

(Research/Review) Article

Title

Benediktus Aditya Pratama¹, Safrizal²,¹ <https://ljissen-ai.org/index.php/LJISSEN-AI> e-mail : aditbaps@gmail.com² Affiliation 2; e-mail : xxx@xxx.com

* Corresponding Author : name

Abstract: A single paragraph, maximum 250 words. Abstract content must contain (1) an overview of the object of research, (2) problems, and research objectives, (3) proposed methods, (4) main findings and results and synthesis of main ideas, and (5) conclusions.

Keywords: Enter five until eight keywords and separate them with a semicolon (;)

1. Introduction

Journal of Future Artificial Intelligence and Technologies accepts research paper submissions that contain at least 4000 to 8000 words or around 8 to 20 pages for research articles and a maximum of 30 pages for review articles. The introduction must be written briefly, concisely, and clearly. The introduction must contain an explanation of (1) the Research object, (2) Methods that have been used previously, (3) the Weaknesses and strengths of each method or may briefly allude to related work and/or hypotheses, (4) Research problems (5) Proposed solutions and/or approaches (6) List of Contributions (6) Rest of paper. The introduction section must be scientific and rich in citations. Use "maintext_FAITH" style for this paragraph.

2. Preliminaries or Related Work or Literature Review

This section must contain a state-of-the-art explanation. It can be explained in several ways. First, you can discuss several related papers, both about objects, methods, and their results. From there, you can explain and emphasize gaps or differences between your research and previous research. The second way is to combine theory with related literature and explain each theory in one sub-chapter.

2.1. Subsection 1

2.2 Subsection 2

3. Proposed Method

In this section, you need to describe the proposed method step by step. Explanations accompanied by equations and flow diagrams as illustrations will make it easier for readers to understand your research.

3.1. Algorithm/Pseudocode

Writing algorithms or pseudocode can be an alternative for explaining scientific paper content. The algorithm must be cited in the main text. Below is an example of writing an Algorithm. You need to use "Algorithm_head_FAITH" and "algorithm_step_FAITH" styles.

Algorithm 1. Algorithm Title

INPUT: xxx, yyy

OUTPUT: zzz

1: Step 1

Received: date

Revised: date

Accepted: date

Published: date

Curr. Ver.: date



Copyright: © 2025 by the authors.

Submitted for possible open

access publication under the

terms and conditions of the

Creative Commons Attribution

(CC BY SA) license

[\(https://creativecommons.org/li](https://creativecommons.org/licenses/by-sa/4.0/)[censes/by-sa/4.0/\)](https://creativecommons.org/licenses/by-sa/4.0/)

-
- 2: Step 2
 - 3: Step 3
 - 4: Step n
-

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. Formatting of Mathematical Components

Equations, theorems, and proofs must be cited in the main text. For example, the author could write the sentence: “Eq. (1) is used to calculate blablabla”. This is example 1 of an equation:

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

The text following an equation does not need to be in a new paragraph. Use “punctuate_text_FAITH” style.

This is example 2 of an equation:

$$a = b + c + d + e + f + g + h + i + j + k + l + m + n + o + p + q + r + s \tag{2}$$

The text following an equation should not be in a new paragraph. Use “punctuate_text_FAITH” style.

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. Results and Discussion

In this section, the author needs to explain the hardware and software used, dataset sources, initial data analysis, results, and results analysis/discussion. Presenting the results with pictures, graphs and tables is highly recommended. Formulas or evaluation measuring tools also need to be included here. There must be discussion/analysis, and you can't just rewrite the results in sentence form, but you need to provide an explanation of their relationship to the initial hypothesis. In addition, this section needs to discuss and elaborate on important findings.

4.1. Figures and Tables

Place figures and tables at the top and bottom of columns. Avoid placing them in the middle of columns. Large figures and tables may span across both columns. Figure captions should be below the figures; table heads should appear above the tables. Insert figures and tables after they are cited in the text. Use the abbreviation “Fig. 1”, even at the beginning of a sentence.



Figure 2. This is a figure. Schemes follow the same formatting.

Table 1. This is a table. Tables should be placed in the main text near to the first time they are cited.

