عنوان مقاله:

COVID-۱۹ Prediction Classifier Model Using Hybrid Algorithms in Data Mining

محل انتشار:

مجله بین المللی کودکان, دوره 9, شماره 1 (سال: 1400)

تعداد صفحات اصل مقاله: 15

نویسندگان:

Morteza Nikooghadam - *Assistant Professor, Department of Computer Engineering and Information Technology, Imam Reza International University, Mashhad, Iran.*

Adel Ghazikhani - *Assistant Professor, Department of Computer Engineering and Information Technology, Imam Reza International University, Mashhad, Iran.*

Mohammad Saeedi - *MS Student, Department of Computer Engineering and Information Technology, Imam Reza International University, Mashhad, Iran.*

خلاصه مقاله:

Increase of stored data in medical databases needs allocative tools to get access to data, data mining, discover knowledge and efficient use of data. Medical and treatment fields are two examples of data mining tools to analyze massive data and predictive modelling. In medical sciences, prediction and precise-quick detection of multiple diseases has to reduced exprense and also save people's lives. Group based methods (Ensemble Methods) are approaches that use hybrid models to recover classification. Coronavirus (COVID-۱۹) has killed many people around the world so far, and this could be a good reason to present a new model for diagnosing the disease using data mining algorithms. This research presents a hybrid model of basic data mining and hybrid algorithms according to information in medical and laboratory records of patients suffering Covid-۱۹ in Emam-Reza (AS) hospital in Mashhad, Iran, to diagnose the sickness. The proposed method uses Ensemble base (hybrid) classifiers, where the general model can be used to provide diagnoses with higher precision rather than classifiers. To execute the proposed model, data mining tools including Rapid Miner ۹.۷ and Python ۳.۷ were used. This study used stacking classifiers composed of basic algorithms including simple baze, decision tree, K- nearest neighborhood backup vector machine for basic section and uses chaos jungle algorithm in stack section that has gained ۸۶.۵% accuracy for diagnosis of Covid-۱۹.

کلمات کلیدی:

Accuracy, COVID-۱۹, Classifier model, Data mining, Hybrid data mining