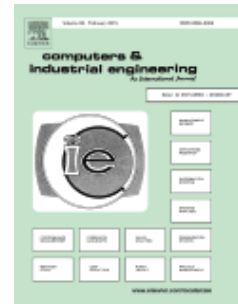




### TABLE OF CONTENTS

●	<b>Description</b>	<b>p.1</b>
●	<b>Audience</b>	<b>p.1</b>
●	<b>Impact Factor</b>	<b>p.1</b>
●	<b>Abstracting and Indexing</b>	<b>p.2</b>
●	<b>Editorial Board</b>	<b>p.2</b>
●	<b>Guide for Authors</b>	<b>p.5</b>



ISSN: 0360-8352

### DESCRIPTION

**Industrial engineering** is one of the earliest fields to utilize **computers** in research, education, and practice. Over the years, computers and **electronic communication** have become an integral part of industrial engineering.

The journal aims at an audience of researchers, educators and practitioners of industrial engineering and associated fields. It publishes original contributions to the development of new computerized methodologies for solving industrial engineering problems, and applications of these methodologies to problems of interest to the broad industrial engineering and associated communities. It encourages [submissions](#) that expand the frontiers of the fundamental theories and concepts underlying industrial engineering techniques.

#### 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 pages: <http://support.elsevier.com> It also serves as a venue for articles evaluating the state of the art of computer applications in various industrial engineering and related topics, and research in the utilization of computers in industrial engineering education. Papers reporting on applications of industrial engineering techniques to real life problems are welcome, as long as they satisfy the criteria of originality in the choice of the problem and the tools utilized to solve it, generality of the approach for applicability to other problems, and significance of the results produced. A major aim of the journal is to foster international exchange of ideas and experiences among scholars and practitioners with shared interests all over the world.

### AUDIENCE

Researchers, teachers and practitioners involved in industrial engineering, computers and their applications, management scientists and operations research specialists.

### IMPACT FACTOR

2013: 1.690 © Thomson Reuters Journal Citation Reports 2014

## ABSTRACTING AND INDEXING

---

Artificial Intelligence Abstracts  
British Maritime Abstracts  
COMPENDEX  
Cambridge Scientific Abstracts  
Computer Contents  
Current Contents/CompuMath  
Current Contents/Engineering, Computing & Technology  
Current Contents/SciSearch Database  
Information Science Abstracts  
Engineering Index  
Ergonomics Abstracts  
Operations Research & Management Science  
PASCAL/CNRS  
Research Alert  
SSSA/CISA/ECA/ISMEC  
Science Citation Index  
Software Reviews on File  
Scopus

## EDITORIAL BOARD

---

### ***Editor-in-Chief:***

**Mohamed Dessouky**, Dept. of Industrial and Systems Engineering, University of Southern California, 3715 McClintock Avenue, Los Angeles, CA 90089-0193, California, USA

### ***Associate Editor:***

**Yasser Dessouky**, Dept. of Industrial and Systems Engineering, San Jose State University, San Jose, CA 95192-0085, California, USA, Fax: +1-408-924-4040

### ***Communications & Networking***

**Shimon Nof**, School of Industrial Engineering, Purdue University, Grisson Hall, West Lafayette, IN 47907, Indiana, USA

### ***Computational Intelligence***

**Mitsuo Gen**, Fuzzy Logic Systems Inst, Iizuka, 820-0067, Fukuoka, Japan

### ***Enterprise Engineering & Management***

**T. Dereli**, Gaziantep University, Gaziantep, Turkey  
**F. Vernadat**, European Court Auditors, Luxembourg

### ***Environmental Issues***

**Surendra M. Gupta**, Dept. of Mechanical and Industrial Engineering, Lab. for Responsible Manufacturing, Northeastern University, 334 Snell Engineering Center, Boston, MA 02115, Massachusetts, USA

### ***Future Perspectives/Emerging Technologies***

**Louis Martin-Vega**, Innovation/Organizational Chng., National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230, Virginia, USA

### ***Health Care Systems***

**James Benneyan**, Dept. of Mechanical and Industrial Engineering, Lab. for Responsible Manufacturing, Northeastern University, 334 Snell Engineering Center, Boston, MA 02115, Massachusetts, USA

