

Instructions for Authors

July 6, 2023

Frontiers of Mechanical Engineering is an international peer-reviewed academic journal sponsored by the Chinese Academy of Engineering, administered by Higher Education Press and Huazhong University of Science and Technology, and jointly published by Higher Education Press of China and Springer on a quarterly basis in English.

The journal publishes primarily research article and review article by following the peer-review system. Two reviewers are requested in the relevant study fields, and review feed-back will usually take about one month.

The most important things of the followings:

- 1.** All figures and tables cited must have obtained the authorizations from the original papers or their publishers;
- 2.** Manuscripts should be in a **Word format** and **single column**;
- 3.** Equations and variables must be input with MathType rather than the tool embedded in Word;
- 4.** Please insert pictures (over 300 dpi) and tables into the article, and simultaneously upload the picture files separately to the system;
- 5.** More than 30 references should be cited in the article, in which references published in recent two years must occupy higher than 20%. Non-English References must be less than 3.

1. Duplicate/previous publication or submission

Manuscripts submitted to this journal must not be under simultaneous consideration by any other publisher and should not have been published elsewhere in substantially similar form. No part of a paper which has been published by *Frontiers of Mechanical Engineering* may be reproduced or published elsewhere without the written permission of the publisher.

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Authors wishing to include figures, tables, or text passages that have already been published elsewhere are required to obtain permission from the copyright owner(s) for both the print and online format and to include evidence that such permission has been granted when submitting their papers. Any material received without such evidence will be assumed to originate from the authors.

3. Article Categories

The following categories of papers can be submitted to the journal:

RESEARCH articles describing original investigations relevant to mechanical engineering;

REVIEW articles giving an in-depth overview of certain topic or a review of one's own work or work of a laboratory or a group of researchers;

FEATURE articles providing an overview on certain topic written by well known scientists in the field.

4. Manuscript preparation and submission requirements

4.1 Manuscript submission

Authors are encouraged to submit their papers electronically via the online submission system (<http://mc.manuscriptcentral.com/fome>). The web site guides authors stepwise through the creation and uploading of the various files. Note that original source files, *not PDF files*, are required. Once the submission files are uploaded, the system automatically generates an electronic (PDF) proof, which is then used for reviewing. All correspondence, including the editor's decision and request for revisions, will be by e-mail. After reviewing process, the manuscript will be finally judged by one of the editors who have the right to accept or reject a paper.

4.2 Submission requirements

1) *Cover letter*

A covering letter must accompany each submission indicating the name, address, and telephone number of the author to whom all correspondence is to be addressed. An affiliation must be supplied for each author. Authors are also asked to provide the names and contact information for four potential referees in their cover letter. However, the journal is not obliged to use the suggested reviewers. Final selection of reviewers will be determined by the editors.

2) *Manuscript for research articles*

Manuscripts should be in a **Word format** and **single column**. The following components are required for a complete manuscript: Title, Author(s), Author affiliation(s), Abstract, Keywords, Main text, Figures, Tables, Acknowledgements, References, Appendices and Notation (when needed). Include page numbers on the document, beginning with the title page as number 1. It will be preferred if line numbers are included as well. There is no formal limit for the length of a paper, but the editors may recommend condensation when appropriate.

Please use standard 10- or 12-point Times New Roman fonts.

3) *Title*

The title of the paper should be explicit, descriptive and as brief as possible—No more than 20 words in length.

Integrated control strategies for railway vehicles with independently-driven wheel motors

4) *Running title*

A short version of the paper title (up to 80 characters including space).

5) *Author names, (academic degrees) and affiliations.*

Example: Jinzhi FENG, Jun LI, R. M. GOODALL

6) *Corresponding author*

The e-mail address of the corresponding author should be given on the first page of the manuscript. In the case of multiple authors, one should be designated as the corresponding author.

7) *Abstract*

A short abstract of up to 300 words written in one paragraph, clearly indicating the object and scope of the paper as well as the results achieved, should appear on the first page.

8) *Keywords*

Up to 6 words separated by commas.

9) *Headings and subheadings*

Headings and subheadings should be used throughout the text to divide the subject matter into its important, logical parts. Typical headings include: Introduction, Materials and methods, Results, Discussion, Conclusions, Acknowledgments, Appendixes and References.

10) *Tables*

Authors should take notice of the limitations set by the size and layout of the journal. Large tables should be avoided. Reversing columns and rows will often reduce the dimensions of a table.

If many data are to be presented, an attempt should be made to divide them over two or more tables.