Title 1	Title 2	Title 3
entry 1	data	data
entry 2	data	data
entry 3	data	data
entry 4	data	data
entry 5	data	data
entry 6	data	data
entry 7	data	data ¹

¹ Tables may have a footer.

The text continues here (Figure 2 and Table 2).



Figure 3. This is a figure. Schemes follow another format. If there are multiple panels, they should be listed as (a) a Description of what is contained in the first panel; (b) a Description of what is contained in the second panel. Figures should be placed in the main text near the first time they are cited.

Table 2. This is a table for complicated data. Tables should be placed in the main text near the first time they are cited.

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

data

data

data

* Tables may have a footer.

5. Comparison

Comparison with state-of-the-art is an important part. This section can provide a more measurable illustration of your research contribution. This section can also be added to a brief discussion. If you feel that this section is insufficient and unsuitable to be a separate section, the author(s) can integrate this section with section four (Results and Discussion).

6. Conclusions

Sections must summarize briefly and concisely the contents of the document or essay. This section may contain (1) A summary of the main results, findings, and evidence from your research or analysis. (2) Synthesis of findings, namely the relationship between findings and research objectives, and show how these findings support arguments or hypotheses. (3) The author may also be able to discuss the implications of research findings for research benefits. What is the contribution or impact on the knowledge or topic discussed? (4) Limitations and suggestions for further research.

Author Contributions: A short paragraph specifying their individual contributions must be provided for research articles with several authors (**mandatory for more than 1 author**). 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.”

Funding: Please add: “This research received no external funding” or “This research was funded by NAME OF FUNDER, grant number XXX”. Check carefully that the details given are accurate and use the standard spelling of funding agency names. Any errors may affect your future funding (**mandatory**).

Data Availability Statement: We encourage all authors of articles published in FAITH journals to share their research data. This section provides details regarding where data supporting reported results can be found, including links to publicly archived datasets analyzed or generated during the study. Where no new data were created or data unavailable due to privacy or ethical restrictions, a statement is still required.

Acknowledgments: In this section, you can acknowledge any support given that 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). Additionally, A statement of AI tools usage transparency has been included in the Acknowledgement section, if applicable.

Conflicts of Interest: Declare conflicts of interest or state (**mandatory**), “The authors declare no conflict of interest.” Authors must identify and declare any personal circumstances or interests that may be perceived as inappropriately influencing the representation or interpretation of reported research results. Any role of the funders in the study's design; in the collection, analysis, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results must be declared in this section. If there is no role, please state, “The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results”.

References

References must follow the Vancouver style. We recommend preparing references with a bibliography software package like Mendeley, EndNote, or Zotero to avoid typos and duplicate references. **Digital object identifiers (DOIs) must be included for all available references. It is important to do a lookup-based DOI (if any) on the reference manager, see Figure 5.**

- (1) D. R. I. M. Setiadi, S. Rustad, P. N. Andono, and G. F. Shidik, "Digital image steganography survey and investigation (goal, assessment, method, development, and dataset)," *Signal Processing*, vol. 206, p. 108908, May 2023, doi: 10.1016/j.sigpro.2022.108908.
- (2) D. R. I. M. Setiadi, T. Sutojo, E. H. Rachmawanto, and C. A. Sari, "Fast and efficient image watermarking algorithm using discrete tchebichef transform," in *2017 5th International Conference on Cyber and IT Service Management (CITSM)*, Aug. 2017, pp. 1–5. doi: 10.1109/CITSM.2017.8089229.
- (3) A. Vyas, S. Yu, and J. Paik, "Fundamentals of Digital Image Processing," in *A John Wiley & Sons*, 2018, pp. 3–11. doi: 10.1007/978-981-10-7272-7_1.
- (4) ICCF FBI, "Internet Crime Report 2021," 2022. [Online]. Available: https://www.ic3.gov/Media/PDF/AnnualReport/2021_IC3Report.pdf
- (5) USC Viterbi School of Engineering, "SIPI Image Database." <http://sipi.usc.edu/database/> (accessed Mar. 27, 2019).

Use **at least 20 references** from journal articles or conferences from related prior art. References from books are better used in general theories. Avoid references from the website, except for data reports, dataset sources, or other data sources. After citing correctly, insert the bibliography, then use the "References_FAITH" Style; see Fig. 4.

