

GUIDE TO PREPARING PAPERS FOR SUBMISSION TO ARCOM CONFERENCES

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The writing of papers is only the first step to publishing. Getting a paper included in conference proceedings involves authors in editing and laying out their own papers. Precise specifications for laying out the paper help to reduce the work of the conference organizers in compiling the proceedings. Font sizes, paragraph formats and other details are specified so that proceedings can be presented in a consistent and professional style. This document is formatted according to the guidelines, in order to provide an example for authors. Please refer to this document for assistance when using the ARCOM paper template to write your paper. The ARCOM paper template – a Word file containing only the styles needed to prepare your paper – is available from <http://www.arcom.ac.uk/conferences.html>.

Keywords: keywords in lower case and alphabetical sequence separated by commas, finishing with full-stop.

INTRODUCTION

Each element of this document is formatted according to particular styles, which are the same as those defined within the ARCOM (Microsoft Word) template. The ARCOM paper template (arcom-model.doc) includes all the styles that you will need, and has been locked in order to limit you to just those styles. For example, if you paste text from another document, the inserted text will automatically be converted to 'Normal' style; Times New Roman 12, with 6pt spacing after the paragraph. You may then want to apply the styles provided within the template.

STRUCTURE OF THE DOCUMENT

The title of the paper should be specific, making clear what the paper is about without demanding that the paper be read in order to ascertain its contents. Although the style (Paper_Title) will force all text to appear as upper case, you should type it in lower case (except for the initial letter and proper nouns) to ensure that the case is correct in the index of the proceedings.

The same approach – lower case except for the initial letter and proper nouns – should also be adopted for all headings in your paper. Main headings will be 'Section_Heading' style, sub-headings will be 'Section_Sub-heading' style, and sub-sub-headings will be 'Minor_Heading' style. If necessary, use bullet points increasing levels of detail below sub-sub-headings.

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Please note that if you try to apply **bold** or *italics* to any text in the ARCOM template, the paragraph will automatically revert to the Normal style. You will then need to re-apply the appropriate Style. Bold and italics can only be used where already included in the styles, e.g. within headings and captions. If you do not use the template, we will copy your text into the template on your behalf, perhaps producing a layout and heading structure that you did not intend.

AUTHORS

The authors should be listed, separated by commas, except for the last one, which will be separated with the word “and”. Only use superscripts to identify different addresses. If all the authors are from the same institution, then superscripts are not necessary. The e-mail address of authors may be given as footnotes, in which case, please select “Options” when you are applying the footnote and set footnote numbering to re-start at the beginning of each section. Please do not put a full-stop at the end of the authors.

ADDRESSES

The address or addresses should follow the sequence of authors. Please include the country, using UK rather than GB, England, United Kingdom, and please use USA for The United States of America. All other countries should be spelled out in full. Please do not put a full-stop at the end of the address.

WRITING INFORMATIVE ABSTRACTS

Abstracts are often the least considered but most important part of any paper. Most readers of a journal or conference proceedings will read most of the abstracts, but very few will read the full papers. Perhaps 95% of readers will read only the abstract. The need for abstracts to be terse often causes difficulty and can taint what is otherwise a perfectly acceptable style of writing. Certain problems are common. Some of the recommendations here are based upon accepted good practice in abstract writing; others are simply a question of style or consistency. The following suggestions should help to reduce the need for authors to re-write their abstracts.

The abstract should not be a table of contents in prose, neither should it be an introduction. It should be informative. Tell the reader what the research was about, how it was undertaken and what was discovered, but not how the paper is organized. The main findings must be summarized. If there are too many of them, then just exemplify them in the abstract. The essential elements of the abstract are:

- Background: A simple opening sentence or two placing the work in context.
- Aims: One or two sentences giving the purpose of the work.
- Method(s): One or two sentences explaining what was done.
- Results: One or two sentences indicating the main findings.
- Conclusions: One sentence giving the most important consequence of the work.

The following guidelines have been extracted from recent criticisms of real abstracts. This may help to overcome some of the most frequent problems:

- Do not commence with "this paper...", "this report..." or similar. It is better to write about the research than about the paper. Similarly, do not explain the sections or parts of the paper.
- Avoid sentences that end in "...is described", "...is reported", "...is analysed" or similar. These are simply too vague to be informative.
- Do not begin sentences with "it is suggested that...", "it is believed that...", "it is felt that..." or similar. In every case, the four words can be omitted without damaging the essential message.
- Do not write in the first person *in any form*. Thus, not only should you avoid "I", but also "we", "the author", "the writer" and so on. Again, this is because the abstract should be about the research, not about the act of writing.

