

**O 43. PREDICTION OF DAILY MEAN AIR TEMPERATURE USING GRNN AND SVM MODELS**

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**ABSTRACT:** Artificial intelligence applications are widely used to predict meteorological phenomena, today. In particular, successful results have been obtained using artificial intelligence techniques such as Artificial Neural Networks (ANN), Adaptive Neuro-Fuzzy Inference System (ANFIS) and Support Vector Machine (SVM). Air temperature is an important parameter for hydrological, meteorological, ecological, agricultural and climate models. In this study, the applicability of SVM and Generalized Regression Neural Network (GRNN) models was investigated for estimating daily mean air temperature using meteorological parameters as input data. For this purpose, atmospheric pressure, relative humidity, wind speed, vapor pressure, precipitation and evaporation data belonging to Seydisehir meteorology station on Konya Closed Basin were used. The SVM and GRNN models, which are composed of six different input combinations, were tested for the daily mean air temperature estimation. According to the results, GRNN models were generally more successful than SVM models in predicting daily air temperature.

*Keywords: Air Temperature, Climate, Artificial Neural Networks, Support Vector Machine*