

Abstract

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Enhancing Iterative Dichotomiser 3 algorithm for classification decision tree

Data mining tasks such as clustering and classification have proved to highly impact various fields such as business, including the banking sector, as well as medicine, including the radiology sector. As the decision-making process is critically dependent on the availability of high-quality information presented in a timely and easily understood manner, the successful application of efficient data mining approaches is a great support for achieving the required target in the available time. This study presents an enhancement for the Iterative Dichotomiser 3 (ID3) classification decision tree algorithm based on two related approaches, namely, data partitioning and parallelism. The study applied the proposed algorithm in the banking and radiology sectors as data have been classified to the defined fields' clusters, the processing time and the results' accuracy parameters have been compared with the ID3 algorithm and have proved an enhancement in both parameters.