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## ABSTRACT

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## TREATMENT AND RE-USE OF TEXTILE INDUSTRY WASTE WATER

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Textile industry is one of the major consumers of colorants for dyeing and printing of yarn, cloth and garments. Dyeing leaves a part of the un-used dye in form of spent dye-bath and colored wash water.

Safe and environmental-friendly disposal of these poses a challenge because together these streams contain high concentrations of organic and inorganic dissolved salts in addition to color.

Inadequate treatment would certainly pose a threat to the water bodies and the species contained in them with subsequent effect on humans and animals. There have been several instances where the natural water bodies have been contaminated with color coming from textile processing industries.

Textile industry also consumes large quantities of water, most of which ultimately exits the industry as wastewater. Contamination of natural waters and depleting water sources has compelled the industry to treat the wastewaters more than for mere disposal so that they can be re-used in the process. In places such as Tirupur in Tamil Nadu, Zero Discharge is the buzz-word.

The paper will present how the textile industry has come of age over the years when it comes to treating their wastewaters and re-using them. Treatment approaches starting with conventional processes to membrane processes will be presented.

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He conducts training programs on membrane technology and shares the coaching he received from Dr. S. Sourirajan, co-inventor of Reverse Osmosis membranes. He is an official Trainer to Public Utilities Board, Govt. of Singapore. Had previous 21 years working experience in the same field, last position being Vice President – Technology & R&D in a reputed company in India.