

International Conference on **Big Data Analysis and Data Mining**

May 04-05, 2015 Kentucky, USA

MS disease diagnosis using data mining techniques

Atefeh Saghafian and Abbas Ahmadi
Amirkabir University of Technology, Iran

Disease diagnosis is one of the main subjects in health care studies. Multiple sclerosis (MS), a type of autoimmune disorder of central nervous system, is one of the serious diseases which manifests itself via several signs and symptoms. The number of MS patients is increasing that demands more accurate diagnosis procedures. Nowadays, there is no universal diagnosis or rejection criteria and none of the available tests can firmly identify the disease. However, there are large scale databases which include information about the MS patient which can use for diagnosis this disease by new field of knowledge which based on data. This knowledge is data mining. Recent development in data collection and storage has caused significant increase in database's dimensions. The problem with huge databases is efficient and structured methods to extract information. Data mining is a relatively new field in detecting and retrieving information from databases. This field is applicable in many domains such as finance, business, communication and also health care. Medical industry is among the industries that deal with voluminous databases; thus highlighting the role of data mining in health care industry because of large scale databases and inadequate techniques for discovering the information. Regarding the importance and difficulty of diagnosis in primary MS stages, this article aims to propose a diagnosing approach by data mining. The approach has been previously utilized for diagnosis types of cancers and obtained effective and accurate results. For this purpose, Support Vector Machine (SVM) and Naïve Bayes classification were used. For considered statistical dataset the results indicated that the SVM and Naïve Bayes classification can diagnosis the types of MS up to 77% and 30%, respectively.

Biography

Atefeh has received her PhD degree in Biomedical Engineering from Amirkabir University of Technology. Atefeh had Patent in "Solvent Assisted Centrifugal Spinning Method for Fabricating 3D Tissue Engineered Scaffolds". Currently she is working as Assistant Professor in Amirkabir University of Technology(Tehran Polytechnic).

saghafianatefeh@gmail.com

Notes: