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Manuscript Type (Research Article, Review Article, Case Study, Letter to Editor)
Thematic Area (Engineering, Exact and Earth Sciences)

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ABSTRACT: The abstract should be a single paragraph, with a maximum length of 200 words. For research articles, it should provide a clear and relevant overview of the work. Authors are encouraged to follow the following structured outline, although without using explicit headings: Problem: Briefly describe the problem that gives rise to the study, formulate the relevance of the problem in the form of a question, and clearly state the main purpose of the work. Methods: Briefly describe the main methods or treatments applied. Results: Summarize the most relevant findings of the article. Conclusions: Indicate the main interpretations or implications of the study. The abstract should objectively reflect the content of the article. It should not include results not presented or substantiated in the body of the text, nor should it exaggerate the conclusions.

Keywords: keyword 1; keyword 2; keyword 3 (Include three to five keywords, separated by semicolons (;). These should be specific to the article, but common enough within the discipline to facilitate indexing.)

RESUMEN: El resumen debe redactarse en un solo párrafo, con una extensión máxima de 200 palabras. En el caso de los artículos de investigación, este debe ofrecer una visión general clara y pertinente del trabajo. Se recomienda a los autores seguir el siguiente esquema estructurado, aunque sin utilizar encabezados explícitos: Problema: Describa brevemente el problema que da origen al estudio, formule en forma de pregunta la relevancia del problema y exponga claramente el propósito principal del trabajo. Métodos: Describa brevemente los principales métodos o tratamientos aplicados. Resultados: Resuma los hallazgos más relevantes del artículo. Conclusiones: Señale las interpretaciones o implicancias principales del estudio. El resumen debe reflejar objetivamente el contenido del artículo. No debe incluir resultados no presentados o fundamentados en el cuerpo del texto, ni exagerar las conclusiones.

Palabras clave: palabra clave 1; palabra clave 2; palabra clave 3 (Incluya de tres a cinco palabras clave, separadas por punto y coma (;). Estas deben ser específicas del artículo, pero suficientemente comunes dentro de la disciplina para facilitar su indización).

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The template details the sections that can be used in a manuscript. Note that each section has a corresponding style, which can be found in the "Styles" menu of Word. Sections that are not mandatory are listed as such. The section titles given are for articles. Review papers and other article types have a more flexible structure. We recommend reviewing the "Guidelines for Authors" and "Peer Review" sections on the Scientia website.

Remove this paragraph and start section numbering with 1. For any questions, please contact the editorial office of the journal at scientia@urp.edu.pe .

1. Introduction

This section should clearly and concisely present the topic of the study and explain its importance. It should define the purpose of the work and its relevance. The current state of the field of research should be carefully reviewed, and key publications should be cited. When relevant, highlight any controversial and differing hypotheses, debates, or approaches within the area of study. Finally, clearly state the main objective of the work. To the extent possible, keep the introduction understandable to scientists outside your field of research. Add a paragraph explaining how the article is organized, indicating what each section contains. References should be numbered in order of appearance and indicated by a numeral or numerals in square brackets—e.g., [1] or [2,3], or [4–6]. See the end of the document for further details on references.

2. Materials and Methods

This section should provide sufficient detail to enable others to replicate the study and build upon its findings. Submission of your manuscript implies that all associated materials, data, computer code, and protocols will be made available to readers. Please disclose any restrictions on the availability of such materials or information at the time of submission. While new methods and protocols must be described comprehensively, well-established methods may be summarized briefly with appropriate citations.

To ensure the reproducibility and repeatability of the research, clearly describe how the study was conducted, including the study area and population, data and sample collection procedures, follow-up processes, experimental protocols, and statistical analyses. Additionally, for certain types of studies or disciplines, it is important to specify the inclusion and exclusion criteria used.

Research manuscripts reporting large datasets that are deposited in a publicly available database should specify where the data have been deposited and provide the relevant accession numbers. If the accession numbers have not yet been obtained at the time of submission, please state that they will be provided during review. They must be provided prior to publication.

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In this section, where applicable, authors are required to disclose details of how generative artificial intelligence (GenAI) has been used in this paper (e.g., to generate text, data, or graphics, or to assist in study design, data collection, analysis, or interpretation). The use of GenAI for superficial text editing (e.g., grammar, spelling, punctuation, and formatting) does not need to be declared.

3. Results

This section can be divided into subheadings that correspond to the specific research objectives. If the study is not based on formal specific objectives, a thematic structure can be used (by variables, cases, dimensions, etc.).

The data obtained should be presented clearly, objectively, and in line with the experimental design or research approach previously described. It is essential that the results be structured following the logic of the applied methodology, showing empirical evidence that directly responds to the research questions or hypotheses posed. Data should be presented using tables and figures when relevant, ensuring that their format is consistent with the statistical or qualitative methods used, and avoiding interpretations or judgments that belong in the discussion section.

