



SDI Review Form 1.6

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2013_BJAST_8772
Title of the Manuscript:	Performance Analysis of Parabolic Trough Collector in Hot Climate
Type of the Article	Original Research Article

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: Paper is too long, my appreciation is that it can be partitioned. Not an adequate use of scientific terminology. Entangled formula displaying and explanation. Equations used are not adequately referenced or justified. Concerning methods: Personally, I believe equations were properly used and proposed, but they need further elaboration. My guess is that authors resigned these aspects and some figures including different cases in order to reduce extension. Need re-elaboration. English improvement, with stress on shorter statements. Equation terms and components need better and clearer displaying and explanation. It is not clear which are model specifications and results (figures and output) for the Kuwaiti area. It is an effort towards achieving better performance equipments and the scientific community should have knowledge on.	English is proofed throughout the text. Also, sentences are made shorter to make them meaningful.
<u>Compulsory</u> REVISION comments	Improve English quality. Corrections in grammar, text completion and redaction are necessary. There are some references either missing or bad quoted (for example <i>Klaus et al</i>). Some notation is not explicit. In line 227 one must infer that T_f stands for fluid temperature. Same line: either refer to bibliography or further explain how to derive the partial differential equation starting from a control volume. Not an adequate use of scientific/technical terminology. Refer to line 235: it should say <i>equation</i> or <i>relationship</i> instead of <i>correlation</i>. Further use of this word must be reviewed. Same line, excerpt: "... in circular ducts [29] is adapted",	• English is proofed throughout the text. • Sentences are made shorter to make them meaningful. • Grammar is corrected. • Bad quoted reference (Klaus et al.) is corrected in line 57. • In line 228, a reference to partial differential equation is added. • T_f fluid temperature definition id added in line 234. • Use of equation and correlation is justified. • Experimental work 259 is referenced. • Line 302 currently 307 and 308 refers to Stefan's Boltzmann equation.



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	references should be quoted consistently, for they appear sometimes as a number between brackets and some other times as author's name. Further use of this practice must be reviewed. Line 253: Whose experimental work? Missing reference. Line 302: Where does this equation come from? Further use of these practices must be reviewed. Etc, etc. Materials & methods: Sufficient details (references, math procedures, etc) of the methods/process were not provided. They should, for the sake of clarity and soundness. Personally, I believe equations were properly used and proposed, but they need further clarification. As of the proposed "3. NUMERICAL MODEL" (line 317), provide partial differential equations to be solved, the emerging set of algebraic equation, etc. Some of the used and proposed models input and output are desirable. Also, should distinguish among the following concepts (<i>sic</i>): effective optical efficiency, collector efficiency, collector thermal efficiency and thermal efficiency. They must be carefully employed and some of them need definition. Results & discussion: No sets of data were furnished, graphics seem sound. Line 370: error bars are cited but not shown in figure 1 so the excerpt cannot be accepted. Also (<i>sic</i>): "... <i>the higher efficiencies are obtained when the annulus is under vacuum, but in both cases (air and vacuum) at high temperatures the collector efficiency drops gradually</i>". So far several cases emerge: vacuum and non vacuum, vacuum intact, lost vacuum and glass cover completely removed. No figures or data were provided to account for these cases. References are relevant but some updating necessary. Some statistical result is expressed between lines 390 and 397, but set of data was neither included,	• Further details of math procedures can be found in the text book. • The first reviewer asked to reduce the sections of theory and numerical model and adding these details will make the manuscript too long. • Statistical results are cited for the obtained data. • Most of the data are presented in Figures, so we believe that there is no need to include them. • Common statistical methods are employed that is why they are not referenced. • All conclusions presented in the manuscript are drawn from the present results.
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	nor referenced. It is not possible to establish where these relationships come from. Statistics employed should be sufficient for present purposes. Conclusions: They seem sound and credible, but were not adequately justified along the paper.	
<u>Minor</u> REVISION comments	References should be updated, specifically those concerning to state of the art.	Some updated reference concerning state of the art are added [40,41].
<u>Optional/General</u> comments	No plagiarism tests were conducted. Trough collector technology has evolved but criteria emerging from this paper still apply.	