

# **BIOSYSTEMS ENGINEERING**

**AUTHOR INFORMATION PACK** 

# **TABLE OF CONTENTS**

•	Description	p.1
•	Impact Factor	p.1
•	Abstracting and Indexing	p.2
•	Editorial Board	p.2
•	Guide for Authors	p.3



**ISSN:** 1537-5110

## DESCRIPTION

Biosystems Engineering publishes research in **engineering** and the physical sciences that represent advances in understanding or modelling of the performance of **biological systems** for sustainable developments in land use and the environment, agriculture and amenity, bioproduction processes and the food chain. The subject matter of the journal reflects the wide range and interdisciplinary nature of research in engineering for biological systems.

Papers may report the results of experiments, theoretical analyses, design of, or innovations relating to, machines and mechanisation systems, processes or processing methods, equipment and buildings, experimental equipment, laboratory and analytical techniques and instrumentation.

## **Benefits to authors**

We also provide many author benefits, such as free PDFs, a liberal copyright policy, special discounts on Elsevier publications and much more. Please click here for more information on our author services.

Please see our Guide for Authors for information on article submission. If you require any further information or help, please visit our Support Center

## IMPACT FACTOR

2018: 2.983 © Clarivate Analytics Journal Citation Reports 2019

## ABSTRACTING AND INDEXING

Scopus

**EMBiology** 

**COMPENDEX** 

Science Citation Index Expanded

Elsevier BIOBASE

**Biological Abstracts** 

**BIOSIS Previews** 

BioEngineering Abstracts

**CABI** Information

CSA Database

Academic Search (EBSCO)

**AGRICOLA** 

Pascal Francis

Web of Science

**Current Contents** 

# **EDITORIAL BOARD**

#### Editor-in-Chief

W. Day, Hexham, Northumberland, UK

#### Managing Editor

C.S. Parkin, Towcester, UK

#### Associate Editor

D. Wulfsohn, San Fernando, Chile

S.G. Vougioukas, Davis, California, USA

J. Gowing, Tyne and Wear, England, UK

## **Editorial Board**

V. Alchanatis, Agricultural Research Organization (ARO), Bet Dagan, Israel

F. Béline, Cemagref, Rennes, France

D. Bochtis, Aarhus University, Aarhus, Denmark

S. Böttinger, Universität Hohenheim, Stuttgart, Germany

A. Castrignanò, CRA - Research Unit for Agriculture in Dry Environments, BARI, Italy

P. Gay, Università di Torino, Grugliasco (TO), Italy

S. Giner, Universidad Nacional de La Plata, La Plata, Argentina

A. A. Gowen, University College Dublin, Dublin, Ireland

T.E. Grift, University of Illinois at Urbana-Champaign, Urbana, Illinois, USA

D. Herak, Czech University of Life Sciences, Prague, Czech Republic

J.C. Jofriet, University of Guelph, Guelph, Ontario, Canada

I.-B. Lee, Seoul National University (SNU), Seoul, The Republic of Korea

B.L. Maheshwari, Western Sydney University, Richmond, New South Wales, Australia

P.C.H. Miller, Silsoe Spray Applications Unit, Silsoe, England, UK

E. Moltó Garcia, Instituto Valenciano de Investigaciones Agrarias, Moncada, Spain

A.M. Mouazen, Universiteit Gent, Gent, Belgium

B. Panneton, Agriculture and Agri-Food Canada (AAFC), Saint-Jean-sur-Richelieu, Quebec, Canada

W. Saeys, KU Leuven, Leuven, Belgium

N. Sigrimis, Agricultural University of Athens, Athens, Greece

G. Singh, Central Institute of Agricultural Engineering, Bhopal, India

E.J. van Henten, Wageningen Universiteit, Wageningen, Netherlands

M. Wang, China Agricultural University, Beijing, China

I. Woodhead, Lincoln Ventures Ltd, Christchurch, New Zealand

M. Zude Sasse, Leibniz Institute for Agricultural Engineering, Potsdam-Bornim, Germany

## **GUIDE FOR AUTHORS**

#### INTRODUCTION

Biosystems Engineering publishes research in engineering and the physical sciences that represent advances in understanding or modelling of the performance of biological systems for sustainable developments in land use and the environment, agriculture and amenity, bioproduction processes and the food chain. The subject matter of the journal reflects the wide range and interdisciplinary nature of research in engineering for biological systems.

