# Proceedings of the XX Vibration Engineering & Technology of Machinery Conference

**VETOMAC 2025**

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**VETOMAC2025-XXX**

**DRAFT: AN ARTICLE CREATED USING VETOMAC FORMAT**

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Abstract

<*Structured* *abstract is to be written in Times New Roman, 10pt, italics, text justified with single line spacing. Abstract should be between 150 to 250 words and should include purpose (stating the main purpose and research question), methods, results and conclusion in brief>*. *The* *Lalitpur district is in the Kathmandu value, which is the capital of Nepal. Institute of Engineering is one of the five technical institutes under the Tribhuvan University, which is the oldest and the largest university in Nepal. Established in 1959, TU is funded by the Government of Nepal. The Institute of Engineering was established in 1930, with its Dean’s office within the Pulchowk Campus, and was later incorporated within TU after its establishment.*

***Keywords<Times New Roman, 10 pt, bold, italics, left aligned>*:**  keyword1, keyword2, keyword3 (Please provide 4 to 6 keywords which can be used for indexing purposes)

*.*

Nomenclature

<Times New Roman, 10 pt, left aligned.>.(should be in alphabetical order and also include Greek letter, subscripts, superscripts and abbreviations)

A Put your nomenclature here

a There are two arguments for each entry of the nomenclature environment, the symbol and the definition.

1 INTRODUCTION

<Paper title: Times New Roman, uppercase, 12pt, bold, centered. Author name: Times New Roman, 10pt, bold, centered. Author affiliation: Times New Roman, 10pt, centered. Use one blank space after paper title. Use one blank space before and after keywords. Main body of the paper is to be written in Times New Roman, 10pt, text justified with single line spacing. Subtitles: Times New Roman l, 10 pt, bold, left aligned. Use two blank lines between the text and the next title. Paragraph spacing is to be kept as 8 pt. Paper margins: top (2.54cm), bottom(2.54cm), left(1.90 cm), right(1.90cm).>

The first International Conference on Vibration Engineering and Technology of Machinery (VETOMAC) was organized at IISc Bangalore, India, in the year 2000 with the intention of encouraging scientific and technical cooperation and exchange across the globe. This conference is the sixteenth in the series of annual symposia that started in Bengaluru, India (2000), and were subsequently held in Mumbai, India (2002), Kanpur, India (2004), Hyderabad, India (2007), Wuhan, China (2009), New Delhi, India (2010), Hong Kong (2011), Vaddeswaram, India (2012), Nanjing, China (2013), United Kingdom (2014), Taiwan (2015), Polland (2016), Queensland, Australia (2017), Lisbon, Portugal (2018), and Curitiba, Brazil (2019).

This conference has emerged as a popular international forum to promote vital exchange of knowledge, ideas and information on the state-of-the-art developments and applied technologies of concurrent machinery dynamics related problems in mechanical, automotive and aerospace domains. The conference includes invited keynote lectures by distinguished experts from across the globe. There will be plenary and keynote sessions and a large number of parallel technical sessions spread over the conference period. It will bring together researchers and practitioners from academia, research institutions and industry to exchange experiences, disseminate information, and explore new opportunities in this domain. The organizers believe that the 17th Vibration Engineering and Technology of Machinery (VETOMAC 2022) will stimulate researchers while furthering cooperation among investigators in the field of machinery dynamics.

**2 mEthodology**

The length of the paper inclusive of figures, tables etc., should be at least 6 pages and should not exceed a maximum of 15.

**3 EXPERIMENTAL (NUMERICAL) DETAILS**

<Titles: Times New Roman 10 pt, bold, uppercase, left aligned. For very long heading, run over from first line is to flushed left in the second line. Text is to be justified.>

**3.1 Experimental Facility (Numerical Validation)**

<The subtitles are to be Times New Roman 10 pt, left aligned with each word capitalized. The text is to be justified. The spacing to the next heading is two line spaces.>

**3.1.1 Subtitle: Third-Level** < The third level subtitles are to be written with each word capitalized. The text is to be started at the subtitle line with a period and one space in between the title and text. The text is to be justified. The spacing to the next heading is two line spaces.>

**4 RESULTS AND DISCUSSION**

Each accepted paper is assigned with a unique number. Put **paper number** in the space provided.

**5 UNITS**

The paper should use SI units.

**6. FIGURES AND TABLES**



**Fig. 1** IITG logo*<*Times New Roman, 10 pt, center text*>*

All figures are to be properly numbered and captioned. Figures are to be aligned to the center with caption below the figure. Figure captions are to be in Times New Roman, 10 pt, centered. A text within the figure should not be smaller than 7 pt. A minimum of two line spaces is to be kept between figures and text. A table or figure should be referenced in the text by Fig. or Table.. respectively following the table/figure number as in Fig. 1/Table. 1. everywhere except at the start of a line. In the latter case, Fig. is to be expanded as Figure.

