عنوان مقاله:

Protocol of a systematic review on telemedicine solutions in COVID-۱۹ pandemic

محل انتشار:

مجله پیشگامان انفورماتیک سلامت, دوره 10, شماره 1 (سال: 1400)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Farshad Minaei - *Karoon Institute of Higher Education, Ahvaz, Iran*

Hassan Dosti - *Department of Mathematics and Statistics Macquarie University, Sydney, Australia*

Ebrahim Salimi Turk - *Karoon Institute of Higher Education, Ahvaz, Iran*

Amin Golabpour - *Assistant Professor, Shahroud University of Medical Sciences, Shahroud, Iran*

خلاصه مقاله:

Introduction: Improvement of technology can increase the use of machine learning algorithms in predicting diseases. Early diagnosis of the disease can reduce mortality and morbidity at the community level.Material and Methods: In this paper, a clinical decision support system for the diagnosis of gestational diabetes is presented by combining artificial neural network and meta-heuristic algorithm. In this study, four meta-innovative algorithms of genetics, ant colony, particle Swarm optimization and cuckoo search were selected to be combined with artificial neural network. Then these four algorithms were compared with each other. The data set contains ۷۶۸ records and ۸ dependent variables. This data set has ۲۰۰ missing records, so the number of study records was reduced to ۵۶۸ records.Results: The data were divided into two sets of training and testing by ۱۰-Fold method. Then, all four algorithms of neural-genetic network, ant-neural colony network, neural network-particle Swarm optimization and neural network-cuckoo search on the data The trainings were performed and then evaluated by the test set. And the accuracy of ۹۵.۰۲ was obtained. Also, the final output of the algorithm was examined with two similar tasks and it was shown that the proposed model worked better.Conclusion: In this study showed that the combination of two neural network and genetic algorithms can provide a suitable predictive model for disease diagnosis.

کلمات کلیدی:

Diagnostic Model, Neural Network Algorithms, Genetic Algorithm