



# Сведения о документе - Wireless Water Quality Monitoring System Based on Field Point Technology and Kohonen Maps

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## Wireless Water Quality Monitoring System Based on Field Point Technology and Kohonen Maps (Conference Paper)

Postolache, O., Girão, P.S., Pereira, J.M.D., Ramos, H.

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### Краткое описание

Designing and implementing a distributed measurement system for water quality (WQ) monitoring characterized by multi-parameter measurement capabilities, wireless data communication, and advanced processing of data sensor based on autoassociative neural networks (Kohonen Maps) is the aim of the work reported in the present paper. The WQ sensors considered are pH, temperature, conductivity and turbidity sensors that are connected to FieldPoint conditioning and acquisition blocks. The sensor data processing in WQ monitoring system expressed by the numerical linearization and disturbance factors compensation is performed by the field stations (FieldPoint based station). Tasks such as data validation, data reconstruction, data fusion, pollution events signaling are performed by the land-based operator station represented by a personal computer (PC). The communication between field units and land-based unit is performed using two GSM data communication engines Siemens M20 that are RS232 connected to the stations.

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### Ключевые слова автора

[Distributed measurements](#) [Kohonen maps](#) [Turbidity](#)

### Включенные в указатель ключевые слова

Engineering controlled terms:

[Cost effectiveness](#) [Data acquisition](#) [Data communication systems](#) [Monitoring](#) [Personal computers](#) [Self organizing maps](#) [Turbidity](#) [Water quality](#)

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### Цитирования в 12 документах

Das, N. , Kumar, V. , Tewari, A.  
Periodic Monitoring of Rivers Using Portable Sensor System*(2020) Proceedings of the 2019 8th International Conference on System Modeling and Advancement in Research Trends, SMART 2019*Kou, F. , Peng, H.  
Temperature control between asphalt layers of asphalt core dam based on wireless sensors*(2020) Microprocessors and Microsystems*

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