Title in Cambria typeface, 14pt, left aligned

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Abstract

Abstract consists of a minimum of 190 words and a maximum of 210 words. Abstract contains an introduction, research methods, results, analysis and discussion, and conclusions. Abstract as much as possible using positive sentences. The introduction emphasizes the urgency of the research carried out. The method describes the research method being carried out. It may include the theory used to perform the analysis. The results describe the generally generated data. Analysis and discussion comparing the results of research with related theories or research that have already existed before. The conclusion contains the conclusions of the research carried out. In the abstract, quotations or references are not permitted. The first assessment when the article is submitted to the editorial staff is on the abstract, if the abstract is not convincing, it is possible that the article will not continue to the next step. A better abstract is one that can give representation of the article. Keywords are filled with the main concepts discussed in the article, not the words that appear most frequently. The minimum number of keywords is three and a maximum of five words.

**Keywords:** first keyword; second keyword; third keyword; fourth keyword; fifth keyword

1. Introduction

The introduction contains the background of the problem and research urgency. The introduction also contains the theoretical framework used to carry out the analysis. Avoid including common knowledge definitions, such as "the definition of data mining is .....", "the definition of machine learning is ....", and other similar definitions. Background problems, research problems, brief literature reviews, and research objectives.

This submission template allows authors to submit their papers for review to an TIDS without any output design specifications incorporated at this point in the process. The TIDS “Submission Template” is a double column MS-Word document that allows authors to type their content into the pre-existing set of paragraph formatting styles applied to the sample placeholder text here, or copy-and-paste their text and then apply the respective paragraph styles (**Windows**: you can open the Styles task pane from the **Home** tab [it can also be opened with the keyboard shortcut Alt+Ctrl+Shift+S]; **MAC16**: you can access the Styles pane at the right of the **Home** toolbar.) Highlight a section that you want to designate with a certain style, and then select the appropriate style from the list. To view which style is being used in any part of this document, place your cursor on your text and look at the “Current style” field in the Styles pane.

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1. Related Research

The related research consists of similar research carried out by other researchers to see research gaps. The author must be able to demonstrate the state-of-the-art of the research conducted through a study of related research literature published previously.

1. Method

In the method section, it contains the research methods carried out, which include the type of research, research stages, time and place of research, research variables (quantitative), data gathering, informant profiles, analytical frameworks, and/or other elements that are eligible to be included in the methods section.

Theoretical studies must refer to primary sources from national or international scientific journal articles. It would be even better if national journals were accredited and reputable internationally within the last ten years. References from textbooks and popular books are only secondary references. The number of reference material is at least 20 titles, with a 80% from journal articles.

1. Result and Analysis

The research results are presented in this section. Research results can be in the form of narrative descriptions, tables, graphs, and other forms that show the presentation of research results.

1. Inserting Table, Figure, and Equation

The next subsections provide instructions on how to insert figures, tables, and equations in your document.

* 1. Figures

Figures are “float elements” which should be inserted after their first text reference and have specific styles for identification. Insert a figure and apply the “Image” paragraph style to it. For the figure caption, apply the style “Figure Caption.”

To accommodate readers with color vision differences, figures should still be usable when printed in grayscale. Refer to elements of the figure with non-color terms, for example “indicated as squares” instead of “indicated in blue”. Use different patterns in bar charts, different line patterns in graphs, and different shapes in plots to distinguish groups of elements and reinforce color differences.

The images are presented in high resolution. Add image caption in the top of the image. Images must be referred to in the text, such as “…..as shown in Figure 1, ……”. If the image is sourced from the work of another person, the image source must be stated.

Figure captions are numbered with a single space. The title should be short (not on the image itself) and illustrative. Pay attention to writing text; illustrations must be clear and avoid using symbols and abbreviations. Letters must be easy to read, clear, and of a proportional size.

Numbers should have a brief description in the main body of the text. For layout purposes, please provide each additional high-resolution (≥300dpi) number separately in .tif/.jpg/.jpeg in a specified folder in addition to the text.

* 1. Multipart Figure

Authors can also insert a multi-part figure above a single caption. Every inserted figure must have the “Image” style applied. Below are instructions regarding how to insert a multi-part figure in your paper.