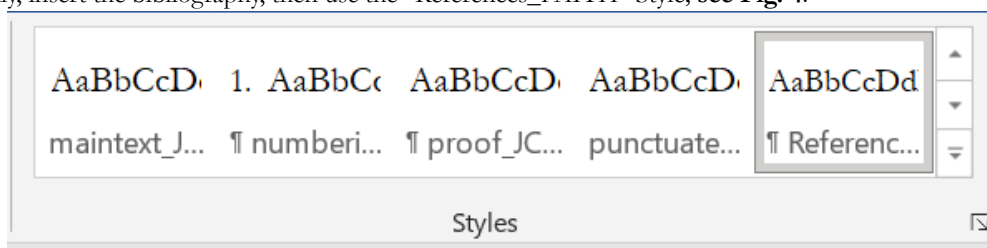
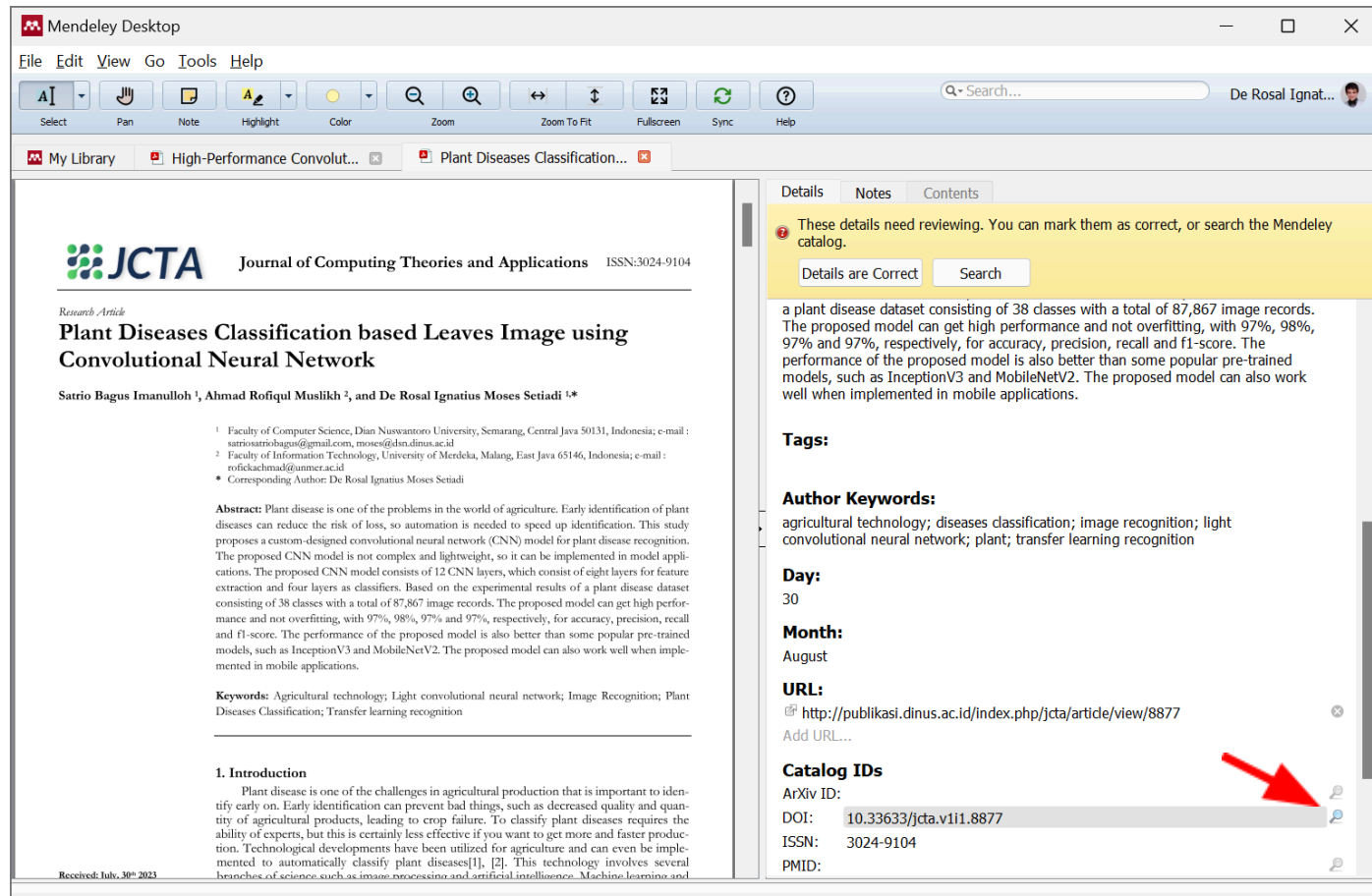