Papers may report the results of experiments, theoretical analyses, design of, or innovations relating to, machines and mechanisation systems, processes or processing methods, equipment and buildings, experimental equipment, laboratory and analytical techniques and instrumentation.

# Types of paper

There are three types of paper.

## 1. Research papers (Full length Articles)

These are the normal type of paper published and make up the main bulk of the Journal.

# 2. Short Communications (Research notes)

These enable important findings to be speedily communicated and facilitate the reporting of work not meriting a full length paper. They should not exceed four Journal pages, that is, about 3000 words.

## 3. Review papers

These are intended to be in-depth studies of the state-of-the-art in the chosen subject.

## **BEFORE YOU BEGIN**

#### Reporting standards

Authors of reports of original research should present an accurate account of the work performed as well as an objective discussion of its significance. Underlying data should be represented accurately in the paper. A paper should contain sufficient detail and references to permit others to replicate the work. Fraudulent or knowingly inaccurate statements constitute unethical behaviour and are unacceptable.

#### Originality and Plagiarism

Authors should ensure that they have written entirely original works, and if the authors have used the work and/or words of others that this has been appropriately cited or quoted. Plagiarism takes many forms, from 'passing off' another's paper as the author's own paper, to copying or paraphrasing substantial parts of another's paper (without attribution), to claiming results from research conducted by others. Plagiarism in all its forms constitutes unethical publishing behaviour and is unacceptable.

## Multiple, Redundant or Concurrent Publication

An author should not in general publish manuscripts describing essentially the same research in more than one journal or primary publication. Submitting the same manuscript to more than one journal concurrently constitutes unethical publishing behaviour and is unacceptable. An author should not submit for consideration in another journal a previously published paper.

# Acknowledgement of Sources

Proper acknowledgment of the work of others must always be given. Authors should cite publications that have been influential in determining the nature of the reported work. Information obtained privately, as in conversation, correspondence, or discussion with third parties, must not be used or reported without explicit, written permission from the source. Information obtained in the course of confidential services, such as refereeing manuscripts or grant applications, must not be used without the explicit written permission of the author of the work involved in these services.

Authorship of the Paper

Authorship should be limited to those who have made a significant contribution to the conception, design, execution, or interpretation of the reported study. Where there are others who have participated in certain substantive aspects of the research project, they should be acknowledged or listed as contributors. The corresponding author should ensure that all co-authors have seen and approved the final version of the paper and have agreed to its submission for publication.

## Ethics in publishing

For information on Ethics in Publishing and Ethical guidelines for journal publication see <a href="https://www.elsevier.com/publishingethics">https://www.elsevier.com/publishingethics</a> and <a href="https://www.elsevier.com/ethicalguidelines">https://www.elsevier.com/ethicalguidelines</a>.

## **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 competing interests include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double-blind) or the manuscript file (if single-blind). If there are no interests to declare then please state this: 'Declarations of interest: none'. This summary statement will be ultimately published if the article is accepted. 2. Detailed disclosures as part of a separate Declaration of Interest form, which forms part of the journal's official records. It is important for potential interests to be declared in both places and that the information matches. 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.

# Use of inclusive language

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

#### 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.

## Funding body agreements and policies

Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the gold open access publication fee. Details of existing agreements are available online.