* If the author wants to insert two multi-part images, they must draw a one row and one column table and insert the images one-by-one in the cells.
* If the author wants to insert three multi-part images, they must draw a one-row and three-column table and insert the images one by one in all three cells.
* If the author wants to insert four multi-part images, they must draw a two-row and two-column table and insert the images one-by-one in all four cells, see the Figure 2.

Figure 2.

The layout of multipart images should be as per the above example within the table.

| Figure 2: The layout of multipart images should be as per the above example within the table in image 1. | Figure 2: The layout of multipart images should be as per the above example within the table in image 2. |
| --- | --- |
| Figure 2: The layout of multipart images should be as per the above example within the table in image 3. | Figure 2: The layout of multipart images should be as per the above example within the table in image 4. |

* 1. Table

Tables are “float elements” which should be inserted after their first text reference and have specific styles for identification. **Do not use images to present tables**, or they will be inaccessible to readers using assistive technologies.

Authors can insert tables by using the MS Word option (INSERT ->Table) and providing the required row and column size. Every table must have a caption (title) above it, which must have the **“Table Caption**” style applied. Please note that tables **should not** be supplied as image files, but if they are images, they must have the “Image” style applied. As an example, Table 1 shows all the styles available in this template, to be applied to the respective element of your text.

Employ the example table 1 in this template if you use a table. Table captions are placed at the top, using **Table Number style**, including data in tabular form, beginning, or ending with a cross-reference. For example, “…….. as shown in table 1, ……”. Or other examples such as “…. Table 1 shows that …..”. Including tables and figures must explain the table's contents and explicitly state the table or figure number. It is done so that there is unity between the figures and tables included with the accompanying narrative.

Tables can be very difficult for people using screen reader technology to understand unless they include a markup that explicitly defines the relationships between all the parts (i.e.: headers and data cells). *A key to making data tables accessible to screen reader users is to clearly identify columns and row headers.* In Word, authors should identify which row or rows contain column headers. Below are the steps to do this:

Select that table’s row, then right-click the row and select “Table Properties”;

In the *Table Properties* window, click the *Row* tab and select the box that says “Repeat as header row at the top of each page.”

Figure 1.

Attention mechanism in deep learning.

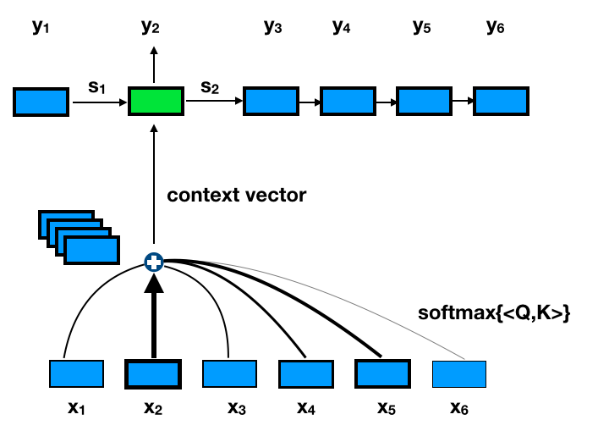


Table 1.

The highest F-1 score using Adam optimization, with CoNLL-2003 dataset.

| **Dataset** | **Person** | **Location** | **Organization** | **Misc** |
| --- | --- | --- | --- | --- |
| Train | 97,9 | 97,47 | 95,17 | 93,68 |
| Valid | 95,81 | 95,58 | 88,32 | 87,4 |
| Test | 94,66 | 91,71 | 86,61 | 77,53 |

* 1. Formula

The **Formula** style is applied in the numbered math equation. A numbered display equation always has an equation number (label) on the right. The distance between the formula and the number is one tabulation.

(1)

* 1. Algorithm

Algorithms use the styles “Algorithm Caption” and “Algorithm”.

ALGORITHM 1: Iterative Algorithm

current\_position center

current\_direction up

current\_position is inside circle

while current\_position is inside circle, do

neighborhood all grid hexes within two hexes from current\_position

for each hex in neighborhood, do

for each neuron in hex do

convert neuron\_orientation to vector

scale vector by neuron\_excitation

vector\_sum vector\_sum + vector

end

end

normalize vector\_sum

end

* 1. Computer Code

Display Computer codes can be inserted using “ComputerCode” style.

def add\_numbers(numbers):

# Initialize the sum

total = 0

for num in numbers:

# Check if the number is positive

if num > 0:

total += num

return total

# Example list of numbers

number\_list = [10, -5, 8, 20, -3, 15]

