

Journal of Nigerian Institution of Mechanical Engineers (JNIMechE)

Guide for authors

A- Type of contributions: Journal of Nigerian Institution of Mechanical Engineers (JNIMechE) accepts articles from all areas within Mechanical Engineering. These areas include, Design, Manufacturing, Automobile, Energy, Mechanics, Fluid, Materials, Marine, Aeronautic, Nano Technology, Production Engineering, Plant and Power Engineering, Refrigeration and Air conditioning, CAD and CAM, Robotics, automation, Entrepreneurship, Engineering Management, Maintenance, and Engineering Graphics etc. Before submitting, ensure that your topic and research fall within the domains of JNIMechE. The following types of articles are welcome in JNIMechE.

1. **Research Papers (5000-8000 words):** Articles of original scholarly studies that present research, advancing the different areas within the field of Mechanical Engineering are welcome. Such paper should contribute to the evolution and application of knowledge in the specific area. Moreover, it should cater for needs of diverse readership and offer insights that enrich our understanding of issues within the domain of Mechanical Engineering or push the boundaries of practical applications.
2. **Case Studies (5000-8000 words):** Case study papers should demonstrate the same level of scholarship as research paper, but be more focused around a particular solution. The guidelines above on Research Papers are applicable to case studies. Case studies have to provide new insight or knowledge about the application of the domain knowledge and be based in appropriate theory and literature, including that previously published in the journal.
3. **Review Papers (7000 - 10000 words):** Literature review papers should be based on a comprehensive, critical, and conceptually novel analysis of existing literature in a cognate sub-field within the domain of JNIMechE outlined above, and making a contribution to new understandings of subject matter. Literature review papers should be potentially useful for researchers in future theoretical and empirical work.

B- Open Access: All articles submitted to JNIMechE will be published open access. Open access publishing means that your article will be freely accessed online immediately upon publication. This will increase the visibility, readership and impact of your research.

C- Peer Review and Ethics: JNIMechE is dedicated to peer-review integrity and upholding the highest standards of review. Once your paper has been evaluated for suitability by the editor, it will be single anonymous peer reviewed by three independent, anonymous experts. If you have shared an earlier version of your Author's Original Manuscript on a preprint server, please be aware that anonymity cannot be guaranteed.

D- **Prospective Author's Registration:** authors are expected to register on the JNIMechE site to get access to article submission. As a first-time author, you are to click on **create new account** button. You will be prompted to enter your email. a randomly generated user ID and password will be sent to your email. Normally, your email address will be your user ID. You can change the default password by selecting **change password**. Moreover, in the event that you forgot your password, you can create a new password by selecting the **forgot password** button. You will be required to enter your details which include your name, address, affiliations and area of research interest.

For subsequent publications in JNIMechE, upon entering your user ID and password, the system brings up your detail. you can edit your information at any moment. However, the one that is in our system at the point of publication will be used on your article.

E- Fees and Charges

1. **Article Processing Charge (APC):** Upon registration, prospective author is to pay a nonrefundable sum of **five thousand naira only (₦5,000)** as APC. The APC is an administrative charge for conducting the review process. Several payments methods are acceptable to ease payment process. Select the **Payments** button followed by **Pay for APC** to make the payment. Without the APF payment articles will not be processed.
2. **Article Publishing Fee (APF):** At the end of the review process, authors whose articles are accepted for publication will have to pay a nonrefundable sum of **twenty thousand naira only (₦20,000)**. The APF is an administrative charge for publishing your article in open access. Select the **Payments** button followed by **Pay for APF** to make the payment. Without the APF payment articles will not be published.

F- Preparation of Article Manuscript

These guidelines are the minimum requirements that satisfies all formatting for the author's manuscript. Authors are advised to use them as a template in preparing manuscript.

1. Margin:

- Manuscript should be written on an A4 size page.
- The top, bottom, left, and right margins should be 25 mm.
- The text should be margins justified both the left and right.

The manuscript file should be formatted as single-spaced in title, authors name, affiliation, corresponding address of authors and abstract and references. The main body and adjacent references should be 1.5 spaced in single-column text. Spacing between Main sections or headings are 2 while between sub-sections (e.g. abstract and keywords or sub-sections in the text body) or sub-headings is 1.5. All pages including the Title page must be sequentially numbered. The manuscript must be written in English Language with a clear, direct and active speech, using Times New Roman font size 12 but 14 for the Title. 'Symbols' should have corresponding font for representing Greek characters. Equation editors in MS word must be used to type all equations.

