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Compare the accuracy of eight data mining algorithms in the diagnosis of major depression disorder

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We are trying to compare accuracy of different data mining algorithms for diagnosis of the major depressive disorder (MDD). We evaluate eight algorithms and choose the highest accuracy. These algorithms involve decision tree, linear regression, nearest neighbor (K=5), nearest neighbor (K=10), naive Bayes, support vector machine, MLP neural network and AdaBoost. Evaluation criteria are confusion matrix and area under curve. 80% of data are educational and 20% are experimental. Results are obtained for an average of 10 times. Amongst them, MLP neural network has the best accuracy with 99.46% of total accuracy. Therefore it can be used as a safe way for decision supporting of MDD diagnosis.

Biography

Masume Bakhtiari completed her Computer Software Engineering from the Arak branch of Azad University. She also has a Master's Degree in Clinical Psychology. She has an accepted article in 6th Congress of Iranian Psychology, October 2017, Tehran, Iran and another in ICPCE Conference, December 2017, Mashhad, Iran.

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