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COVER LETTER

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January 10, 2021

Dear,
I/We wish to submit an original research article entitled "***The Effect Of Fiber Powder Content And Hardener Weight Fractions On The Mechanical Properties Of The Epoxy Resin Composite***" for consideration by SINERGI.

I/We confirm that this work is original and has not been published elsewhere, nor is it currently under consideration for publication elsewhere.

In this paper, I/we report on / show that:

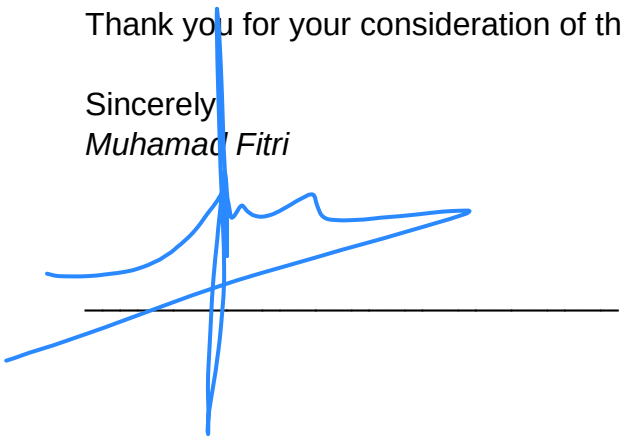
Topic	:	Mechanical Properties Of Composite Materials
Brief Background	:	The use of composite materials as a substitute of metal materials is increasingly widespread. This is because Composite materials have its own advantages, i.e.: light weight and corrosion resistance. However their mechanical properties are not as good as metal. Therefore research on improving the mechanical properties of composite materials is necessary to be able to obtain superior mechanical properties. From the research results, many factors affect the mechanical properties of composite materials, such as fiber content, fiber length and so on. One other factor that is also thought to affect the mechanical properties of the composite material is the hardener fraction for resin matrix composite materials. In the manufacture of coconut fiber-reinforced resin matrix composite materials, hardeners are also used. The resulting mechanical properties may be influenced by combination of fiber content and hardener fraction. Therefore it is necessary to do research to ascertain the effect of fiber content and hardener fraction which is made in the form of a regression model. Later, this model can be used to predict the mechanical properties of the resulting composite material for a certain fiber content and hardener fraction.

Research Problem	:	From previous research, it was found that the properties of the composite material can be influenced by the fiber content, but It was no found any research related to the effect of fibers made in powder form and combined with hardener fraction on the mechanical properties of the resulting composites. In addition, there is no model of mechanical properties produced, related to powder fiber content and hardener fraction
Overview of Method	:	The research began with the manufacture of a twisting test specimen and an impact test from a mixture of epoxy resin and coconut fiber which had been made in powder form. The hardener fraction was varied with the fiber content in powder form, then tested in the form of an impact test and a torsion test. The results of this test were analyzed numerically to obtain a regression model for the impact strength and shear strength of the resulting composite material. Furthermore, this regression model in the future can be used to predict the impact strength and shear strength of the epoxy resin matrix composite material for the percentage of powder fiber content and a certain hardener fraction.
Significant finding	:	Regression model of Mechanical properties of Epoxy Resin Composite reinforced with coir coconut fiber powder

We have no conflicts of interest to disclose.

Thank you for your consideration of this manuscript.

Sincerely,
Muhamad Fitri



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AUTHORSHIP STATEMENT

I/We wish to submit an original research article entitled "***The Effect Of Fiber Powder Content And Hardener Weight Fractions On The Mechanical Properties Of The Epoxy Resin Composite***" for consideration by SINERGI.

All persons who meet authorship criteria are listed as authors, and all authors certify that they have participated sufficiently in work to take public responsibility for the content, including participation in the concept, design, analysis, writing, or revision of the manuscript.

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Please submit 3 (three) potential reviewers (*that have not listed in SINERGI*) to speed up the review process that competent for the topic and has a good reputation in that area.

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