions and Consulting in Energy, RIO DE JANEIRO, Brazil
Yoshihiro Baba, Doshisha University, Kyoto, Japan
Janusz Bialek, Skolkoovo Institute of Science and Technology, Skolkoovo, Russian Federation
Audun Botterud, Argonne National Laboratory, Lemont, Illinois, United States
Milan Calovic, University of Belgrade, Belgrade, Serbia
Antonio J. Conejo, OHIO STATE UNIVERSITY, Columbus, Ohio, United States
Hermann W. Dommel, The University of British Columbia, Vancouver, British Columbia, Canada
Gevork Gharehpetian, Amirkabir University of Technology, Tehran, Iran, Islamic Republic of
Tomáš Gómez, Pontificia Universidad Comillas, Madrid, Spain
Leonid Grcev, University of Skopje, Skopje, Macedonia, the former Yugoslav Republic of
Josep Guerrero, Aalborg University, Aalborg, Denmark
Nikos Hatziargyriou, National Metsovin Polytechnic, Zografos, Greece
David Hill, University of Hong Kong, Hong Kong, Hong Kong
Hans Kristian Høidalen, Norwegian University of Science and Technology, Trondheim, Norway
Marija Ilic, Carnegie Mellon University, Pittsburgh, Pennsylvania, United States
Reza Iravani, University of Toronto, Toronto, Ontario, Canada
Chongqing Kang, Tsinghua University, Beijing, China
Chul-Hwan Kim, Sungkyunkwan University, Jongno-gu, Korea, Republic of
Hans-Jürgen Koglin, Saarland University, Saarbruecken, Germany
Ben Kroposki, National Renewable Energy Laboratory, Golden, Colorado, United States
Chen-Ching Liu, Washington State University, Pullman, Washington, United States
Yutian Liu, Shandong University, Jinan, China
Pierluigi Mancarella, The University of Melbourne, Melbourne, Victoria, Australia
Nelson Martins, Centre for Research in Electrical Energy, RIO DE JANEIRO, Brazil
Bruno Meyer, Electric Transport Network, Paris, France
Nirmal Nair, The University of Auckland, Auckland, New Zealand
Carlo Alberto Nucci, University of Bologna Department of Energy Electrical and Information Engineering
Mark O’Malley, University College Dublin, Dublin, Ireland
Jacob Østergaard, Technical University of Denmark, Kgs Lyngby, Denmark
Mario Paolone, EPFL Distributed Electrical Systems Laboratory, Lausanne, Switzerland
Davide Poli, University of Pisa, Pisa, Italy
Ashok Pradhan, Indian Institute of Technology Kharagpur Department of Electrical Engineering, Kharagpur, India
Waldemar Rebinzant, Wrocław University of Science and Technology, Wroclaw, Poland
Majid Sanaye-Pasand, University of Tehran, Tehran, Iran, Islamic Republic of
Leonardo Sandrolini, University of Bologna, Bologna, Italy
Mohammad Shahidehpour, Illinois Institute of Technology, Chicago, Illinois, United States
Federico Silvestro, University of Genoa, Genova, Italy
Goran Strbac, Imperial College London Department of Electrical and Electronic Engineering, London, United Kingdom
Maria Cristina Tavares, State University of Campinas, Campinas, São Paulo, Brazil
Ivo Uglesic, University of Zagreb, Zagreb, Croatia
Alfredo Vaccaro, University of Sannio, Benevento, Italy
Thierry Van Cutsem, University of Liege, Liege, Belgium
Costas Vournas, National Metsovin Polytechnic, Zografos, Greece
Slobodan Vukosavić, University of Belgrade, Belgrade, Serbia
Xiao-Ping Zhang, University of Birmingham, Birmingham, United Kingdom

Emeritus Editors
Tharam S. Dillon, Curtin University, Australia
Michael Laughton, Queen Mary University of London, London, United Kingdom
Y. Sekine, Central Research Institute of Electric Power Industry, Chiyoda-Ku, Japan
GUIDE FOR AUTHORS

Your Paper Your Way
We now differentiate between the requirements for new and revised submissions. You may choose to submit your manuscript as a single Word or PDF file to be used in the refereeing process. Only when your paper is at the revision stage, will you be requested to put your paper in to a 'correct format' for acceptance and provide the items required for the publication of your article.
To find out more, please visit the Preparation section below.

INTRODUCTION
Original high-quality research papers (preferably no more than 20 double line spaced manuscript pages, including tables and illustrations).

• Short communications, for rapid publication (no more than 10 double line spaced manuscript pages, including tables and illustrations).
• Also: book reviews and a calendar of forthcoming events. Translated material which has not been published in English will also be considered.

