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Research Title	Tumor Type Recognition using Neural Networks
Shared or Single	● Shared name ◯ Single
Published Journal title	Journal of Applied Computer Science & Mathematics, Al-Mustansirya University.
Volume Number	Issue No. 6
Page	62-73
Year	2013
Abstract	The medical image processing techniques for diagnosing diseases, is considered very important for human's lives. This paper introduces a system that is able to diagnose some type(s) of tumor in the human brain by using the Magnetic Resonance Imaging (MRI) images. These have employed pattern recognition techniques for this purpose. Typical structure of a pattern recognition in this system are consist of three steps, the first step is pre-processing that uses different operations such as image enhancement, segmentation, and labelling would be done on input patterns. The second step is feature extraction that extract features from the input patterns, moments have been employed as invariant global features of images and the third step is classification that will recognize the input pattern with respect to the features extracted by previous step and then be assigned to an appropriate class, Backpropagation Neural Network (BPNN) are implemented in this system. A code for this proposed system has been written using programming language visual basic.net 2008. Key Words:- Brain Tumor, Patterns Recognition, Geometric Moment Invariant (GMI), ANN, MRI.