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Journal Name:	Physical Science International Journal
Manuscript Number:	_2015_PSIJ_18253
Title of the Manuscript:	Robustness Analysis of a Closed-Loop Controller for a Robot Manipulator in Real Environments
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	This manuscript does not contain a significant contribution for the field of robotics. Relevant contributions of performance, robustness analysis and control of robotic manipulator were not reviewed in this manuscript. This manuscript aims at surveying classical techniques to analyze the robustness of robotic manipulator against disturbances introduced by a real environment. The classical methods introduced in the manuscript (Dorf and Bishop, 2008) and (D'Azzo et al., 2003) are well know in the literature. These methods are used to analyze the sensitivity, stability and robustness of a robotic manipulator joint with uncertain parameters (SISO linear model). In order to improve the quality of this survey paper the authors could explore advanced control techniques of robotic manipulators based on H-infinity methods in control theory. These techniques are suitable for robotic systems considering uncertain parameters and uncertainty in the environmental conditions (Siqueira et al. 2011). Additionally, the robustness analysis of advanced applications could be studied	



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	(with nonlinear models) such as underactuated manipulators (Siqueira and Terra, 2004) and manipulator with flexible elements (Marakov et al, 2012). References: A.A G Siqueira and M. H. Terra; NONLINEAR H_{∞} CONTROL FOR UNDERACTUATED MANIPULATORS WITH ROBUSTNESS TESTS; Revista Controle & Automação, V 15, N3, 2004. M. Marakov et al.; Active Damping Strategy for Robust Control of a flexible-Joint Lightweight Robot, 2012 IEEE International Conference on Control Applications (CCA), 2012. SIQUEIRA, A. A. G. ; TERRA, Marco Henrique ; BERGERMAN, M. . Robust Control of Robots: Fault Tolerant Approaches. 1. ed. London: Springer, 2011. v. 1. 228p.	
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		

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