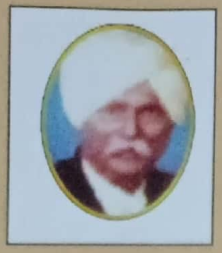

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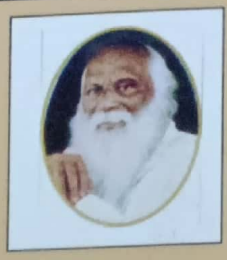

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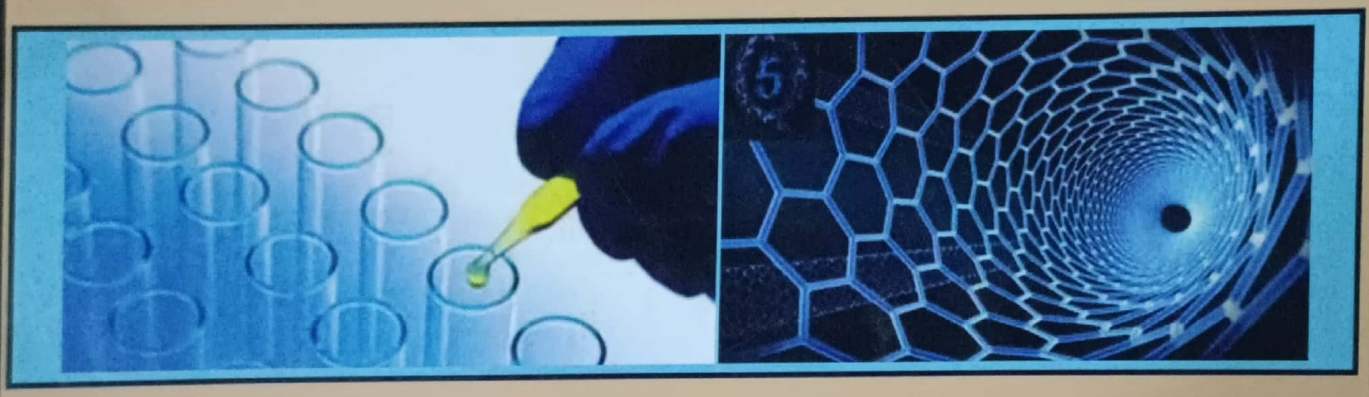

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ENVIRONMENT AND NANOTECHNOLOGY: A REVIEW

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Abstract:

Environment related problems and their solutions are now key importance to all the nations. Nanotechnology is the field of producing nanomaterial's for the betterment of human life and environment both directly and indirectly. The nanotechnology can be used both in water and air sector. Nanofilters, Nanotubes and Nanosensors are the nanomaterials used. This article gives a review on the ongoing research and development on the scope of nanotechnology in environmental cleaning specifically in water and air sector.

Keywords: Air Sector, Applications, Environment, Nanotechnology, Nanomaterials, Water Sector

Introduction:

Today pollution is one of the major issues of concern and there is a need of technology for cleaning and sensing pollution. Nanotechnology focused on the design, synthesis, characterization and application of materials and devices on the nanoscale. A nanometer is one billionth of a meter (10^{-9} m) about one hundred thousand times smaller than the diameter of a human hair, a thousand times smaller than a red blood cell, or about half the size of diameter of DNA. As the nanotechnology is successful in consumer products and other sectors, nanomaterials can be used for the improvement of the environment, both direct applications as to detect, prevent and remove pollutants as well as indirectly by designing cleaner industrial processes and create environmentally products. To identified the role of nanotechnology to solved various environmental issues research on nanoscale science should be done, However many uncertainty regarding the nonmaterial impact on human and ecological health is also been kept in mind.

Water Sector: Nanotechnology has an important application in water sector. As the amount of freshwaters is less, sea water can be considered for human consumption after desalination process. Carbon nanotube membranes can be used as a cheaper option. The nanofilters can be