#### Open access

This journal offers authors a choice in publishing their research:

## Subscription

- Articles are made available to subscribers as well as developing countries and patient groups through our universal access programs.
- No open access publication fee payable by authors.
- The Author is entitled to post the accepted manuscript in their institution's repository and make this public after an embargo period (known as green Open Access). The published journal article cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

## Gold open access

- Articles are freely available to both subscribers and the wider public with permitted reuse.
- A gold open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For gold open access articles, permitted third party (re)use is defined by the following Creative Commons user licenses:

## Creative Commons Attribution (CC BY)

Lets others distribute and copy the article, create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), include in a collective work (such as an anthology), text or data mine the article, even for commercial purposes, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, and do not modify the article in such a way as to damage the author's honor or reputation.

# Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)

For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The gold open access publication fee for this journal is **USD 2750**, excluding taxes. Learn more about Elsevier's pricing policy: https://www.elsevier.com/openaccesspricing.

## Green open access

Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our open access page for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. Find out more.

This journal has an embargo period of 24 months.

# Language and language services

Please write your text in good English. Biosystems Engineering requests that UK English is used in all submissions to the journal. Please note that where a verb may either be spelt with the suffix 'ize' or 'ise' (for example: minimize/minimise, maximize/maximise), the 'ise' variant must be used. Authors who require information about language editing and copyediting services pre- and post-submission please visit <a href="http://webshop.elsevier.com/languageediting">http://webshop.elsevier.com/languageediting</a> or our customer support site at <a href="http://service.elsevier.com">http://service.elsevier.com</a> for more information.

## Full online submission

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 and orders the source files into a single PDF file of the article, which is used in the peer-review process. Please note that even though manuscript source files are converted to PDF files at submission for the review process, these source files are needed for further processing after acceptance. All correspondence, including notification of the Editor's decision and requests for revision, takes place by e-mail removing the need for a paper trail. Before submitting your article, please refer to our Submission Checklist

#### Reviewers

Authors are required to identify four persons who are qualified to serve as reviewers. Authors are requested not to suggest reviewers with whom they have a personal or professional relationship, especially if that relationship would prevent the reviewer from having an unbiased opinion of the work of the authors. A working e-mail address for each reviewer is essential for rapid review in the event that reviewer is selected from those that are identified by the authors. You may also select reviewers you do not want to review your manuscript, but please state your reason for doing so.

## **PREPARATION**

#### 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.

## Use of word processing software

It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. 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.

## 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.

#### Appendices

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

## 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.

## **Abstract**

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. It should not exceed 250 words. 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  $531 \times 1328$  pixels (h × w) or proportionally more. The image should be readable at a size of  $5 \times 13$  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.

## Research Highlights

Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters per bullet point including spaces). See <a href="https://www.elsevier.com/highlights">https://www.elsevier.com/highlights</a> for examples.

#### Keywords

Immediately after the abstract provide a maximum of 6 keywords using UK 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. Please choose keywords that effectively define the scientific and technical area in which your paper will be recognised and valued: e.g. 'tractors; vibration; modelling; design; seat; safety' or 'cattle, oestrus detection; breath; electronic nose, detection'. The placement of more generic terms at the beginning of the list of keywords would be appreciated, as this may assist the journal Editors in their handling of your submission. These keywords will be used for indexing purposes.

## 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

Present simple formulae in the line of normal text where possible and use the exponent form (e.g. m s $^{-1}$  not m/s). 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, using superscript Arabic numbers. Many wordprocessors 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. Do not include footnotes in the Reference list.

#### Table footnotes

Indicate each footnote in a table with a superscript lowercase letter.

## Electronic artwork

## General points

- Make sure you use uniform lettering and sizing of your original artwork.
- •In graphs, include a vertical axis on the left side and a horizontal axis at the bottom. Do not include other gridlines.
- •Place any descriptions of symbols and lines in the figure title and not within the graphical area.
- Correlation equations and regression coefficients should not be shown within the graphical area.
- Where data points are shown, include error bars where appropriate. Do not connect adjacent points with straight lines. Lines in addition to data points are acceptable where they represent a statistical fit or a theoretical relationship.
- Save text in illustrations as "graphics" or enclose the font.
- Only use the following fonts in your illustrations: Arial, Courier, Times, Symbol.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately within your manuscript file.
- Produce images near to the desired size of the printed version.
- Submit each figure as a separate file.

