TRANSIENT-RESPONSE ANALYSIS FOR 1st AND 2nd ORDER SYSTEM USING PASCAL (DELPHI)

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ABSTRACT

The focus of the project is to generate a transient-response curve for 1^{st} and 2^{nd} order systems: closed-loop and opened-loop. The analysis is done for undamped, underdamped, critically damped, and overdamped cases. The important time domain characteristics such as delay time, rise time, peak time, settling time, and maximum percentage overshoot of the system are obtained. The root locus and the steady state error are also determined. The tool used is Pascal (Delphi).

LIST OF FIGURES