Environmental Engineering and Management Journal *November/December 2007, Vol.6, No.6, 517-520*
http://omicron.ch.tuiasi.ro/EEMJ/

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VIRTUAL ENVIRONMENTAL MEASUREMENT CENTER BASED ON REMOTE INSTRUMENTATION

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Abstract

In this paper we propose system architecture for virtual environmental measurement center based on remote instrumentation. We use Internet facilities for transmission of the information. The station center can be used in remote control mode. Circumstance data can be collected with logging field station (Web-E-Nose or meteorological station). The environmental measurement center collects and automatically save data about the temperature in the air, relative humidity, pressure, wind speed and wind direction, rain gauge, solar radiation and air quality but also can perform smell detection using a purposed Web-E-Nose. Also can analyze historical data and evaluate statistical information and publish data in the Internet using LabVIEW Web Server capability.

Key words: environmental monitoring, remote and virtual instrumentation, LabVIEW Web Server, Web-E-Nose

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