SINERGI
Universitas Mercu Buana
http://publikasi.mercubuana.ac.id/index.php/sinergi

COVER LETTER

Mahros Darsin
Universitas Jember
mahros.teknik@unej.ac.id
+6281238298170

July 27th, 2021

Dear,
We wish to submit an original research article entitled "***Analysis of the Effect 3D Printing Parameters on Tensile Strength Using Copper-PLA Filament***" for consideration by SINERGI.

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

We confirm that we will continue to follow and carry out the process of this article in accordance with the provisions and are willing to accept penalties for not implementing them.

In this paper, we report on / show that:

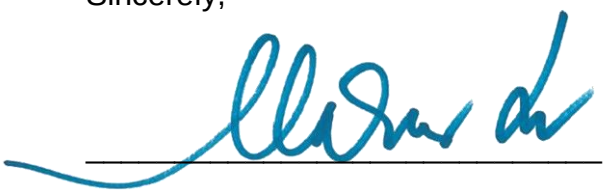
Topic	:	FDM technique of 3D printing using copper-PLA filament
Brief Background	:	The FDM technique of FDM is popular in 3D printing world because it is cheap. However, the fed filament usually limited to ones made of plastic-based, such as PLA, ABS and PP. Recently, there are available filaments made of combination of metal and plastic, one of them is copper-PLA. As a new kind of filament, very limited published paper discussing its properties and performance.
Research Problem	:	This research aims to reveal the tensile strength of printed product using copper-PLA filament by varying four main parameters in 3D printing.
Overview of Method	:	Taguchi orthogonal array L9 (3^4) was employed to design the experiments and analysis. Four parameters used were nozzle temperature, layer height, print speed, and bed parameter temperature with 3 levels each. ANOVA was also involved to determine influence of each parameter to the tensile strength.
Significant finding	:	Two main findings of this research: (i) found the optimum combination of those four parameters which result in the

		highest tensile strength of the printed product, (ii) Revealed contribution of each four parameters to the tensile strength, with influenced of bed temperature can be abandoned due to very little to the products strength.

We have no conflicts of interest to disclose.

Thank you for your consideration of this manuscript.

Sincerely,



SINERGI
Universitas Mercu Buana
http://publikasi.mercubuana.ac.id/index.php/sinergi

AUTHORSHIP STATEMENT

I/We wish to submit an original research article entitled "***Analysis of the Effect 3D Printing Parameters on Tensile Strength Using Copper-PLA Filament***" 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.

Author 1		
Name	:	Mahros Darsin
Affiliation	:	Universitas Jember
Email Address	:	Mahros.teknik@unej.ac.id
Author 2		
Name	:	Renald Rochman Mauludy
Affiliation	:	Universitas Jember
Email Address	:	renaldmauludy@gmail.com
Author 3		
Name	:	Intan Hardiatama
Affiliation	:	Universitas Jember
Email Address	:	intan.hardiatama@unej.ac.id
Author 4		
Name	:	Boy Arief Fachri
Affiliation	:	Universitas Jember
Email Address	:	fachri.teknik@unej.ac.id

POTENTIAL REVIEWERS

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.

Reviewer 1		
Name	:	Dr. Eng. Herianto, S.T., M.Eng
Affiliation	:	Universitas Gadjah Mada
Email Address	:	herianto@ugm.ac.id
Reviewer 2		
Name	:	Prof. Dr. Ing. Ir.I Made Londen Batan M.Eng.
Affiliation	:	ITS
Email Address	:	londbatan@me.its.ac.id
Reviewer 3		
Name	:	Prof. Tim Pasang
Affiliation	:	Oregon Institute of Technology
Email Address	:	tim.pasang@oit.edu