

### Nurul Akmal Mohamed <akmal.mohamed@fsmt.upsi.edu.my>

# RAECAS2020: Paper 21

1 message

## Microsoft CMT <email@msr-cmt.org>

16 October 2020 at 16:20

Reply-To: Conference Management Toolkit <support@msr-cmt.org>
To: Nurul Akmal Mohamed <akmal.mohamed@fsmt.upsi.edu.my>

Nurul Akmal Mohamed has uploaded review for Amplification of Pixels in Medical Image Data for Segmentation via Deep Learning Object-oriented Approach

- -- Review Summary --
- 1. Title Suitability (Please suggest if the title is not suitable)

Acceptable

2. Paper Presentation

Acceptable

3. Knowledge/Research Contribution

Yes

4. Abstract

The abstract should not have equations, table, references. Maximum length should be only 300 words. Acceptable

5. Introduction:

Please make sure that there are proper components in this section.

- It should start with a general overview.
- It should be followed by reference citations.
- Make sure no figures, tables and equations in the introduction.
- In the last paragraph, make sure the authors present the study. i.e. "This paper present...state the title.... then mention your technique, brief results and merit of the study.,

All components are embedded in the Introduction. The introduction has been well-written and presented. Make sure no figures, equations and figures. For publication in IJATCSE, cite a minimum of 2 papers from Vol 7 no 1 onwards in IJATCSE.

- 6. Methods and Materials or Methodology
- Make sure all the algorithms, flowchart, process are embedded in this section.
- Make sure all figures and tables have been discussed in this section.
- Make sure all figures and tables are clear.

This section has been clearly presented. Figures and tables have been discussed in the text. All the procedures/algorithms/flowcharts have been properly described.

7. Results and Discussion

Make sure you introduce your figure and explain your results accordingly. Make analysis from your results. All the results have been clearly introduced, explained and analysed. All figures and tables have been discussed in the text.

8. Conclusion

This paper has presented a good conclusion. The objectives have been successfully achieved, Please make sure no reference citation in the conclusion section.

- 9. References
- For publication in IJATCSE, make sure you cite a minimum of 2 references from vol 7 no 1 onwards in IJATCSE.

REFERENCES SHOULD BE FROM THE FOLLOWINGS: -

- 1) Published journal papers
- 2) Published Conference Papers
- 3) Books
- 4) Thesis or Dissertation

WEBSITES are not allowed as one of the references.

All references are adequate, with correct format and cited in the paper.

10. Final Decision

Accepted with minor correction.

11. Overall Comments

Please check the format for sub index in the authors' list.

I am not sure if the paper is for publication in IJATCSE or not. If so, please check whether the authors already cite 2 references from IJATCSE

12. Recommendation for Best Paper Award

No

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Microsoft Corporation One Microsoft Way Redmond, WA 98052



### Nurul Akmal Mohamed <akmal.mohamed@fsmt.upsi.edu.my>

## RAECAS2020: Invitation as International Review Panel

2 messages

Microsoft CMT <email@msr-cmt.org>

11 October 2020 at 11:12

Reply-To: raecas secretariat <raecas001@gmail.com>
To: Nurul Akmal Mohamed <akmal.mohamed@fsmt.upsi.edu.my>

Dear Professor Dr. Nurul Akmal Mohamed

We are pleased to announce the 2020 International Conference on Recent Advances in Engineering, Computing and Applied Sciences (RAECAS2020),

On behalf of the committee for (2020 International Conference on Recent Advances in Engineering, Computing and Applied Sciences (RAECAS2020)), we are delighted to invite you as one of the international reviewers for our conference. We discovered that the following paper falls under your expertise. We hope you can help us to review the following paper: -

Paper Title: Amplification of Pixels in Medical Image Data for Segmentation via Deep Learning Objectoriented Approach Paper ID: Pe-21

Since the accepted papers will be published in the Scopus indexed journal, we hope you will help us to perform a rigorous review of the papers assigned to you.

The link for this conference is:cmt3.research.microsoft.com/User/Login?

Username: akmal.mohamed@fsmt.upsi.edu.my

If you cannot retrieve your password, please reset your password link and an email will be sent to you by the system.

