

Review Form 1.7

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| Journal Name: | Journal of Engineering Research and Reports |
| Manuscript Number: | Ms_JERR_104456 |
| Title of the Manuscript: | Improvement of Mechanical Properties of Pineapple Leaf Fiber by Added the Conventional Composite and Aluminum Particle |
| Type of the Article | Original Research Article |

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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) |
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| <p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> Is the manuscript important for scientific community? (Please write few sentences on this manuscript) Is the title of the article suitable? (If not please suggest an alternative title) Is the abstract of the article comprehensive? Are subsections and structure of the manuscript appropriate? Do you think the manuscript is scientifically correct? Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p> | <ol style="list-style-type: none"> The paper presents the authors' research to obtain biocomposite materials using sisal, ramie, carbon fibers, and epoxy resin with aluminium particles. The mechanical properties of the obtained materials will allow their use for structural composite bicycle frames, to replace conventional materials (iron). Laboratory tests were performed on 3 sets of samples obtained with different twist values of the yarns/fibers used in the mixture. The title of the article is suitable with the content of the paper. The abstract summarizes the content of the revised article. In chapter 3, the subchapters must be numbered as 3.1, 3.2 The article needs major adjustments regarding the presentation of the content. After correction, it can be published. The references are appropriate to the topic of the revised article. <p>The equations are not numbered and are not explained:</p> <ul style="list-style-type: none"> “The load acting on the bio-composite can be expressed in Eq. (1).” <p>The references in the text to the figures are not correct. Please correct and reformulate the text of the article:</p> <ul style="list-style-type: none"> “It can be seen in Fig.3 that the larger the rope or yarn, the fiber by fiber will break, so this theory can be seen in experimental studies. This step explains that the strands in the sisal fiber become stronger due to static deflection in the sisal, so that the mechanism of sisal breaking is in accordance with Fig. 2. [11]” “Fig.2 shows pineapple leaf fibers, and Fig. 3 showing pineapple leaf fiber. [6]” “This step explains that the strands in the sisal fiber become stronger due to static deflection in the sisal, so that the mechanism of sisal breaking is in accordance with Fig. 2.” “If you compare the value of the tensile test results under iso-strain and iso-stress conditions, it is obtained as can be observed in the curve of Fig. 5 which is an iso-strain.” <p>Figure 6 is unclear. Please redo it.</p> <p>Tables 2 and 5 have the same description and contain redundant data. Please centralize them.</p> <p>Use the unit of measure MPa instead of Mpa:</p> <ul style="list-style-type: none"> “For example, a study obtained a ramie tensile strength value of 128 [Mpa], in which the study stated that the strength can be made more precisely, so that the strength will increase again.” <p>Figures 12, 13 and 14 do not have a legend and therefore it is not clear which samples the curves refer to.</p> | |
| <p>Minor REVISION comments</p> <ol style="list-style-type: none"> Is language/English quality of the article suitable for scholarly communications? | <p>An extensive spelling and a grammar check is necessary. Please rephrase some of the expressions, such as:</p> | |

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| | <ul style="list-style-type: none">• “The composite is composed of Sisal Subang pineapple leaves, ramie and carbon fiber in the following order,...”• “For example, a study obtained a ramie tensile strength value of 128 [Mpa], in which the study stated that the strength can be made more precisely, so that the strength will increase again.”• “The material is arranged in such a way that the overall number is 1, but according to the description of the fibers in accordance with Fig.8, so that the reinforcing fibers amount to 48.9% of the total composite so that the theoretical characteristics of the bio-composite are iso-strains as follows,...”• “Void proses manufacture” | |
| Optional/General comments | | |

PART 2:

| | Reviewer’s comment | Author’s comment <i>(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)</i> |
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| Are there ethical issues in this manuscript? | <i>(If yes, Kindly please write down the ethical issues here in details)</i> | |

Reviewer Details:

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| Department, University & Country | Lucian Blaga University of Sibiu, Romania |