A detailed guide on electronic artwork is available on our website:

https://www.elsevier.com/artworkinstructions

# 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 finalised, 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: Vector drawings. Embed the font or save the text as "graphics".

TIFF: colour or greyscale photographs (halftones): always use a minimum of 300 dpi.

TIFF: Bitmapped line drawings: use a minimum of 1000 dpi.

TIFF: Combinations bitmapped line/half-tone (colour or greyscale): a minimum of 500 dpi is required. DOC, XLS or PPT: If your electronic artwork is created in any of these Microsoft Office applications please supply "as is".

## •Please do not:

- Supply embedded graphics in your wordprocessor (spreadsheet, presentation) document;
- Supply files that are optimised for screen use (like 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.

## Colour artwork

Please make sure that artwork files are in an acceptable format (TIFF, EPS or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable colour figures then Elsevier will ensure, at no additional charge, that these figures will appear in colour on the Web (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in colour

in the printed version. A charge will apply per figure for colour reproduction in print. Please note, however, that the charges for some or all of your colour figures may be waived at the discretion of the Editors should the use of colour aid the scientific understanding of your figure. You will receive information regarding the cost of any figures for which the charges have not been waived from Elsevier after receipt of your accepted article. Please indicate your preference for colour in print or on the Web only. For further information on the preparation of electronic artwork, please see <a href="https://www.elsevier.com/artworkinstructions">https://www.elsevier.com/artworkinstructions</a>. Please note: Because of technical complications which can arise by converting colour figures to "laquo; grey scale" (for the printed version should you not opt for colour in print) please submit in addition usable black and white versions of all the colour illustrations.

## Figure captions

Ensure that each illustration has a caption. Supply captions separately within your manuscript file (either before or after your reference list), not attached to the figure. 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 (preferably in the caption). The caption should allow the reader to understand the main elements of what is being shown without needing to refer to the main text.

## **Tables**

Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

### 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.

## 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/biosystems-engineering

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

## Reference style

Text: Citations in the text should follow the referencing style used by the American Psychological Association. You are referred to the Publication Manual of the American Psychological Association, Sixth Edition, ISBN 1-4388-0559-6, copies of which may be ordered from http://books.apa.org/books.cfm?id=4200067 or APA Order Dept., P.O.B. 2710, Hyattsville, MD 20784, USA or APA, 3 Henrietta Street, London, WC3E 8LU, UK. Details concerning this referencing style can also be found at http://humanities.byu.edu/linguistics/Henrichsen/APA/APA01.html.

List: references should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters "a", "b", "c", etc., placed after the year of publication.

## Examples:

Reference to a journal publication:

Van der Geer, J., Hanraads, J. A. J., & Lupton R. A. (2000). The art of writing a scientific article. Journal of Scientific Communications, 163, 51-59.

Reference to a book:

Strunk, W., Jr., & White, E. B. (1979). The elements of style. (3rd ed.). New York: Macmillan, (Chapter

Reference to a chapter in an edited book:

Mettam, G. R., & Adams, L. B. (1994). How to prepare an electronic version of your article. In B. S. Jones, & R. Z. Smith (Eds.), Introduction to the electronic age (pp. 281-304). New York: E-Publishing Inc.

Reference to a dataset:

[dataset] 5. Oguro, M., Imahiro, S., Saito, S., Nakashizuka, T. (2015). Mortality data for Japanese oak wilt disease and surrounding forest compositions. Mendeley Data, v1. http://dx.doi.org/10.17632/xwj98nb39r.1.

