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(54) Title of the invention : A SYSTEM FOR PREDICTING AIR QUALITY INDEX USING ARTIFICIAL NEURAL NETWORK MODEL AND METHOD THEREOF

(51) International classification	:G06N0003080000, G06N0003040000, G16H0050200000, G16H0050700000, A61B0005000000	(71)**Name of Applicant :** 1)**Andhra University** Address of Applicant :Andhra University, Waltair, Visakhapatnam-530003, Andhra Pradesh, India Visakhapatnam ------------ ----------- **Name of Applicant : NA** **Address of Applicant : NA** (72)**Name of Inventor :** 1)**Bhavana Hemavani** Address of Applicant :Research Scholar, Department of Civil Engineering, Andhra University, Waltair, Visakhapatnam-530003, Andhra Pradesh, India. Visakhapatnam ----------- ----------- 2)**Prof. G. V. R. Srinivasa Rao** Address of Applicant :Professor, Department of Civil Engineering, Andhra University, Waltair, Visakhapatnam-530003, Andhra Pradesh, India. Visakhapatnam ----------- -----------
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(57) Abstract :

ABSTRACT: Title: A System for Predicting Air Quality Index Using Artificial Neural Network Model and Method Thereof The present disclosure proposes a system (100) for predicting air quality index using multivariate statistical analysis and artificial neural network model. The system (100) comprises an input module (110), an aggregation module (112), a regression module (113), a correlation analysis module (114), a prediction module (116), and a computation module (118). The input module (110) is configured to receive input parameters, which includes plurality of pollutant parameters and plurality of meteorological parameters. The aggregation module (112) configured to aggregate the input parameters, thereby obtaining seasonal data for each parameter. The correlation analysis module (114) is configured to determine the correlation between the input parameters using multivariate statistical analysis. The prediction module (116) is configured to predict the air quality of the input parameters using at least one artificial neural network (ANN) model.

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