عنوان مقاله:

Predicting Total Cases and Mortality Rate Due To COVID-۱۹ Disease Using the Artificial Neural Network

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خلاصه مقاله:

Nowadays, a major threat which have contaminated a majority of people globally is COVID-۱۹. Recent studies have been expanded to examine the effects of meteorological data on COVID-۱۹ by intelligent models. An appropriate intelligent model which is significantly accurate in modeling and predicting is artificial neural network (ANN). In this paper, the capabilities of ANN model are investigated to reveal the nonlinear relationship between the inputs and outputs in Fars province for the period of ۱۵ February- ۳۱ August ۲۰۲۰. To find the efficiency of model, mean square error (MSE) are computed and compared. Temperature minimum (oC), temperature maximum (oC), temperature average (oC), relative humidity (%), wind speed, precipitation and the number of cases/deaths in the previous days have been considered as inputs and the number of new cases and deaths have been known as outputs. The results of research disclose ANN model can predict the number of total cases and total deaths due to COVID-۱۹ accurately.

کلمات کلیدی:

Artificial neural network (ANN), COVID-۱۹, Meteorological data, Intelligent model.

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