

Use of Modelling for Control Applications of the Waste Water Treatment Plants

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The presentation is focusing on the modelling of the Waste Water Treatment Plants aimed to perform the plants' water line improved operation by automatic control. Different simulators have been built based on the Activated Sludge Models. Combinations of feedback PID and cascade with feedforward and Model Predictive control strategies are implemented for dissolved oxygen, nitrates-nitrites and phosphorous control and their performance are investigated by simulations. Incentives of the proposed control structures are revealed both from environmental protection and economic perspectives.