Patent Search

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Abstract:

AI and Machine learning based early detection, prediction and classification of brain tumors and segmention of its stages using image processing techniques ABSTRACT Br tumours may develop if cell division is not slowed. This sickness can be lethal if not recognised and treated promptly. Despite significant efforts and excellent outcomes, appropriately segmenting and classifying things continues to be challenging. Brain tumours are notoriously difficult to identify and treat due to their propensity to manifes develop, and disseminate in various regions. Cancer is commonly recognised as one of the worst diseases in the world due to its ability to inflict death and misery. If brain patients are misdiagnosed and subjected to needless medical procedures, their prognosis may worsen. When it comes to brain tumours, the sooner an accurate diagnosis obtained, the sooner life-saving treatment can commence. Computer-aided diagnostic systems have a long history of success when it comes to aiding physicians in establ accurate diagnoses. Additionally, these systems have improved deep learning and machine learning. Deep convolutional layers extract more unique and stable features fr regions of interest than conventional approaches.

Complete Specification

Description:DESCRIPTIONS

Due to the rapid evolution of medical image processing, the brain tumour and its analysis are currently gaining considerable attention. The National Brain Tumor Foundation did a review and found that both the number of people diagnosed with brain tumours and the number of deaths attributed to them have grown over the pa year. As an illustration: [Needs citation] [Insert reference here.] New techniques for machine learning allow for the detection, classification, and measurement of pattern medical images. These developments prioritise the use of hierarchical feature representations learnt simply from data, as opposed to manually constructed features bas on specialised subject knowledge. In recent papers, the brain tumour zone has also been utilised in a few frameworks and models. It is probable that when these frameworks or models are utilised, procedures such as predicting outcomes, categorising individuals, and planning treatment will follow. Segmentation of brain tumours an essential element of medical image processing that is usually affected by blurriness, noise, and lack of contrast. Utilizing learning algorithms and pattern recognition, MRI segmentation is highly successful at processing brain pictures. In a more technical sense, the method can be viewed as a parametric model in which the parameters the functions selected in accordance with the density function. In order to expedite treatment and enable individuals live longer, healthier lives, it is essential to screen fo brain tumours utilising cutting-edge clinical imaging technology. Positron emission tomography, magnetic resonance imaging, and computed tomography are utilised to analyse the vast majority of brain tumours. Cancer is one of the most significant health crises of our day, posing an existential threat to humanity. Following cardiovascul disease, cancer is the second biggest cause of death. Cancer is currently responsible for one in six deaths worldwide. Brain tumours are the most severe and lethal kind cancer due to their uniqueness, rapid growth, and high mortality rate. Brain cancer has the lowest survival rate of all cancer types. Meningiomas, gliomas, auditory neuromas, pituitary tumours, and lymphomas are all types of brain tumours. How they appear, how they feel, and where they are all serve to differentiate one subtype

View Application Status