### ***IE Education & Training***

**Paul Savory**, College of Engineering, University of Nebraska at Lincoln, 175 Nebraska Hall, Lincoln, NE 68588-0518, Nebraska, USA

### ***Logistics & Inventory Systems***

**Alexandre Dolgui**, Center for Industrial Engineering and Computer Sciences, Ecole des Mines de Saint Etienne, 158 cours Fauriel, 42023, St. Etienne cedex 2, France

**Ozlem Ergun**, H. Milton Stewart School of Industrial & Systems Engineering, Georgia Institute of Technology, Atlanta, 30332-0205, Georgia, USA

**Christoph Glock**, Technische Universität Darmstadt, Hochschulstr. 1, 64289, Darmstadt, Germany

**Mohamad Jaber**, Dept. of Mechanical and Industrial Engineering, Ryerson University, 350 Victoria Street, Toronto, M5B 2K3, Ontario, Canada

**Iris Vis**, Fac. of Business & Economics, Rijksuniversiteit Groningen, Postbus 800, 9700 AV, Groningen, Netherlands

**Simone Zanoni**, Dept of Mechanical & Industrial Engineering, Università degli Studi di Brescia, Via Branze 38, 1-25123, Brescia, Italy

**QiuHong Zhao**, School of Management, Beihang University, 37 Xueyuan Road, 100083, Beijing, Haidian District, China

### ***Manufacturing Processes***

**Manoj Kumar Tiwari**, Dept. of Industrial and Systems Engineering, IIT Kharagpur, Pin, 721302, Kharagpur, India

### ***Manufacturing Systems***

**Satish Bukkapatnam**, School of Industrial Engineering and Management, Oklahoma State University, 322 Engineering North, Stillwater, OK 74078, Oklahoma, USA

**Gürsel Süer**, Dept. of Industrial & Manufacturing, Systems Engineering, Ohio University, Athens, OH 45701, Ohio, USA

### ***Operations Research: Deterministic Models***

**Imed Kacem**, Dept. de Informatique, UFR M.I.M / LITA, Université Paul Verlaine - Metz, Ile du Saulcy, 57000, Metz, France

**Silvano Martello**, DEIS, Università di Bologna, viale Del Risorgimento 2, 40136, Bologna, Italy

**I-Lin Wang**, Dept. of Industrial and Information Management, National Cheng Kung University, No.1, University Road, Tainan, Taiwan, ROC

### ***Operations Research: Probabilistic Models***

**C-H Wu**, National Taiwan University, Taipei, Taiwan

### ***Planning and Scheduling***

**Edwin Cheng**, Dean's Office, Fac. of Business, The Hong Kong Polytechnic University, 11 Yuk Choi Road, Hung Hom, Kowloon, Hong Kong

**Maged Dessouky**, Dept. of Industrial and Systems Engineering, University of Southern California, 3715 McClintock Avenue, Los Angeles, CA 90089-0193, California, USA

**Hans Kellerer**, Institut für Statistik und Operations Research, Karl-Franzens-Universität Graz, Universitätsstraße 15, A-8010, Graz, Austria

**Subhash C. Sarin**, Dept. of Industrial and Systems Engineering, Virginia Polytechnic Institute & State University, Mail Code 0118, Blacksburg, VA 24061, Virginia, USA

### ***Statistics, Quality, Reliability & Maintenance***

**Brian Hwarng**, Department of Decision Sciences, NUS Business School, National University of Singapore, Mochtar Riady Building, 15 Kent Ridge Drive, 119245, Singapore

**Jacob Tsao**, Dept. of Industrial and Systems Engineering, San Jose State University, San Jose, CA 95192-0085, California, USA

**Min Xie**, Dept. of Systems Engineering & Engineering Management, City University of Hong Kong, 83 Tat Chee Avenue, Kowloon, Hong Kong

