



SDI Review Form 1.6

PART 1:

Journal Name:	<u>Physical Review & Research International</u>
Manuscript Number:	2013_PRRI_5157
Title of the Manuscript:	Introducing Some Correlations to Calculate Entropy Generation in Extended Surfaces with Uniform Cross Sectional Area
Type of the Article	Research paper

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.



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PART 2: 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>In this paper the authors analyze irreversibilities in a pin fin by using a minimum entropy production criterion. The topic has been extensively covered by other researchers so its originality is not clear.</p> <p>The paper is questionable for several reasons.</p> <p>I think there is a misunderstanding in the interpretation of results. In row 191, referring Figure 2, authors say: "So, when the length is between 220 to 250 mm the function of entropy generation reaches to its optimal value". First, X in Figure 2 is position not length. The graph represents a spatial distribution. Second, the optimal value of the entropy generation should be a minimum. In any</p>	<p>Although the reviewer has written that the topic has been extensively covered by other research, I have to say this is right for entropy minimization not for calculating entropy for extended surface. There is no any papers in calculating entropy generation for extended surface and the topic is completely new. Indeed the reviewer is not specialized in heat exchanger industry that ask correlations need more explanation, I am not agree with this comment .All the correlation are enough for mechanical and process design a compact heat exchanger in the real world, because I have worked on the designing heat exchanger more than 9 years. About the figures I am agree with reviewer and I revised them, he/she had a question about the figure 2. In the response I must say the when the function of entropy generation reaches to its minimum value that its derivative function be zero, and this is what I used in the figure 2. However, totally I tried to considered all of the comments to improve my paper.</p>



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	<p>case, accordingly with Figure 2, there is a position in the pin from which the entropy production reaches a saturation value. In the same Figure, I do not understand the relevance of the spatial derivative of the entropy production.</p> <p>Minor points.</p> <p>2)It is not said how Figures 1 and 2 are obtained.</p> <p>3)Bejan's research used to validate the results is unknown. His paper is not cited.</p> <p>4)Many of the equations are written without further explanation. Several terms remain unspecified.</p> <p>5)The paper is written in poor English.</p>	<p>The reviewer said in comment number 2 that it is not said how figures 1 and 2 are obtained, while clearly in Discussion section we have discussed about it, you can read it.</p> <p>About comment number 3, as I mentioned previously this reviewer is not specialized in Heat exchanger, because everyone know Prof Bejan for his book , which is entropy generation minimization. Also, he/she wrote that Bejan's paper is not cited despite his paper is cited with number of 1 in the reference section.</p> <p>About comment number 4, I improved my paper for its English.</p>
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Minor REVISION comments		
Optional/General comments		