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PART 1:

Journal Name:	Physical Review & Research International
Manuscript Number:	2013_PRRI_4006
Title of the Manuscript:	Structural Characteristic of Bamboo and Rattan Cane Reinforced
	Concrete Struts
Type of the Article	Research paper

<u>General guideline for Peer Review process is available in this link:</u> (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 (<i>if agreed with reviewer,</i> <i>correct the manuscript and highlight that part in</i> <i>the manuscript. It is mandatory that authors</i> <i>should write his/her feedback here</i>)
<u>Compulsory</u> REVISION comments	The results are very scarce to merit publication. Besides they are hardly enough to state that <i>"bamboo and rattan cane can be effectively used as reinforcement in struts of low load bearing structures"</i> . Authors cannot be so assertive in such conclusions. At most they can conclude that <i>"bamboo and rattan cane concrete has an acceptable mechanical performance for certain applications"</i> . For instance the authors cannot guarantee that this performance be maintain after several years. The literature review is very weak. Authors forget several investigations already carried out specially	
	Ghavami (2005) mentioned that " <u>The swelling and</u> <u>shrinkage of bamboo in concrete create a serious</u> <u>limitation in the use of bamboo as a substitute for</u> <u>steel in concrete</u> . To improve the bond between bamboo segments and concrete, an effective water-repellent treatment is necessary" and that "the differential thermal expansion of bamboo with respect to concrete may also lead to cracking of the concrete during service life".	

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<u>Ghavami K.</u> (2005) Bamboo as reinforcement in structural concrete elements. <i>Cement and Concrete</i> <i>Composites</i> , 27 (6) , pp. 637-649. Cited 42 times on Scopus.	
Khare reported that the ultimate load capacity of bamboo was about 35% of the equivalent reinforced-steel concrete beams. The strength reduction was due to the low adhesion between the cement matrix and the bamboo rebars. Khare L (2005) Performance evaluation of bamboo reinforced concrete beams. Master of Science in Civil Engineering. University of Texas	
Junior <i>et al.</i> (2005) mentioned just 25% of the equivalent reinforced-steel concrete beams ultimate load capacity. Júnior H, Mesquita L, Fabro G, Willrich F, Czarnieski C (2005) Concrete beams reinforced with bamboo Dendrocalamus giganteus. I: Experimental analysis. R Bras Eng Agr Ambient 9: 642-651.	
Analysis of adhesion between cement and bamboo by pull-off tests shows that bamboo/cement have much lower adhesion than steel rebar/cement and that adhesion results are influence by node presence (Jung, 2006).	

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 Jung Y (2006) Investigation of bamboo as reinforcement in concrete. Master of Science in Civil and Environment Engineering. University of Texas According to Mesquita <i>et al.</i> (2006), the bond strength of bamboo is 70% of smooth steel bond strength when a 35 MPa concrete is used. However the bond strength of bamboo is almost 90% of smooth steel bond strength when a 15 MPa concrete is used. Mesquita L, Czarnieski C, Filho A, Willrich F, Júnior H, Barbosa N (2006), Adhesion strength between bamboo and concrete. R Bras Eng Agr Ambient 10: 505-516. Concrete composition must be presented in a table 	
with quantities expressed in kg/m ³ . The authors must identified the standards that were followed in the experimental program.	

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Minor REVISION comments	
Optional/General comments	If the authors were willing to improve the literature review and to add some results on durability only then could the present paper merit publication.

Note: Anonymous Reviewer