In a three-line table, the first row represents the title of each column, **which can be wrote as (take Column 1 as an example) Title of Column 1 = Column 1 Row 2, Column 1 Row 3, ..., Column 1 Row n .**

Table 1 Table title

Title of Column 1	Title of Column 2	...	Title of Column n
Column 1 Row 2	Column 2 Row 2	...	Column n Row 2
Column 1 Row 3	Column 2 Row 3	...	Column n Row 3
...
Column 1 Row n	Column 2 Row n	...	Column n Row n 62.4

Note: .

- (1) Avoid using a title with broad meaning as the table title. For example, “Results of the Hopkinson pressure bar experiment” is better than “Experimental result”. The title should be specific enough.

- (2) Supply units of measure at the heads of the columns, such as $v/(m \cdot s^{-1})$, l/mm , and $\alpha/(\circ)$. Abbreviations that are used only in a table should be defined in the footnotes to that table.
- (3) Should always use rows and columns to correlate two variables. Do not embed tables as graphic files, document objects, or pictures.
- (4) Submitted as three-line tables, that is, there are three horizontal lines: one under the legend, one under the column heads, and one below the body. Vertical lines are generally not used.
- (5) Label each table at the top with a Roman numeral followed by the table title. Insert explanatory material and footnotes below the table. Designate footnotes using lowercase superscript letters (^a, ^b, ^c) reading horizontally across the table.
- (6) Unless needed, all the words within the tables should capitalize the first letter.
- (7) Must be sequentially numbered and called out in the text as, e.g., Table 1, Tables 1–5, Tables 1 and 2, and so on.

11) Figures

Graphs should be practically self-explanatory. Readers should be able to understand them at a glance. Dimensional drawings and diagrams should include only the essential details and as little lettering as possible. They should present more of a picture than a working drawing.

- (1) **Figure title:** Avoid using a title with broad meanings as the figure title. For example, “Results of the Hopkinson pressure bar experiment” is better than “Experimental result”. The title should be specific enough. Include a title for each figure (a brief phrase, preferably no longer than 10 to 15 words). Use (a), (b), (c)... to give titles for subfigures if there are any.
- (2) **Size:** should be drawn in the size of they virtually appear.
- (3) **Numbering:** Number all figures (graphs, charts, photographs, and illustrations) in the order of their citation in the text and cited as Fig. 1 (full version is used at the beginning of a sentence, Figures 1–3), Figs. 1–3, Figs. 1 and 2, Figs. 1(a)–1(c), and so on.
- (4) **Figure quality:** Should be sharp, noise-free, and of good contrast. All lettering should be large enough to permit legible reduction. The figure quality should meet the requirements as shown below:

Figure category	dpi
Images	
color	300
mono	600
Screen	72
Line-drawing	600

- (5) **Color of figures:** Unless necessary, better drawn in black and white for line-drawing; and grayscale for images.
- (6) **Figure file formats and location in manuscript:** Should be embedded in JPG., TIFF., EPS., or

CorelDraw file formats. Legends should appear, separate from the figures themselves, where the figures should be located within the paper.

(7) **Maps:** Unless necessary, maps are not suggested to appear in the article. If necessary, please use the authorized maps as the basis for map figure drawing. (Like maps published by China Map Press, and the like.) Any maps drawn without an authorized basis have to be submitted with the certificate from the Surveying and Mapping management. All the maps should follow the publishing requirements released by the Government.

(8) Unless needed, all the words within the figures should capitalize the first letter.

12) Formulae and equations

(1) Formulae should be typewritten in MathType whenever possible.

(2) It is extremely important that all mathematical symbols and letters used are identified and listed and that the required style of appearance of such symbols is clearly indicated, e.g., bold face, italics, script, outline, etc.

(3) Subscripts and superscripts should be set off clearly.

(4) Identify in the margin any symbols that might be confused with similar symbols.

(5) The words Equation or Equations should appear in full at the beginning of sentences but be abbreviated to Eq. or Eqs. elsewhere when you want cite an equation or equations. For example, “Equation (1) represent ...”, “It is shown in Eqs. (1)–(3) that ...”, “It is shown in Eqs. (1) and (2)...”.

(6) A nomenclature can be included (with the use of = signs) after the abstract if there is a significant number of symbols in the paper.

(7) Equations should be located separately from other lines if they are long or complicated.

13) Abbreviations

Do not just use abbreviations as titles of sections, figures, and tables. However, abbreviations can be included in a title. Limit their use in the text. When non-standard acronyms and initialisms appear more than once in the abstract and the main text, provide their full meaning at first mention (with the acronym or initialism indicated in parentheses), and then use the acronym or initialism alone in subsequent mentions. Otherwise, simply provide their full meaning.

