Abstract

Artificial intelligent techniques are very much needed to design the environmental monitoring systems. These systems must be smart enough so that all the decisions taken by the system must be accurate. Soft Computing (SC) it is a set of computational methods that attempt to determine satisfactory approximate solutions to find a model for real-world problems. It based on various techniques such as Artificial Neural Networks, Fuzzy Logic and Genetic Algorithms. The aim of this paper is to implement a soft computing technique which is artificial neural network based on Self-Organizing Feature Map (SOFM). SOFM model for monitoring and collecting of the data are real-time and static datasets acquired through pollution monitoring sensors and stations. In the environmental monitoring systems the ultimate requirement is to establish controls for the sensor based data acquisition systems and need interactive and dynamic reporting services. SOFM techniques are used for data analysis and processing. The processed data is used for control system which even feeds to the alarming systems.

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Index Terms

Computer Science

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Keywords

Environmental modeling  EMS  air pollution  environmental sensors
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