

Proposal of work on Sensing and treatment of Escherichia coli in drinking water proposed by Ms. Freda Carvalho

Potable water is a very important and scarce commodity but due to increased industrialization and human activity, ground water and surface water are becoming increasingly polluted and are getting depleted too. The present water purification systems drains off the necessary minerals and helpful bacteria from drinking water. The need of the day is to produce sustainable solutions to water sensing system in order to optimise the purification system. The pathogenic bacteria present in drinking water due to faecal pollutants present pose great danger to human health. The present technique of detection involves a lengthy and time consuming affair. In this work a portable sensor for specific detection of E.Coli in drinking water is attempted. Thereafter treatment of this water using bio-compatible solutions is attempted using copper nanoparticles and rice husk ash. The research conducted in detecting E.Coli in water can be utilised in development of portable sensors to do on the field testing. The data then collected will be sent through the internet to make relevant information about the state of water readily available to the authorities.