

A comparison of PDD, LQG, H2 and H-infinity-controllers for a laboratory process

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A COMPARISON OF PDD , LQG , H_2 and H_∞ -CONTROLLERS
FOR A LABORATORY PROCESS.

Van den Boom,A.J.J. , M.H.Klompstra and A.A.H.Damen

Group Measurement & Control, Department of Electrical Engineering
Eindhoven University of Technology
P.O. Box 513, 5600 MB Eindhoven, the Netherlands

Abstract

The design and application of four different types of controllers for a laboratory process will be presented. Two of the controllers have been designed using the classical control theory, the PDD- and the LQG-controller [1]. The other two controllers have been designed using more recently developed techniques, the H_2 - and H_∞ -optimal controller [2],[3],[4]. The properties and performance of the controllers will be compared and discussed for the theoretical model as well as for the application on the process.

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