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## (54) Title of the invention : DEVICE FOR CLASSIFICATION OF AD USING MRI IMAGES

## (57) Abstract :

The present disclosure relates to a method and system (10) for the classification of Alzheimer's disease (AD) using MRI images. The system consists of an MRI scanner (10) that captures high-resolution images of a patient's brain, a memory component (12) for storing the MRI images, a camera (14) for scanning the stored images, a machine learning model (16) for analyzing the images, and a display screen (18) for presenting the classification results. The machine learning model (16) utilizes image processing techniques to extract relevant features from the scanned MRI images, enabling accurate classification of patients as normal control (NC), having mild cognitive impairment (MCI), or diagnosed with AD. The system offers an affordable, user-friendly, and time-saving solution for the early detection of AD, aiding in better patient care and management. Additionally, the system incorporates a data storage component (20) to enhance the performance of the machine learning model over time.

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