

Water Pollution Indicator

Qurie, Fatima (School: The Orthodox School of Bethany)

Water Pollution Indicator(WPI) Water is a basic component of our daily life. Water contamination takes concern in all world due to an increased death rate of children in addition to water shortage and scarcity in most countries, especially arid and semi-arid regions. In Palestine the polluted water causing 12% death of children death and 25% of population diseases in Gaza in 2018. The routine monitoring processes for freshwater including sampling and analysis take a long time for water quality analysis and pollution indication. The time expanded for determination the pollutants can causing pollutants diffusion in water network system creating serious health problems for all population. Our aim to decrease the pollutants determination time and pollutants diffusion using variation sensors system namely WPI, this can help to give an indication for various water as inorganic with EC sensor or organic or microbial effect with DO sensor in short time showing decreasing effect in people health. The Water Pollutant Indicators which consists of six variation sensors can help to determined the Temperature, pH, Electrical conductivity EC S/cm, Turbidity NTU, Dissolved Oxygen-DO in mg/L and water Level WL in cm can give continuous real indication for water quality, the results comparing with WHO standards, sending mobile message for any water quality change below or high the international standards. The application of the WPI gives continuous and accurate results for water quality mentoring and sending a mobile message for any water quality parameters change according to WHO for fresh water quality. The WPI acceptable in main tanks in university, hospitals', factories and school wells, home tanks, wells..etc