ỨNG DỤNG THUẬT TOÁN GIẢM BẬC MÔ HÌNH CHO BÀI TOÁN ĐIỀU KHIỂN CÂN BẰNG ROBOT DI ĐỘNG HAI BÁNH

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TÓM TẮT:

Development of balanced control for the two-wheeled mobile robot has attracted many researchers in the recent years. One difficulty for this control problem is that the controlling object is always unstable and is affected by interferences. To solve this problem, the authors in previous reaseachs offer use sustainable control algorithm H¥. However, the two-wheeled mobile robot balancing controller under H¥ sustained control algorithms often has high order, complexity which will be significant when programming for controller and impact on quality in the process of factual control. This paper has proposed a new algorithm for reducing model orders in general and applying to reduce orders of controller in balance control of two-wheeled robot in particular. Proposed order reduction model algorithm can be applied in other fields such as telecommunications, information technology.