Abstract

One of the significant applications of image classification is the medical field in which the abnormal brain tumor images are categorized prior to treatment planning. Accurate identification of the type of the brain abnormality is highly essential since the treatment planning is different for all the brain abnormalities. Any false detection may lead to a wrong treatment which ultimately leads to fatal results. By employing the Magnetic Resonance Spectroscopy (MRS) graph and thereby extracting the values of the metabolites from the graph one can classify the tumor based on the values of metabolites. The aim of this research is to identify brain tumour disease pattern from MRS images to perform differential diagnosis. The authors have employed the use of the Naïve – Bayes and J48 classifier for identification of the disease pattern from the three metabolite ratios.
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Index Terms

Computer Science

Information Sciences

Keywords

MRS, Metabolites, Brain tumour, Naïve-Bayes, Confusion Matrix, Cross-Validation, J48