Submission checklist
You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

Ensure that the following items are present:

One author has been designated as the corresponding author with contact details:
• E-mail address
• Full postal address

All necessary files have been uploaded:
Manuscript:
• Include keywords
• All figures (include relevant captions)
• All tables (including titles, description, footnotes)
• Ensure all figure and table citations in the text match the files provided
• Indicate clearly if color should be used for any figures in print

Graphical Abstracts / Highlights files (where applicable)
Supplemental files (where applicable)

Further considerations
• Manuscript has been 'spell checked' and 'grammar checked'
• All references mentioned in the Reference List are cited in the text, and vice versa
• Permission has been obtained for use of copyrighted material from other sources (including the Internet)
• A competing interests statement is provided, even if the authors have no competing interests to declare
• Journal policies detailed in this guide have been reviewed
• Referee suggestions and contact details provided, based on journal requirements

For further information, visit our Support Center.

BEFORE YOU BEGIN

Ethics in publishing
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.

Declaration of interest
All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential conflicts of interest include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors should complete the declaration of interest statement using this template and upload to the submission system at the Attach/Upload Files step.
Note: Please do not convert the .docx template to another file type. Author signatures are not required. If there are no interests to declare, please choose: 'Declarations of interest: none' in the template. This statement will be published within the article if accepted. More information.

**Submission declaration and verification**
Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see 'Multiple, redundant or concurrent publication' for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service Crossref Similarity Check.

**Preprints**
Please note that preprints can be shared anywhere at any time, in line with Elsevier's sharing policy. Sharing your preprints e.g. on a preprint server will not count as prior publication (see 'Multiple, redundant or concurrent publication' for more information).

**Use of inclusive language**
Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Content should make no assumptions about the beliefs or commitments of any reader; contain nothing which might imply that one individual is superior to another on the grounds of age, gender, race, ethnicity, culture, sexual orientation, disability or health condition; and use inclusive language throughout. Authors should ensure that writing is free from bias, stereotypes, slang, reference to dominant culture and/or cultural assumptions. We advise to seek gender neutrality by using plural nouns ("clinicians, patients/clients") as default/wherever possible to avoid using "he, she," or "he/she." We recommend avoiding the use of descriptors that refer to personal attributes such as age, gender, race, ethnicity, culture, sexual orientation, disability or health condition unless they are relevant and valid. These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

**Author contributions**
For transparency, we encourage authors to submit an author statement file outlining their individual contributions to the paper using the relevant CRediT roles: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Roles/Writing - original draft; Writing - review & editing. Authorship statements should be formatted with the names of authors first and CRediT role(s) following. More details and an example

**Changes to authorship**
Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed. Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

**Article transfer service**
This journal is part of our Article Transfer Service. This means that if the Editor feels your article is more suitable in one of our other participating journals, then you may be asked to consider transferring the article to one of those. If you agree, your article will be transferred automatically on your behalf with no need to reformat. Please note that your article will be reviewed again by the new journal. More information.
Copyright
Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see more information on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases.

For gold open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

Author rights
As an author you (or your employer or institution) have certain rights to reuse your work. More information.

Elsevier supports responsible sharing
Find out how you can share your research published in Elsevier journals.

Role of the funding source
You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

Open access
Please visit our Open Access page for more information.

Elsevier Researcher Academy
Researcher Academy is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.

Language (usage and editing services)
Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's Author Services.

Referees
Please submit the names and institutional e-mail addresses of several potential referees. For more details, visit our Support site. Note that the editor retains the sole right to decide whether or not the suggested reviewers are used.

PREPARATION
Submission to this journal proceeds totally online and you will be guided stepwise through the creation and uploading of your files. The system automatically converts your files to a single PDF file, which is used in the peer-review process.
As part of the Your Paper Your Way service, you may choose to submit your manuscript as a single file to be used in the refereeing process. This can be a PDF file or a Word document, in any format or lay-out that can be used by referees to evaluate your manuscript. It should contain high enough quality figures for refereeing. In order to optimize the review process, the editors strongly encourage that authors place their figures and tables in the correct position in the body of the text. If you prefer to do so, you may still provide all or some of the source files at the initial submission. Please note that individual figure files larger than 10 MB must be uploaded separately.
Please note that the instructions related to Abbreviations, Abstract, Graphical abstract, Keywords & Math formulae still apply to all new submissions.

References
There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the article number or pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct.

