Abstract

The control of liquid level is mandatory in process industries. But the control of nonlinear process is complex. Many process industries use conical tanks because of its non linear shape which contributes better drainage for solid mixtures, slurries and viscous liquids. So, level control of conical tank presents a challenging task due to its non-linearity and constantly changing cross-section. The main objective is to implement the suitable controller design for conical tank system to maintain the desired level. In this paper it is proposed to obtain the mathematical modelling of a conical tank system and to design model based controller (Internal Model Control) for controlling the level in it. The controller will be simulated using MATLAB SIMULINK. By using the advanced control scheme it is expected to have better closed loop performance and robustness when compared to PID controller.
References


Index Terms

Computer Science  Applied Mathematics

Keywords

Non Linear Process  Internal Model control  conical tank.