

## **Brain white and gray matter anatomy of MRI segmentation based on tissue evaluation**

### **ABSTRACT**

Different approaches to gray and white matter measurements in magnetic resonance imaging (MRI) have been studied. For clinical use, the estimated values must be reliable and accurate when, unfortunately, many techniques fail on these criteria in an unrestricted clinical environment. A recent method for has the advantage of great simplicity, and it takes the account of partial volume effects. In this study, we will evaluate the intensity of MR sequences known as T1-weighted images in an axial sliced section. Intensity group clustering algorithms are proposed to achieve further diagnosis for brain MRI, which has been hardly studied. Subjective study has been suggested to evaluate the clustering group intensity in order to obtain the best diagnosis as well as better detection for the suspected cases. This technique makes use of image tissue biases of intensity value pixels to provide 2 regions of interest as techniques. Moreover, the original mathematic solution could still be used with a specific set of modern sequences. There are many advantages to generalize the solution, which give far more scope for application and greater accuracy.

**Keyword:** Brain; MRI segmentation