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Abstract

In industry, liquids such as water and chemicals are used in various processes. The amount of such liquids stored can be found by measuring level of the liquid in a container or tank. The level affects not only the quantity delivered but also pressure and rate of flow in and out of the container. Often the tanks are so coupled together that the levels interact and exhibits a nonlinear behaviour. Control of coupled tank system using conventional PI controller, result in poor performance. In this paper the modelling and controller design for coupled tank liquid level process using characteristic ratio assignment (CRA) method is implemented. CRA method is an approach to directly control the transient response of linear time invariant systems. It is very

convenient for fast adjustment of speed as well as damping ratio of the response. Finally, the simulation results can be done by MATLAB simulink and LabVIEW. The results can be compared with other tuning techniques also.

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Index Terms

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Keywords

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