Kausar, N., Abdullah, A., Samir, B.B., Palaniappan, S., Alghamdi, B.S.  
Review of data mining approaches for extraction and classification of clinical data in diagnosis of coronary artery disease  

Abstract  
Coronary artery disease (CAD) has been ranked as the top cause of death by world health organization in many countries especially Asia. In Malaysia, 22.18% of total deaths are caused by CAD. In this paper, our focus is to review possible types of data mining algorithms applied for processing of clinical attributes as well as their classification to identify normal and CAD patients in minimal time with optimized accuracy. Various combinations of these techniques and variation have adverse effects as well as increased performance, which will be covered in this paper. Data selection for designing a detection system also varies the system performance and it can be dealt with using standard data sets with relevant feature to ease detection of abnormalities with maximum detection rate. © 2006-2015 Asian Research Publishing Network (ARPN).

Author Keywords  
Classification; Cleveland dataset; Coronary artery disease (CAD); Feature processing; Irvine (UCI); Supervised learning; University of california

References  
- American Heart Association  
  (2013),  
  Retrieved January, 2013, from

- Das, R., Turkoglu, I., Sengur, A.  
  Effective Diagnosis of Heart Disease through Neural Networks Ensembles  

- Can, M.  
  Diagnosis of Cardiovascular Diseases by Boosted Neural Networks  

- UCI  
  (2013),  
  Retrieved 15 January, from

- Setiawan, N.A., Venkatachalam, P.A., Fadzil, M.H.  
  Diagnosis of Coronary Artery Disease Using Artificial Intelligence Based Decision Support System  

- Setiawan, N.A., Venkatachalam, P.A., Fadzil, M.H.  
  Rule Selection for Coronary Artery Disease Diagnosis Based on Rough Set  

- Ghumbre, S., Patil, C., Ghatol, A.  
  Heart Disease Diagnosis using Support Vector Machine  
  (2011) International Conference on Computer Science and Information Technology (ICCSIT'2011),  
  Pattaya

- Alizadehsani, R., Habibi, J., Alizadehsani, R., Sani, Z.A., Mashayekhi, H., Boghrati, R.  
  Diagnosis of Coronary Artery Disease Using Data mining based on Lab Data and Echo
Features
(2012) Journal of Medical and Bioengineering, 1 (1).

  A Data Mining Approach for Diagnosis of Coronary Artery Disease

- Jabbar, M.A., Chandra, P., Deekshatulu, B.L.
  Heart Disease Prediction System using Associative Classification and Genetic Algorithm
  (2012), International Conference on Emerging Trends in Electrical, Electronics and
  Communication Technologies-ICECIT. India

- Jabbar, M.A., Deekshatulu, B.L., Chandra, P.
  Classification of Heart Disease using Artificial Neural Network and Feature Subset
  Selection
  (2013) Global Journal of Computer Science and Technology Neural & Artificial
  Intelligence, 13 (3).

- Medhekar, D.S., Bote, M.P., Deshmukh, S.D.
  Heart Disease Prediction System using Naive Bayes

- Kuttikrishnan, M., Dhanabalachandran, M.
  A Novel Approach for Cardiac Disease Prediction and Classification Using Intelligent
  Agents

- Pandey, A.K., Pandey, P., Jaiswal, K.L.
  Classification Model for the Heart Disease Diagnosis

- Lui, X., Fu, H.
  PSO-Based Support Vector Machine with Cuckoo Search Technique for Clinical Disease
  Diagnosis

- Ratnakar, S., Rajeswari, K., Jacob, R.
  Prediction of Heart Disease Using Genetic Algorithm for Selection of Optimal Reduced
  Set of Attributes

- Jabbar, M.A., Deekshatulu, D.L., Chandra, P.
  Heart Disease Classification using Nearest Neighbor Classifier with Feature Subset
  Selection

- Bhatla, N., Jyoti, K.
  An Analysis of Heart Disease Prediction using Different Data Mining Techniques

- Shouman, M., Turner, T., Stocker, R.
  Applying k-Nearest Neighbour in Diagnosing Heart Disease Patients

- Anbarasi, M., Anupriya, E., Iyengar, N.
  Enhanced Prediction of Heart Disease with Feature Subset Selection using Genetic
  Algorithm

- My Chau, T., Dongil, S., Dongkyoo, S.
  Effective Diagnosis of Heart Disease through Bagging Approach
  Engineering and Informatics, 2009. BMEI '09

Correspondence Address
Kausar N.; Malaysia University of Science and Technology

Publisher: Asian Research Publishing Network

ISSN: 18196608
Language of Original Document: English
Document Type: Article
Source: Scopus