### ***Editorial Board***

**Susan Adendorff**, University of Pretoria, Hatfield Pretoria, South Africa

**Kahled Al-Sultan**, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

**Jonathan Bard**, University of Texas, Austin, Texas, USA

**Demet Bayraktar**, Suleyman Sah University, Kartal Istanbul, Turkey

**Leopoldo Cardenas-Barron**, Tecnologico de Monterrey, Mexico

**Chen-Fu Chien**, National Tsing Hua University, Hsinchu, Taiwan, ROC

**Chengbin Chu**, Ecole Centrale Paris, Châtenay Malabry, France

**Runliang Dou**, Tianjin University, Tianjin, China

**Guy Doumeingts**, Université de Bordeaux, Talence Cedex, France

**Ludo Gelders**, KU Leuven, Heverlee-Leuven, Belgium

**Khalil Hindi**, American University of Beirut (AUB), Beirut, Lebanon

**Yasser Hosni**, University of Central Florida, Orlando, Florida, USA

**George Huang**, The University of Hong Kong, Hong Kong, Hong Kong

**Hark Hwang**, Korea Advanced Institute of Science and Technology (KAIST), Taejeon, South Korea

**Mooyoung Jung**, UNIST, Ulsan, South Korea

**Behrokh Khoshnevis**, University of Southern California, Los Angeles, California, USA

**Peter O'Grady**, University of Iowa, Iowa City, Iowa, USA

**Christos Papadopoulos**, Aristotle University of Thessaloniki, Thessaloniki, Greece

**Hamid Parsaei**, University of Houston, Houston, Texas, USA

**Henri Pierreval**, French Institute of Mechanical Engineering (IFMA), Aubière Cedex, France

**Ebrahim Shayan**, Swinburne University of Technology, Victoria, Australia  
**Dongliang Daniel Sheu**, National Tsing Hua University, Hsinchu, Taiwan, ROC  
**Mario Tabucanon**, Asian Institute of Technology, Pathumthani, Thailand  
**Guoping Xia**, Beihang University, Beijing, Haidian District, China

## GUIDE FOR AUTHORS

---

### BEFORE YOU BEGIN

#### **Ethics in publishing**

For information on Ethics in publishing and Ethical guidelines for journal publication see <http://www.elsevier.com/publishingethics> and <http://www.elsevier.com/journal-authors/ethics>.

#### **Conflict of interest**

All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three years of beginning the submitted work that could inappropriately influence, or be perceived to influence, their work. See also <http://www.elsevier.com/conflictsofinterest>. Further information and an example of a Conflict of Interest form can be found at: [http://help.elsevier.com/app/answers/detail/a\\_id/286/p/7923](http://help.elsevier.com/app/answers/detail/a_id/286/p/7923).

#### **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 or as part of a published lecture or academic thesis or as an electronic preprint, see <http://www.elsevier.com/postingpolicy>), 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 CrossCheck <http://www.elsevier.com/editors/plagdetect>.

#### **Changes to authorship**

This policy concerns the addition, deletion, or rearrangement of author names in the authorship of accepted manuscripts:

*Before the accepted manuscript is published in an online issue:* Requests to add or remove an author, or to rearrange the author names, must be sent to the Journal Manager from the corresponding author of the accepted manuscript and must include: (a) the reason the name should be added or removed, or the author names rearranged and (b) written confirmation (e-mail, fax, 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. Requests that are not sent by the corresponding author will be forwarded by the Journal Manager to the corresponding author, who must follow the procedure as described above. Note that: (1) Journal Managers will inform the Journal Editors of any such requests and (2) publication of the accepted manuscript in an online issue is suspended until authorship has been agreed.

*After the accepted manuscript is published in an online issue:* Any requests to add, delete, or rearrange author names in an article published in an online issue will follow the same policies as noted above and 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 about this can be found here: <http://www.elsevier.com/authors/article-transfer-service>.

#### **Copyright**

This journal offers authors a choice in publishing their research: Open access and Subscription.

##### *For subscription articles*

Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (for more information on this and copyright, see <http://www.elsevier.com/copyright>). 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 (please consult <http://www.elsevier.com/permissions>). 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: please consult <http://www.elsevier.com/permissions>.

#### *For open access articles*

Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (for more information see <http://www.elsevier.com/OAauthoragreement>). Permitted reuse of open access articles is determined by the author's choice of user license (see <http://www.elsevier.com/openaccesslicenses>).