Formatting requirements
There are no strict formatting requirements but all manuscripts must contain the essential elements needed to convey your manuscript, for example Abstract, Keywords, Introduction, Materials and Methods, Results, Conclusions, Artwork and Tables with Captions.
If your article includes any Videos and/or other Supplementary material, this should be included in your initial submission for peer review purposes.
Divide the article into clearly defined sections.

Peer review
This journal operates a single blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. More information on types of peer review.

REVISED SUBMISSIONS
Use of word processing software
Regardless of the file format of the original submission, at revision you must provide us with an editable file of the entire article. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). See also the section on Electronic artwork.
To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

Article structure
Subdivision - numbered sections
Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

Introduction
State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Material and methods
Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.

Theory/calculation
A Theory section should extend, not repeat, the background to the article already dealt with in the Introduction and lay the foundation for further work. In contrast, a Calculation section represents a practical development from a theoretical basis.

Results
Results should be clear and concise.
Discussion
This should explore the significance of the results of the work, not repeat them. A combined Results
and Discussion section is often appropriate. Avoid extensive citations and discussion of published
literature.

Conclusions
The main conclusions of the study may be presented in a short Conclusions section, which may stand
alone or form a subsection of a Discussion or Results and Discussion section.

Data Availability
Authors are encouraged to include a 'Data Availability' section in their manuscript which is visible
in ALL reading formats and may refer to data hosted in ANY repository. It should be placed before
the references to provide readers with information about where they can obtain the research data
required to reproduce the work reported in the manuscript, and typically consists of a simple sentence
giving the URL(s) of and citation(s) to the dataset(s). Full information can be found here.

Essential title page information
• **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid
  abbreviations and formulae where possible.
• **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s)
  of each author and check that all names are accurately spelled. You can add your name between
  parentheses in your own script behind the English transliteration. Present the authors' affiliation
  addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-
  case superscript letter immediately after the author's name and in front of the appropriate address.
  Provide the full postal address of each affiliation, including the country name and, if available, the
  e-mail address of each author.
• **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing
  and publication, also post-publication. This responsibility includes answering any future queries about
  Methodology and Materials. Ensure that the e-mail address is given and that contact details
  are kept up to date by the corresponding author.
• **Present/permanent address.** If an author has moved since the work described in the article was
done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as
a footnote to that author's name. The address at which the author actually did the work must be
retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Highlights
Highlights are mandatory for this journal as they help increase the discoverability of your article via
search engines. They consist of a short collection of bullet points that capture the novel results of
your research as well as new methods that were used during the study (if any). Please have a look
at the examples here: example Highlights.

Highlights should be submitted in a separate editable file in the online submission system. Please
use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including
spaces, per bullet point).

Abstract
A concise and factual abstract is required. The abstract should state briefly the purpose of the
research, the principal results and major conclusions. An abstract is often presented separately from
the article, so it must be able to stand alone. For this reason, References should be avoided, but if
essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should
be avoided, but if essential they must be defined at their first mention in the abstract itself.

Graphical abstract
Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online
article. The graphical abstract should summarize the contents of the article in a concise, pictorial form
designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a
separate file in the online submission system. Image size: Please provide an image with a minimum
of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 ×
13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office
files. You can view Example Graphical Abstracts on our information site.
Authors can make use of Elsevier's Illustration Services to ensure the best presentation of their images
and in accordance with all technical requirements.
**Keywords**
Immediately after the abstract, provide a maximum of 6 keywords, using British spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

**Abbreviations**
Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

**Acknowledgements**
Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

**Formatting of funding sources**
List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

**Math formulae**
Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

**Footnotes**
Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors build footnotes into the text, and this feature may be used. Should this not be the case, indicate the position of footnotes in the text and present the footnotes themselves separately at the end of the article.

**Artwork**

**Electronic artwork**

**General points**

• Make sure you use uniform lettering and sizing of your original artwork.
• Preferred fonts: Arial (or Helvetica), Times New Roman (or Times), Symbol, Courier.
• Number the illustrations according to their sequence in the text.
• Use a logical naming convention for your artwork files.
• Indicate per figure if it is a single, 1.5 or 2-column fitting image.
• For Word submissions only, you may still provide figures and their captions, and tables within a single file at the revision stage.
• Please note that individual figure files larger than 10 MB must be provided in separate source files.

A detailed guide on electronic artwork is available.

**You are urged to visit this site; some excerpts from the detailed information are given here.**

**Formats**
Regardless of the application used, when your electronic artwork is finalized, please 'save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

EPS (or PDF): Vector drawings. Embed the font or save the text as 'graphics'.
TIFF (or JPG): Color or grayscale photographs (halftones): always use a minimum of 300 dpi.
TIFF (or JPG): Bitmapped line drawings: use a minimum of 1000 dpi.
TIFF (or JPG): Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required.