Finally, here is a spoof abstract which contains some of the worst practices in abstract writing:

This paper discusses research that was undertaken in the author's country. A theoretical framework is developed from a literature search and this is used by the authors as the basis of an analytical model. The researchers collected data within this framework and analysed it according to the precepts laid down by earlier researchers in the field. The data is used to demonstrate that our understanding can be significantly increased and this is discussed in the light of previous work. Conclusions are drawn and it is shown that these may be useful for practitioners.

KEYWORDS

The keywords should help with indexing, so that other researchers might discover your paper by consulting an index of keywords. In a conference on construction management, it would seem somewhat pointless to include "construction management" as a keyword. Similarly, there is not much point in using "building industry" as a keyword. Therefore, avoid keywords that are so vague that they would suit every paper in the conference. On the other hand, some keywords are too specific and only one paper (yours) would appear next to an entry for such a keyword. We need to strike a balance. Keywords should generally be words, not phrases. It may be helpful to choose from a list of recommended keywords for this topic. Although this is not mandatory, Table 1 provides a list of suggested keywords that have been found to be useful and pitched at the right level between vague and unique.

The list of keywords should be preceded by the "Keywords:" and then listed alphabetically, separated by commas, with a full-stop at the end. Please do not select more than five keywords.

INTRODUCTION OF THE PAPER

Begin the paper with statements introducing the general area and the reason that this work is important. Explain what was important about the particular approach and how this work relates to previous work in the field.

Sub-heading

It is helpful to break the argument into steps by the use of sub-headings. In a paper of this length, there is little to be gained from going to further levels of sub-sub-heading. With only two levels, heading numbering is not needed.

Table 1: Suggested short-list of keywords in construction management research

Arbitration	Ethics	Organization
Architecture	Expert systems	Organizational analysis
Artificial intelligence	Facilities management	Organizational culture
Asset management	Financial accounting	Org'al psychology
Automation	Fire	Partnering
Benchmarking	Forecasting	Personnel
Bidding	Future studies	Pollution
Briefing	Fuzzy logic	Post-occ. evaluation
Buildability	Geographic info. systems	Practice management
Building defects	Globalization	Prefabrication
Building performance	Government	Price
Building regulation	Green buildings	Procurement
Building surveying	Health and safety	Productivity
Business strategy	Highways	Professionalism
Cash-flow forecasting	Housing	Project management
Civil engineering	Human resource mgnt	Property development
Claims	Industrialization	Quality
Client	Information management	Quantity surveying
Communication	Information technology	Rationality
Competitiveness	Innovation	Recruitment
Conflict	Insolvency	Recycling
Construction planning	Intermediate technology	Refurbishment
Contract law	International comparison	Research methods
Contracting	Knowledge-based syst.	Risk
Contractor selection	Labour	Robotics
Corporate planning	Leadership	Sick building syndrome
Corporate strategy	Liability	Simulation
Cost	Life cycle	Sociology
Craft	Litigation	Standardization
Decision analysis	Maintenance mgmt	Statistical analysis
Decision theory	Management accounting	Stress
Design	Management info. Systems	Sub-contracting
Design and build	Management of the firm	Sustainability
Design management	Marketing	Technology transfer
Developing countries	Material management	Tendering
Dispute resolution	Measurement	Time
Documentation	Modelling	Total quality management
Econometrics	Motivation	Training
Economic development	Negligence	Transaction cost econs.
Education	Negotiation	Value management
Energy	Network analysis	
Environmental impact	Office design	
Estimating	Operational research	

TABLES

Tables should be kept as simple as possible. Make sure that they are referred to from the text (see Table 2). Omit vertical lines from tables and omit grey shading and 3D effects from all tables, charts and figures. They do not photocopy well and frequently obscure the real message. Do not use excessive accuracy in reporting measurements

and statistics. Percentages are best as whole numbers. Generally, two or three significant figures are adequate.

Table 2: An example of setting out a table with column headings

	Type I	Type II	Type III	Type IV
Development area I	12	123	24	46
Development area II	14	12	25	32
Development area III	18	16	21	45

Table captions should be ‘Captions’ style, and placed **above** the table. The style for table contents should be ‘Table_Contents-Left’ or ‘Table_Contents-Right’, depending on the required alignment.

FIGURES

Figures should be kept as simple as possible. Figures should be used where relevant, but do not use them unnecessarily. Make sure that they are referred to from the text and that they are not too complicated or large. A figure caption (‘Captions’ style, the same as that used for tables) should be inserted immediately **below** your figure.

If your work relies on the presentation of complex graphics, then the paper can make a point with an extract from a larger graphic. 3D effects are an unnecessary distraction. Colour will be lost in the reproduction of the proceedings and causes images to occupy a lot more disk space than monochrome. Please so not include screen shots of computer displays. It is better to render the relevant information into a simpler graphic or chart.

Pie charts

Pie charts are generally unnecessary as the information can be presented in one sentence of text. If a pie chart has more than can be presented in a sentence of text, it would be better as a histogram.

