

ABSTRACT

Curr Med Imaging. 2021 Jan 8. doi: 10.2174/1573405616666210108122048. Online ahead of print.

A Review on Deep Learning Architecture and Methods for MRI Brain Tumour Segmentation.

Angulakshmi M⁽¹⁾, Deepa M⁽²⁾.

Author information:

(1)School of Information Technology and Engineering, Angulakshmi M, Vellore Institute of Technology. India.

(2)School of Information Technology and Engineering, Deepa M, Vellore Institute of Technology. India.

BACKGROUND: The automatic segmentation of brain tumour from MRI medical images is mainly covered in this review. Recently, state-of-the-art performance is provided by deep learning-based approaches in the field of image classification, segmentation, object detection, and tracking tasks.

INTRODUCTION: The core feature deep learning approach is the hierarchical representation of features from images and thus avoiding domain-specific handcrafted features.

METHODS: In this review paper, we have dealt with a Review of Deep Learning Architecture and Methods for MRI Brain Tumour Segmentation. First, we have discussed basic architecture and approaches for deep learning methods. Secondly, we have discussed the literature survey of MRI brain tumour segmentation using deep learning methods and its multimodality fusion. Then, the advantages and disadvantages of each method analyzed and finally concluded the discussion with the merits and challenges of deep learning techniques.

RESULTS AND CONCLUSION: The review of brain tumour identification using deep learning Techniques may help the research to have a better focus on it.

Copyright© Bentham Science Publishers; For any queries, please email at epub@benthamscience.net.

DOI: 10.2174/1573405616666210108122048
PMID: 33423651