Web of Science™

1 record(s) printed from Clarivate Web of Science

Record 1 of 1

Title: Estimation of the wind speed in Sivas province by using the artificial neural networks

Author(s): Gurlek, C (Gurlek, Cahit); Sahin, M (Sahin, Mustafa); Akkoyun, S (Akkoyun, Serkan)

Source: WIND AND STRUCTURES **Volume:** 32 **Issue:** 2 **Pages:** 161-167 **DOI:** 10.12989/was.2021.32.2.161 **Published:** FEB 2021

Abstract: In this study, the artificial neural network (ANN) method was used for estimating the monthly mean wind speed of Sivas, in the central part of Turkey. Eighteen years of wind speed data obtained from nine measurement stations during the period of 2000-2017 at 10 m height was used for ANN analysis. It was found that mean absolute percentage error (MAPE) ranged from 3.928 to 6.662, mean bias error (MBE) ranged from -0.089 to -0.003, while root mean square error (RMSE) ranged from 0.050 to 0.157 and R-2 ranged from 0.86 to 0.966. ANN models provide a good approximation of the wind speed for all measurement stations, however, a tendency to underestimate is also obvious.

Accession Number: WOS:000695478300008

Author Identifiers:

Author	Web of Science ResearcherID	ORCID Number
Gurlek, Cahit	M-6676-2016	0000-0002-0273-2999

ISSN: 1226-6116
eISSN: 1598-6225

End of File