Abstract

Classifications of mental illness such as schizophrenia are very broad; therefore, the proposed approach attains at practical and task-relevant diagnostic categories by use of clustering techniques. A Self-Organizing Feature Map (SOFM) approach was design and implemented for classifying transcribed speech samples and determines mental disorders. An unsupervised Artificial Neural Network was implemented using the NeuroSolution. The proposed classification system is used to determine whether a text or speech sample is generated by a person has mental illness or not. The proposed approach shows clearly that all the categories are identified and classified appropriately, with the proposed SOFM achieving a high accuracy of (97) in the classification phase for predicting the desired output.

References

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Self-Organizing Map Approach for Identifying Mental Disorders

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Index Terms

Computer Science

Artificial Intelligence

Keywords

Mental Illness  Self-organizing Map  Text Clustering  Text Classification  Unsupervised Learning