

Author's Guidelines for Preparation of Papers for the International Workshop on Robotics in Alpe-Adria-Danube Region (RAAD 2009)

Alfred Hofmann^a, Ingrid Beyer^a and Angelika Bernauer-Budiman^b

^a *Department of Mechanics, Frankfurt University, Germany*
E-mail: {a.hofmann, ingrid.beyer}@uni-frankfurt.de
URL: www.uni-frankfurt.de/mechanics

^b *Department of Mechanics, Dortmund University, Germany,*
E-mail: abb@uni-dortmund.de
URL: http://www.uni-dortmund.de/abb

Abstract. This document presents the basic author's guidelines for preparing the camera-ready papers for RAAD 2009 CD ROM proceedings. This document itself is an example of the desired layout for CR papers (including this abstract). The document contains information regarding desktop publishing format, type sizes, and typefaces. Style rules are provided to explain how to handle equations, figures, tables, and references.

Keywords. Robotic Conference, Format, Camera-Ready Paper

1. Introduction

The paper must be written in English and can be processed by using a software of choice of the Authors, but it must be uploaded to the conference web site only in the Portable Document Format (PDF). All instructions as well as LaTeX and MS-Word templates can be found at the conference web site. Your goal is to simulate the usual appearance of papers in RAAD Workshops proceedings.

This file is the MS-Word template: if you can do so, the basic strategy is to copy the template file and replace the text in it with the text for your own manuscript, using the examples of formatting given in the template files. In this case, you won't have to pay much attention to the parts of the instructions below that refer to numerical parameters.

2. Paper layout

Prepare your camera-ready paper in full-size format, on A4 paper (210 x 297 mm). The recommended size of the paper is between 6 and 10 pages, including figures and tables.

2.1. Margins

All text and graphics must fit into a rectangle of 160 by 247 mm, therefore on A4 paper the following margins must be set: left and right margin: 25 mm; upper and lower margin: 25 mm.

2.2. Columns

With exclusion of the first section, the paper should be formatted in two columns, with 76 mm column width and 8 mm space in-between.

2.3. Font

Use Times New Roman as the basic font for all paper if possible. If this font is not available, use the most similar font that you can get.

2.4. Paragraphs

Don't leave extra space between paragraphs, except where necessary to avoid white space at the bottom of the page.

Indent the first line of each paragraph by 5 mm unless it comes right after a section heading. Text of the paragraphs is always justified, with exclusion of front matter (which is centred), references section and figure or table captions (which are left aligned).

If possible, do not use boldface or underlined characters to emphasize a string, but italicize it instead.

2.5. Page numbers and running heads

Put page number at the bottom of the page, centred, using a Times New Roman 9 pt. normal font, as shown in this sample file. Please, don't add running heads.

3. Formatting the manuscript

Try to imitate the example given at the beginning of this document, preserving its general layout. The first page will include the Editorial Heading, as shown in the first page of these instructions.

3.1. Title

Centre the title, using a 14 pt (bold) font size. The major words in the title should be capitalized.

3.2. Authors names

Write the name and surname of each Author on the same line, centred, using a 12 pt (normal) font size. Use an extra 20 mm margin on both sides in order to write this section with a maximum width of 120 mm.

3.3. Authors affiliations

Write Authors' affiliation(s) using a 10 pt (italics) font size and centre it; for Authors of different Institutions, put a note in Authors names and write different lines.

Note that each author's address includes only the institution, the town, the country, the e-mail address and the URL reference (if any).

Use an extra 20 mm margin on both sides in order to write this section with a maximum width of 120 mm.

3.4. Abstract

The word "Abstract" must be set in boldface, at the beginning of the first line. The abstract should not contain any references to bibliographical entries or to equations appearing in the body of the paper. The length of the abstract should not exceed 150 words. The font size is 9 points. Use an extra 20 mm margin on both sides in order to write this section with a maximum width of 120 mm.

3.5. Keywords

The word "Keywords" must be set in boldface, at the beginning of the first line. Specify maximum 5 free keywords; Workshop topics can be picked up.

3.6. Paper body

The body of the paper should be written single-spaced, justified, using 10 pt Times New Roman in two columns. The first line of each paragraph must be indented 5 mm, unless it comes right after a section heading. There is no inter-paragraph spacing.

Three levels of headings are provided. Avoid leaving a heading at the bottom of a column, with the subsequent text starting at the top of the next

page/column: use extra spaces (between earlier figures or sections) to push the heading up to the top of the same column as its text.

First-level headings. These are numbered and set in 12-point bold font. Leave 2 blank (10 pt) lines before the heading and 1 blank (10 pt) line after the heading.

Second-level headings. These are numbered and set in 10-point bold font. Leave 1 blank (10 pt) line before the heading.

Third-level headings. The heading at the beginning of this paragraph is an example of this type of heading. These headings are set in 10-point bold font, with 1 blank (10 pt) line before the heading. There is no numbering and the subsequent text continues on the same line after heading's title.

Footnotes. Signal each footnote with a raised number in the text¹. Print each footnote in 8-point type at the bottom of the page. Precede the first footnote on a page with a horizontal rule of 50 mm.