Manuscripts should include:

- Title Page
- Abstract
- Keywords
- Introduction
- Literature Review
- Methodology
- Results and Discussion
- Conclusions
- Acknowledgements
- References
- Appendices
- Figures/illustrations and tables included in the text

The main headings should be numbered serially. Moreover, they should be left flushed and type in upper case.

- 2. Title of the article:** The title should neither be too short nor too long. The length should not be more than twenty (20) words. The title should be centralized with font size 14. For titles that are up to two lines, the spacing should be single.
- 3. Authors' names:** The authors names should be two-line space after the title. It should start with initials then the surname. Name of each of the authors should have numbers attached to it in ascending order. The numbers should be superscript. The numbers are tags attached to the affiliation of the respective authors. Furthermore, an asterisk (*) should be added to the number for corresponding author. Example is on the template.
- 4. Affiliation:** The Affiliation should be two-line space after Author's name. Affiliations of the authors are listed. The numbers on the authors' name that are of the respective affiliations are placed before the respective affiliations as superscript. The countries of the Affiliations are included and bolded. Affiliations are centralized with font size 12 and italicised.
- 5. Correspondence Address of Authors:** The Correspondence address of authors listed at two-line space after the Affiliation. Correspondence address of authors includes: e-mail address and phone number. The number on the respective author's name precedes the correspondence address as a superscript. For the corresponding author, asterisk (*) should be added to the number.
- 6. Abstract:** Abstract is a brief statement on the study that comprises of **the problem, objective, methodology, results obtained and significance of the study.** The heading is capitalized and flushed left with font size 12. Abstract is not to exceed 250 words. the body is justified with single-line spacing. Two-line spacing is placed between the Correspondence Address of Authors and Abstract.
- 7. Keywords:** Keywords are words that are central to the content of the article. It is meant to enable ease of searching for the article through internet search. It indicates the research area and central information and the domain of the study. A minimum of four (4) and maximum

of six (6) keywords is to be written. The Keywords should be preceded with the word “**Keyword:**” bolded with a colon. Keywords are typed flush left at a line distance 1.5 after the Abstract. The different keywords should be separated using semicolons.

8. **Introduction:** This should provide a suitable background and overall framework for the work. The significance of the work should be well explained. Besides, the evidence of possible capacity of the study to win interest to researchers should be evidently explained. Also, this section should provide evidence that the area of the study is of good interest in the research sphere. The section should be concluded with the objective of the study.
9. **Literature Review:** This should discuss related work, showing how much the existing up-to-date literature, sourced from good indexed journals, have answered possible research questions and the gap in knowledge that form the basis for the present study.
10. **Methodology:** Adequate information that is required to enable the replicability of the work should be provided. The method, material and equipment used for the study should be systematically presented. References should be made for Methods that were used in previously published works. Furthermore, only relevant amendments should be stated.
11. **Results and Discussion:** The Results and Discussion Sections may be combined into a single section or separated. Clear and succinct results are required. The significance of the findings in the study should be adequately discussed. The discussion should indicate the correlation and comparison between the findings in the present study and the previous ones enumerated in the literature. It should also demonstrate how the present study has been able bridge the gap in knowledge identified at the onset of the study.
12. **Conclusion:** This section entails brief statement indicating the attainment of set objectives of the study.
13. **Abbreviations:** All abbreviations used should be defined at the first instance they appeared in the text. A list of abbreviations may also be included at the end.
14. **Units:** The use of the International System of Units (SI) units is strongly recommended. If other quantities are referenced, their SI equivalents should be provided.
15. **Equations:** Equations should be written centralized using an equation editor and numbered accordingly in parenthesis in the right-hand margin. Equation should be cross-referenced using an abbreviation “Eqn. 1” followed by the equation number.
16. **References and Citations:** Relevant and very recent references must be included in the text. All citations in the text should be numbered sequentially [in square brackets], and all references in the reference section should be presented in the same numerical sequence. Multiple citations within one square bracket should be separated by commas to avoid confusion. Citations should not be included in the title, headers, or abstract of the paper. It is suggested that the reference list be formatted solely in accordance with the IEEE Style. If the number of authors is up to six in the reference, the names of all authors should be included. However, if the number is seven or more the first six authors are listed followed by the phrase "et al."

Examples of references in the IEEE Style:

Journal References

Six or fewer authors in the reference

[1] M.M. Hasan, M.M. Rahman, K. Kadirgama, D. Ramasamy, "Numerical study of engine parameters on combustion and performance characteristics in an n-heptane fueled HCCI engine," *Applied Thermal Engineering*, vol. 128, no. 5, pp. 1464-1475, 2018.

