

[ISI] Submission Acknowledgement

editor.isi <editor.isi@iieta.org>

Sat, 4 Jul, 01:53

Yasser Abd Djawad:

Thank you for submitting the manuscript,

" Discrimination of nitrogen concentration of fertilized corn with extracted algae and polymer based on its leaf color images" to Ingenierie des Systemes d'Information. With the online journal management system that we are using, you will be able to track its progress through the editorial process by logging in to the journal web site:

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If you have any questions, please contact me. Thank you for considering this journal as a venue for your work.

editor.isi

Revise your manuscript submitted to ISI

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Wed, 15 Jul, 16:00

Thank you for contributing your paper to **INGÉNIERIE DES SYSTÈMES D'INFORMATION!**

- Please revise your paper according to the attached comments.
- Highlight the revised parts in the final version of your paper and give a response according to review comments.
- Please typeset your paper according to template.

To ensure fast publication of your paper, please return your revised manuscript and answers to all queries to this email before **July 20th, 2020**. Thus, we have enough time to process your manuscript in the next step. For further assistance, please do not hesitate to contact us via this email.

Best regards,

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<http://www.iieta.org/>

Title : Discrimination of nitrogen concentration of fertilized corn with extracted algae and polymer based on its leaf color images

It is a topic of interest to the researchers in the related areas but the paper needs some improvement before acceptance for publication. My detailed comments are as follows:

- (1) The Abstract needs to be reorganized and adjusted. Please clarify the technology used, and the conclusions.

The first is to introduce the research problem and purpose. It's mentioned in this paper that "determination of nitrogen levels in plants is essential for variable rate fertilizer application in precision agriculture. In the past, several techniques have been developed for nitrogen concentration estimation in plants and crops employing vision system, however, they are computationally expensive and hence require a considerable amount of time to produce accurate results", which is acceptable.

Second, it should propose the method used to solve the proposed problems, i.e., the research method. In this paper, the algae and polymer extraction technology based on the leaf color image was used. The color

image of the leaf was processed by detecting the red, green, and blue (RGB) values of the leaf, and then compared with the standard intensity level to identify the nitrogen concentration of fertilized corn in real time.

The third is to give the results for the problem solution. The experimental results in this study show that this technology can accurately detect low or high concentration in corn and improve the utilization rate of nitrogen fertilizer. The experimental results show that this technology can accurately detect low or high concentration in corn and improve the utilization rate of nitrogen fertilizer.

Fourth, it should give the theoretical contribution and practical application value of the research results should be given. In this paper, this part is cumbersome. This technology can be applied to a variety of crops, improve agricultural productivity and resource utilization, and ensure the sustainable development of agriculture.

- (2) The experimental data and materials are lacking in Part 2.
- (3) In the third part, it didn't clearly explain the software technology used, its advantages compared with the previous technology, and the application in the experiment; also it lacks a sufficient description of the image processing method. This paper should focus on algae and polymer extraction techniques based on leaf color images, rather than exploring the effects of nitrogen concentration on corn.
- (4) The pictures in the paper are not clear enough. It is recommended to replace them. The reader cannot observe the experimental result intuitively. Please mark them clearly in the images. The image description in the Experiment part was not concise. It is recommended to re-describe the experimental result image, and highlighting the key point of view.
- (5) The conclusion is almost the same as the abstract content. The conclusion should be accurate, complete and refined, including the problems solved in the research results, shortcomings and unresolved problems of this study, as well as possible key points and directions.

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It is a topic of interest to the researchers in the related areas but the paper needs some improvement before acceptance for publication. My detailed comments are as follows:

Comment

The Abstract needs to be reorganized and adjusted. Please clarify the technology used, and the conclusions.

Response

Thank you for the suggestion the comments have been implemented in the abstract and is highlighted for your ease.

The first is to introduce the research problem and purpose. It's mentioned in this paper that "determination of nitrogen levels in plants is essential for variable rate fertilizer application in precision agriculture. In the past, several techniques have been developed for nitrogen concentration estimation in plants and crops employing vision system, however, they are computationally expensive and hence require a considerable amount of time to produce accurate results", which is acceptable.

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Comment

The experimental data and materials are lacking in Part 2.

Response

the experimentation has been updated on page number 2, providing more information regarding the experiments that were performed.

Comment

In the third part, it didn't clearly explain the software technology used, its advantages compared with the previous technology, and the application in the experiment; also it lacks a sufficient description of the image processing method. This paper should focus on algae and polymer extraction techniques based on leaf color images, rather than exploring the effects of nitrogen concentration on corn.

Response

The software technology advantages and application has been updates and highlighted for your ease. The image processing methods is explained in more detail.

Comment

The pictures in the paper are not clear enough. It is recommended to replace them. The reader cannot observe the experimental result intuitively. Please mark them clearly in the images. The image description in the Experiment part was not concise. It is recommended to re-describe the experimental result image, and highlighting the key point of view.

Response

The pictures have been replaced with more clear images.

Figure 7 has been added with pinpoint the different between the graph by using a black line along with the x-axis value.

Comment

The conclusion is almost the same as the abstract content. The conclusion should be accurate, complete and refined, including the problems solved in the research results, shortcomings and unresolved problems of this study, as well as possible key points and directions.

Response

the conclusion has been updated and the updated part is now heighthed for better understanding. Thank you for the suggestion.

Galley proof of your paper submitted to ISI!

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Thu, 23 Jul, 10:39

Dear author,

Thank you for contributing your paper to INGÉNIERIE DES
SYSTÈMES D'INFORMATION!

Please revise your paper with particular reference to the following
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author.
3. Attach DOI to references as demonstrated in the template.
Click <http://www.crossref.org/guestquery/> for a DOI query.
4. Please highlight the revised parts.

5. Please fill in “Copyright Transfer Agreement”. Please note that “corresponding author’s signature” in the agreement shall be manually signed.

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Final Proof of your paper submitted to ISI!

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Fri, 24 Jul, 16:20

Dear author,

Before publication, it is decided that this final proof should be sent to the authors once again for careful reading and re-check, to rule out the mistakes / errors of all kinds.

Download “final proof”. Read them carefully with particular reference to the following points:

1. Check with care all the symbols in the text. Please highlight the revised parts.
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Please return the corrected final proof **before July 27th, 2020**.

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