Login, then choose your role "reviewer" on the top right of the cmt console.

After you login please select « Reviewer »

On behalf of the committee, thank you for your contribution in making sure all papers have met the minimum threshold for journal publication. Appreciate if you can review the manuscript within 5 days.

Best regards,

Conference Secretariat
Prof. Ir. Dr. Ismail Musirin
Chair, Guest Editor
2020 International Conference on Recent Advances in Engineering, Computing and Applied Sciences
(RAECAS2020)
IJATCSE, IJETER

### Abstract:-

Medical images serve as a very important tool for medical diagnosis. Medical image segmentation is an area of image processing that segments critical parts of a medical image for diagnosis purposes. The emergence of machine learning approach for medical image segmentation specifically by employing Convolutional Neural Network (CNN) has become a ubiquity as other approaches does not able to compete with its robustness and accuracy. However, this approach is very exhaustive in terms of time and computing resources. The CNN approach mostly emphasizes on the spatial information regarding the image without using much of the individual data contained withing the image. Therefore, this paper proposed a method to amplify the pixel data of medical images via Object-oriented Programming (OOP) approach for segmentation using a straightforward sequential deep learning approach. The results indicated that the proposed method allows faster training time and analogous segmentation performance compared to recent state-of-the-art CNN segmentation models.

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Microsoft Corporation One Microsoft Way Redmond, WA 98052

### Microsoft CMT <email@msr-cmt.org>

11 October 2020 at 11:12

Reply-To: raecas secretariat <raecas001@gmail.com>
To: Nurul Akmal Mohamed <akmal.mohamed@fsmt.upsi.edu.my>

Dear Professor Dr. Nurul Akmal Mohamed

We are pleased to announce the 2020 International Conference on Recent Advances in Engineering, Computing and Applied Sciences (RAECAS2020),

On behalf of the committee for (2020 International Conference on Recent Advances in Engineering, Computing and Applied Sciences (RAECAS2020)), we are delighted to invite you as one of the international reviewers for our conference. We discovered that the following paper falls under your expertise. We hope you can help us to review the following paper: -

Paper Title: Comparison of Deep Learning Convolutional Neural Network (CNN) Architectures for CT Lung Cancer Classification

Paper ID: Pe-51

Since the accepted papers will be published in the Scopus indexed journal, we hope you will help us to perform a rigorous review of the papers assigned to you.

The link for this conference is:cmt3.research.microsoft.com/User/Login?

Username: akmal.mohamed@fsmt.upsi.edu.my

If you cannot retrieve your password, please reset your password link and an email will be sent to you by the system.

Login, then choose your role "reviewer" on the top right of the cmt console.

After you login please select « Reviewer »

On behalf of the committee, thank you for your contribution in making sure all papers have met the minimum threshold for journal publication. Appreciate if you can review the manuscript within 5 days.

Best regards,

Conference Secretariat
Prof. Ir. Dr. Ismail Musirin
Chair, Guest Editor
2020 International Conference on Recent Advances in Engineering, Computing and Applied Sciences
(RAECAS2020)
IJATCSE, IJETER

### Abstract:-

Lung cancer has become one of the most common death amongst cancer patients. World Health Organisation states that lung cancer is the second most fatal cancer globally in 2014. Alarmingly, most of the lung cancer patients are diagnosed at the later stages where the tumours have grown big. Thus, early screening through Computed Tomography (CT) scan especially among active smokers are encouraged to gor for lung cancer screening with the integration of Computer Aided Diagnosis (CAD) systems to assist the physician to detect and diagnose cancer. For the past few years, Deep Learning method leads most of the artificial based intelligence applications including CAD systems. This paper aims to investigate the performance of five newly established convolutional neural network (CNN) architectures; GoogleNet, SqueezeNet, DenseNet, ShuffleNet and MobileNetV2 to classify lung tumours into cancerous and non-cancerous categories using LIDC-IDRI datasets. Their performances are measured in terms of accuracy, sensitivity, specificity and area under the curve of receiver operating characteristic curve (AUC). Experimental results show that GoogleNet

is the best CNN architecture for CT lung tumour classification wih an accuracy of 94.53%, specificity 99.06%, sensitivity of 65.67% and AUC 86.84%.

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