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# Paper's title should be the fewest possible words that accurately describe the content of the paper (Center, Bold, 16pt)

Author<sup>1\*</sup>, Author<sup>2,3</sup>, Author<sup>4</sup> (10 pt)

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#### ABSTRACT (10 PT) **Article Info** This electronic document is a "live" template and already defines the Article history: components of your paper [title, text, heads, etc.] in its style sheet. Received month dd, yyyy \*CRITICAL: Do Not Use Symbols, Special Characters, Footnotes, or Math Revised month dd, yyyy in Paper Title or Abstract. (Abstract). The Abstract should be 150 to 250 Accepted month dd, yyyy words in length. Please write the problem (2-3 sentences), Keywords: Solution (1-2 sentences), First keyword Research contribution (1-2 sentences), Second keyword Third keyword Method (2-3 sentences), Fourth keyword Result (4-8 sentences) and Fifth keyword Conclusion (1-2 sentences).

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### 1. INTRODUCTION (10 PT)

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The following information should be included in the Introduction section: i) a clear background; ii) a clear definition of the problem; iii) the pertinent literature on the topic; iv) the suggested method or solution; and v) the new value of research, which is innovation (novelty). It need to be comprehensible to peers across numerous scientific fields.

A full article usually follows a standard structure: 1. Introduction, 2. Method, 3. The Comprehensive Theoretical Basis and/or the Proposed Method/Algorithm, 4. Results and Discussion, and 5. Conclusion. The structure is well-known as IMRaD style.

The author's literature review is used in the "INTRODUCTION" section to explain how the manuscript differs from previous papers and how it is innovative. It is also used in the "METHOD" section to describe the research step and in the "RESULTS AND DISCUSSION" section to support the analysis of the results

\*Corresponding Author Email: author1@email.com [2]. A brief explanation of the theory and/or the suggested technique/algorithm can be included in the extra part that comes after the "INTRODUCTION" section and before the "METHOD" section if the manuscript was produced with a high degree of originality and presented a novel method or algorithm [4].

At the end of the introduction section, the author needs to add a paragraph explaining the structure of the article. Example: This study explains MPA in the Method section. Section 3 shows the proposed control design and section 4 reveals a simulation result and discussion. The conclusion is disclosed in the last section.

### 2. **METHOD (10 PT)**

Research design, methodology (using algorithms, pseudocode, or other forms), testing techniques, and data collection are all explained chronologically. To ensure that the explanation is recognized by science, the research description needs to be supported by references. Each table and figure is mentioned in the paragraph. Example: according to Figure 1, the dc motor has 2 component block. The discussion can be made in several sub-sections.

### 2.1. Sub section 1

The equation format follows the rules as in the example: Eq. 1 and Eq. 2

$$FP_{i} = \left\{ X_{i} | k \in \{1, 2, ..., N\} \land F_{k} < F_{i} \right\} \cup \left\{ X_{best} \right\}$$
 (1)

$$X_{i,j}^{PI} = x_{i,j} + r_{i,j} \cdot \left(SF_{i,j} - I_{i,j} \cdot x_{i,j}\right) \tag{2}$$

# 2.2.1. Subsub section 1

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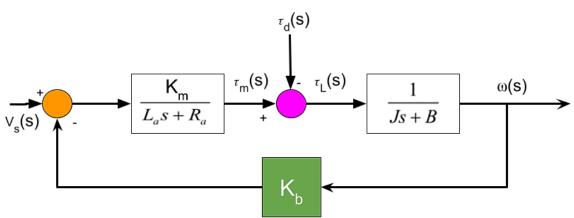


Figure 1. The DC motor schematic

Table 1 Output DC motor with PID

Table 1. Output De motor with 11D				
Controller	Overshoo t	Rise time	Settling time	ITSE
PID-STSA	1.0027	0.1774	0.2841	0.290 5
PID-MGO	1.003	0.1777	0.2845	0.290 9
PID-MMG O	1.0026	0.1775	0.2841	0.290 4

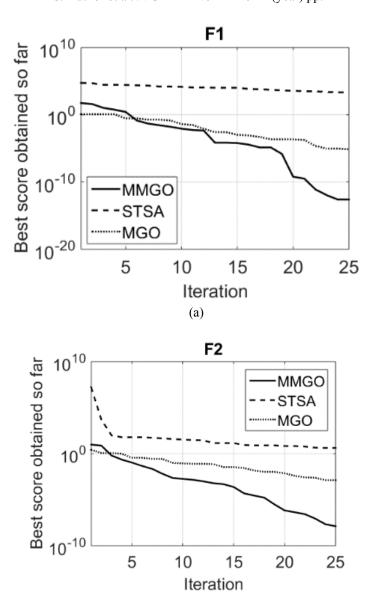


Figure 2. Convergence curve of benchmark function: (a) F1, (b) F2

(b)

# 3. RESULTS AND DISCUSSION (10 PT)

This section presents the results and validation of the experiments along with a detailed discussion. Tables and figures are explained in paragraphs. The author needs to add more detailed analysis. Authors need to adjust the use of equations based on the journal template.

# 4. CONCLUSION AND LIMITATION (10 PT)

In this section, the author explains as stated in the "INTRODUCTION" section which ultimately leads to the "RESULTS AND DISCUSSION" section, so there is a connection. Apart from that, the author can add limitations and prospects for future research development (based on the results and discussion).

# **ACKNOWLEDGEMENTS (10 PT)**

Author thanks ... . In most cases, sponsor and financial support acknowledgments.

#### **REFERENCES (9 PT)**

The main references are international journals and proceedings. At least 40 references are expected, mainly 80% for international journal papers indexed by **Scopus and Science Direct**, 30% international proceedings and **have to cite minimal 1 journal paper from VUBETA**. All references must come from the most relevant and up-to-date sources (**maximum 3 years from article submission**, for example if the journal is submitted in 2024. Maximum references used are 2021). References are written in IEEE style. Use tools such as EndNote, Mendeley, or Zotero for reference management and formatting, and select **IEEE style**. **The self-citation limit is 3 articles** and the template will number citations consecutively within brackets [1].

#### REFERENCES

- [1] A. Menati, K. Lee, and L. Xie, "Modeling and analysis of utilizing cryptocurrency mining for demand flexibility in electric energy systems: A synthetic texas grid case study," *IEEE Trans. Energy Mark. Policy Regul.*, vol. 1, no. 1, pp. 1–10, 2023.
- [2] A. A. Ahmed, A. Alsharif, and N. Yasser, "Recent advances in energy storage technologies," *Int. J. Electr. Eng. Sustain.*, pp. 9–17, 2023.
- [3] M. Wen, C. Zhou, and M. Konstantin, "Deep neural network for predicting changing market demands in the energy sector for a sustainable economy," *Energies*, vol. 16, no. 5, p. 2407, 2023.
- [4] F. S. Al-Ismail, M. S. Alam, M. Shafiullah, M. I. Hossain, and S. M. Rahman, "Impacts of Renewable Energy Generation on Greenhouse Gas Emissions in Saudi Arabia: A Comprehensive Review," *Sustainability*, vol. 15, no. 6, p. 5069, 2023.
- [5] F. L. Fuga and D. S. Ramos, "Proposals to improve the demand response in Brazil," *Electr. J.*, vol. 36, no. 1, p. 107237, 2023.

# **BIOGRAPHIES OF AUTHORS (10 PT)**

The recommended number of authors is at least 2. One of them as a corresponding author.

Please attach clear photo (3x4 cm) and vita. Example of biographies of authors (9 pt):



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