

A Novel Control System Simulation Modelling Method Considering the Real Hardware Platform and the Software Structure

Pengcheng Du , Jiayi Liu , Kun Lv , Le Pei , Liyi Li

PII: S0307-904X(17)30502-4  
DOI: [10.1016/j.apm.2017.07.054](https://doi.org/10.1016/j.apm.2017.07.054)  
Reference: APM 11904



To appear in: *Applied Mathematical Modelling*

Received date: 2 September 2016  
Revised date: 1 July 2017  
Accepted date: 31 July 2017

Please cite this article as: Pengcheng Du , Jiayi Liu , Kun Lv , Le Pei , Liyi Li , A Novel Control System Simulation Modelling Method Considering the Real Hardware Platform and the Software Structure, *Applied Mathematical Modelling* (2017), doi: [10.1016/j.apm.2017.07.054](https://doi.org/10.1016/j.apm.2017.07.054)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

## Highlights

- Both the effect of the hardware and software is considered in the novel simulation model.
- The interrupt structure in the DSP platform is imitated in the control system simulation model.
- All functions are organized and realized based on the code of the DSP.
- Unify of the parameters is conducted to make the system more efficiently.
- The simulation runtime decreases with the tolerable accuracy, which suits for the high speed motor driver system simulation.

Download English Version:

<https://daneshyari.com/en/article/8052179>

Download Persian Version:

<https://daneshyari.com/article/8052179>

[Daneshyari.com](https://daneshyari.com)