

Title: Nanotechnology in Waste Water treatment

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Advancements against conventional treatment technologies are constantly being made for better and more effective treatment technologies. We discuss the fundamentals of nano materials, such as their classifications, structures, and useful qualities, as well as how they can be used to remove a variety of impurities in various applications. One of the most crucial responsibilities for both environmental preservation and wastewater reuse is water purification. Utilizing nanotechnology offers enormous potential for increasing treatment effectiveness and supplying clean water from unexpected sources. Population growth, climatic changes, and a decline in the quality of waste water are all contributing factors to the situation. In order to boost sustainability and provide people with high-quality water, it is necessary to understand features and put them to use in the improvement of current treatment techniques. Adsorption, photo catalysis, disinfection, membrane processes, and other applications including monitoring and desalination are some of the current and future uses of these nanomaterial's in wastewater treatment. The current top priority for technocrats is finding a solution to the water situation. Among the numerous wastewater treatment methods, the use of carbonaceous nanoparticles to eliminate a variety of pollutants has garnered considerable interest and enthusiasm. Due to their exceptional and adaptable qualities, carbonaceous nanoparticles have recently undergone substantial research for the removal of all types of impurities from wastewater. The special qualities of carbonaceous nanoparticles offer a huge opportunity to transform wastewater treatment. Although the majority of the highlighted uses for carbonaceous nanoparticles are still experimental, some have demonstrated exceptional qualities in the actual treatment of wastewater. Further research focused on their modification can assist to accelerate the prospective applications and show a more promising future in wastewater treatment.

Biography

Komal Mehta is a results-driven professional in the field of academic, research and leadership with more than 19 years of experience in managing academic delivery and leading teams in the education industry. Skilled in designing and delivering innovative learning solutions that enhance student engagement and improve learning outcomes. Proven ability to build and maintain strong relationships with students, management and stakeholders. Demonstrated competitive technical skills as well as contribution to elevate organization as well as staff by working on new ideas, concepts and opportunities. Significant involvement in research with contribution of seven patents, eight books, more than thirty international and national research papers, various grants and sponsorship, Editor and Reviewer in various international research journals. She is managing Government Grants , instrumental in review and deciding university curriculum.