# Calculate the sum of positive numbers in the list

positive\_sum = add\_numbers(number\_list)

# Display the result

print("The sum of positive numbers in the list is:", positive\_sum)

1. Discussion

The discussion contains an analysis and discussion of research results. This section is the core of the article. The author can present an analysis from various points of view and argue about the results described in the previous section. The discussion referred to here can include the author's arguments which are then carried out in dialogue with the results of previous research in the same field. In this section, the author's position among other researchers will be clearly seen, whether it supports the opinion of one research by setting aside other opinions. It can also carry out the elaboration of research results with the results that others have achieved to gain a new understanding of computation or data science. For example, there are discussions about the factors that influence the machine learning method. Previous researchers said there were four factors, but your research found that there was one factor that affected certain conditions. It is where a clear contribution is seen in the articles you write. The analysis and discussion here can be further developed if they do not violate the research and publication code of ethics. The author is free to conduct analysis and discussion to strengthen the argument.

1. Conclusion

The conclusion does not summarize the article from introduction to analysis. The conclusion contains the important points or the researcher's findings regarding the research he is conducting. The conclusion answers the urgency of the research presented in the introduction.

1. Acknowledgements

Acknowledgments are placed before the references. Add information about grants, awards, or other types of funding that you have received to support your research. Example of Grant sponsor: *Competitive Research Programme*, number CRP 10-2012-03.

1. Author Contribution

The author contribution section provides a transparent account of the roles and contributions of each author to the research project and manuscript preparation. This section ensures proper acknowledgment of individual contributions, including but not limited to conceptualization, methodology, data analysis, writing, and revision. It reflects the collaborative effort and expertise of the authors in advancing scientific knowledge within the scope of the TIDS journal. To find out more about the roles of writers, visit https://credit.niso.org/, there are 14 roles in research and writing scientific articles. Below the example for author contributions:

**Conceptualization:** Ahmad Ardani; **Data curation:** Ragil Mulya, Anton sihombing; **Formal Analysis:** Ahmad Ardani, Ragil Mulya; **Software:** Dika lestari; **Writing – original draft:** Ahmad Ardani; **Writing – review & editing:** Anton sihombing, Dika Lestari.

1. References

The author must ensure that every reference written in the article appears in the reference list, and vice versa. It is not recommended to use references sourced from Wikipedia, personal blogs, or non-scientific sites. All notes must appear as citations, with anonymous citations in the footnotes.

References are recommended to take more from articles published by scientific journals than from books.

References are recommended to use reference management software, namely Zotero, Endnote, or Mendeley using the IEEE (*Institute of Electrical and Electronics Engineer*) Style.

**Writing references is not separated between sources from scientific journals, books, websites, print media, or other sources. Writing a bibliography in alphabetical order according to the last name of the author**. Writing a bibliography uses the IEEE (Institute of Electrical and Electronics Engineers) style. A full explanation can be seen at <https://journals.ieeeauthorcenter.ieee.org/wp-content/uploads/sites/7/IEEE_Reference_Guide.pdf> .

If the reference has a source link or DOI number, include the source link and/or DOI number for the library. It is to make it easier for readers to browse the library sources that become your reference in writing articles.

This section cites a variety of journal [5, 15], conference [1, 6, 8, 12, 13], and magazine [3] articles to illustrate how they appear in the references section. It also cites books [9, 10], a technical report [7], a PhD dissertation [4], an online reference [14], a software artifact [11], and a dataset [2].

As you build your article, you should note where you will be placing citations. If you are using numbered citations and references, the reference number - "...as shown in [5]..." is sufficient. If you are using the "author year" style, a reasonable placeholder is the primary author's last name and the year of publication - "...as shown in [Harel 1978]..." - we will be updating this placeholder later in the process with the citation label as generated by the Word macros in the "master template.

The following is an example of writing a bibliography in the IEEE style.

[1] Atul Adya, Paramvir Bahl, Jitendra Padhye, Alec Wolman, and Lidong Zhou. 2004. A multi-radio unification protocol for IEEE 802.11 wireless networks. In Proceedings of the IEEE 1st International Conference on Broadnets Networks (BroadNets’04). IEEE, Los Alamitos, CA, 210–217. https://doi.org/10.1109/BROADNETS.2004.8

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