Proceeding of the National Conference on

Recent Perspectives on IoT & Big Data

NCIB '18

9th & 10th February, 2018

Chief Editors

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Organized By

Department of Computer Application

Nadar Saraswathi College of Arts & Science, Theni.

Accredited by NAAC with 'A' Grade

Approved under 2(f) and 12(B) Status of UGC
Permanently Affiliated to Mother Teresa Women's University, Kodaikanal
An ISO 9001:2008 Certified Institution

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ISBN: 978-93-5300-425-5

Note:

Publisher
SHANLAX PUBLICATIONS
61, 66 T.P.K. Main Road,
Vasantha Nagar,
Madurai – 625003
Tamil Nadu, INDIA
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Web: www.shanlaxpresss.com

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ENHANCED TECHNIQUE FOR BRAIN TUMOR REVEALING USING SEGMENTATION

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Abstract

During past few years, brain tumor segmentation in Magnetic Resonance Imaging (MRI) has become an emergent research area in the field of medical imaging system. Brain tumor analysis is done by doctors but its grading gives different conclusions which may vary from one doctor to another. Image segmentation denotes a process of partitioning an image into distinct regions. Medical image segmentation had been a vital point of research, as it had inherited complex problems for the proper diagnosis of brain disorders. This paper describes a segmentation method which consists of two phases. In the first phase, the MRI brain image is acquired from patient database. In that film artifact and noise are removed. It provides a foundation of segmentation and edge detection. In the second phase (MR) image segmentation is to accurately identify the principal tissue structures in these image volumes. Brain tumor detection helps in finding the exact size and location of tumor. Detection of tumor requires image segmentation. Then using region of interest the segmented image is cropped and then after measuring the size of segmented image using pixels for the treatment planning. And also there is post processing for morphological operations.

Keywords: *Brain Tumor, MRI images, Edge Detection, Segmentation, Tumor Detection*

Introduction

The brain is a soft, delicate, non-replaceable and spongy mass of tissue. It is a stable place for patterns to enter and stabilize among each other. A tumor is a mass of tissue that grows out of control of the normal forces that regulates growth [1]. Brain tumor is a group of