



SDI Review Form 1.6

Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_37678
Title of the Manuscript:	EFFECTS OF VARIABLE ELECTRICAL CONDUCTIVITY ON THERMAL BOUNDARY LAYER OVER A VERTICAL PLATE WITH BUOYANCY FORCE AND CONVECTIVE SURFACE BOUNDARY CONDITIONS
Type of the Article	Review Paper

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)
Compulsory REVISION comments	<p>This paper presents an analysis of magnetic/electrical/fluid flow interaction on a flat plate. It is in an important area that has seen a bit of a resurgence in the past few years.</p> <p>There are many English errors, this needs heavy editing.</p> <p>The authors have not described what their paper is adding to the science. How does this study fit in? Also the authors should describe right away in the paper why electrical properties of a fluid matter.</p> <p>What are the boundary conditions at the bottom of the plate?</p> <p>Incomplete sentence right before section 3.</p> <p>No study of mesh independence?</p> <p>Keeping 7 significant figures is a bit ridiculous.</p> <p>The authors make some statements as if they are finding new phenomena when in fact they are required for the solution. For instance, the sentence "Generally, Figs. 4.1, 4.3, ..." This finding is required by the boundary conditions!</p> <p>Similarly the authors claim that the thermal conductivity "causing the fluid to attain higher temperature..." This isn't true. The maximum temperature is dictated by the plate, not the fluid conductivity.</p> <p>The numbered list of things that are noted are very confusing. First, the Biot number doesn't affect the boundary layer thickness,. Secondly, I think this is the first mention of the biot number. How is it defined?</p> <p>Also, the Prandly number is not a measure of the intensity of the buoyancy force.</p> <p>In items 2 and 3 the authors say "increase or decrease" Which is it?</p> <p>The authors just present a whole series of images with very little discussion.</p>	<p>Agreed and corrected</p> <div> <p>Nusselt number for heat transfer is the ratio length scale to thermal thickness</p> <p>Sherwood number for mass transfer is the ratio of the length scale to diffusion thickness</p> </div>
Minor REVISION comments	<p>The authors should make very clear this analysis only works for laminar flow. If this is resubmitted and fixed, the authors will have to do a better job in the literature review. What they have is just a recitation of some papers (some of which are not relevant). There is very little discussion of the prior work and how this new paper fits in. The discussion of prior art is very disjointed.</p> <p>The writing style is not good, many grammatical errors, font style and sizes changing.</p>	<p>We have looked into it and appropriately..</p>
Optional/General comments		