
P74. EVALUATION OF WATER QUALITY THROUGH ARTIFICIAL NEURAL NETWORKS

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Increasing human pressure on water resources has led to the problem of water pollution. Thus, the determination and the evaluation of the quality of water resources should be dealt with scientific studies. Knowledge of the potential risks in quantity and quality of water reveal the necessity of regular control and monitoring which can be achieved through long term data collection and the organization of a common database.

In the determination of the surface water quality; organic, inorganic, radiological, bacteriological parameters are important parameters. Among these parameters, the physico- chemical parameters of water quality are used in this study. To determine the change in physico- chemical parameters in Yeşilırmak - Duruca, Yeşilırmak – Çayköy and Tersakan Stream – Boğazköy stations, a new approach based on Artificial Neural Networks (ANN) is used. It is a forecasting application used in several fields. The predetermined physico-chemical parameters of Amasya Provincial Directorate of Agriculture were used for the forecasting process which indicated a possible significant danger in water quality at the mentioned stations and a requirement for the necessary measurements. Our country is in a critical region in terms of water resources, the determination of the status of water resources, it is important to conduct a lot of research for the development and preservation. For this purpose, quality monitoring stations in the measured parameters, be managed in a common database, the creation of a national water quality monitoring network making long-term data collection is required.

Eventually, the techniques of ANN can be utilized to similar studies for different areas with big data collected properly.

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