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Dr. Thai Hoang,  
Chief Editor,  
*Institute for Tropical Technology, Vietnam Academy of Science and Technology (VAST), Hanoi,*  
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May 18, 2024

Dear Dr. Hong,

We wish to submit an original research article entitled “OMAD – Brain Tumour Detection” for consideration by *Vietnam Academy of Science and Technology*.

We confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere.

In this paper, we report on the development of OMAD, a brain tumour detection software that utilizes cutting edge Deep Learning algorithms to perform semantic segmentation and tumour classification on MRI scans of brain tumours to produce results meant to aid doctors in early diagnosis of the patient.

We believe this manuscript is appropriate for publication by Vietnam Academy of Science and Technology because it aligns with the journal’s focus on high quality research in the field of Artificial Intelligence, specifically exploring areas of Convolutional Neural Networks, Semantic Segmentation and Object Detection

Our research has developed a system that takes an MRI scan of the brain as input and uses YOLOv8 to segment the tumour and CNN to classify it into Meningioma, Glioma or Pituitary. Our custom CNN Model achieved an accuracy of 99.22% and our YOLOv8 model has achieved an accuracy of 93.5%, demonstrating the effectiveness of our approach.

We believe that our research will be of interest to the readership of the journal because it presents a seamless integration of Diagnostic Radiology with sophisticated Deep Learning models (CNNs).

We have no conflicts of interest to disclose.

Please address all correspondence concerning this manuscript to me at [a21.mathur21@gmail.com](mailto:a21.mathur21@gmail.com).

Thank you for your consideration of this manuscript.

Sincerely,

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