14) Footnotes

Footnotes should only be used if absolutely essential. In most cases it will be possible to incorporate the information in normal text. If used, they should be numbered in the text, indicated by superscript numbers, and kept as short as possible.

15) Units of measure

Laboratory values are expressed using conventional units of measure, with relevant Système International (SI) conversion factors expressed secondarily (in parentheses) only at first mention. In

tables and figures, a conversion factor to SI should be presented in the legend. The metric system is preferred for the expression of length, area, mass, and volume. For more details, see the Units of Measure conversion table (absent).

16) Acknowledgements

The Acknowledgements section is the general term for the list of sponsor and financial support, contributions, credits, and other information included at the end of the text of a manuscript but before the references. Conflicts of interest and financial disclosures must be listed in this section. Authors should obtain written permission to include the names of individuals in the Acknowledgements section.

17) Appendixes (if needed)

Appendix A

A1, A2, A3...

Appendix B

Appendix C...

Manuscript for review articles

Reviews give a general overview of a particular field, providing the reader with an appreciation of the importance of the work, historical context, a summary of recent developments, and a starting point in the specialist literature. Manuscripts should be

divided into appropriate sections, with an extensive list of references. In addition to undergoing the same rigorous level of technical peer-review as Research papers, Review articles will be critiqued based on the general impact of the field being reviewed, the relevance of the field to experimental mechanics, preexisting reviews of the field, and acknowledgement of the contributing author as a dominant figure in the field. Therefore, it is strongly recommended that authors interested in submitting a Review article correspond with the Editor prior to submission. General formatting text, illustrations, and references are the same as outlined for research papers.

18) Citations and References

In-text citations must agree with the references in numbering. The references should be presented completely and without mistakes, and should be the original publication. Detailed format requirement can be found in the file “Format for references.doc”.

(1) Reference for journals

Man Z, Wang W, Khoo S, Suiyang Khoo, Juliang Yin. Optimal sinusoidal modeling of gear mesh vibration signals for gear diagnosis and prognosis. *Mechanical Systems and Signal Processing*, 2012, 33: 256–274

Lv Z, Zhang W, Xu J. A denoising method based singular spectrum and its application in machine fault diagnosis. *Chinese Journal of Mechanical Engineering*, 1999, 35(3): 85–88

(2) Reference for books

Gaydon A G, Wolfhard H G. *Flames*. 2nd ed. London: Chapman and Hall Ltd., 1960, 30–35

(3) Reference for proceedings

Dmtriev V. Complete tables of the second rank constitutive tensors for linear homogeneous bianisotropic media described by point magnetic groups of symmetry and some general properties of the media. In: *Proceedings of IEEE MTT-S IMOC'99*. Berlin: Springer, 2000, 435–439

Cecil T E, Chern S S. Dupin submanifolds in Lie sphere geometry. In: Jiang B J, Peng C K, Hou Z X, et al., eds. *Differential Geometry and Topology*. Lect Notes in Math, Vol 1369. Berlin: Springer-Verlag, 1989, 1–44

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4.3 Notification

The corresponding author will be notified by the editors of the acceptance of article and invited to supply an electronic version of the accepted text, if this is not already available.

4.4 Copyright transfer

No article can be published unless accompanied by a signed Copyright Transfer Statement, which ensures a transfer of copyright from author to publisher. A copy of the Copyright Transfer Statement to be used will be provided with the letter of acceptance of the manuscript. Authors are asked to scan and return by email or fax the signed statement to the editorial office of *Frontiers of Mechanical Engineering* at the Academic Publishing Division of the Higher Education Press.

4.5 Proofreading and production

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Proofs will be sent to the author and should be returned within the required time. Authors should clarify any questions of the proof in a query file. No new materials shall be inserted at the time of proofreading. Please note that authors are urged to check their proofs carefully before return one all-inclusive e-mail or fax, since subsequent additional corrections will not be possible.

Author Enquiries

For submission inquiries, tracking articles and any information please contact the *Frontiers of Mechanical Engineering* Editorial Office in Higher Education Press. All correspondence for the journal should be sent to the following address. Please include the manuscript dispatch number in all correspondences.

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In addition:

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- Upon request authors should be prepared to send relevant documentation or data in order to verify the validity of the results. This could be in the form of raw data, samples, records, etc.

