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ENGINEERS AUSTRALIA

EDITORIAL POLICY

The Australian Journal of Multi-disciplinary Engineering is intended to be of interest to all engineers.

Papers in these journals will therefore cover a wide range of topics, with the unifying theme of relevance to engineering work in general. Topic areas will therefore include Education, Economics, Industrial Practice, Management, the Environment, Occupational Health & Safety, Industrial Engineering, and Engineering Heritage. Papers are invited from all these areas of activity whether in the public or private sectors. The following Editorial policies are given as a guide to prospective authors.

The editorial panel shall:

Publish papers of value to all engineers, especially those of Australian origin or interests; receive for consideration by reviewers any paper presented at a conference organised by a section of the Institution, and which is of interest to members of more than one of the specialist colleges; aim to be a forum for contributions to the science and practice of engineering, particularly any contributions made to engineering decision making in the light of changing circumstances.

The expected length of acceptable contributions would be 5000, or equivalents. Occasionally shorter contributions of about 1000 words may be appropriate for publication.

The basic criterion of acceptance for publication will be the assessed intellectual and professional worth of the contribution.

Authors are invited to submit discussions on a paper or technical note published in the Australian Journal of Multi-disciplinary Engineering. Discussion of a paper/technical note is open to anyone who has significant comments or questions regarding its content. Discussion papers will be accepted for a period of 4 months following the publication of the relevant journal.

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This special issue of the *Australian Journal of Multi-Disciplinary Engineering* contains selected papers from the 2009 Society for Engineering in Agriculture International Conference.

2009 SOCIETY FOR ENGINEERING IN AGRICULTURE INTERNATIONAL CONFERENCE

Agricultural engineering has always had a very significant influence on the viability and efficiency of agricultural production. Indeed, the significant efficiency improvements achieved during and after the World Wars were mainly associated with the large-scale automation and mechanisation of agricultural production.

Recently the progress made toward the creation of more environmentally-friendly agricultural production methods is also largely based on agricultural engineering innovations via the development of minimum tillage techniques, improved irrigation systems and reduced energy use. Thus agricultural engineering innovations are enabling primary producers worldwide to produce food and fibre efficiently and in an environmentally-responsible manner.

Current developments associated with the so-called "smart farming" initiatives are empowering primary producers to use information and communication technology tools to make primary production systems "smarter", ie. more efficient and more tightly controlled. The cheap and timely acquisition of production-related information is not only helping producers understand and therefore better control their farming operations, but it has also been demonstrated that the collected information can be used as a powerful marketing tool.

The aim of creating this special issue of the *Australian Journal of Multi-Disciplinary Engineering* was to assemble significant papers from the 2009 CIGR International Symposium of the Australian Society for Engineering in Agriculture (SEAg) Conference ("Agricultural technologies in a changing climate", 13-16 September, Brisbane, Queensland). These papers demonstrate the continuing breadth and depth of agricultural engineering developments in Australia. The selected papers are published here after further reviewing and enhancement by their authors.

Agricultural engineering revolutionised agricultural production systems in the past and it still has a great potential to develop ground-breaking on- and off-farm technologies in the future that will assist producers in overcoming major challenges, such as the reduced availability of water and energy. I hope that readers will enjoy this special issue showcasing some exciting examples of agricultural engineering developments in Australia, and I also hope that in the next special issue we will be able to publicise even more thrilling engineering innovations related to agricultural production.

I would like to gratefully acknowledge the financial assistance of Engineering Australia, the important contributions made by Dr Chris Saunders, Dr Guangnan Chen and A/Prof Nigel Hancock as special guest editors, and the excellent technical assistance provided by Paul Woolnough, Engineers Australia Technical Journals coordinator, during the completion of this issue. Without their help and support the finalisation of this journal issue would not have been possible. I would also like to thank the reviewers who contributed their time and critical insight to make this journal issue a high quality scientific publication.

A/Prof Thomas Banhazi
Guest Editor
National Centre for Engineering in Agriculture
& Faculty of Engineering and Surveying,
University of Southern Queensland

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technical papers

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INSTRUCTIONS TO AUTHORS SUBMITTING TO ENGINEERS AUSTRALIA TECHNICAL JOURNALS

Members or non-members of Engineers Australia can submit technical papers to the Engineers Australia Technical Journals. Basic requirements for manuscripts are set out below:

1. Manuscripts must be submitted electronically via the Engineers Australia Technical Journals online submission system, powered by Editorial Manager, at http://www.editorialmanager.com/eatj.
2. The desirable maximum length of a paper is 6000 word equivalents, with 4000-5000 words being the norm.
3. There is no template that authors must follow, with only simple formatting required:
    - Papers should be arranged in the following order: Title; Author(s) (including qualifications, professional memberships and organisation); Summary/Abstract; Keywords; Notation (if any); Introduction; Main text; Conclusions; Acknowledgements (if any); References; Appendices (if any).
    - Headings and subheadings should be numbered, eg. 1 Heading, 1.1 Subheading, 1.1.1 Sub-subheading, etc.
    - Figures (diagrams and photographs) should be numbered consecutively, eg. Figure 1: caption, Figure 2: caption, etc. Figures can be placed within the text near where they are first referred to or listed at the end of the paper.
    - Tables should be numbered consecutively in separate series, eg. Table 1: caption, Table 2: caption, etc. Tables can be placed within the text near where they are first referred to or listed at the end of the paper.
    - Appendices should be lettered, eg. Appendix A, Appendix B, etc.
    - Equations should be numbered consecutively as they appear in the text and be referred to by their number, eg. equation (1), equation (2), etc.
4. Only English (UK) spelling is acceptable.
5. Only SI units are acceptable in text, tables and figures.
6. References should be in the Harvard (author, date) format within the body of the text (eg. Smith, 2000; Smith & Jones, 2005; Smith et al, 2002) and listed by lead author alphabetical order at the end of the paper.

Each technical paper received for publication in the Engineers Australia Technical Journals is reviewed for the journal's editorial panel by at least two independent peer reviewers. The editorial panel considers the reviews and decides whether or not a paper is to be accepted, revised and resubmitted, or rejected. The names of members of the various editorial panels are listed in the journal issues. If accepted, a copy of the manuscript will be returned to the author together with appropriate comments by reviewers and editors, and instructions for the preparation of the final copy.

Authors are also invited to submit Discussions, Technical Notes, Conference Papers, Research Project Reports and Heritage Papers:

1. Discussion of a paper/technical note is open to anyone who has significant comments or questions regarding its content. Discussion papers will be accepted for a period of four months following the publication of the relevant journal issue. All discussions are to be in the third person, with the discusser being referred to as "the writer" and the author of the original paper as "the author".
2. Technical Notes provide the opportunity for the dissemination of technical ideas that are not sufficiently developed to warrant a full paper. Such notes should not exceed 1500 words with two diagrams.
3. Papers presented at a recent conference relating to the journal's subject area may be submitted for publishing consideration as a Conference Paper. The author must inform the journal office which conference the paper was presented at and whether the paper has been published in the conference proceedings. Authors who wish to have their conference paper considered for publishing as a full Technical Paper will need to significantly update and expand on the original paper.
4. Project Reports provide the author with the opportunity to inform the journal's readers about a recent project they were involved in that relates to the journal's subject area. These reports may not necessarily be peer-reviewed and can be accepted for publication at the editorial panel's discretion.
5. Heritage Papers present and discuss a project or period of significant engineering heritage value relating to the journal's subject area. These papers may not necessarily be peer-reviewed and can be accepted for publication at the editorial panel's discretion.

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