For APA style references in the text the following rules apply (note the use of .and. and .&):

- For publications by one author, when the name is mentioned in the text, use [...] Smith (1999) [...]; when the name is not directly part of the text use [...] (Smith, 1999).
- For publications by two authors, when the names are mentioned in the text, use [...] Smith and Jones (1999) [...]; when the names are not part of the text use [...] (Smith & Jones, 1999).
- For publications by three to five authors, when the names are mentioned in the text, use [...] Smith, Jones, White, and Brown (1999) [...]; when the names are not mentioned use [...] (Smith, Jones, White, Brown, 1999) for the first instance the reference is mentioned. For subsequent references use Smith et al. 1999. For subsequent references within the same paragraph the year may be omitted.
- For publications by more than five authors, when the names are mentioned in the text, use [...] Smith et al. (1999) [...]; when the names are not mentioned use [...] (Smith et al., 1999).
- For references with the same first author and year, cite as many names of co-authors as are necessary to distinguish the two references (rather than using a and b after the year, as in other reference systems). Use a and b after the year only if all authors, names as well as the year are identical.
- If just one name precedes it, no comma should appear before .and., .&. or .et al... In the other case a comma should appear.
- For works without author, list the title of the work instead of the author.

## Symbols and abbreviations

Define all symbols that are used in the document in a Nomenclature table placed before the introduction and also give the units. In choosing symbols, please seek to ensure that the same symbol or subscript/superscript is not given more than one meaning in the text.

Abbreviations that are not standard in this research field should also be included in the Nomenclature. Where possible please avoid the use of symbols and abbreviations in the abstract. Both symbols and abbreviations must be defined at their first use in the text, as well as in the Nomenclature. Ensure consistency of abbreviations throughout the article. Please use SI units only. It is not necessary to give the SI unit and (say) its Imperial equivalent. Engineering Notation, where units are in multiples of 1,000, should be used. Thus, we wish to see the use of mm and m and not cm.

#### 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 (e-component)

Supplementary material can support and enhance your scientific research. Supplementary files offer the author additional possibilities to publish supporting applications, high-resolution images, background datasets, sound clips and more. Should your paper be accepted for publication, your supplementary material will be hosted on ScienceDirect and accessible via the online version of your published paper. In addition, a note regarding the availability of supplementary material online, and an associated hyperlink, will be inserted into your paper. Please note that such items are published online exactly as they are submitted; there is no typesetting involved (supplementary data supplied as an Excel file or as a PowerPoint slide will appear as such online). Please submit the material together with the article, selecting the file type 'e-component' for any supplementary material from the options available during the 'Upload files' stage of the submission process, and supply a concise and descriptive caption for each file. If you wish to make any changes to supplementary data during any stage of the process, then please make sure to provide an updated file, and do not annotate any corrections on a previous version. Please also make sure to switch off the 'Track Changes' option in any Microsoft Office files as these will appear in the published supplementary file(s). For more detailed instructions please visit our artwork instruction pages.

### 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.

#### 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.

#### Submission checklist

It is hoped that this list will be useful during the final checking of an article prior to sending it to the journal's Editor for review. Please consult this Guide for Authors for further details of any item.

# Please note that your manuscript source file must include line numbers in order to be considered for publication in Biosystems Engineering

The submission system will automatically place your main uploaded files into the prefered order.

# Please also ensure that the following items are present:

- One Author is designated as the corresponding Author:
- E-mail address
- Full postal address
- Telephone and fax numbers
- Reviewers have been suggested
- All necessary files have been uploaded
- Keywords are included
- All figure captions are provided
- All tables (including title, description, footnotes) are included

#### **Further considerations:**

- Manuscript has been "spellchecked" and "grammar-checked"
- References are in the correct format for this journal
- 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 Web)
- Colour figures are clearly marked as being intended for colour reproduction on the Web (free of charge) and in print or to be reproduced in colour on the Web (free of charge) and in black-and-white in print
- If only colour on the Web is required, black and white versions of the figures are also supplied for printing purposes

For any further information please visit our customer support site at service.elsevier.com.

## **AFTER ACCEPTANCE**

## Online proof correction

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