

**Subject:** RE: Decision on JSCE1691

**From:** Journal of Systems and Control Engineering <jsysconeng@sagepub.co.uk>

**Date:** 7/26/2012 1:39 AM

**To:** 'Vladimir Dobrokhodov' <vldobr@nps.edu>

Dear Dr. Dobrokhodov,

Thank you for your email. We look forward to receiving your revised article in due course.

Kind regards,

Helen

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-----Original Message-----

From: Vladimir Dobrokhodov [mailto:vldobr@nps.edu]

Sent: 25 July 2012 21:21

To: Journal of Systems and Control Engineering

Subject: Re: Decision on JSCE1691

Dear Helen,

Thank you for the feedback. We shall do our best in working on the reviewer comments and should respond with a revision by August 22nd.

Respectfully,

--

Vladimir Dobrokhodov

Research Associate Professor

Naval Postgraduate School

Mechanical and Aerospace Engineering dept.,

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Monterey, CA, 93943.

(831) 656-7714

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On 7/24/2012 7:30 AM, Journal of Systems and Control Engineering wrote:

> Ref: JSCE1691

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> Ref: JSCE1691

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> Dear Associate Professor Dobrokhodov,

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> TITLE: MULTICRITERIA ANALYSIS OF AN L1 ADAPTIVE FLIGHT CONTROL SYSTEM

> AUTHOR(S): Vladimir N Dobrokhodov, Ph.D.; Enric M Xargay, Doctoral Student; Isaac I Kaminer, Professor; Naira Hovakimyan, Professor; Irene M Gregory, Ph.D.; Chengyu Cao, Assistant Professor

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> Your Original Article submitted to Proceedings of the Institution of Mechanical Engineers, Part I, Journal of Systems and Control Engineering has now been refereed and I enclose copies of the relevant referees' reports recommending substantial changes.

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> We should be grateful if you would revise the article along the lines suggested. Please prepare the revised version, together with a list of changes that have been made, for further consideration. It would also be helpful to the referees if you could respond to their comments in full in an accompanying letter. Please endeavour to comply fully with the points raised or answer them in your reply, as your revised version will be refereed again. May I also draw your attention to the attached Editorial Checklist as the issues should also be addressed when preparing for submission of your revised version.

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> Before submitting your revised manuscript, we would also be grateful if you could please ensure that you have obtained all necessary permissions for any material in your paper that has been previously published. We would also appreciate it if you could please e-mail copies of such permissions to the journal office at jsysconeng@sagepub.co.uk when submitting the revised manuscript.

>

> Please note, for legal reasons we would be unable to publish your paper in the journal should permissions not have been granted directly by the copyright holder for any previously published content, including figures and tables.

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> Failure to provide all permissions at this stage may delay publication of your manuscript.

>

> Please submit the revised version by 22 Aug 2012 - go to <http://jsce.edmgr.com/> and log in as an Author. You will see a menu item called 'Submission Needing Revision'. You will find your submission record there.

>

> If you do not wish to make any modification, or are unable to amend your article by the deadline, please inform me as soon as possible.

>

> Yours sincerely,

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> Helen Elmes

> Assistant Managing Editor

> Proceedings of the Institution of Mechanical Engineers, Part I, Journal of Systems and Control Engineering

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> Comments from the Referee(s) and/or Editor:

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> Reviewer #1: The reviewer suggest a minor revise:

> 1. The authors should give the control schemes and Matlab design diagrams in "IV. Solutions and Analysis".

> 2. In 21 papers of "Bibliography", there are 7 papers written by the authors of Dr. Hovakimyan and Dr. Cao even though they have been focusing on the development and the application of L1 adaptive control for many years.

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> Reviewer #3: This paper addresses an important aspect of adaptive control using L1 criterion and applies the results to a real world problem at NASA.

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> Reviewer #4: This paper mainly focused on the application of the Parameter Space Investigation method for the multi-criteria design optimization of the L1 adaptive flight control system implemented on the two turbine powered dynamically-scaled GTM AirSTAR aircraft, experimental results are also given.

> I believe the contents are not new, the innovative contents are not highlighted. The authors failed to compare the presented method with other current methods, and the feasibility and effectiveness, especially the advantages of the presented approach are not verified.

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> Reviewer #5: My largest concern is that the response of the prototype (shown page 8) and case #202 (page 25) to a 3deg change in AoA for 4 seconds appears to be divergent if held longer than 4 sec. This might be due to changes in flight condition of an increase in climb angle. Would this occur on a linearization of the system? Include an analysis of what is happening and why we should not be concerned.

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> Other notes:

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> On page 6, the longitudinal system is described as SISO, that uses AoA and pitch rate feedback. I understand the single output is intended to be the control variable AoA, but the system has two outputs being used in the control.

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> For P12 (page 13), it is unclear if the max includes the entire equation of just the delta e term. Although in P13 it is expressed more clearly that it should include the entire equation.

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> On page 15, 'a priory' should read 'a priori'.

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> On page 17, 'useful inside' should read 'useful insight'.

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> On page 24, the statement is made that smaller damping ratio results in reduced pilot compensation, but Figure 7 appears to show the opposite.

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> \*\*\*EDITORIAL CHECKLIST\*\*\*

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> When preparing your manuscript would you please attend to the following points.

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> A ILLUSTRATIONS:

> A1. Ensure that you have provided original illustrations.

> A2. Check the quality of line drawings (Please ensure that any shaded illustrations must be defined with variant lines to avoid poor quality reproduction).

> A3. Check the font size for labelling of illustrations - is this appropriate for reduction of the figure for reproduction in the journal?

> A4. Check the quality of any photographs and half-tones.

> A5. Ensure that you have written permission to reproduce (in all media) any figures for which you are not the copyright holder

> A6. Extract the illustrations from the text and supply on separate sheets.

> A7. Provide a separate list of figure captions.

>

> B ABSTRACT, KEYWORDS AND MAIN BODY OF THE TEXT:

> B1. Type the manuscript (including references) in double line spacing across the page. This aids both editor and typesetter in efficient and accurate production.

> B2. Check that the abstract provides an accurate synopsis of the paper.

> B3. Check that the keywords are appropriate for information retrieval purposes.

> B4. Check that the style of writing is in the third person throughout.

> B5. Number your section and sub-section headings.

>

> C UNITS, EQUATIONS AND NOTATION:

- > C1. Check your use of units and convert to SI where necessary.
- > C2. Include a list of notation, in alphabetical order (lower case precedes capitals, Roman precedes Greek).
- > C3. Clarify the presentation of the equations and mathematical symbols:
  - > C3(a) clarify Greek Characters.
  - > C3(b) explain unusual symbols required.
  - > C3(c) make the matrices bold upright, vectors bold italic if possible.
  - > C3(d) clarify ambiguities in display equations, caused by use of solidus (the division slash / )

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> D REFERENCES:

- > D1. Check the references and ensure that they contain:
  - > D1(a) Names and initials of all authors (if not more than three)
  - > D1(b) title of paper or chapter
  - > D1(c) source
  - > D1(d) year, volume, pages or paper number
  - > D1(e) publisher and/or sponsor (for books, conference, proceedings etc.)
- > D2. Ensure that the references follow the Vancouver sequential numbered style.

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