If there is a suspicion of misconduct, the journal will carry out an investigation following the COPE guidelines. If, after investigation, the allegation seems to raise valid concerns, the accused author will be contacted and given an opportunity to address the issue. If misconduct has been proven, this may result in the Editor-in-Chief’s implementation of the following measures, including, but not limited to:

- If the article is still under consideration, it may be rejected and returned to the author.
- If the article has already been published online, depending on the nature and severity of the infraction, either an erratum will be placed with the article or in severe cases complete retraction of the article will occur. The reason must be given in the published erratum or retraction note.
- The author’s institution may be informed.

Competing Interests

Authors are requested to disclose interests that are directly or indirectly related to the work submitted for publication. Interests within the last 3 years of beginning the work (conducting the research and preparing the work for submission) should be reported. Interests outside the 3-year time frame must be disclosed if they could reasonably be perceived as influencing the submitted work. Disclosure of interests provides a complete and transparent process and helps readers form their own judgments of potential bias. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. **Editorial Board Members and Editors** are required to declare any competing interests and may be excluded from the peer review process if a competing interest exists. In addition, they should exclude themselves from handling manuscripts in cases where there

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Interests that should be considered and disclosed but are not limited to the following:

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Employment: Recent (while engaged in the research project), present or anticipated employment by any organization that may gain or lose financially through publication of this manuscript. This includes multiple affiliations (if applicable).

Financial interests: Stocks or shares in companies (including holdings of spouse and/or children) that may gain or lose financially through publication of this manuscript; consultation fees or other forms of remuneration from organizations that may gain or lose financially; patents or patent applications whose value may be affected by publication of this manuscript.

It is difficult to specify a threshold at which a financial interest becomes significant, any such figure is necessarily arbitrary, so one possible practical guideline is the following: "Any undeclared financial interest that could embarrass the author were it to become publicly known after the work was published."

Non-financial interests: In addition, authors are requested to disclose interests that go beyond financial interests that could impart bias on the work submitted for publication such as professional interests, personal relationships or personal beliefs (amongst others). Examples include, but are not limited to: position on editorial board, advisory board or board of directors or other type of management relationships; writing and/or consulting for educational purposes; expert witness; mentoring relations; and so forth.

Primary research articles require a disclosure statement. Review articles present an expert synthesis of evidence and may be treated as an authoritative work on a subject. Review articles therefore require a disclosure statement. Other article types such as editorials, book reviews, comments (amongst others) may, dependent on their content, require a disclosure statement. If you are unclear whether your article type requires a disclosure statement, please contact the Editor-in-Chief.

Please note that, in addition to the above requirements, funding information (given that funding is a potential competing interest (as mentioned above)) needs to be disclosed

upon submission of the manuscript in the peer review system. This information will automatically be added to the Record of CrossMark, however it is **not added** to the manuscript itself. Under ‘summary of requirements’ (see below) funding information should be included in the ‘**Declarations**’ section.

Summary of requirements

The above should be summarized in a statement and placed in a ‘Declarations’ section before the reference list under a heading of ‘Funding’ and/or ‘Competing interests’. Other declarations include Ethics approval, Consent, Data, Material and/or Code availability and Authors’ contribution statements.

Please see the various examples of wording below and revise/customize the sample statements according to your own needs.

When all authors have the same (or no) conflicts and/or funding it is sufficient to use one blanket statement.

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- Partial financial support was received from [...]
- The research leading to these results received funding from [...] under Grant Agreement No [...].
- This study was funded by [...]
- This work was supported by [...] (Grant numbers [...] and [...])

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- The authors did not receive support from any organization for the submitted work.
- No funding was received to assist with the preparation of this manuscript.
- No funding was received for conducting this study.
- No funds, grants, or other support was received.

Examples of statements to be used when there are interests to declare:

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Non-financial interests: Author A is on the board of directors of Y and receives no compensation as member of the board of directors.
- **Financial interests:** Author A received a speaking fee from Y for Z. Author B receives a salary from association X. X where s/he is the Executive Director.
Non-financial interests: none.
- **Financial interests:** Author A and B declare they have no financial interests. Author C has received speaker and consultant honoraria from Company M and Company N. Dr. C has received speaker honorarium and research funding from Company M and Company O. Author D has received travel support from Company O.

Non-financial interests: Author D has served on advisory boards for Company M, Company N and Company O.

Examples of statements to be used when authors have nothing to declare:

- The authors have no relevant financial or non-financial interests to disclose.
- The authors have no competing interests to declare that are relevant to the content of this article.
- All authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or materials discussed in this manuscript.
- The authors have no financial or proprietary interests in any material discussed in this article.

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