## **Efficient Water Quality Analysis and Prediction using Machine Learning**

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| S.NO | PAPER TITLE   | AUTHOR<br>NAME  | PROJECT<br>DESCRIPTION   | DRAWBACKS   | IDEA  |
|------|---|---|--|---|---|
| 1.   | Efficient Water Quality Prediction Using Supervised Machine Learning              | Umair Ahmed<br>, Rafia<br>Mumtaz ,<br>Hirra Anwar ,<br>Asad A. Shah<br>, Rabia Irfan<br>José García-<br>Nieto | Water makes up about 70% of the earth's surface and is one of the most important sources vital to sustaining life. Rapid urbanization and industrialization have led to a deterioration of water quality at an alarming rate, resulting in harrowing diseases. Water quality has been conventionally estimated through expensive and time-consuming lab and statistical analyses, which render the contemporary notion of real-time monitoring moot. | In this paper two supervised techniques is used and they given two different accuracy   | We need to<br>analysis<br>very well<br>the<br>problem to<br>use one<br>best<br>techniques |
| 2.   | Machine<br>learning<br>algorithms for<br>efficient water<br>quality<br>prediction | Mourade<br>Azrour, Jamal<br>Mabrouki, Ghi<br>zlane<br>Fattah, Azedin<br>e<br>Guezzaz & Fai<br>ssal Aziz       | Water is an essential resource for human existence. In fact, more than 60% of the human body is made up of water. Our bodies consume water in every cell, in the different organisms and in the tissues. Hence, water  | In this technique take more time to know the result with efficient value and prediction | So that we need to do some extra preprocess ing techniques to achieve the goal            |

|    |  |   | allows stabilization of<br>the body temperature<br>and guarantees the<br>normal functioning of<br>the other bodily<br>activities.<br>Nevertheless, in  |  |  |
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|    |  |   | recent years, water pollution has become a serious problem affecting water quality.  |  |  |
| 3. | Predicting and analyzing water quality using Machine Learning: A comprehensive model | Soo See   | The deteriorating quality of natural water resources like lakes, streams and estuaries, is one of the direst and most worrisome issues faced by humanity. The effects of unclean water are farreaching, impacting every aspect of life. Therefore, management of water resources is very crucial in order to optimize the quality of water. The effects of water contamination can be tackled efficiently if data is analyzed and water quality is predicted beforehand. | natural water resource data is not be easy to get in the project and they only give the high accuracy in the train data not in test data | We need to penalies the model and train to get better result |
| 4. | Data-Driven Water Quality Analysis and Prediction: A Survey                          | Gaganjot<br>Kang; Jerry<br>Zeyu<br>Gao; Gang<br>Xie | Water quality becomes one of the important quality factors for the quality life in smart cities. Recently, water quality has been degraded due to diverse forms of pollution caused by disposal of human   | More expensive for collecting this water samples to analysis the water quality   | Use some data collection resource to make prediction well    |

| wastes, industrial    |  |
|-----------------------|--|
| wastes, automobile    |  |
| wastes. The           |  |
| increasing pollution  |  |
| affects water quality |  |
| and the quality of    |  |
| people's life. Hence, |  |
| water quality         |  |
| evaluation,           |  |
| monitoring, and       |  |
| prediction become an  |  |
| important and hot     |  |
| research subject.     |  |