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Environmental Engineering

Treatment Of Ternary Wastewater By Modified Carbon Filter

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Tanning industry one of the biggest industries that has a big impacts on the surrounding environment concerns with the water resulting from tanning process through different stages .so the unrestricted disposal of this waste water considers a big problem because of its bad quality .

In our project we will work on the treatment of tanning waste water and try to improve its quality and thus reduce its negative impact . The treatment methodology we will use in our project is implementing the concept of coagulation – flocculation using a simulation model to represent the coagulation –flocculation process with the help of coagulation reagent. Here we will use different coagulation reagent and see the effectiveness of each one in term of turbidity removal. This process will be followed directly by sedimentation process .

The results expected from this treatment unit is to reduce the contamination of tanning wastewater to acceptable level in order to be filtered using olives stone filter that we worked on in the previous semester which gave very good results.

Tanning is the process of transforming animal skins to leather. It is claimed that tanning has been the second oldest profession in the world. In ancient times, tanning was considered as a noxious trade. However, the industry has evolved with time and leather

industry is now recognized as major industry of great economic importance on an international scale producing a host of products in one of the world's finest natural material. Tanning industry is sometimes criticized on environmental grounds, although the only other viable alternative of dumping the putrefying hides and skins can be more hazardous and can even cause more environmental damage.

Back in 1930s , tanning production in Palestine started to be a major career, and kept developing among several generations. Nowadays, tanning plays a secondary economical role comparing with other industries with a production of 0.2% of total manufacturing. Tanning in Palestine provides about 16% of raw material to clothing and footwear industry. In west bank cities like Hebron and Nablus, tanneries depend mainly on leather that is produced nationally.