Histograms (bar charts)

Histograms should be laid out without an external border; the font for text should be set to Times New Roman 12 point. The bars should not be too far apart (this may need adjusting to reduce the white space between them, although there should be some white space). Grid lines should be used only sparingly. The bars should be white. If more than one data set is represented, the second one should be black. If several data sets are represented, each should have different cross-hatching. Grey shading should be avoided as it reproduces badly.

CITATION OF REFERENCES

Different information will be needed to provide an adequate reference to the various sorts of publication. Listed below are the elements that should be included in a reference to each of the most common types of publication. Within the text of the document, work and ideas can be cited using the author’s surname and year of publication. This enables it to be looked up in the list of references at the end of the paper, sorted alphabetically, by authors’ surnames, and presented without bullets or numbers. If the author’s name is not part of the phrasing of the sentence, then it will be in brackets with the year (Hughes 2002) whereas if you are using the author’s name as part of the text of the sentence, then only the year is in brackets. When citing author and year together, there is no need to separate them with a comma. The precise

location within the source material can be given as page number(s) after a colon (Hughes 2002: 34-36).

Referencing a book

1. Name(s) of author(s)/editor(s) Surname first, followed by initials, but without full-stops after initials. (If editors, add Ed. or Eds, as appropriate, in brackets)
2. Year of publication, in brackets, with no punctuation after it
3. Title of the book in double quotation marks, followed by full-stop
4. Edition, if not the first
5. Place of publication followed by colon
6. Name of publisher
7. Number of volumes, if more than one

Examples:

Burns, T and Stalker, G M (1966) "The management of innovation". London: Tavistock.

Walker, A (1996) "Project management in construction". 3ed. Oxford: Blackwell Science.

Referencing a paper/chapter in a book

1. Name(s) of author(s) of the paper/chapter, surname first, followed by initials, but without full-stops after initials
2. Year of publication, in brackets (no full-stop or comma after it)
3. Title of the paper or chapter
4. Editor(s) of the book, prefaced with the word In: and followed by Ed. or Eds. in brackets
5. Title of the book in double quotation marks
6. Volume number, part number, where applicable
7. Place of publication
8. Name of publisher

Example:

Flint, F O (1984) Advances in light microscopy of foods. In: G.G. Birch and K.J. Parker, (eds.) "Control of food quality and food analysis". London: Elsevier Applied Science Publishers.

Referencing an article in a periodical

1. Name(s) of author(s) of the article, surname first, followed by initials, but without full-stops after initials
2. Year of publication, in brackets (no full-stop or comma after it)
3. Title of article
4. Full title of the periodical (or an accepted abbreviation, as given in the World List of Scientific Periodicals, but the full title is preferred) in double quotation marks
5. Volume number

6. Issue number, in brackets. You don't always have to give the issue number, if pages in issues within the volume are numbered consecutively, but for those journals where each issue re-starts at page 1, it is essential.
7. Page numbers

Example:

Wantanakorn, D, Mawdesley, M J and Askew, W H (1999) Management errors in construction. "Engineering, Construction and Architectural Management", 6(2), 112-20.

Reference to a thesis

1. Name of author, surname first
2. Year of publication, in brackets
3. Title of thesis, in double quotation marks
4. Type of degree (e.g. PhD or MSc) usually: Unpublished PhD thesis
5. Name of the Department
6. Name of the University

Example:

El-Askari Khaled Mohamed, S (2000) "A methodology for expenditure planning of irrigation infrastructure using hydraulic modelling techniques", Unpublished PhD Thesis, Department of Engineering, University of Southampton.

Reference to a paper in a conference

1. Author(s) of the paper
2. Year of publication in brackets (no full-stop or comma after it)
3. Title of the paper or chapter
4. Editor(s) of the conference proceedings, prefaced with the word In: and followed by Ed. or Eds. in brackets.
5. Title of the conference in double quotation marks
6. Date of conference
7. Location of conference
8. Publisher of Proceedings
9. Volume number, part number, where applicable
10. Start and end page numbers of the whole paper

Example

Ashton, P and Gidado, K (2001) Risk associated with inadequate site investigation procedures under design and build procurement systems. In: Akintoye, A (Ed.), "17th Annual ARCOM Conference", 5-7 September 2001, University of Salford. Association of Researchers in Construction Management, Vol. 1, 961-9.

CONCLUSIONS

Every paper should finish with conclusions, explaining the discoveries of the research and its impact. The conclusion should follow from the work that was done. New material should not be introduced in the conclusions, although it is often useful to refer back to earlier section so of the paper to show how the questions posed at the beginning have been answered.

REFERENCES

The list of references should be laid out as detailed in these guidance notes, using the style References, and with one reference per paragraph (no blank paragraphs are needed between them).