



**SDI Review Form 1.6**

Journal Name:	<b><u>Physical Science International Journal</u></b>
Manuscript Number:	<b>Ms_PSIJ_30035</b>
Title of the Manuscript:	<b>Theoretical Computation of Magnetic Field Density within the Vicinity of Rukpokwu 11 KVA Distribution Power Lines</b>
Type of the Article	<b>Original Research Article</b>

**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)
<b>Compulsory</b> REVISION comments	<p>Technical Comments to the Author:</p> <p>In this manuscript, the authors used Theoretical Computation of Magnetic Field Density within the Vicinity of Rukpokwu 11 KVA Distribution Power Lines. The motivation for the work is of interest. However the work presented does not provide a substantive conclusion for how magnetic fields influence. The theoretical results and presentation in the tables and figures in the manuscript need to improve as recommended. I highly suggest the author to carefully check the manuscript before resubmission. Accept conditionally, subject to major revisions, according to accompanying comments. This recommendation should be made when the manuscript is judged to be quite strong and in need of corrections.</p>	
<b>Minor</b> REVISION comments	<p><b>Comments and Suggestions for Authors</b></p> <p>Provide justification for the study, the purpose and significance (how the present work differs from previous work).</p> <ol style="list-style-type: none"> <li>1. In presenting the method, need to mention about the physical rules and details that you consider for your theoretical study.</li> <li>2. An emphasis of the significance of the work and recommendations need in the abstract section.</li> <li>3. Write Keywords.</li> </ol>	<ol style="list-style-type: none"> <li>1. We have shown that in this work, we have used a mathematical software (Wolfram Mathematica 8.0) which enabled us facilitate the generation of the results of the magnetic field current coefficients (<math>I_{coef}</math>) for the vertical and horizontal components of the magnetic and with this parameter known, it will be very easy for researchers to compute the magnetic flux density around a magnetic field source.</li> <li>2. We have included the statement of Ampere's law and its application especially, as it affects this work.</li> </ol>



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	<p>4. Introduction is not meet the general format. It is better to start from broad dissection to narrow details such a reverse triangle.</p> <p>5. The author(s) do not reviewed the existing literature adequately.</p> <p>6. Formatting of tables are not same (table 4 is center aligned and table 2 is left aligned , font size and format also should be same)</p> <p>7. As a theoretical paper, I advise to display results in the figure to better visualization and interpret. It is better to put the big tables in the final part of paper, appendix section.</p> <p>8. The figure 5 in the paper is not clear in the region 10-200. It is better to redraw and use logarithmical y- direction. Please reformat these figures to improve clarity and appearance.</p> <p>9. Figure 2, line 90-107, is not related with context adequately. The current TL line should place in the higher point about 10.37 m and the calculated point should define between ground and current line. It seems the geometry of line is reversed in the figure. You can see those papers that I have suggested in the reference comments.</p> <p>10. After draw a curve for each table, interoperate it in the context.</p> <p>11. For the fix distance from the TL line, draw</p>	<p>3. We have included both the significance of this work and recommendations in the abstract section.</p> <p>4. We have included keywords.</p> <p>5. We have changed the introduction to suite the format.</p> <p>6. We have added additional 4 literatures in our review</p> <p>7. All the tables have been aligned to the centre and their fonts are same. However, if there are few discrepancies, they can be corrected by the publishing team.</p> <p>8. We arranged the Tables according to the journal's pattern. However, the journal body can decide to position the tables where they want in the passage.</p> <p>9. We have plotted a graph of log of magnetic field exposure against distance and this has brought out the picture of the relationship between these two parameters.</p> <p>10. We considered an average conductor height (from the ground level) of 10.37 m but this computation was carried out based on a height of 1 m above the ground level (presumed to be the average height of an individual living or doing business within the magnetic field vicinity) and based on this, the</p>
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	<p>density of magnetic field versus high ( also in the fix high and different length )</p> <p>12. Is there any differences between the magnetic field exposure in the different temperature or geographical place?</p> <p>13. Line 234, table 2: how you calculate current coefficients (<math>I_{coef}</math>)?</p> <p>14. Why you use different unit for filed exposure in the table 4?</p> <p>15. What is your purpose to use tesla/s or tesla /hr?</p> <p>16. The distance between lines in the paper are not same and should use uniform format for context.</p> <p>17. Page 2, line 70-71: the parameter in the formula should define properly and use same symbol in the formula and context.</p> <p>18. Page 2, line 70, It is better to use equation in the separate line and put number of formula align with equation.</p> <p>19. Page 6, line 230: correct abbreviation from ICNIRP to ICNIRP and also in the rest place of the context.</p> <p>20. Page 6, line 236, table 2: why you use different digit point for the right column. All should have same format and same digit number (also correct for the rest data).</p> <p>21. Page1, line 35-39,: stop point should locate after reference bracket.</p> <p>22. Page 11, line 308, 309 , The references listed have not same formatting style (should follow the journal's formatting style ( there are some non-unique font and color)</p> <p>23. The number of references is not enough for</p>	<p>vertical height that we used in this computation is 9.37 m (10.37 m – 1 m).</p> <p>11. Tables 1 to 3 do not need curves. We have re- plotted Figure 5 to make it look clearer. We have also plotted a bar chart for Table 5.</p> <p>12. We have drawn all the relevant curves for the Tables</p> <p>13. We did not consider temperature or geographical variations in this computation.</p> <p>14. The current coefficients (<math>I_{coef}</math>) were computed from the variables which are coefficients for each of the current factors in equations 16 , 17 (for <math>B_{ya}</math> out and <math>B_{yb}</math> out) respectively and equations 19, 20 and 21, where we picked the coefficients of current for <math>B_{ya}</math> in and <math>B_{yb}</math> in, etc. These parameters when keyed-in generated the current coefficients using Wolfram Mathematica 8.0 software.</p> <p>15. We have only converted Field Exposure from T/sec through <math>\mu</math>T/sec then to <math>\mu</math>T/hr so that we can do our comparisons in the same unit with our standard limits.</p> <p>16. For the purposes of comparisons in the same unit with our standard limits.</p> <p>17. We have tried to correct this but the rest of the formatting can be done by the publishers.</p> <p>18. We have defined the parameters</p> <p>19. Equation is in order.</p> <p>20. We have corrected abbreviation</p>
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	such theory paper. You can mention some related paper. For example: "A Simple Method to Approximate the Magnetic Field in the Vicinity of Overhead Power Lines" and "3D Computation of the Power Lines Magnetic Field"	21. The digit points are same now. 22. I have put the stop point correctly.  23. We have formatted the references. 24. We have added more references.
<b>Optional/General</b> comments		

As per the guideline of editorial office we have follow VANCOUVER reference style for our paper.  
Kindly see the following link: <http://sciencedomain.org/archives/20>