#### **Retained author rights**

As an author you (or your employer or institution) retain certain rights. For more information on author rights for:

Subscription articles please see <http://www.elsevier.com/journal-authors/author-rights-and-responsibilities>.  
Open access articles please see <http://www.elsevier.com/OAauthoragreement>.

#### **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 agreements and developed policies to allow authors whose articles appear in journals published by Elsevier, to comply with potential manuscript archiving requirements as specified as conditions of their grant awards. To learn more about existing agreements and policies please visit <http://www.elsevier.com/fundingbodies>.

#### **Open access**

This journal offers authors a choice in publishing their research:

##### **Open access**

- Articles are freely available to both subscribers and the wider public with permitted reuse
- An open access publication fee is payable by authors or their research funder

##### **Subscription**

- Articles are made available to subscribers as well as developing countries and patient groups through our access programs (<http://www.elsevier.com/access>)
- No open access publication fee

All articles published open access will be immediately and permanently free for everyone to read and download. Permitted reuse is defined by your choice of one of the following Creative Commons user licenses:

**Creative Commons Attribution (CC BY):** lets others distribute and copy the article, to create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), to include in a collective work (such as an anthology), to 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-ShareAlike (CC BY-NC-SA):** for non-commercial purposes, lets others distribute and copy the article, to create extracts, abstracts and other revised versions, adaptations or derivative works of or from an article (such as a translation), to include in a collective work (such as an anthology), to text and data mine the article, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, do not modify the article in such a way as to damage the author's honor or reputation, and license their new adaptations or creations under identical terms (CC BY-NC-SA).

**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.

To provide open access, this journal has a publication fee which needs to be met by the authors or their research funders for each article published open access. Your publication choice will have no effect on the peer review process or acceptance of submitted articles.

The open access publication fee for this journal is **\$1800**, excluding taxes. Learn more about Elsevier's pricing policy: <http://www.elsevier.com/openaccesspricing>.

### **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 WebShop (<http://webshop.elsevier.com/languageediting/>) or visit our customer support site (<http://support.elsevier.com>) for more information.

### **Submission**

Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

*Double blind review.* Since the journal employs double blind review please do not include information in the body of the article, the figures or computer printouts that could disclose your identity. Proper credits and acknowledgements can be given in the final accepted version of the article.

## **PREPARATION**

### **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: <http://www.elsevier.com/guidepublication>). 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.

### **LaTeX**

You are recommended to use the Elsevier article class *elsarticle.cls* (<http://www.ctan.org/tex-archive/macros/latex/contrib/elsarticle>) to prepare your manuscript and BibTeX (<http://www.bibtex.org>) to generate your bibliography.

For detailed submission instructions, templates and other information on LaTeX, see <http://www.elsevier.com/latex>.

### **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 detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.

## 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.** Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. 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. **Ensure that phone numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address. Contact details must be 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. 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. See <http://www.elsevier.com/graphicalabstracts> for examples.

Authors can make use of Elsevier's Illustration and Enhancement service to ensure the best presentation of their images and in accordance with all technical requirements: [Illustration Service](#).

## Highlights

Highlights are a short collection of bullet points that convey the core findings of the article. Highlights 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 including spaces, or, maximum 20 words per bullet point). See <http://www.elsevier.com/highlights> for examples.

## Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using American 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.).

## 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 can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

## Artwork

### Electronic artwork

#### General points

- Make sure you use uniform lettering and sizing of your original artwork.
- Embed the used fonts if the application provides that option.
- Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately.
- Size the illustrations close to the desired dimensions of the printed version.
- Submit each illustration as a separate file.

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

<http://www.elsevier.com/artworkinstructions>

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

#### Formats

If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.

Regardless of the application used other than Microsoft Office, 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 all used fonts.

TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.

TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.

TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

#### Please do not:

- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- 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. For further information on the preparation of electronic artwork, please see <http://www.elsevier.com/artworkinstructions>.

Please note: Because of technical complications that can arise by converting color figures to 'gray scale' (for the printed version should you not opt for color in print) please submit in addition usable black and white versions of all the color illustrations.

#### *Figure captions*

Ensure that each illustration has a caption. Supply captions separately, 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.

