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International Journal of Computer Applications
© 2011 by IJCA Journal

Number 1 - Article 1

Year of Publication: 2011

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10.5120/3932-5571

{bibtex}pxc3875571.bib{/bibtex}

Abstract

Knowledge discovery in databases has established its success rate in various prominent fields such as e-business, marketing, retail and medical. Medical data mining has great potency for exploring the out of sight patterns in the respective medical data sets. This paper intends to provide a survey of current techniques of knowledge discovery in databases using data mining

techniques that are in use today for the classification of Parkinson Disease. Parkinson Disease is a chronic malady of the central nervous system where the key indications can be captivated from the Mentation, Activities of Daily Life (ADL), Motor Examination and Complications of Therapy. The speech symptom which is an ADL is a common ground for the progress of the disease. The dataset for the disease is acquired from UCI, an online repository of large data sets. A comparative study on different classification methods is carried out to this dataset by applying the feature relevance analysis and the Accuracy Analysis to come up with the best classification rule. Also the intention is to sieve the data such that the healthy and people with Parkinson will be correctly classified.

Reference

- Gil, D., Manuel, D. 2009 Diagnosing Parkinson by using Artificial Neural Networks and Support Vector Machines.
- Little, M.A.; McSharry, P.E.; Hunter, E.J.; Spielman, J.; Ramig, L.O. 2009. Suitability of Dysphonia Measurements for Telemonitoring of Parkinson's Disease.
- Marius Ene. 2008. Neural Network based approach to discriminate healthy people from those with Parkinson's disease.
- Resul Das. 2010. A comparison of multiple classification methods for diagnosis of Parkinson disease.
- Varun Kumar; Luxmi Verma. 2010. Binary Classifiers for Health care Databases: A comparative study of Data Mining Classification Algorithms in the Diagnosis of Breast Cancer.
- Parkinson's Disease Foundation, http://www.pdf.org/en/about_pd, (2011.09.16).
- StatSoft Electronic Statistics Textbook
<http://www.statsoft.com/textbook/classification-and-regression-trees> (2011.09.16).
- National Institute of Neurological Disorders and Stroke,
http://www.ninds.nih.gov/disorders/parkinsons_disease/detail_parkinsons_disease.htm, (2011.09.16).
- Movement Disorder Society Task Force on Rating Scales for Parkinson's Disease. The Unified Parkinson's Disease Rating Scale (UPDRS): Status and Recommendations.
- DTREG. <http://www.dtreg.com> Software for Predictive Modeling and Forecasting.
- Mehmet Fatih CAGLAR, Bayram CETISLI, Inayet Burcu TOPRAK. 2010. Automatic Recognition of Parkinson's disease from Sustained Phonation Tests using ANN and Adaptive Neuro-Fuzzy Classifier.
- UCI Machine Learning Repository- Center for Machine Learning and Intelligent System.
<http://mlr.cs.umass.edu/ml/datasets/Parkinsons+Telemonitoring>
- Knowledge Discovery in Databases.
<http://www2.cs.uregina.ca/~dbd/cs831/notes/ml/dtrees/c4.5/tutorial.html>
- Jiawei Han, Micheline Kamber. Data Mining Concepts and Techniques.

Index Terms

Computer Science

Pattern Recognition