Furthermore, this section should highlight how each result is directly derived from the applied methodological techniques or instruments, specifying the values, measures, or categories obtained. In quantitative studies, this involves showing the key statistics (means, standard deviations, confidence intervals, p-values, etc.). In qualitative research, it involves highlighting emerging categories, patterns, or themes through textual quotations or coding. From this perspective, the results should faithfully reflect the rigorous application of the method, allowing the reader to verify its internal consistency and evaluate its reliability, without advancing interpretations that will be developed later.

3.1. Subsection

Result related to the specific objectives [Present the data obtained, tables or figures].

3.1.1. Subsubsection

Bulleted lists look like this:

- First bullet;
- Second bullet;
- Third bullet.

Numbered lists can be added as follows:

1. First item;
2. Second item;
3. Third item.

The text continues here.

3.2. Figures and Tables

All figures and tables should be cited in the main text as Fig. 1, Table I, etc. In scientific language, "figure" is a generic term that includes: Graphs (bars, lines, dispersion...); Images (photographs, microscopy, X-rays...); Diagrams (charts, flows, conceptualizations...); Maps, illustrations, etc.

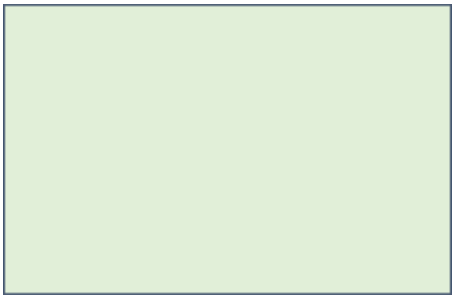


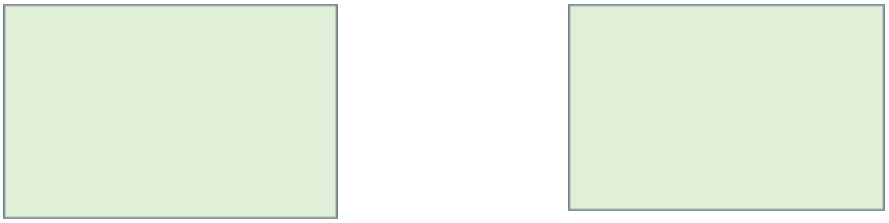
Fig. 1. This is a figure. Schemes follow the same formatting.

Table I. Table type styles

Table Head	**Table Column Head**		
	Table column subhead	***Subhead***	***Subhead***
copy[a]	More table copy		

a. Sample of a Table footnote. (*Table footnote*)

The text continues here (Fig. 2 and Table II).



(**a**) (**b**)

Fig. 2. This is a figure. Schemes follow another format. If there are multiple panels, they should be listed as: (**a**) Description of what is contained in the first panel; (**b**) Description of what is contained in the second panel. Figures should be placed in the main text near to the first time they are cited.

Table II. Tables should be placed in the main text near to the first time they are cited

	Title 2	Title 3	Title 4
entry 1 *	data	data	data
	data	data	data
	data	data	data
entry 2	data	data	data
	data	data	data
entry 3	data	data	data
	data	data	data
	data	data	data
	data	data	data
entry 4	data	data	data
	data	data	data

* Tables may have a footer.

3.3. Formatting of Mathematical Components

This is example 1 of an equation:

$$a = 1 \tag{1}$$

the text following an equation need not be a new paragraph. Please punctuate equations as regular text.
This is example 2 of an equation:

$$a = b + c + d + e + f + g + h + i + j + k + l + m + n + o + p + q + r + s + t + u + v + w + x + y + z \tag{2}$$

the text following an equation need not be a new paragraph. Please punctuate equations as regular text.

Theorem-type environments (including propositions, lemmas, corollaries etc.) can be formatted as follows:

Theorem 1. *Example text of a theorem. Theorems, propositions, lemmas,* etc. *should be numbered sequentially (i.e., Proposition 2 follows Theorem 1). Examples or Remarks use the same formatting, but should be numbered separately, so a document may contain Theorem 1, Remark 1 and Example 1.*

The text continues here. Proofs must be formatted as follows:

Proof of Theorem 1. Text of the proof. Note that the phrase "of Theorem 1" is optional if it is clear which theorem is being referred to. Always finish a proof with the following symbol.

The text continues here.

4. Discussion

This section critically analyze how the methodology employed influenced the results obtained. This includes examining whether the study design and data collection and analysis methods were the most appropriate for addressing the research questions. You should also compare your own methodological approaches with those used in previous studies, highlighting strengths, weaknesses, or innovations. If methodological deviations or adjustments arose during the research process, these should be explained and justified, noting their impact on the validity or reliability of the findings. You should also consider the reproducibility and applicability of the approach used, assessing whether other researchers could replicate the study in similar or different contexts. It is also important to reflect on the inherent limitations of the chosen methodology, both technically and ethically, and how these may have influenced the interpretation of the results. Finally, this section can propose methodological improvements for future research, consolidating the

value of the study not only for its empirical findings but also for its contributions to the development and refinement of methodological practices in the field. You can even add information about the study's limitations and strengths, and highlight future lines of research. In the discussion, possible directions for future research are proposed, based on the limitations of the current study and the interpretation of the results.