[2] M.M. Hasan, M.M. Rahman, "Homogeneous charge compression ignition combustion: Advantages over compression ignition combustion, challenges, and solutions," *Renewable and Sustainable Energy Reviews*, vol. 57, pp. 282-291, 2016.

Seven or more authors in the reference

[3] H. H. Arifin, L. Zardasti, K. S. Lim, N. M. Noor, N. Yahaya, A. N. Mazlan, et al., "Stress distribution analysis of composite repair with Carbon Nanotubes reinforced putty for damaged steel pipeline," *International Journal of Pressure Vessels and Piping*, vol. 194, no. 1, p. 104537, 2021.

Book Reference

[4] R.C. Juvinall, K.M. Marshek. *Fundamentals of Machine Component Design*, 5th ed. New York: John Wiley and Sons, 2011.

Book Chapter Reference

[5] M.H. Yasin, M.A. Ali, R. Mamat, A.F. Yusop, M.H. Ali, "Physical properties and chemical composition of biofuels," in *Second and Third Generation of Feedstocks*, A. Basile, F. Dalena F, Eds. Amsterdam: Elsevier, 2019, pp. 291-320.

[6] M.E. Barky, S. Zhang, "Fatigue spot welds," in *Fatigue Testing and Analysis: Theory and Practice*, Y.L. Lee, J. Pan, R.B. Hathaway, M.E. Barkey, Eds. New York: Butterworth Heinrahmanemann, 2005 pp. 285-311.

Conference Proceedings

[7] S. Adachi, T. Horio, T. Suzuki. "Intense vacuum-ultraviolet single-order harmonic pulse by a deep-ultraviolet driving laser," in *Conference of Lasers and Electro-Optics*, San Jose, CA, 2012, pp. 2118-2120.

[8] W. Safiei, M.M. Rahman, A.H. Musfirah, M.A. Maleque, R. Singh. "Experimental study on dynamic viscosity of aqueous-based nanofluids with an addition of ethylene glycol," in *IOP Conference Series: Materials Science and Engineering*, 2020, p. 012094.

Patents

[11] S.U.S. Choi, J.A. Eastman, "Enhanced heat transfer using nanofluids," U.S. Patent US 6 221 275 B1, 2001.

Thesis

[12] T.K. Ibrahim, "Modelling and performance enhancements of a gas turbine combined cycle power plant," Ph.D. Thesis, Universiti Malaysia Pahang, Malaysia, 2012.

Online Materials

[13] Citations for articles/material published exclusively online or in open access (free-to-view) must contain the exact Web addresses (URLs) at the end of the reference(s).

[14] M.R. Brooks, "Musical toothbrush with adjustable neck and mirror," U.S Patent 326189 [Online], May 19 1992. Available: <http://goo.gl/VU1WEk>

17. Figures, Plates and Tables: All figures and plates should be of high quality and print-ready with a reasonably small size, preferably with a width less than 8cm but not larger than 16cm and should not be scattered/ungrouped (retain the same format) when resized. They should be centralized. Figures and plates should be numbered in a continuous serial manner and named as Figure 1, or Plate 1, etc. as shown in the template. The figure or plate name should precede the caption separated with colons. Captions should be placed flush left on top of the figure or plate. Figures/plates should be appropriately cross-referenced. cross-references should be the figure or plate name capitalized as (e.g. In Figure 1, the relationship between stress and strain is proportional). In the same vein, Tables are also to be centralized. They should also be serially numbered and named Table 1. cross-referencing tables is same as figures and plates. See examples on the template.

18. Acknowledgement: persons or organizations that must have contributed to the success of the study may be acknowledged.

19. Submission Checklist: Authors are to ensure that all the following are present before final submission of their manuscript.

- One author designated as the corresponding author:
- Email address
- Full postal address
- Telephone or fax numbers
- All necessary files have been uploaded
- Keywords
- All figures, tables and plates captions are cross-referenced
- Manuscript has been "spellchecked" and "grammar-checked."
- References are in the correct format for JNIMEchE
- All references mentioned in the Reference list are cited in the text, and vice versa
- Permission has been obtained for the use of copyrighted material from other sources

20. CORRESPONDENCE

Enquiries or requests of any kind should be sent to the **Editor In-Chief** (Engr. Prof. Sunday Albert Lawal [lawalsunday@futminna.edu.ng], or the **Managing Editors** (Engr. Dr. Shuaibu Balogun [sabalogun@fptb.edu.ng] and Engr. Dr. Joseph Abutu [abutu.joseph@tsuniversity.edu.ng]).