

Response to Reviewer Comments

Dear Mr. Reviewer,

Thank you for considering my article for publication in Electronics. I am grateful to you and the reviewers for the valuable suggestions provided. We have carefully revised the manuscript by incorporating all the suggestions by the review panel.

Here are responses to the reviewer comments:

Point 1: *In general, all figures need titles and short descriptions. The font of labels needs to increase. Three curves need labels in figure 4.*

Response 1: The figures in the text are explained in the corresponding paragraphs, the title of the diagram is below the diagram, and the title of the table is above the table. The label font in the figure has been re-added. Figure 4 shows the iterative curve of the algorithm in this paper, there are three curves because of twice restarts, all three curves are RDS-PSO iterative curves in this paper, and the curve labels are indicated in the caption.

Point 2: *In line 97, the author said that 'At this point, ... by its own historical experience'. I don't understand what 'own historical experience' means. Would you please make a short description?*

Response 2: The self-history experience is the $Pbest_{id}^t$ in the velocity iteration formula, which is an important part of the PSO algorithm and represents the historical optimal position of a single particle in the optimization search process. Detailed formulae have been updated. (93-107)

Point 3: *In line 139, the formula (5) is a copy of formula (4). Please correct that.*

Response 3: The error has been corrected in the manuscript

Point 4: *In line 140, please provide the reason to pick 0.83 and 2 for alpha and beta.*

Response 4: These two values are obtained through many experiments in order to make c_1 and c_2 show a symmetrical trend, that is, c_1 increases and c_2 decreases. Descriptions have been updated. (152-153)

Point 5: *The section title 3.4 and 3.5 are both 'Particle coding'. Please correct that.*

Response 5: Thank you for pointing this out ! The error has been corrected in the manuscript

Point 6: *In line 267 and 268, please provide the reason to pick 1.5, 0.9 and 0.4.*

Response 6: In the original PSO algorithm, when the value of w is between 0.4-0.9 and the value of c is between 1.5-2, the algorithm works best. To be fair, we use the same parameters as in the literature [25]. The reference for the comparison algorithm is see [25] [26], in the document on lines 269-270. These parameters are set in the existing comparison algorithm, provided by references, and not set by this paper. (269-270)

Point 7: In figure 10, the blue curve is plotted with very few points. The full path of curve could be different as shown in figure 10. Please provide more evidence.

Response 7: I am sorry that this part was not clear in the original manuscript. I should have explained that The dots in Figure 9 and Figure 10 are path nodes, which are to show the components of the path. The actual path is not connected by the five points in the figure, but by the starting point, path nodes, interpolation points and the end point (where the interpolation points are set to 100). The final path is a smooth curve obtained by three times of spline interpolation, and this part is described in sections 3.3 and 3.4. Therefore, the blue curve is the complete path of the final plan. (190-201)

We would like to take this opportunity to thank you for all your time involved and this great opportunity for us to improve the manuscript. We hope you will find this revised version satisfactory.

Sincerely,

The authors