Prediction of Ozone Concentration in Atmosphere Using Statistical Method

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A statistical method for short-term prediction is investigated to predict the ozone concentration in Seoul, Korea. Parameter estimation method and an artificial neural network (ANN) method were used to achieve real-time short-term prediction. Ozone concentrations often exceed air quality standards in cities around the world, and thus reliable prediction methods of ozone levels are needed. In this work, 1-6 hours and 16-21 hours prediction was performed. To verify the effectiveness of the prediction methods proposed in this work, the prediction results of ozone concentration were compared to the actual data. It appears that the methods proposed are a reasonable means of developing real-time short-term prediction for an ozone warning system.