Please do not:
• Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); the resolution is too low.
• Supply files that are too low in resolution.
• Submit graphics that are disproportionately large for the content.

Color artwork
Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article. Please indicate your preference for color: in print or online only. Further information on the preparation of electronic artwork.

Figure captions
Ensure that each illustration has a caption. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

References
Citation in text
Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

Web references
As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

Data references
This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

References in a special issue
Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

Reference management software
Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley. Using citation plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. If you use
reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. More information on how to remove field codes from different reference management software.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link: http://open.mendeley.com/use-citation-style/international-journal-of-electrical-power-and-energy-systems

When preparing your manuscript, you will then be able to select this style using the Mendeley plugins for Microsoft Word or LibreOffice.

**Reference Formatting**

There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the pagination must be present. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct. If you do wish to format the references yourself they should be arranged according to the following examples:


**Reference style**

**Text:** Indicate references by number(s) in square brackets in line with the text. The actual authors can be referred to, but the reference number(s) must always be given.

**List:** Number the references (numbers in square brackets) in the list in the order in which they appear in the text.

**Examples:**

Reference to a journal publication:

Reference to a journal publication with an article number:

Reference to a book:

Reference to a chapter in an edited book:

Reference to a website:

Reference to a dataset:

Note shortened form for last page number. e.g., 51–9, and that for more than 6 authors the first 6 should be listed followed by ‘et al.’ For further details you are referred to ‘Uniform Requirements for Manuscripts submitted to Biomedical Journals’ (J Am Med Assoc 1997;277:927–34) (see also Samples of Formatted References).

**Journal abbreviations source**

Journal names should be abbreviated according to the List of Title Word Abbreviations.

**Video**

Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file’s content. In order to ensure that your video or animation material is directly usable, please provide the file in one of our recommended file formats with a preferred maximum
size of 150 MB per file, 1 GB in total. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect. Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our video instruction pages. Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

Data visualization
Include interactive data visualizations in your publication and let your readers interact and engage more closely with your research. Follow the instructions here to find out about available data visualization options and how to include them with your article.

Supplementary material
Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

Research data
This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings. To facilitate reproducibility and data reuse, this journal also encourages you to share your software, code, models, algorithms, protocols, methods and other useful materials related to the project.

Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the research data page.

Data linking
If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the database linking page.

For supported data repositories a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

Mendeley Data
This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to Mendeley Data. The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the Mendeley Data for journals page.
To maximise the visibility of your data, authors are invited to add a citation to their datasets by including a data reference in their Reference List as per the 'Data References' instructions elsewhere on this page.

Data in Brief
You have the option of converting any or all parts of your supplementary or additional raw data into one or multiple data articles, a new kind of article that houses and describes your data. Data articles ensure that your data is actively reviewed, curated, formatted, indexed, given a DOI and publicly available to all upon publication. You are encouraged to submit your article for Data in Brief as an additional item directly alongside the revised version of your manuscript. If your research article is accepted, your data article will automatically be transferred over to Data in Brief where it will be editorially reviewed and published in the open access data journal, Data in Brief. Please note an open access fee of 600 USD is payable for publication in Data in Brief. Full details can be found on the Data in Brief website. Please use this template to write your Data in Brief.

MethodsX
You have the option of converting relevant protocols and methods into one or multiple MethodsX articles, a new kind of article that describes the details of customized research methods. Many researchers spend a significant amount of time on developing methods to fit their specific needs or setting, but often without getting credit for this part of their work. MethodsX, an open access journal, now publishes this information in order to make it searchable, peer reviewed, citable and reproducible. Authors are encouraged to submit their MethodsX article as an additional item directly alongside the revised version of their manuscript. If your research article is accepted, your methods article will automatically be transferred over to MethodsX where it will be editorially reviewed. Please note an open access fee is payable for publication in MethodsX. Full details can be found on the MethodsX website. Please use this template to prepare your MethodsX article.

Data statement
To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the Data Statement page.

AFTER ACCEPTANCE

Online proof correction
To ensure a fast publication process of the article, we kindly ask authors to provide us with their proof corrections within two days. Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors. If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.

We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

Offprints
The corresponding author will, at no cost, receive a customized Share Link providing 50 days free access to the final published version of the article on ScienceDirect. The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's Author Services. Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.
AUTHOR INQUIRIES
Visit the Elsevier Support Center to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch. You can also check the status of your submitted article or find out when your accepted article will be published.

© Copyright 2018 Elsevier | https://www.elsevier.com