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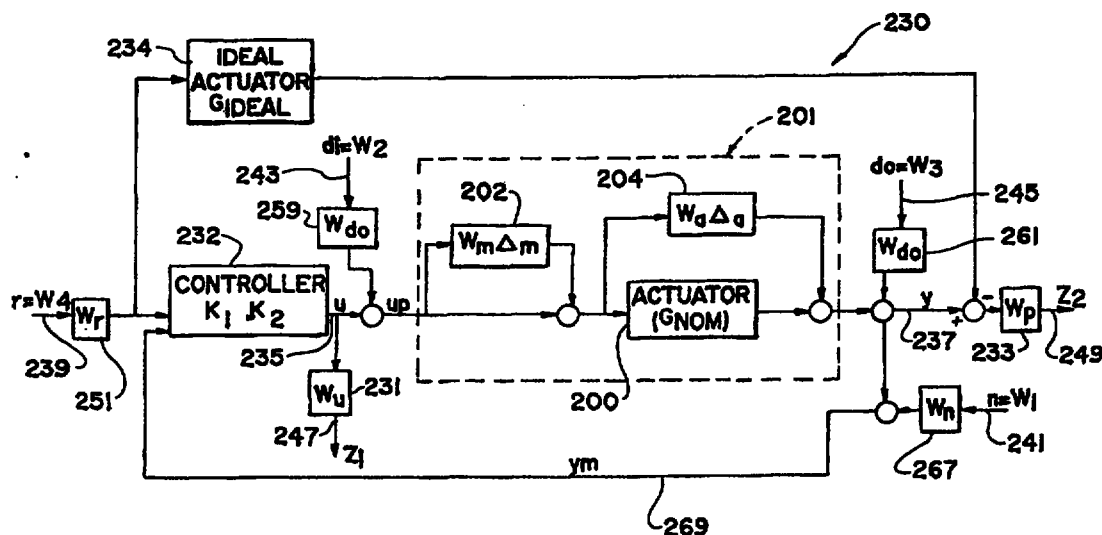
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(54) Title: MODEL VALIDATION ALGORITHM FOR CHARACTERIZING PARAMETERS AND UNCERTAINTY IN A DISC DRIVE



(57) Abstract

A system and method validate a model used in implementing a model-based servo controller (190) in a disc drive (110). A nominal model is first constructed. The nominal model is augmented with an uncertainty description (202, 204) to characterize variations in drives to be manufactured. The model is constrained by performance objectives. Weights corresponding to the uncertainty description and performance objectives are adjusted based on a comparison between a μ matrix function and a μ_g matrix function until a desired performance level is achieved while maintaining stability in a desired frequency range.