



Iwan Setiawan <iwansetiawan@live.undip.ac.id>

[IJRER] Editor Decision

2 messages

Prof. Dr. ILHAMI COLAK <ijreeditor@gmail.com>
Reply-To: "Prof. Dr. Ilhami COLAK" <ijreeditor@gmail.com>
To: iwan setiawan <iwansetiawan@live.undip.ac.id>
Cc: Mochammad Facta <mochfacta@gmail.com>, Ardyono Priyadi <ardyono_p@yahoo.com>, Mauridhi Hery Purnomo <chery@ee.its.ac.id>

Sun, Feb 12, 2017 at 5:02 PM

Dear iwan setiawan:

We have reached a decision regarding your submission to International Journal of Renewable Energy Research (IJRER), "Investigation of Symmetrical Optimum PI Controller based on Plant and Feedback Linearization in Grid-Tie Inverter Systems".

Our decision is to: Revisions are required on your paper. At the end of this email you will find a set of comments from the reviewers.

Please revise the paper in accordance with remarks or give reasonable explanation of ignoring some remark. After doing necessary changes on your paper, please upload it in SEVEN days through the IJRER online system along with a detailed response (a SEPERATE file) in written for the reviewers concerning the performed corrections. Corrections must be provided in OTHER TEXT COLOR in the revised paper.

Note that your revised paper should be in .doc format and should be in accordance with the template for accepted papers. You can download the template from IJRER web page (<http://ijrer.org/files/template-2.doc>).

Best regards,

Prof. Dr. Ilhami COLAK
Editor in Chief, IJRER
www.ijrer.org
icolak@gazi.edu.tr
ijreeditor@gmail.com
IJRER is Cited in SCOPUS, EBSCO and WEB of SCIENCE (Thomson Reuters)

Reviewer C:

Is the paper of sufficient originality to warrant publication in the journals?:

Yes

Is the paper clearly and sensibly arranged?:

Yes

Are the analyses and conclusions a logical outcome of the data and discussion?

(If this is not the case, please outline)

:

Yes

Quality and clarity of the writing:

Neutral

Relevance of the topic for renewable energy researches

:

Good

Constructive feedback for the author(s):

The paper proposes a method for controlling of DC bus voltage through a PI-controller based technique. The general idea of the paper is decent and the mathematical background and the problem formulation have been explained appropriately. However, the paper suffers from some technical aspects like lack of explanation in the results and discussion section. Also, it is absolutely significant to mention that, the entire paper has been written in a very poor English. The entire paper needs to be proofread.

In order to elevate the quality of the paper the following points should be considered:

- 1) In many occasions, Indexes and abbreviations have been used in the paper without any explanation. Therefore, it is required to add a "Nomenclature" section after abstract to address all the used terms.
- 2) Please, avoid lump referencing. Cite one work at a time.
 - a. Page 2, Introduction section, Paragraph 1, lines 2 and 3.
 - b. Page 3, Introduction section, Paragraph 4, line 3.
- 3) Page 2, Introduction section, Paragraph 2, lines 4: "in order to DC bus... By the end of paragraph". It's not clear, please rewrite.
- 4) The simulation of the results has not been discussed technically enough, specifically, figures 9, 10 and 11 requires more explanations in order to justify the application of the proposed method.
- 5) The conclusion section has been written in a very poor manner. It is required to be rewritten in such a way to highlight and demonstrate the findings of the study. It should be rewritten completely.
- 6) Please, double check the references, some of them do not comply with

IJRER referencing guideline.

:
Accept pending minor revisions

International Journal of Renewable Energy Research-IJRER
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Iwan Setiawan <iwansetiawan@live.undip.ac.id>
To: "Prof. Dr. Ilhami COLAK" <ijreeditor@gmail.com>

Sat, Feb 18, 2017 at 4:41 PM

Prof. Dr. Ilhami COLAK,
Editor-in-Chief, IJRER

18 February, 2017

Dear Prof. Dr. Ilhami COLAK

Re: Manuscript ID 5984

We greatly appreciate the opportunity that given to us to further revise our manuscript "Investigation of Symmetrical Optimum PI Controller based on Plant and Feedback Linearization in Grid-Tie Inverter Systems" (Manuscript ID 5984).

We express many thanks to the reviewers for valuable comments and excellent advice that helped us to improve our manuscript.

We have send you the revised manuscript by the on-line submission system.


