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### DESCRIPTION

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*ISA Transactions* is a journal of advances and state-of-the-art in the **science** and **engineering** of **measurement** and **automation**, of value to leading-edge industrial practitioners and applied researchers.

The topics of measurement include: sensors, perception systems, analyzers, signal processing, filtering, data compression, data rectification, fault detection, inferential measurement, soft sensors, hardware interfacing, etc.; and any of the techniques that support them such as artificial intelligence, fuzzy logic, communication systems, and process analysis. The topics of automation include: statistical and deterministic strategies for discrete event and continuous process control, modelling and simulation, event triggers, scheduling and sequencing, system reliability, quality, maintenance, management, loss prevention, etc.; and any equipment, techniques and best practices that support them such as optimization, learning systems, strategy development, security, and human interfacing and training.

The intended audience is research and development personnel from academe and industry in the fields of **control systems**, **process instrumentation**, **systems**, and **automation**.

The journal seeks to bridge the theory and practice gap. This balance of interests requires simplicity of technique, credible demonstration, fundamental grounding, and connectivity to the state of the art in both theory and practice.

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### AUDIENCE

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Academy and industry at high-tech level in the field of process instrumentation, measurement, control and automation.

## IMPACT FACTOR

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## ABSTRACTING AND INDEXING

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Cambridge Scientific Abstracts  
Current Contents - Engineering, Technology & Applied Sciences  
EBSCOhost  
Engineering Index Monthly  
Ei Compendex  
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## GUIDE FOR AUTHORS

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### INTRODUCTION

*ISA Transactions* is a journal of advances and state-of-the-art in the science and engineering of measurement and automation, of value to leading-edge industrial practitioners and applied researchers.

The topics of measurement include: sensors, perception systems, analyzers, signal processing, filtering, data compression, data rectification, fault detection, inferential measurement, soft sensors, hardware interfacing, etc.; and any of the techniques that support them such as artificial intelligence, fuzzy logic, communication systems, and process analysis. The topics of automation include: statistical and deterministic strategies for discrete event and continuous process control, modelling and simulation, event triggers, scheduling and sequencing, system reliability, quality, maintenance, management, loss prevention, etc.; and any equipment, techniques and best practices that support them such as optimization, learning systems, strategy development, security, and human interfacing and training.

The intended audience is research and development personnel from academe and industry in the field of process instrumentation, systems, and automation.

The journal seeks to bridge the theory and practice gap. This balance of interests requires simplicity of technique, credible demonstration, fundamental grounding, and connectivity to the state of the art in both theory and practice.

### **Manuscript Types and Categories**

We publish articles (primarily relating to research or to practice), letters, or errata.

**Errata:** These publications represent an authors' or editor's correction to an article.

**Letters:** Letters to the editor would be short, one-paragraph, or so, affirmations, questions, challenges, or answers to articles or letters.

**Research Articles:** These can be from either of the categories that follow, and will primarily relate to research, investigation, and to possibilities. Research Articles focus on the fundamental analysis or mathematics of a technique and are illustrated with simulations, and are written by and for those in research.

**Practice Articles:** These can be from either of the categories that follow, and will primarily relate to the practice or to applications. Practice Articles focus on the pilot-scale or full-scale application and the heuristics and post implementation audit of an application. They are concerned with application results and interpretation, and are written by and for those implementing measurement and control.

Articles (research or practice) may be from one of the following categories:

**Analysis:** Clearly develop a fundamental, mathematical analysis of a practice-relevant application or methodology. Explicitly state implications and recommendations for its application. Provide credible examples.

**Design:** Present a complete "how-to" guide. Connect design procedures to first principles. Explicitly state heuristics and limits of applicability. Provide evidence that the procedures are practicable.

**Application:** Present the results of new (or under-utilized) techniques or novel applications. Provide a complete description of results, including pilot- or plant-scale experimental data, and a revelation of heuristics and shortcomings.

**Tutorial/Review:** Present what might become a chapter in a text - a comprehensive exposition or survey of the analysis, design and application of a technique that is practice-important but not yet common textbook material. Include a critical review of the state of the art to guide practitioner choices.

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### **Length**

Include all necessary material; but only that which is necessary to define the need, develop the contribution, and defend the conclusion. Including figures and tables, manuscripts should be from 10 to 20 double-spaced letter-sized papers.

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### **Language**

The language of the journal is English. Manuscripts will be reader-friendly. Proficient English usage is essential.

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Title. Authors names, affiliation, and full contact information (on coversheet). Abstract - an explicit description of the contribution/impact of the manuscript of less than about 125-words. Keywords (less than about 5). Sections as appropriate, with a bold title, and numbered consecutively in base-10, real, Arabic numerals (1., 2., 3., etc.). Subsections, as appropriate, numbered sequentially (2.1, 2.2, 2.3, etc.). The Conclusion section will be the last numbered section. Acknowledgment (if appropriate). References. Tables numbered sequentially using Roman numerals (I, II, III, IV, etc.). Figures numbered sequentially using Arabic numerals (1., 2., 3., etc.). Appendices (if appropriate) identified with capital letters (A., B., C., etc.).

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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.

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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.

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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.

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[3] Strunk Jr W, White EB. *The elements of style*. 4th ed. New York: Longman; 2000.

Reference to a chapter in an edited book:

[4] Mettam GR, Adams LB. How to prepare an electronic version of your article. In: Jones BS, Smith RZ, editors. *Introduction to the electronic age*, New York: E-Publishing Inc; 2009, p. 281–304.

Reference to a website:

[5] Cancer Research UK. *Cancer statistics reports for the UK*, <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/>; 2003 [accessed 13 March 2003].

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[dataset] [6] Oguro M, Imahiro S, Saito S, Nakashizuka T. Mortality data for Japanese oak wilt disease and surrounding forest compositions, *Mendeley Data*, v1; 2015. <https://doi.org/10.17632/xwj98nb39r.1>.

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

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