5. Conclusions

From a methodological perspective, the conclusions section of a paper should offer a critical summary of how the approach and techniques employed achieved the research objectives. This involves evaluating the relevance of the methodological design, the validity of the instruments used, and the effectiveness of the procedures employed. It is also essential to highlight any limitations encountered during the execution, such as data collection problems, sample restrictions, or difficulties in applying models or algorithms. All of this should be directly linked to the results obtained, demonstrating whether the methodology was adequate to answer the research questions or hypotheses posed.

Furthermore, this section should include a reflection on the practical or theoretical value of the methodology used, as well as suggestions for its improvement or adaptation in future research. It is pertinent to note whether the methods employed are replicable and whether they could be applied in other contexts or disciplines. In research with methodological innovation, the study's original contribution to the development of new techniques or approaches should also be emphasized. Finally, the well-crafted methodological conclusions not only bring the study to a coherent conclusion, but also open up new possibilities for advancing scientific and technical knowledge in the field.

The conclusion summarizes the importance of the findings and discusses how they might influence future research.

6. Patents

This section is not mandatory but may be added if there are patents resulting from the work reported in this manuscript.

Author Contributions (this section must be written upon the paper acceptance): For research articles with several authors, a short paragraph specifying their individual contributions must be provided. The following statements should be used "Conceptualization, X.X. and Y.Y.; methodology, X.X.; software, X.X.; validation, X.X., Y.Y. and Z.Z.; formal analysis, X.X.; investigation, X.X.; resources, X.X.; data curation, X.X.; writing—original draft preparation, X.X.; writing—review and editing, X.X.; visualization, X.X.; supervision, X.X.; project administration, X.X.; funding acquisition, Y.Y. All authors have read and agreed to the published version of the manuscript." Please turn to the Contributor Role Taxonomy - CRedit for the term explanation. Authorship must be limited to those who have contributed substantially to the work reported. XX, YY, and ZZ represent the author name's initials and are solely at the author's personal discretion.

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-The data supporting the findings of this study will be publicly available after an embargo of [insert embargo duration] at the following URL/DOI: [insert pre-registered web link or DOI of the data].

-The data supporting the findings of this study are available upon reasonable request from the authors.

-All data supporting the findings of this study are included in the article (and in any Supplementary Information files).

-No new data were created or analyzed in this study.

Acknowledgments: In this section, you can acknowledge any support given which is not covered by the author contribution or funding sections. This may include administrative and technical support, or donations in kind (e.g., materials used for experiments). Where GenAI has been used for purposes such as generating text, data, or graphics, or for study design, data collection, analysis, or interpretation of data, please add "During the preparation of this manuscript/study, the author(s) used [tool name, version information] for the purposes of [description of use]. The authors have reviewed and edited the output and take full responsibility for the content of this publication."

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Abbreviations

The following abbreviations are used in this manuscript:

DOAJ	Directory of open access journals
TLA	Three letter acronym

Appendix A

Appendix A.1

The appendix is an optional section that can contain details and data supplemental to the main text—for example, explanations of experimental details that would disrupt the flow of the main text but nonetheless

remain crucial to understanding and reproducing the research shown; figures of replicates for experiments of which representative data is shown in the main text can be added here if brief, or as Supplementary data. Mathematical proofs of results not central to the paper can be added as an appendix.

Table AI. This is a table caption

	Title 2	Title 3	Title 4
entry 1 *	data	data	data
	data	data	data
	data	data	data

Appendix B

All appendix sections must be cited in the main text. In the appendices, Figures, Tables, etc. should be labeled starting with "A"—e.g., Fig. A1, Fig. A2, etc.

References

The citation and reference styles follow the IEEE guidelines. References must be numbered in order of appearance in the text (including citations in tables and legends) and listed individually at the end of the manuscript. We recommend preparing the references with a bibliography software package, such as EndNote, Mendeley or Zotero to avoid typing mistakes and duplicated references. Include the digital object identifier (DOI) for all references where available.

In the text, reference numbers should be placed in square brackets [ ] and placed before the punctuation; for example [1], [1–3] or [1,3]. For embedded citations in the text with pagination, use both parentheses and brackets to indicate the reference number and page numbers; for example [5]. For example:

[1] G. Eason, B. Noble, and I. N. Sneddon, "On certain integrals of Lipschitz-Hankel type involving products of Bessel functions," Phil. Trans. Roy. Soc. London, vol. A247, pp. 529–551, April 1955. *(references)*

[2] J. Clerk Maxwell, A Treatise on Electricity and Magnetism, 3rd ed., vol. 2. Oxford: Clarendon, 1892, pp.68–73.

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[4] K. Elissa, "Title of paper if known," unpublished.

[5] R. Nicole, "Title of paper with only first word capitalized," J. Name Stand. Abbrev., in press.

[6] Y. Yorozu, M. Hirano, K. Oka, and Y. Tagawa, "Electron spectroscopy studies on magneto-optical media and plastic substrate interface," IEEE Transl. J. Magn. Japan, vol. 2, pp. 740–741, August 1987 [Digests 9th Annual Conf. Magnetics Japan, p. 301, 1982].

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