Please find also attached our responses to the reviewers' comments


Sincerely yours,

Dr. Iwan Setiawan
Department of Electrical Engineering
Universitas Diponegoro (Undip), Semarang
INDONESIA
Email: iwansetiawan@live.undip.ac.id

[Quoted text hidden]

2 attachments

 **revised Manuscript ID 5984.docx**
949K

 **our response to reviewers.docx**
34K

Response to Reviewers

Dear Reviewers

We would like to thank you for your valuable comments that helped us to improve our paper. Please find below our detailed reply to your comments.

Sincerely yours,

Iwan Setiawan et al.

General Comments

The general idea of the paper is decent and the mathematical background and the problem formulation have been explained appropriately. However, the paper suffers from some technical aspects like lack of explanation in the results and discussion section. Also, it is absolutely significant to mention that, the entire paper has been written in a very poor English. The entire paper needs to be proofread

Authors' Response:

Thank you for your useful suggestion on the technical aspects and the English of our manuscript. In order to improve the quality of the paper, we have revised almost the whole Simulation Result and Discussion section, We also have rechecked the manuscript carefully and revised the typos and tried to avoid any grammar error or syntax error on the whole manuscript. Please see our revised manuscript.

Detail Comments

1. In many occasions, Indexes and abbreviations have been used in the paper without any explanation. Therefore, it is required to add a "Nomenclature" section after abstract to address all the used terms.

Authors' Response:

Thank you for your reminder. In the revised manuscript, We have added a nomenclature that placed right before Introduction Section, as follows:

Nomenclature

V	Inverter voltage magnitude (V)
E	grid voltage magnitude (V)
δ	phase angle difference (rad)
L	Line inductance (H)
R	Line resistance (ohm)
C	DC bus capacitance (F)
ω_g	Grid frequency
ω_s	Synchronous frequency
V_{dc}	DC bus voltage
i_d, i_q	d-axis component of grid voltage and current vector
v_d, v_q	direct and quadrature component of the inverter voltage vector
e_d, e_q	direct and quadrature component of the grid voltage vector
u_{PI}	output of the PI controller
K_p	Proportional gain
T_i	Time integral
T_{cl}	desired time constant of closed loop system

P_g active grid power
 Q_g reactive grid power
 i_{dc_s} Renewable power source DC current
 i_{dc_g} Grid side converter DC current

2. Please, avoid lump referencing. Cite one work at a time.
 - a. Page 2, Introduction section, Paragraph 1, lines 2 and 3.
 - b. Page 3, Introduction section, Paragraph 4, line 3

Authors' Response:

Thank you for your suggestion. In the revised version, we have avoided lump referencing as your suggestion. Please see our revised manuscript

3. Page 2, Introduction section, Paragraph 2, lines 4: "in order to DC bus... By the end of paragraph". It's not clear, please rewrite

Authors' Response:

Thank you for your suggestion. For the clarity, In the revised version, the sentence "in order to DC bus..." have excluded from the paragraph

4. The simulation of the results has not been discussed technically enough, specifically, figures 9, 10 and 11 requires more explanations in order to justify the application of the proposed method.

Authors' Response:

Thank you for your valuable suggestions. To fulfill your suggestions, we have added more description in Simulation Results and Discussion, especially the description for figures 9, 10 and 11. Please see our revised manuscript.

5. The conclusion section has been written in a very poor manner. It is required to be rewritten in such a way to highlight and demonstrate the findings of the study. It should be rewritten completely.

Authors' Response:

Thank you for your valuable suggestions. To fulfill your suggestions, we have revised the whole conclusion of the paper carefully, so now our conclusion is more clear and stronger. Below is the new conclusion of our paper.

The performance investigation of the DC bus voltage regulation-PI controller based on the plant linearization and the feedback linearization techniques in response to the power change generated by renewable energy source have been conducted in this study. From the simulation results, it is shown that the dynamic and the transient response of the DC bus voltage regulation due to the instantaneous small changes of the power are relatively the same both for the plant linearization based-PI controller and the feedback linearization based-PI controller. However for the instantaneous changes of the input power with relatively large magnitude, the dynamic of the DC bus voltage regulation of the plant linearization based-PI controller and the feedback linearization based-PI controller are relatively different. Although not too significant, it could be seen that the response of the PI controller based on plant linearization is more superior than that of the PI controller based on feedback linearization both in the overshoot and ITAE.

6. Please, double check the references, some of them do not comply with IJRER referencing guideline

Authors' Response:

Thank you for your reminder. In the revised manuscript we have revised the references in order to comply with IJRER referencing guideline.