

# Replace this text with the article title (Sentence case and left aligned)

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**Abstract.** An abstract should concisely summarize the entire research by including the background, objectives, methods, main findings, and conclusions in a single paragraph. The background introduces the research problem and explains why the study was conducted. The objectives clearly state what the study aimed to achieve. The methods briefly describe how the research was carried out, including the approach, tools, and data analysis techniques. The key results are presented, highlighting the most significant findings without detailed interpretation. Finally, the conclusion summarizes the implications of the results, indicating the study's contribution to the field or its potential practical applications. The abstract should be written in a clear and objective manner, without citations or undefined abbreviations, and typically consists of 150 to 250 words.

**Keywords:** keyword1, keyword2, keyword3, keyword4, keyword5

## 1. Introduction – replace or delete

The study's background in the Introduction should be presented to provide context and justify the research's importance [1]. The current knowledge of the topic must be outlined, and relevant literature should be reviewed to highlight existing gaps or unresolved issues [2]. The research problem is expected to be clearly stated and supported by evidence from previous studies. Through this process, the motivation for conducting the study can be established (IOP-CS-BodyNoIndent style).

The main objectives of the research should be explicitly stated, and if applicable, the research questions or hypotheses must be formulated. The significance of the study needs to be emphasized by explaining how the findings can contribute to theory, practice, or policy (IOP-CS-BodyText style).

## 2. Methodology – replace or delete

**Figure 1.** Replace this text with the figure caption. Delete the placeholder image above, and use Insert – Pictures to add your figure image. Copy and paste this text box to add more figures. Place figures close to where they are cited in the main text.

A detailed description of how the research was conducted should be provided. The research design must be clearly outlined, including whether a qualitative, quantitative, or mixed-method approach was used. The materials, tools, or equipment that were utilized need to be listed, along with their specifications if relevant. The procedures for data collection must be described step by step, ensuring that other researchers can replicate the study (IOP-CS-BodyNoIndent style).

The data analysis methods should also be explained, including any software or statistical techniques employed. If sampling was involved, the sampling method, sample size, and selection criteria should be indicated. Ethical considerations must be addressed, particularly if human participants or sensitive data are involved. Lastly, any assumptions, limitations, or controls applied during the research process must be clearly acknowledged to ensure the transparency and validity of the methodology (IOP-CS-BodyText style).

### *2.1 Another example subsection heading - replace or delete*

Placeholder text is used from this point to demonstrate the layout across several pages, including a placeholder figure and table. **Delete all this text before submitting your article.** (IOP-CS-BodyNoIndent style)

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### *2.2 Example subsection heading*

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**Table 1.** Replace this text with the table caption. Adapt the template table below or delete it and add a new table using either Insert – Table or by pasting from another document. Copy and paste the whole text box to add more tables. Place tables close to where they are cited in the text.

<sup>a</sup> Table footnote.

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**3. Result and Discussion**

The key findings of the research should be systematically presented and interpreted. Quantitative and qualitative data must be displayed through figures, tables, and descriptive text. The results should be arranged logically, following the order of the research objectives or hypotheses. Patterns, trends, and anomalies observed in the data must be highlighted and described in detail. Statistical analysis should be employed where applicable, and the significance level should be indicated to support the findings (IOP-CS-BodyNoIndent style).

In the discussion, the results are expected to be interpreted in the context of previous studies. Similar research should be compared to identify agreements, contradictions, or new insights. The implications of the findings must be explained, particularly in relation to the research questions or practical applications. Possible limitations or sources of error should also be acknowledged, and their potential impact on the outcomes must be addressed. Lastly, suggestions for future research can be briefly mentioned to guide subsequent studies (IOP-CS-BodyText style).

**4. Conclusion**

The study's main findings should be summarized concisely and clearly. The research objectives must be revisited, and how each objective has been addressed through the results obtained should be explained. Key insights from the analysis must be emphasized without simply repeating the data. The study's contribution to the existing body of knowledge should be restated, highlighting its originality or practical value.

Additionally, the broader implications of the findings should be discussed, particularly in relation to real-world applications or theoretical development. Limitations that may have influenced the results must be acknowledged to maintain transparency. Where appropriate, recommendations for future research can be proposed to encourage further exploration of the topic. No new data or arguments should be introduced in this section, and the conclusion must reinforce the significance of the research.

**Acknowledgment**

Appreciation should be expressed to individuals, institutions, or organizations that contributed to the completion of the research but did not meet the criteria for authorship. Funding sources must be acknowledged, including the name of the funding body and the grant or project number,

if applicable. Contributions from supervisors, colleagues, or technical staff who provided guidance, assistance, or resources should also be recognized. If ethical clearance or permission was obtained from any institution, that support may be acknowledged. This section must remain professional and concise, avoiding overly personal or informal expressions of gratitude. The acknowledgment should be written to reflect the collaborative and supportive nature of academic research.

### **Author contributions**

Each author's specific roles and responsibilities in the research should be clearly stated. Contributions may include conceptualization, methodology design, data collection, data analysis, software development, validation, writing the original draft, reviewing and editing the manuscript, supervision, funding acquisition, and project administration. Each task should be assigned to the relevant author using either initials or full names, depending on the journal's guidelines. This section is intended to ensure transparency and to appropriately recognize the individual efforts made throughout the research process. Equal contributions, if any, should be noted, and the lead author or corresponding author must be identified when required. It is important that all listed authors have approved the final version of the manuscript and agreed to be accountable for their respective contributions.

### **Funding**

Clear and complete information regarding the financial support received for the research must be provided. The name of the funding agency, institution, or organization should be stated explicitly, along with the grant number, project code, or contract number if available. This ensures transparency and allows proper acknowledgment of the sponsor's contribution to the research. If the research was conducted without specific funding, a statement such as *"This research received no external funding"* should be included. It is important that the information is accurate and matches any declarations made elsewhere in the manuscript or during submission. Multiple funding sources may be listed in some cases, and each should be properly identified with the corresponding support provided.

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## References

- [1] Example reference (Cambria, 9 size) – **replace or delete**
- [2] Example reference (Cambria, 9 size) – **replace or delete**
- [3] All references must be accompanied by a DOI or URL.