

## INSTRUCTIONS FOR AUTHORS

### AIMS AND SCOPE

**AIEDAM: Artificial Intelligence for Engineering Design, Analysis and Manufacturing** is a journal intended to reach two audiences: *engineers and designers* who see AI technologies as powerful means for solving difficult engineering problems and *researchers in AI and computer science* who are interested in engineering applications of AI and in the theoretical issues that arise from such applications. The journal publishes significant, original articles about AI theory and applications based on the most up to date research in all branches and phases of engineering. Suitable topics include analysis and evaluation, selection, configuration and design, manufacturing and assembly, and concurrent engineering. Specific subareas include cognitive modeling; creativity; learning; qualitative reasoning; spatial reasoning; graphics and modeling; constraints and preferences; style and brands; human-computer interaction; multimodal interaction; computational linguistics; design and process planning; scheduling; simulation; optimization; distributed teams and systems; multiagent applications; design rationale and histories; functional, behavioral, and structural reasoning; knowledge management; and ontologies. **AIEDAM** is also interested in comprehensive review papers, as well as in practicum papers that describe original, major applications of state-of-the-art AI techniques to important engineering problems, with enough details to help others build similar systems. In addition to the rapid publication and dissemination of unsolicited research papers, **AIEDAM** is committed to producing special issues on important, timely topics. **AIEDAM** is indexed in Compendex Plus, SciSearch, Research Alert, and CompuMath Citation Index.

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Both the initial submission and final article should be double-spaced and have 1 in. (2.5 cm) margins throughout, including

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Manuscripts should be organized as follows:

**Title page.** This is page 1. The title should be concise, informative, and free of abbreviations, chemical formulae, technical jargon, and esoteric terms. This page should include (a) the article's full title; (b) the names and affiliations of all authors; (c) the name, mailing address, telephone number, and E-mail address of the corresponding author; (d) a short title of 40 characters or less; and (e) a list of the number of manuscript pages, tables, and figures.

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**Introduction.** This section begins on page 3 and should clearly state the objective of the research in the context of previous work bearing directly on the subject. An extensive review of the literature is usually not appropriate.

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**Figures and captions.** The number of figures should be the minimum necessary to make the essential points of the paper. Figures should be no larger than 6 × 8 in. (approx. 200 × 250 mm) and should be included in a separate file. Figures should be composed to occupy one column (20 picas or 8.3 cm) or two columns (41.5 picas or 17 cm) after reduction. Diagrams and illustrations must have a professional appearance and be created with high-resolution lettering to permit reduction. To assure legibility, letters, numbers, and symbols on figures should all be the same size and have a minimum height of 2 mm (i.e., 6 points on the pica scale) when reduced. Figures should be separate and not incorporated into the text copy. Each figure must be cited sequentially and its approximate position clearly indicated within the text. Figures must be numbered consecutively with Arabic numerals and be accompanied by a descriptive double-spaced caption provided at the end of the article. The captions should concisely describe the figure, identify any symbols and/or calibration bars, and define any terms or acronyms. Acceptable figure file formats are MS Word, EPS, JPEG, TIFF, PS, and PDF.

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All authors' names should be included, followed by the year of publication. For journals, the full title of the journal, volume, issue number, and inclusive page numbers should be provided. For books, the full title should be given, followed by the editors, volume number (if any), page numbers, place of publication, and publisher. Citations in the text should read Brown and Goel (2010) or (Brown & Goel, 2010). Where there are more than two authors the citation should read Brown et al. (2010). When more than one paper by the same authors has appeared in the same year, they are distinguished by (Brown & Goel, 2010a, 2010b). Multiple citations in the text should be in chronological order (Dym, 1994; Birmingham, 1999; Brown, 2010).

#### *Journal or Magazine Article*

Brown, D.C. (2010). AI EDAM at the cutting edge. *Artificial Intelligence for Engineering Design, Analysis and Manufacturing* 24(3), 281–282.

Frey, D., Birmingham, W., & Dym, C. (2010). Design pedagogy: representations and processes [Guest editorial]. *Artificial Intelligence for Engineering Design, Analysis and Manufacturing* 24(3), 283–284.

Knight, T., & Sass, L. (2010). Looks count: computing and constructing visually expressive mass customized housing. *Artificial Intelligence for Engineering Design, Analysis and Manufacturing* 24(3), 425–445.

#### *Book*

Dym, C.L. (1994). *Engineering Design: A Synthesis of Views*. New York: Cambridge University Press.

#### *Chapter in Edited Book*

Goodman, J., Clarke, S., Langdon, P., & Clarkson, P.J. (2007). Designers' perceptions of methods of involving and understanding users. In *Universal Access in Human Computer Interaction* (Stephanidis, C., Ed.), LNCS Vol. 4554, pp. 126–136. New York: Springer.

#### *Proceedings With Publisher Identified*

Strickfaden, M., & Heylighen, A. (2007). Exploring the cultural capital of design educators. *Proc. Int. Conf. Engineering Design, ICED'07*. Paris: The Design Society.

#### *Proceedings With No Publisher Identified*

Shu, L., Hansen, H., Gegeckaitis, A., Moon, J., & Chan, C. (2006). Case study in biomimetic design: handling and assembly of microparts. *Proc. ASME 2006 Int. Design Engineering Technical Conf. & Computers and Information in Engineering Conf.*, Paper No. DETC2006/DTM-99398, Philadelphia, PA, September 10–13.

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