4. Figures and tables

Tables and figures should be embedded in the text. All units must be included.

4.1. Figures

Figures are numbered sequentially and should appear in the text after their first referencing. Figures must be clear and very neat, so we recommend a resolution of 150 dpi at least for gray and colour images and 300 dpi for monochrome (black and white) images. When possible the colours should be chosen such that the figures are still meaningful if printed in grey levels.

Centre each figure horizontally and place the caption after the figure, as is illustrated in Fig. 1. Format the caption in 9-point font and flush it left; if caption runs through several lines, the lines after the first one should be indented as shown in the example. Leave 1 blank (10 pt) line before the figure and 2 blank (10 pt) lines after figure caption. All in-text references to figures should be capitalized and abbreviated, e.g., "see Fig. 2".

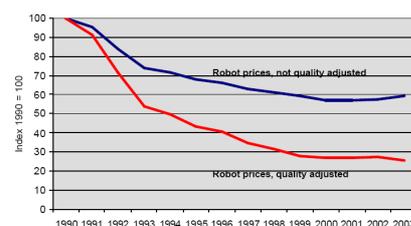


Fig. 1. Price index of industrial robots

¹ This is a footnote

4.2. Tables

Tables are numbered sequentially. Format each table caption like a figure caption, but place it before the table (see Tab. 1 below). All in-text references to tables should be capitalized and abbreviated, e.g., “see Tab. 2”. If caption runs through several lines, the lines after the first one should be indented as shown in the example.

Tab. 1. Computational effort for the evaluation of the inverse dynamics model

	+/-	*/÷	Trigonometric operations
Jacobian J_p	6	21	12
Inverse of transposed Jacobian J_p^{-T}	15	27	0
Mass matrix M_x	60	126	48
Dynamic and gravitational vectors C_x and G_x	60	142	9
Final computations	18	27	0
Total number of operations	153	343	69

5. Equations

Equations are centred and numbered consecutively, from 1 upwards; leave one blank line just before and after the equation:

$$x^2 + y^2 = z^2 \quad (1)$$

When you reference an equation, use the form Eq. (1).

6. Acknowledgments

Acknowledgements to colleagues and funding agencies must be written in a specific section at the end of the paper.

7. References

When publications are referred in the text, enclose the author’s name and the date of publication within brackets. For one author, use author’s surname and the year (Di Gregorio, 2001). For two authors, give both names and the year (Davidson and Hunt, 2004). For three or more authors, use the first author, plus et al., and the date (Agrawal et al., 1995). If there is more than one paper by the same author(s) and with the same date, label them a, b, etc. (Rossi et al., 2006a, b).

List references arranged alphabetically according to first author surname, subsequent lines indented. Do not number references. Publications by the same author(s) should be listed in order of year of publication. Please note that all references must be directly cited in the body of the paper.

- Agrawal, S. K., G. Desmier and S. Li. 1995. Fabrication and analysis of a novel 3 DOF parallel wrist mechanism, *ASME J. Mechanical Design*, Vol. **117**, pp.343-345.
- Bonev I. 2003. The True Origins of Parallel Robots. <http://www.parallelemic.org/Reviews>.
- Davidson, J.K. and K.H. Hunt. 2004. *Robot and Screw Theory*, Cambridge Press.
- Di Gregorio R. 2001. Kinematics of the Translational 3-URC Mechanism. In: *Proc. IEEE/ASME Intl. Conf. Advanced Intelligent Mechatronics*, Como (Italy), July 8-11, pp.147-152.
- Fang, Y. and L.-W. Tsai. 2004. Structure synthesis of a class of 3-dof rotational parallel manipulators, *IEEE Trans. Robotics and Automation*, Vol. **20**(1), pp.117-121.
- Karouia, M. and J.M. Hervé. 2000. A three-dof tripod for generating spherical rotation, *Advances in Robot Kinematics*, Kluwer, pp.395-402.
- Neumann KE. 1986. *Robot*. US Patent 4732525.

8. PDF generation

Authors are required to submit their final, accepted papers in PDF: no other formats are acceptable. In submitting a PDF of your paper, you will have the satisfaction of complete control over your output, and can use whatever programs you prefer to create your paper. In order to convert a document to PDF format, you must have the full version of Adobe Acrobat. The free browser plug-in, Adobe Acrobat Reader, permits a user to view and save a PDF file only.

When generating the PDF file, set PDF Writer or Distiller to:

- include all fonts;
- generate a high-quality output file.

Check the new PDF document against your original document to ensure a successful conversion: we recommend viewing the new PDF on a different machine to find any errors your PDF may have.

The file name should conform to the following example:

- Surname_draft.pdf for the draft paper
- Surname_final.pdf for the final paper

In case of multiple Authors, use:

- Surname1_Surname2_draft.pdf
- Surname1_Surname2_final.pdf

In case of multiple papers by the same Author(s):

- Surname_a_draft.pdf, Surname_b_draft.pdf,
- Surname_a_final.pdf, Surname_b_final.pdf