

OUR VISION

We believe that we can supply new unconventional resource of water through strong filtration of industrial wastewater. The treated water can be used in agricultural or even domestic uses.

OUR OUTPUT

We have build a ceramic wastewater treatment plant removes toxic heavy metals and suspended solids in wastewater to achieve the design requirement to use it in irrigation of wooden trees.

There had been a lot of effort put into the research and identification of the problem of scarcity of water in Egypt, as well as the analysis and test plan. The test plan's findings demonstrated the effectiveness of the ceramic wastewater treatment plants. It met the design requirements while also addressing the problem of water scarcity by developing techniques to treat unused industrial wastewater. Furthermore, wastewater treatment aids in pollution reduction and environmental sustainability.



OUR CONTACT

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STEM High school for boys - 6th of October

REUSE WATER FOR SUSTAINABLE LIFE



CERAMIC WASTEWATER TREATMENT PLANT

GROUP NO: 222

2022 / 2023





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PROJECT DESIGN



PRIMARY TREATMENT

coagulation and flocculation process is used with the aid of poly-aluminum chloride to remove the total suspended solids in water

Additionally, The PH of the water through neutralization. The process depends on the carbon dioxide neutralizing the alkalinity effect of the clay produced by the industry



SECONDARY TREATMENT

water is subjected to powdered banana peel as a biosorbent biowaste which responsible of removing the heavy metals in water. Moreover, activated carbon is used to omit any color or smell in the water.



THE PROBLEM

Water scarcity has been one of Egypt's biggest problems since the 21st century started. Egypt is facing a water shortage with a per capita share of 550 cm³ that threatens the country's long-term growth. Egypt could run out of water by 2025 due to its approximately seven billion cubic meters of yearly water deficit.

Egypt heavily depends on the Nile River for all its economic and social functions, yet the Nile's water is contaminated at dangerously high levels by domestic, agricultural, and industrial wastes.

In addition to that, Egypt's population is expected to reach 110 million by 2025. This is viewed as a major threat to already limited water resources.

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