

Data Mining for Risks Assessment of Air Pollution

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Abstract: Air pollution can become the main environmental threat to human health, especially in very crowded city such as Mexico City, Jakarta, or Beijing. Winter smog, made up of soot, dust, and sulfur dioxide, has long been associated with temporary spikes in the number of deaths. Emissions of sulfur dioxide and nitrogen oxides lead to the deposition of acid rain and other acidic compounds over long distances. This paper proposed a technique from knowledge discovery approach to find the model, patterns, rules, trends, and relationship among variables for the risk assessment of exposure assessment of air pollution. The air pollution data is from World Development Indicators from 52 countries of 83 cities. The variables observed are city population, Total suspended particulates (TSP), Sulfur dioxide (SO_2), and Nitrogen dioxide (NO_2). All the variables are simulated using parametric distribution function until the total of city population reached six billion people (nearly the same as world population). Afterwards the models, patterns, rules, trends, and relationship are discussed accordingly.

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