Abstract

Depression is a psychological disorder, which, if untreated, may deteriorate the quality of one’s life. Therefore, to tackle it, its early screening and accurate grading are much needed. The success of soft computing largely stands on its effective ways of handling uncertainty, which is often encountered in a clinical diagnosis. This paper proposes application of soft computing techniques to automate depression diagnosis. In order to achieve our goal, an intelligent Neuro-Fuzzy model has been developed. It has been trained with a sample of real-world depression data. Experiments with test data reveal that the Mean Squared Error in prediction is nominal for most of the cases. Such a system could assist the doctors to take decisions in much needed situations.

References


WHO: Mental Health and Substance Abuse. URL: http://www.searo.who.int/en/Section1174/Section1199/Section1567/Section1826_8101.htm [last accessed on 08/03/2012]

O. J. Robinson, C. Overstreet, A. Letkiewicz, and C. Grillon, "Depressed mood enhances anxiety to unpredictable threat"; Psychological Medicine, pp. 1-11, (online first) DOI: 10.1017/S0033291711002583, 2011.


A Neuro-Fuzzy System for Modeling the Depression Data


Index Terms

Computer Science Fuzzy Systems

Keywords

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