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(57) Abstract :

This invention is pertaining to design and implementation of an AI enabled framework for early diagnosis of autism spectrum disorder (ASD). As early detection helps in taking effective measures in terms of treatment, this invention is aimed at detecting it early. It is an Artificial Intelligence (AI) based solution which is data-driven and detects ASD automatically. The framework is based on both supervised and unsupervised learning methods that lead to effectiveness in the diagnosis. The detection model is equipped with quality in training and strong pre-processing as to improve accuracy in prediction. The invention has feature selection approach that combines to measures to have a composite metric. Both entropy and gain are the measures used in order to have selection of features that contribute to class label prediction. The invention has provision for accurately predicting ASD samples based on the training data. Both feature selection and clustering leverage performance of the framework. This invention has many associated stakeholders such as people in general, healthcare units, healthcare professionals, researchers and academia.

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