#### **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.

#### **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.

##### *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*

This journal has standard templates available in key reference management packages EndNote (<http://www.endnote.com/support/enstyles.asp>) and Reference Manager (<http://refman.com/support/rmstyles.asp>). Using plug-ins to wordprocessing packages, authors only need to select the appropriate journal template when preparing their article and the list of references and citations to these will be formatted according to the journal style which is described below.

##### *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 978-1-4338-0561-5, 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.

*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. (2010). The art of writing a scientific article. *Journal of Scientific Communications*, 163, 51–59.

Reference to a book:

Strunk, W., Jr., & White, E. B. (2000). *The elements of style*. (4th ed.). New York: Longman, (Chapter 4).

Reference to a chapter in an edited book:

Mettam, G. R., & Adams, L. B. (2009). 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.

### **Video data**

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 files in one of our recommended file formats with a preferred maximum size of 50 MB. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect: <http://www.sciencedirect.com>. 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 at <http://www.elsevier.com/artworkinstructions>. 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.

### **AudioSlides**

The journal encourages authors to create an AudioSlides presentation with their published article. AudioSlides are brief, webinar-style presentations that are shown next to the online article on ScienceDirect. This gives authors the opportunity to summarize their research in their own words and to help readers understand what the paper is about. More information and examples are available at <http://www.elsevier.com/audioslides>. Authors of this journal will automatically receive an invitation e-mail to create an AudioSlides presentation after acceptance of their paper.

### **Supplementary data**

Elsevier accepts electronic supplementary material to 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. Supplementary files supplied will be published online alongside the electronic version of your article in Elsevier Web products, including ScienceDirect: <http://www.sciencedirect.com>. In order to ensure that your submitted material is directly usable, please provide the data in one of our recommended file formats. Authors should submit the material in electronic format together with the article and supply a concise and descriptive caption for each file. For more detailed instructions please visit our artwork instruction pages at <http://www.elsevier.com/artworkinstructions>.

### **Submission checklist**

The following list will be useful during the final checking of an article prior to sending it to the journal for review. Please consult this Guide for Authors for further details of any item.

#### **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
- Phone numbers

All necessary files have been uploaded, and contain:

- Keywords
- All figure captions
- All tables (including title, description, footnotes)

Further considerations

- Manuscript has been 'spell-checked' 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 Internet)

Printed version of figures (if applicable) in color or black-and-white

- Indicate clearly whether or not color or black-and-white in print is required.
- For reproduction in black-and-white, please supply black-and-white versions of the figures for printing purposes.

For any further information please visit our customer support site at <http://support.elsevier.com>.

## **AFTER ACCEPTANCE**

### ***Use of the Digital Object Identifier***

The Digital Object Identifier (DOI) may be used to cite and link to electronic documents. The DOI consists of a unique alpha-numeric character string which is assigned to a document by the publisher upon the initial electronic publication. The assigned DOI never changes. Therefore, it is an ideal medium for citing a document, particularly 'Articles in press' because they have not yet received their full bibliographic information. Example of a correctly given DOI (in URL format; here an article in the journal *Physics Letters B*):

<http://dx.doi.org/10.1016/j.physletb.2010.09.059>

When you use a DOI to create links to documents on the web, the DOIs are guaranteed never to change.

### ***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, at no cost, will be provided with a personalized link providing 50 days free access to the final published version of the article on [ScienceDirect](#). This link can also be used for sharing via email and social networks. 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 WebShop (<http://webshop.elsevier.com/myarticleservices/offprints>). Authors requiring printed copies of multiple articles may use Elsevier WebShop's 'Create Your Own Book' service to collate multiple articles within a single cover (<http://webshop.elsevier.com/myarticleservices/booklets>).

## **AUTHOR INQUIRIES**

You can track your submitted article at [http://help.elsevier.com/app/answers/detail/a\\_id/89/p/8045/](http://help.elsevier.com/app/answers/detail/a_id/89/p/8045/). You can track your accepted article at <http://www.elsevier.com/trackarticle>. You are also welcome to contact Customer Support via <http://support.elsevier.com>.

© Copyright 2014 Elsevier | <http://www.elsevier.com>