

Water Quality Index Calculation and Management System

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Abstract

Water quality data recording and manipulation has always been a manual procedure in local water resource management agencies. The Water Quality Index Calculation and Management System was developed as a partial solution for these shortcomings. It calculates water quality index automatically after entering the basic data into the system. It can accurately generate necessary reports daily, monthly and yearly. Web-based online system has been chosen to facilitate the Water Quality Index Calculation and Management System. Open source PHP and SQL were used to develop a comprehensive design program for a waste water treatment plant. With the use of powerful problem solving feature of the HTML this system was developed. The program can also be used to check the design details of an existing plant to know the expansion works needed for increased hydraulic and organic loadings occurring in future. The purpose of this study is to present the development of a modular online system package for simulating the performance of the selected treatment. The computer program for the design of water treatment plant was test-run and the results were compared with those of the existing plant. The program is interactive. The program has been fed with relevant input data for each unit of treatment plant and executed. Data are entered as and when necessary as per the guidance obtained from the program. Major output of this system is giving a final conclusion about the treated water in a water treatment plant. Also it calculates values for the water quality parameters like turbidity and total water hardness etc. Different user can get customized details and information from the system. The proposed system benefits to all the people who use water quality reports by increasing the efficiency and mobility in an effective manner. Also waste water treatment plants play a major role in the system. The main goal of the Water Quality Index Calculation and Management System is to popularize it among water professionals.