Figure 4. Use "References_FAITH" Style for Bibliography

The author can use the lookup button function so that the journal data matches; apart from that, the author also needs to check whether the author name, title name, and journal name are correct. As an example of the Mendeley software, you can see Fig. 4 as an illustration, and you can see Fig. 5 as an illustration.



Mendeley Desktop

File Edit View Go Tools Help

Select Pan Note Highlight Color Zoom Zoom To Fit Fullscreen Sync Help

Search... De Rosal Ignat...

My Library High-Performance Convolut... Plant Diseases Classification...

JCTA Journal of Computing Theories and Applications ISSN:3024-9104

Research Article

Plant Diseases Classification based Leaves Image using Convolutional Neural Network

Satrio Bagus Imanulloh¹, Ahmad Rofiqul Muslikh², and De Rosal Ignatius Moses Setiadi^{1*}

¹ Faculty of Computer Science, Dian Nuswantoro University, Semarang, Central Java 50131, Indonesia; e-mail: satrioimanulloh@gmail.com, moses@din.dinus.ac.id

² Faculty of Information Technology, University of Merdeka, Malang, East Java 65146, Indonesia; e-mail: rofikachmad@umma.ac.id

* Corresponding Author: De Rosal Ignatius Moses Setiadi

Abstract: Plant disease is one of the problems in the world of agriculture. Early identification of plant diseases can reduce the risk of loss, so automation is needed to speed up identification. This study proposes a custom-designed convolutional neural network (CNN) model for plant disease recognition. The proposed CNN model consists of 12 CNN layers, which consist of eight layers for feature extraction and four layers as classifiers. Based on the experimental results of a plant disease dataset consisting of 38 classes with a total of 87,867 image records. The proposed model can get high performance and not overfitting, with 97%, 98%, 97% and 97%, respectively, for accuracy, precision, recall and f1-score. The performance of the proposed model is also better than some popular pre-trained models, such as InceptionV3 and MobileNetV2. The proposed model can also work well when implemented in mobile applications.

Keywords: Agricultural technology; Light convolutional neural network; Image Recognition; Plant Diseases Classification; Transfer learning recognition

1. Introduction

Plant disease is one of the challenges in agricultural production that is important to identify early on. Early identification can prevent bad things, such as decreased quality and quantity of agricultural products, leading to crop failure. To classify plant diseases requires the ability of experts, but this is certainly less effective if you want to get more and faster production. Technological developments have been utilized for agriculture and can even be implemented to automatically classify plant diseases[1], [2]. This technology involves several branches of science, such as image processing and artificial intelligence. Machine learning and

Details Notes Contents

These details need reviewing. You can mark them as correct, or search the Mendeley catalog.

Details are Correct Search

a plant disease dataset consisting of 38 classes with a total of 87,867 image records. The proposed model can get high performance and not overfitting, with 97%, 98%, 97% and 97%, respectively, for accuracy, precision, recall and f1-score. The performance of the proposed model is also better than some popular pre-trained models, such as InceptionV3 and MobileNetV2. The proposed model can also work well when implemented in mobile applications.

Tags:

Author Keywords:
agricultural technology; diseases classification; image recognition; light convolutional neural network; plant; transfer learning recognition

Day:
30

Month:
August

URL:
http://publikasi.dinus.ac.id/index.php/jcta/article/view/8877
Add URL...

Catalog IDs

ArXiv ID:

DOI: 10.33633/jcta.v1i1.8877

ISSN: 3024-9104

PMID:

Figure 5. DOI lookup button in Mendeley Software

Appendix A

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.

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., Figure A1, Figure A2, etc.