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Preparation of manuscript for Archives of Electrical Engineering

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Abstract: This instruction provides guidance on the preparation of manuscripts for the Archives of Electrical Engineering (AEE) journal. Use this document as a template and an instruction set for your article. The electronic file containing your manuscript will be further formatted by the Technical Editor of AEE. Manuscript titles should include uppercase and lowercase characters. Avoid writing long formulas with subscripts in the title; short formulas that identify the elements are fine (e.g., "Nd–Fe–B"). Define all symbols used in the abstract. Do not cite references in the abstract. The abstract should be complete in itself and not exceed 250 words.

Key words: a list of 3-6 key words placed in an alphabetical order and separated by commas has to be added immediately after the abstract

1. Introduction

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3. Math

Please use the *MathML* editor as well as *MathType* editor to build an equation in your manuscript..

3.1. Equations

Equations should be typed within the text, centered, and should be numbered consecutively throughout the text. Their numbers should be typed in parentheses, flush right. Equations should be referred to in text, e.g. (1), except at the beginning of a sentence: "Equation (1) is ...". All symbols appearing in equations have to be defined in the text, before or just after the equation. Please keep the same font in the formulas and text.

If the symbols are written in Times New Roman use italic fonts. Symbols of **vectors** and **matrices** should be written in bold fonts. Do not italicize Capital Greek fonts and mathematical symbols like e.g.: the derivative symbol d, max, min, etc. The indices of symbols that are indices themselves should be written in a clear manner.

Use a long dash ("-") rather than a hyphen for a minus sign.

$$\frac{\mathrm{d}}{\mathrm{d}t} \left(\frac{\partial E_m(\mathbf{i}, \alpha)}{\partial i_n} \right) + R_n i_n = u_n , \ n \in \{1, 2, ..., N\},$$
(1)

where: E_m is co-energy, i is the current vector, α is the angle describing the rotor position, R_n is the resistance, (NOT R_n - resistance), u_n is the total voltage of the n-th winding, etc. Note that the equation is centered using a center tab stop.

$$B_{\Theta}(\theta, r) = \lambda_0 \cdot \sum_{a=1}^{3} \Theta_a(\theta, r) , \qquad (2)$$

where: λ_0 is the unit permeance and $\Theta_a(\theta, r)$ is the function of the MMF of winding "a".

4. Unit symbols, abbreviations

Define abbreviations and acronyms the first time they are used in the text, even after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

Si units are recommended for use in formulas, drawings and tables., for example the SI unit for magnetic field strength H is A/m. Apply the center dot to separate compound units, e.g., "N·m.

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Use a zero before decimal points: "0.25," not ".25." Use "cm³," not "cc."

Unit symbols, SI prefixes as well as abbreviations should be writing in accordance with the IEEE standard – http://www.ewh.ieee.org/soc/ias/pub-dept/abbreviation.pdf

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All illustrations should be numbered consecutively (Fig. X). Tables are numbered with Arabic numerals.

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Figures, photos, tables or other parts of a manuscript that have previously appeared in another publication or are not the property of the authors must be properly acknowledged in the

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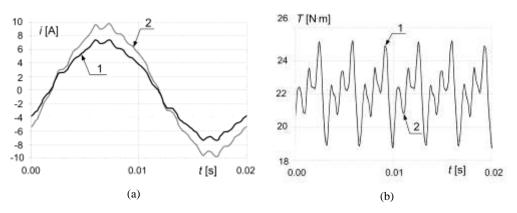


Fig. 1. Results of current and torque calculation for methods 1 and 2: current *i* versus time (a); torque *T* versus time (b)

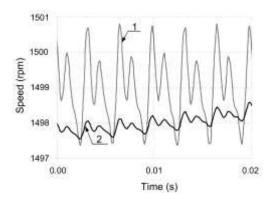


Fig. 2. Rotor speed as a function of time for motors 1 and 2

Tables are numbered with Arabic numerals. Use 9 point Times New Roman for the title of the table and 9 point Times New Roman for the filling of the table (9 in the case of symbols with subscripts).

Table 1. Title of the table

Parameter name	Symbol	Value	Unit
Inductance 1	L_1	1.125	mH
Resistance 1	R_1	100	$m\Omega$
Inductance 2	L_2	1.125	mH
Resistance 2	R_2	100	mΩ

6. Conclusions

A conclusion might elaborate on the importance of the work or suggest applications and extensions. Although a conclusion may review the main points of the manuscript, do not replicate the abstract as the conclusion.

Appendix

Appendixes, if needed, appear before the acknowledgment.

Acknowledgements

Use the singular heading even if you have many acknowledgments.

References

References in text must be numbered consecutively by Arabic numerals placed in square brackets. Please make sure that you use full names of journals i.e. *Archives of Electrical Engineering*. Please ensure that all references in the Reference list are cited in the text and vice versa.

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- [1] Author1 A., Author2 A., *Title of paper*, Title of periodical, vol. x, no. x, pp. xxx-xxx (YEAR), DOI:10.24425/aee.2021.ABCDEF.

 example
- [2] Steentjes S., von Pfingsten G., Hombitzer M., Hameyer K., Iron-loss model with consideration of minor loops applied to FE-simulations of electrical machines, Archives of Electrical Engineering. vol. 49, no. 7, pp. 3945–3948 (2019), DOI:10.24425/aee.2021.ABCDEF.
- [3] Idziak P., Computer Investigation of Diagnostic Signals in Dynamic Torque of Damaged Induction Motor, Electrical Review (in Polish), to be published.
- [4] Cardwell W., Finite element analysis of transient electromagnetic-thermal phenomena in a squirrel cage motor, submitted for publication in IEEE Transactions on Magnetics.

Conference manuscript

- [5] Author A., Title of conference paper, Unabbreviated Name of Conf., City of Conf., Country of Conf., pp. xxx-xxx (YEAR).
 example
- [6] Popescu M., Staton D.A., Thermal aspects in power traction motors with permanent magnets, Proceedings of XXIII Symposium Electromagnetic Phenomena in Nonlinear Circuits, Pilsen, Czech Republic, pp. 35–36 (2016).

Book, book chapter and manual

- [7] Author1 A., Author2 A.B., *Title of book*, Name of the publisher (YEAR). *example*
- [8] Zienkiewicz O., Taylor R.L., Finite Element method, McGraw-Hill Book Company (2000).

Patent

- [9] Author1 A., Author2 A., *Title of patent*, European Patent, EP xxx xxx (YEAR). *example*
- [10] Piech Z., Szelag W., Elevator brake with magneto-rheological fluid, European Patent, EP 2 197 774 B1 (2011).

Thesis

- [11] Author A., *Title of thesis*, PhD Thesis, Department, University, City of Univ. (YEAR). *example*
- [12] Driesen J., Coupled electromagnetic-thermal problems in electrical energy transducers, PhD Thesis, Faculty of Applied Science, K.U. Leuven, Leuven (2000).

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[13] Author A., *Title of article*, in [Title of Conference, record as it appears on the copyright page], © [applicable copyright holder of the Conference Record] (copyright year), doi: [DOI number]. *example*

[14] Kubo M., Yamamoto Y., Kondo T., Rajashekara K., Zhu B., Zero-sequence current suppression for open-end winding induction motor drive with resonant controller, in IEEE Applied Power Electronics Conference and Exposition (APEC), © APEC (2016), doi: 10.1109/APEC.2016.7468259

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[15] http://www.aee.put.poznan.pl, accessed April 2010.

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