Applications of artificial intelligence based tools to distinct problems related to different aspects of the water sector

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The present work describes 2 (two) applications based on Artificial Intelligence based tools for problem solving in the water sector. The former describes the use of Artificial Neural Networks (ANNs) to forecast the water quality of the Odivelas reservoir. The latter is concerned with the development of clustering models applied to the public water supply system. In this case unsupervised learning was used to find water clutches with similar physical and chemical properties. Decision Trees (DTs) were used in order to generate explanatory models of the envisage clusters. The model of the 3 (three) clusters that is shown seems to be the most adequate since it allows one to discern among the waters taken from different sources.