

# Requirements for Manuscripts Published in «Scientific Journal of Riga Technical University»

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**Abstract** – Give a concise summary (400-500 characters) of the paper: research focus, research methods used, the results and the main conclusions and recommendations. Use this document as a template if necessary or follow the instructions below to compose your manuscript. The Editorial Board will also ask you to provide an extended summary of the manuscript as a separate file.

**Keywords** – Choose up to four key words or phrases and locate them in alphabetical order just after the abstract of your paper, separated by commas.

## I. INTRODUCTION

This document provides instructions for preparing manuscripts for publishing in *The Scientific Journal of Riga Technical University*. The document is also a sample of layout for the manuscripts submitted for publication.

Full text of all articles published in *The Scientific Journal of Riga Technical University* is included in EBSCO information products. Articles from selected series of the journal and abstracts of all articles published in *The Scientific Journal of Riga Technical University* are also included in ProQuest and in VINITI information products.

The articles sent to the Editorial Board are published directly from the manuscripts submitted in an electronic

format. Therefore it is very important that the authors observe precision and correctness of language. The authors bear responsibility for all language mistakes.

The copyright for the articles is transferred to Riga Technical University. The manuscripts are not returned. The Editorial Board of the series has the right to edit the submitted articles. If due to the request of the Editorial Board, the author makes amendments to the manuscript, the Editorial Board evaluates it anew.

The Editorial Board decides if the manuscripts for the particular volume of RTU Scientific Journal should be only in English or may be in other languages.

## II. GENERAL REGULATIONS

Manuscripts should be submitted to the Editorial Board in an electronic format. The recommended length of the manuscript is 6-10 pages) including information about the authors, abstract and images. Prepare the manuscript with *Microsoft Word* (not older than *MS Word 2000*). When writing use Times New Roman font. Enter the text in the style and order of this document. Write the text in two column layout. Left and right justify the columns. On the last page adjust the length of the columns so that they are equal. Use hyphenation only if it is necessary. Use spell check.

TABLE I  
TYPE SIZES, SPACES AND INTERVALS

Text [style]	Size (pts.)	Small/ All Caps	Bold	Italic	Line spacing	Indent	Alignment	Before	After
<b>Paper title</b> [RTU - Title]	24		+		single		Centered	0	0
<b>Author's names</b> [RTU - Author's Names]	11				single		Centered	12	24
<b>Abstract, keywords</b> [RTU - Abstract & Keywords]	9		+		single	First line 0.36cm	Justified	1 line	1 line
<b>Section titles</b> [RTU - Heading 1]	10	Small			single		Centered	12	4
<b>Subheadings</b> [RTU - Heading 2]	10			+	single	Left 0.25cm	Left	6	3
<b>Main text</b> [RTU - Main Text]	10				exactly 12	First line 0.36cm	Justified	0	0
<b>Figures</b> [RTU - Figures (in)]	10				single		Centered	12	6
<b>Figure captions</b> [RTU - Figures ( captions)]	8				single		Justified	0	12
<b>Table captions</b> [RTU - Tables (captions)]	8	All			single		Centered	6	3
<b>Table titles</b> [RTU - Tables (titles)]	8	Small			single		Centered	0	3
<b>Text in tables</b> [RTU - Tables (in)]	8				single		Left	2	2
<b>Equations</b> [RTU - Equations]	10			+	single		Justified	10	10
<b>Author's biographical notes</b> [RTU - Biography]	8				single		Justified	1 line	1 line
<b>References</b> [RTU - References]	8				single	Hanging 0.63cm	Justified	0	0
<b>Programs and codes</b> [RTU - Programs and Codes]	10				exactly 10		Left	1 line	1 line

The Roman numerals used to number the sections are optional. If you do use them, do not number ACKNOWLEDGMENT and REFERENCES, and arrange subheadings with letters.

#### A. Page Layout

Use page setup with the following options: paper size *A4* (height = 29.4cm; width = 21 cm); left and right margins = 1.1 cm; top and bottom margins = 2.66 cm; gutter = 0.51 cm. Use option “multiple pages” with value “mirror margins” (in the “Page” field). Use two-column layout with the following parameters: column width = 8.89 cm and spacing = 0.51 cm. Do not number the pages and leave the header and footer areas blank.

#### B. Type Sizes

Follow the type sizes specified in Table I (1 point is about 0.35 mm - the size of the lowercase letter “j” will give the point size).

### III. ILLUSTRATIONS AND TABLES

All illustrations (line drawings and photographs) must be referred to in the text. The images should be prepared with 300-400 dpi resolution in .jpg or .tif format. Photographs should be of sufficiently high quality with respect to detail, contrast and fineness of grain to withstand the inevitable loss of contrast and detail inherent in the printing process.

Place figures and tables at the top or bottom of columns. Avoid placing them in the middle. Most charts, graphs and tables are one column wide. However, large figures and tables may span across both columns.

#### A. Figures

Place figures and photographs “in line with text” (“Layout” option from the pop-up menu “Format Picture” or “Format Object”) or use style “RTU – Figures (in)”. Number the figures consecutively with Arabic numerals.

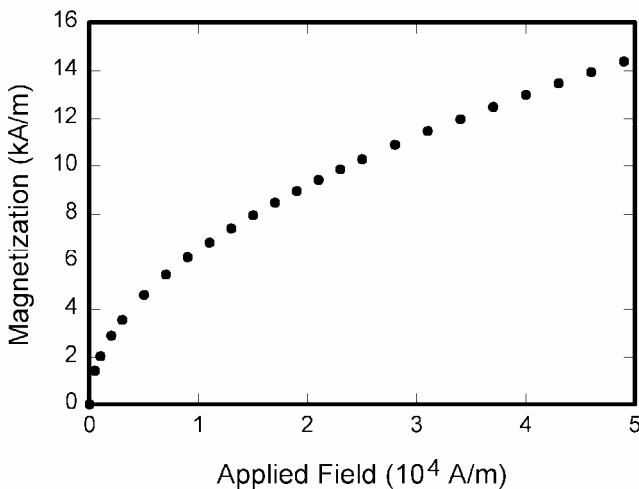


Fig. 1. Magnetization as a function of applied field. Note that “Fig.” is abbreviated. There is a period after the figure number, followed by two spaces. It is good practice to explain the significance of the figure in the caption.

