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## Acknowledgement of submission of Contributed paper 3174 for IFAC WC 2017

1 message

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11 November 2016 at 17:07

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Message from PaperPlaza Conference Manuscript Management System

Dear Ms. Dharma Aryani

This email is to acknowledge receipt of your submission

Data-Driven Predictive Control with Nonlinear Compensation  
for Performance Management in Virtualized Software System  
(Paper ID: 3174, Contributed paper)

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Submission number: 3174

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Title:

Data-Driven Predictive Control with Nonlinear Compensation for  
Performance Management in Virtualized Software System

Date submitted: November 11, 2016

Type of submission: Contributed paper  
Status: Received  
Preferred type of presentation: Regular paper  
Award candidate: None  
Keywords:

Data-based control; Modeling for control optimization

Profile:

2.1. Design Methods - Control Design

Abstract:

This paper deals with data-driven predictive control for virtualized software system. The system dynamics are characterized in Hammerstein-Wiener structure to capture nonlinear and linear characteristics. The proposed approach is the implementation of Subspace-based Predictive Control feedback control with the integration of nonlinear compensation. The compensator functions are the inverse static input and output nonlinearity models from HW system identification. The SPC predictors are formulated from the estimated input of linear model and the output of inverse output nonlinear model. The results of three scenarios on different operating conditions show the reliability of Subspace-based Predictive Control in nonlinear compensated control system.

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