



**SDI Review Form 1.6**

Journal Name:	<a href="#">Physical Science International Journal</a>
Manuscript Number:	<b>Ms_PSIJ_28446</b>
Title of the Manuscript:	<b>Modelling and Estimating Photosynthetically Active Radiation from Measured Global Solar Radiation at Calabar, Nigeria.</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><u>Compulsory</u></b> REVISION comments	<p>Give the formula to calculate clearness index <math>k_t</math></p> <p>Model 1, 2, 3, 13,14,15 have been developed using <math>PAR/H_0</math> but other models were developed using <math>PAR/PAR_0</math>, but is the difference and significance</p> <p>How the N has been calculated in table 1?</p> <p>Instead of giving min., max. and average values of PAR give monthly average value of each month</p> <p>What is new in this study? Conclusions are too long.</p>	<p>The Clearness Index <math>K_t</math> is defined as the ratio of the horizontal global irradiance to the corresponding irradiance available out of the atmosphere (i.e. the extraterrestrial irradiance multiplied by the sinus of the sun height).</p> <p>The extraterrestrial irradiance is the Solar constant (<math>1367 \text{ W/m}^2</math>) corrected by a yearly sinus function of amplitude 3.3% accounting for earth orbit ellipticity.</p> <p>Therefore the Clearness Index <math>K_t</math> may be considered as an attenuation factor of the atmosphere.</p> <p>The monthly average of <math>K_t</math> should usually lie between about <math>K_t = 0.25</math> and <math>K_t = 0.75</math> at any place.</p> <p><b>Extraterrestrial Solar Radiation</b> <math>(\bar{H}_o)</math>, <math>PAR_0</math> is observed PAR</p>
<b><u>Minor</u></b> REVISION comments		
<b><u>Optional/General</u></b> comments		