Figure captions should be placed below the figures and justified. One line figure captions may be centered.

#### B. Tables

Tables are numbered consecutively with Roman numerals and have reference in the main text. Use the Quick style set of this document to write table captions and text in the table. Table captions and titles should be centered and placed above the table. Do not abbreviate the word “Table” in the caption

### IV. EQUATIONS

Use the equation editor to create your equations and select “RTU - Equations” style for them. Place one tab before short equations to center them. Place one or two tabs after the equations to put equation’s number flush with the right margin, as in (1). Number the equations consecutively with Arabic numbers. Punctuate equations with commas or periods when they are a part of a sentence, as in

$$\Delta V_{C(0..T)} = \frac{1}{C} \int_0^T i_C(t) dt. \quad (1)$$

Please confine equations to one column width and break equations at appropriate algebraic symbols. Short, one line equations, for example (1), have to be vertically center aligned with the corresponding numbering text and punctuation signs (as it is defined in “RTU - Equations” style). The punctuation and numbers of longer equations that occupy two or more lines, like (2), must be vertically centered with the last line of the equation. Use font option “Position” with value “Lowered”+number to provide such alignment (applied to number and punctuation only). The parts of the longer equations must be horizontally left aligned in the equation editor. An exception from this rule is the last line that has to be right aligned with the longest of the previous lines (use spaces to do that). Do not split long equations in order not place their parts in different columns and on different pages.

$$L_{coaxial} = \frac{\mu_0}{2\pi} \cdot \left[ \ln \frac{q}{p} + \frac{\mu}{\mu_0} \cdot \left( \frac{r^4}{(r^2 - q^2)^2} \cdot \ln \frac{r}{q} - \frac{1}{2} \cdot \frac{r^2}{r^2 - q^2} \right) \right] \quad (2)$$

The size of basic symbols in equations should correspond to the letter size of the main text (10pt). Symbols in the equations should be defined before the equation appears or immediately following. Use “(1)” not “Eq. (1)” or “equation (1),” except at the beginning of a sentence, for example, “Equation (1) is ...”

### V. PROGRAMS AND CODES

If necessary, include parts or entire texts of your programs following the “RTU – Programs and Codes” style or using “New Courier” font. Try to fit such texts in one column.

```
void main(void)
{
    WDTCTL = WDTPW + WDTHOLD;           //Stop watchdog
    P3DIR |= 0x01;                       //P3.0 - output
    for (;;)
    { unsigned int i;
      i = 50000;do i--;while (i != 0); //SW Delay
      P3OUT ^= 0xFF; }                  //Toggle P3.0
    }
```

Wide programs may span across both columns. If so, place them at the top or bottom of the corresponding page. Avoid placing them in the middle. Avoid placing too big programs.

## VI. FORMAT OF REFERENCES

References at the end of this document are written according to the reference style *LVS ISO 690*. In the text number the citations consecutively in square brackets. When citing a section in a book, please give the relevant page numbers. In sentences, refer simply to the reference number, as in [3]. Do not use “Ref. [3]” or “reference [3]” except at the beginning of a sentence: “Reference [3] shows ...” Please do not use automatic endnotes in Word, rather, update your reference list following the samples provided at the end of this document for:

- A book with up to three authors [1],
- A book with more than three authors [2];
- Chapter from a book [3];
- Journal article [4] and [5];
- Publication in conference proceedings [6] and [7];
- Patent [8];
- Electronic information resources [9], [10] and [11];
- Thesis or dissertation [12]

## VII. MANUSCRIPT REVIEWING

The submitted articles are peer-reviewed. The Editorial Board of each series of *The Scientific Journal of Riga Technical University* asks two experts of the respective field to review manuscripts. To the request of the author of the manuscript the Editorial Board provides anonymous copies of reviews. If the author is asked by the Editorial Board to revise the manuscript it is reviewed anew.

### First A. Author, Second Author. Title of the Manuscript

The extended summary follows authors' biographies and its size is 1500-2000 characters. It should give information about research focus, research methods and materials used, about the results and the main conclusions and recommendations. If the manuscript is in English the extended summaries are in Latvian and in Russian. If the manuscript is in Latvian the summaries are in English and Russian. If the manuscript is in any other language the summaries are in English, Latvian and Russian. The extended summaries span across two columns

## REFERENCES

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12. **Smith, G. W.** *Chromatographic Determination of Pesticides*. Ph.D. thesis. Oxford : Oxford University, 1999., p.136 p.

**First A. Author** and other authors should provide a short (500-800 characters, no spaces) biography at the end of the paper. The first paragraph should contain information about the author's educational background, scientific degrees and the years they have been earned. The author's major field of study should be lower-cased.

The second paragraph should list work experience. The current job must have a location, while previous may be listed without one. Job titles are capitalized. Information concerning previous publications may be included (not more than three). The format of list is similar to that of references. Current and previous research interests end this part.

The third paragraph lists awards and memberships in professional societies. If a photograph is provided, the biography will be indented around it. The photograph (3cm×4cm) is placed at the top left of the biography (use “Format Picture” – “Layout” – “Square” option).

Author's contact data (if necessary) are placed at the end of the biography. The author is asked to provide his/her photo.