

AGE PREDICTION BASED ON BRAIN MRI IMAGES USING CONVOLUTIONAL NEURAL NETWORK

Bhuvaneswari S and Karthikeyan P,
School of Information Technology and Engineering,
Vellore Institute of Technology, Vellore, Tamil Nadu, India,

Age Prediction, which means setting up a machine learning system, well-defined by using different groups of data for training, and then the estimation of the real age of humans, is a topic that has been considered in recent years. To accomplish this, researchers have been testing with several body components, such as DNA, speech signals, medical images, facial images, etc. Latest researches show that brain structure varies with age or psychiatric disorders. So a valuable tool for estimating the age of humans is the brain's MRI images. Brain Magnetic Resonance Imaging (MRI) uses radio waves and a strong magnetic field to create complete images of the organs and tissues inside the body. In this paper, the age of persons is predicted based on brain MRI images. To extract T1-MRI features, two different methods are proposed, and then to estimate age, Extreme Learning Machine (ELM) is employed. Given that the amount of computations needed in this method and the time required to age estimation is low, the proposed method has conventional performance.

