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AI-Driven Monitoring and Detection of Water Pollution

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ABSTRACT

Water pollution is one of the most common global crisis, which affects ecosystem and human health, as it kills many aquatic animals by disturbing their habitat and cause many diseases to human being like cholera, typhoid, etc. Water Pollution is caused primarily by industrial effluent & untreated sewage, which are the point sources. These points sources are important route through which pollution enter rivers. AI has become a useful tool in numerous domains, including environmental science. AI based on machine learning enhance water pollution monitoring through real time data analysis predictive modelling and automation for rapid detection of water pollution. As this AI, process data from IOT sensor, LSTM, and satellite imagery. The IOT sensors are placed in water bodies for detection of fluctuations in parameters like- pH and turbidity while the LSTM (Long Short Term memory) a technique used for detection of point sources of water pollution and helpful in identifying pollutants in water. These AI tools and techniques as a whole defines the water pollution its quality and point sources of pollution, which gives the informative data for treatment of river, water pollution.

Keywords: Water Pollution, Ecosystem, Environmental Science, Parameters, Treatment

