

## **LITERATURE SURVEY**

### **REVIEW 1**

**TITLE** : Water Quality Classification using Machine learning Algorithm  
**AUTHOR NAME** : Nida Nasir, Afreen Kansal, Omar Alshaltone  
**JOURNAL** : Water process engineering volume 48, august 2022  
**DESCRIPTION** : In this study various machine learning classifier and their stacking ensemble models were used to classify the WQ data via the water quality index (WQI)

### **REVIEW 2**

**TITLE** : River Water Quality Index Prediction Uncertainty Analysis: A Comparative Study Of Machine Learning Models  
**AUTHOR NAME** : Seyed Babak Haji Seyed Asadollah, Ahmad Sharafati, Davide Motta  
**JOURNAL** : Environmental chemical Engineering volume 9, February 2021  
**DESCRIPTION** : This study introduces a new ensemble machine learning model called Extra Tree Regression (ETR) for predicting monthly WQI values at the Lam Tsuen River in Hong Kong. The analysis shows that the ETR model generally produces more accurate WQI predictions for both training and testing phases

### **REVIEW 3**

**TITLE** : Proposition of New Ensemble Data Intelligence Models for Surface Water Quality Prediction  
**AUTHOR NAME** : Ali Omran AI-Sulttani, Mustafa AI-Mukhtar, Ali B. Roomi, Khaled Mohamed Khedher  
**JOURNAL** : IEEE ACCESS PP(99)  
**DESCRIPTION** : This study has five different ensemble like machine learning, random forest, quantile regression forest etc. these statistical performances criteria can be evaluated with some integrated models

#### REVIEW 4

**TITLE** : Performance of machine learning methods in predicting water quality index based on irregular data set

**AUTHOR NAME** : Saber Kouadri, Ahmed Elbeltagi, Abu Reza Md Islam, Samir Kateb

**JOURNAL** : Applied water science 11, Article number: 190 (2021)

**DESCRIPTION** : The outcomes of this paper would be of interest to water planners in terms of WQI for improving sustainable management plans of groundwater resources

#### REVIEW 5

**TITLE** : Water Quality Prediction and classification based on principal component regression and gradient boosting classifier approach

**AUTHOR NAME** : Md Saikat Islam Khan, Nazrul Islam, Jia Uddin, Sifatul Islam, Mostofa Kamal Nasir

**JOURNAL** : King Saud University – Computer and Information Sciences, September 2022

**DESCRIPTION** : This paper presents a water quality prediction model utilizing the principal component regression technique. The Gradient Boosting Classifier is utilized to classify the water quality status

#### REVIEW 6

**TITLE** : The effect of chemical parameters on water quality index in machine learning studies

**AUTHOR NAME** : Nur Hanisah Abdul Malek, Wan Fairos Wan Yaacob, Syerina Azlin Md Nasir

**JOURNAL** : Journal of Physics: Conference Series

**DESCRIPTION** : This study explored the correlation between different water quality parameters and water quality index (WQI) in water quality studies that used machine learning by using a meta-analysis approach