Design and development of a quadcopter for rapid underground mine mapping

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Abstract. You should leave 8 mm of space above the abstract and 10 mm after the abstract. The heading Abstract should be typed in bold 9-point Arial. The body of the abstract should be typed in normal 9-point Times in a single paragraph, immediately following the heading. The text should be set to 1 line spacing. The abstract should be centred across the page, indented 17 mm from the left and right page margins and justified. It should not exceed 100 words.

1. Introduction

Use 170 x 250 mm paper size (W x H mm) and adjust the margins to those shown in the Table 1. The final printed area will be 130 x 210 mm. Do not add any page numbers.

Table 1. Setting Word’s margins.

|  |  |
| --- | --- |
| Margin | mm |
| Top | 24 |
| Bottom | 16 |
| Left | 20 |
| Right | 20 |

* 1. Formatting the title, authors and affiliations
     1. Formatting the title

The title is set in bold 16-point Arial, justified. The first letter of the title should be capitalised with the rest in lower case. You should leave 22 mm of space above the title and 6 mm after the title.

* + 1. Formatting author names and author affiliations

The style for the names is First Names, typed in italic 10-point Times, then Last Name, typed in 10-point Times, with a comma after all except the last author, which is separated by comma + “and”. Do not use academic titles.

Affiliations of authors should be typed in 9-point Times. They should be preceded by a numerical superscript corresponding to the same superscript after the name of the author concerned. Please ensure that affiliations are as full and complete as possible and include the country.

* 1. Formatting the text

The text of your paper should be formatted as follows:

- 10-point Times, Times Roman or Times New Roman.

- The text should be set to single line spacing.

- Paragraphs should be justified.

- The first paragraph after a section or subsection should not be indented; subsequent paragraphs should be indented by 5 mm.

The use of sections to divide the text of the paper is optional and left as a decision for the author. Where the author wishes to divide the paper into sections the formatting shown in Table 2 should be used.

Table 2. Formatting sections, subsections and subsubsections.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Font | Spacing | numbering |
| Section | 12-point Arial bold | 6 mm before 3 mm after | 1, 2, 3, etc. |
| subsection | 10-point Arial bold | 6 mm before 3 mm after | 1.1, 1.2, 1.3, etc. |
| subsubsection | 10-point Arial Italic | 6 mm before 3 mm after | 1.1.1, 1.1.2, 1.1.3, etc. |

1. Methodology and Results

Figures and tables, as originals of good quality and well contrasted, are to be in their final form, ready for reproduction, pasted in the appropriate place in the text. Try to ensure that the size of the text in your figures is approximately the same size as the main text (10 point). Try to ensure that lines are no thinner than 0.25 point.

* 1. Captions/numbering

Captions should be typed in 9-point Times. They should be centred above the tables and flush left beneath the figures.

* 1. Positioning

Place the figure as close as possible after the point where it is first referenced in the text. If there is a large number of figures and tables, it might be necessary to place some before their text citation.

Fig. 1. Caption of the Figure 1. Below the figure.

* 1. Colour illustrations

You are free to use colour illustrations for the online version of the proceedings, but any print version will be printed in black and white unless special arrangements have been made with the conference organiser. Please check whether or not this is the case. If the print version will be black and white only, you should check your figure captions carefully and remove any reference to colour in the illustration and text. In addition, some colour figures will degrade or suffer loss of information when converted to black and white, and this should be considered when preparing them.

1. Conclusion

Equations should be centred and should be numbered with the number on the right-hand side.

*T*s (*l,t*) = *T*g (*l,t*) (1)

*T*s (*l,t*) = *T*g (*l,t*) *T*b (*x*, *t*) = 0 (2)

Use italics for variables (*u*) and bold (**u**) for vectors. The order for brackets should be {[()]}, except where brackets have special significance.

The acknowledgements should be typed in 9-point Times, without title.

References

Online references will be linked to their original source, only if possible. To enable this linking extra care should be taken when preparing reference lists.

References should be cited in the text by placing sequential numbers in brackets (for example, [1], [2, 5, 7], [8-10]). They should be numbered in the order in which they are cited. A complete reference should provide enough information to locate the article. References to printed journal articles should typically contain:

• The authors, in the form: initials of the first names followed by last name (only the first letter capitalized with full stops after the initials),

• The journal title (abbreviated),

• The volume number (bold type),

• The article number or the page numbers,

• The year of publication (in brackets).

Authors should use the forms shown in Table 3 in the final reference list.

Table 3. Font styles for a reference.

|  |  |
| --- | --- |
| Element | Style |
| Authors | Reference Body  (Initials followed by last name) |
| Journal title | Reference Body  (Abbreviated) |
| Book title, Proceedings title | Reference Body - Book/Proceedings title |
| Volume number | Reference Volume Bold |
| Page number | Reference Body |
| Year | Reference Body  (In brackets) |

Here are some examples:

1. A. Mecke, I. Lee, J.R. Baker jr., M.M. Banaszak Holl, B.G. Orr, Eur. Phys. J. E 14, 7 (2004)
2. M. Ben Rabha, M.F. Boujmil, M. Saadoun, B. Bessaïs, Eur. Phys. J. Appl. Phys. (to be published)
3. F. De Lillo, F. Cecconi, G. Lacorata, A. Vulpiani, EPL, 84 (2008)
4. L. T. De Luca, Propulsion physics (EDP Sciences, Les Ulis, 2009)
5. G. Plancque, D. You, E. Blanchard, V. Mertens, C. Lamouroux, Role of chemistry in the phenomena occurring in nuclear power plants circuits, in Proceedings of the International Congress on Advances in Nuclear power Plants, ICAPP, 2-5 May 2011, Nice, France (2011)

**Length of the extended abstract**

The length of the extended abstract must not exceed three (3) pages.

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