Table captions also follow the same style as figure captions. Tables are to be centered with table number and caption above table. The text inside tables should not be less than 7 pt. A minimum of two line spaces is to be kept between tables and text.

**Table 1**: Time evaluation<Times New Roman, 10 Pt, Center text>

|  |  |  |
| --- | --- | --- |
| Serial number | Distance(m) | Time(s) |
| 1 | 6 | 1 |
| 2 | 18 | 3 |

**7 EQUATIONS**

Equations should be numbered consecutively with equation number right aligned. The equation number should be enclosed in parentheses and on the same line as the equation. Use one line spacing before and after the equation. The reference to an equation is to be preceded by Eqn. followed by equation number, as in Eq. (1), unless the reference starts a line in which case it is expanded as Equation (1). An example is shown in Eq. (1). If there is case of referring multiple equations then use Eqs. (1) and (5) or Eqs. (1-5).

 $x^{2}+y^{2}=\sqrt{p} $ (1)

8 Footnotes

Avoid footnotes if possible. Footnotes are to be referenced using superscripts numbered consecutively. Footnotes are placed at the bottom of the column, in which the reference appears, two line spaces after the text and are indented. All footnotes are to be written in Times New Roman with font size 8 pt and should be in italics.

**9 CITING REFERENCES**

The references must appear in the paper in the order that they were cited and should be identified by numbers in square brackets as shown [1] (The list of reference should only include works that are cited in the text and that have been published or accepted for publication. Personal communications and unpublished works should only be mentioned in the text. Do not use footnotes or endnotes as a substitute for reference list). In addition, multiple citations (3 or more in the same brackets) must appear as a “[1-3], [1-3, 7]”. The bibliography style required is unsorted with entries appearing in the order in which the citations appear.

Acknowledgments

Acknowledgments of people, grants, funds, etc should be placed here. The names of funding organizations should be written in full.

References

1. Rao JS. Rotor Dynamics. New Age International, New Delhi; 1996.
2. Yadav OP, Balaga SR, Vyas NS. Forced vibrations of a spring-dashpot mechanism with dry friction and backlash. Inter- national Journal of Non-Linear Mechanics. 2020; 124:103500. [https://doi.org/10.1016/j.ijnonlinmec.](https://doi.org/10.1016/j.ijnonlinmec.2020.103500) [2020.103500](https://doi.org/10.1016/j.ijnonlinmec.2020.103500).
3. Tiwari R. Rotor Systems: Analysis and Identification. CRC press, Boca Raton; 2017.
4. Kumar P, Tiwari R. Dynamic response analysis of an unbalanced and misaligned rotor supported on active magnetic bearings and touchdown bearings. In Proceedings of the 6th National Symposium on Rotor Dynamics. Springer; 2020. pp. 407–418.
5. Mokhtar MA, Darpe AK, Gupta K. Investigations of rubbing phenomenon during coast-up operation of a cryogenic engine turbopump. Journal of Vibration Engineering & Technologies. 2020;8(5):737–749. [https://doi.org/10.](https://doi.org/10.1007/s42417-019-00181-6) [1007/s42417-019-00181-6](https://doi.org/10.1007/s42417-019-00181-6).
6. Godi SC, Pattamatta A, Balaji C. Transient heat transfer measurements for planar and circular wall jet using liquid crystal thermography. In ASME, International Mechanical Engineering Congress and Exposition, Phoenix, Arizona, USA. vol. 8: Heat Transfer and Thermal Engineering; Nov 11-17, 2016. <https://doi.org/10.1115/IMECE2016-66572>.
7. Singh J, Darpe AK, Singh SP. Bearing remaining useful life estimation using an adaptive data-driven model based on health state change point identification and K-means clustering. Measurement Science and Technology. 2020;31(8):085601. https://doi.org/10.1088/1361-6501/ab6671.
8. Sudheera, Rammohan YS, Pradeep MS. Split hopkinson pressure bar apparatus for compression testing: a review. Mate- rials Today: Proceedings. 2018;5(1):2824–2829. <https://doi.org/10.1016/j.matpr.2018.01.071>.
9. Mastersthesis A. Thesis Title [MS Thesis]. University of Higher Education. Cambridge, MA; 2003. See also URL:<http://www.abc.edu.>
10. Phdthesis A. Thesis Title [PhD Thesis]. University of Higher Education. Cambridge, MA; 2003. See also URL:<http://www.abc.edu.>