# Author’s Response to the Review Comments

***Journal* : Jurnal Elektronika dan Telekomunikasi**

***Title of Paper* : IMPROVEMENT OF DSOGI PLL SYNCHRONIZATION ALGORITHM WITH FILTER ON THREE-PHASE GRID-CONNECTED PHOTOVOLTAIC SYSTEM UNDER VARIOUS CONDITION**

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We appreciate the time and efforts by the editor and referees in reviewing this manuscript. We have addressed all issues indicated in the review report, and believed that the revised version can meet the journal publication requirements. We have included the line numbers in the revised manuscript to help the reviewers identify our changes. We hope to be accepted in your journal. Thank you.

| **Comment** | **Response** | **Location of Response in Revised Manuscript** |
| --- | --- | --- |
| **EDITOR’S COMMENTS** |  |  |
|  |  |  |
| **REVIEWER A COMMENTS** |  |  |
| Overall this working paper has been sufficient to provide information about what the author did in this paper. The title and abstract have reflected the contents of the paper work as well as the important information of the work that has been done. The background and the problems conveyed in the introduction are quite systematic and directed, but there is some writing that needs to be clarified and changed. | Thanks for your comments. in this table, we have clarification and revision. |  |
| This paper is enough to make a meaningful contribution to be published, and this paper has provided enough scientific information. | thanks for your comment |  |
| In the introduction, paragraph 1  This paragraph states general information about renewable energy, better put ref at the end. | We have revised the location of reference in the end paragraph | Introduction, paragraph 1 |
| In the introduction, paragraph 4  dq mean? | We have been cleared dq PLL in the introduction | In the introduction, paragraph 4 line 7 |
| In the introduction paragraph 4  Better use ref no in the end | Thanks for your comment, we think we need this reference in the end paragraph because this paragraph describes the SRF PLL. And in the last sentence of this paragraph “requires orthogonal voltage system to estimation the phase angle, frequency, and amplitude of the grid voltage” | In the introduction paragraph 4, the last sentence |
| In the introduction, paragraph 5  typing errors | We have revised the typing errors | In the introduction paragraph 5 and in parts of this paper |
| Consistency using PV | we have revised in all sections of this paper, consistent using PV after the information "photovoltaic is PV" | all sections of this paper |
| Introduction paragraph 3  “But in the IEEE standard, PCS on grid-connected photovoltaic system is an inverter”  IEEE standard number? | we remove the sentence because the sentence will make it difficult for readers to understand the concept of power control system. | Introduction paragraph 3 |
| equation description put after equation | We have revised the all of the equation descriptions we show after equation | After each equation |
| **REVIEWER B COMMENTS** |  |  |
| This paper is well written and the title already reflects the main contribution of this works. Comprehensive and structured literature review has been presented in the introduction. | Thanks For your comment |  |
| In the abstract, the authors should explain in more clear ways about vαβ signals. | We have revised, and we cleared about vαβ signal in the abstract | Abstract line 5 |
| The authors should highlighted the behavior of the filter that makes the performance is improved. | We have revised, the highlighted the behavior of the filter that makes the performance is improved have added | In the DSOGI PLL Synchronization Algorithm With Filter, paragraph 9 |
| The contribution of this paper is not depth, considering the works is about adding extra filter to the previous DSOGI in order to improve the accuracy of the phase and frequency estimations. However, the results and discussion sound promising. | Thanks for your comment |  |
| For Fig.7 and 9, the graph of DSOGI PLL cannot be seen (green line), is the graph is entirely overlap with the graph of DSOGI PLL with filter? | yes, the blue line (DSOGI PLL with filter) is entirely overlapped with the green line (DSOGI PLL). And in the new paper (after revision) the figure 10 and 12 all of the line (all of the algorithm) is entirely overlapped. | Result and discussion figure 7, 9, 10 and 12. |
| **REVIEWER C COMMENTS** |  |  |
| The paper is within the scope of JET journal, well written and its quality is supported by the results and the good presentation of the theoretical framework. | Thanks for your comment |  |
| The content is sufficient for publication. However, authors are encouraged to conduct the experimental work to validate the proposed method in the future work. | We have revised the experimental work in the future work we added to the conclusion, the last sentence. | Conclusion, the last sentence |
| English proof-read is required. | we've done proof-read again |  |
| Please state the method or equations to determine the optimal gain *k* in Table 1 since it affects the SOGI-QSG behavior. | we have a revision by adding the method to determine the optimal gain k in Table 1 since it affects the SOGI-QSG behavior. | In the DSOGI PLL Synchronization Algorithm With Filter paragraph 4 |
| Similar with point 2 for the optimal gains of PI controller *ki , kp* | we have a revision by adding the method to determine the optimal ki and kp for PI controller | In the Simulation Of Synchronization On Three-Phase Grid-Connected PV System, the second paragraph |
| Please quote the sources of all equations if they do not come from the authors’s work | we have re-checked and quoted the sources of all equations if they do not come from our work |  |
| Please briefly mention the source of linear and nonlinear load in the PV system and the significance of the comparison in the manuscript. | We have the mention of the source of linear and nonlinear load in the PV system and the significance of the comparison in the manuscript. | The mention of the source of linear and nonlinear load in the PV system in the Simulation Of Synchronization On Three-Phase Grid-Connected PV System, the first paragraph  the significance of the comparison in the result and discussion figure 10 until 12 |
| Revisions are required | Thanks for your comments. in this table, we have a revision. |  |