



# Wipro's Water Quality Monitoring solution using IBM Cloud Pak for Data



One of the key challenges water utilities face is water quality degradation. Therefore, they need to explore patterns of water quality issues and identify areas with high degree of water quality degradation in a specific time period. While the water quality testing can happen through real time sensors or lab based analysis, Wipro's Water Quality monitoring solution deployed on IBM Cloud Pak for Data Artificial Intelligence (AI) platform aids in easy consolidation of data from various sources and has exploratory, real-time, computational, and predictive machine learning models to monitor the water quality.

The solution provides a comprehensive view on water quality index and options to drill down to individual chemical concentrations at any given point in time in the water bodies at various sampling stations. The insights enable prediction of water quality concentrations of individual chemicals in future time intervals which can lead to potential water contamination.

**This data & AI platform provides options:**



to integrate all the data from IoT sensor data, environmental data and historical data in the database



to enable faster decisions through intelligent machine learning (ML) based algorithmic insights on water quality and corresponding chemical concentration



end-to-end build support that allows easy collaboration, import, tweaks, deployment, and embedding of models and insights



driving customer value through cost saving and ensuring compliance for utility providers

**Key services used in the solution include:**

**Data Virtualization:** To integrate water quality testing parameters from various data sources across multiple types and locations into one logical data view. This virtualized view/ data lake makes the job of getting value out of your data easy

**Watson Machine Learning:** Deploy machine learning models

**Watson Studio:** RStudio and Jupyter Notebooks and analytics engine to run notebooks and experiments that train compute-intensive machine learning models in Watson Studio analytics projects

**Cognos Analytics:** To create visualizations and share findings through dashboards and reports

Water utilities can also use Streams to consume IoT real time data and drive real-time business decisions by combining streaming and stored data with analytics.



For more details contact:



### **Amruthraj Arogyadas**

Global Head - Water Utilities CoE

Mobile: +91.9972488572

Email: [amruthraj.arogyadas@wipro.com](mailto:amruthraj.arogyadas@wipro.com)

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**Wipro Limited**  
Doddakannelli, Sarjapur  
Road,  
Bangalore-560 035, India  
Tel: +91 (80) 2844 0011  
Fax: +91 (80) 2844 0256  
**wipro.com**

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For more information,  
please write to us at [info@wipro.com](mailto:info@wipro.com)