

CORRESPONDING PROGRESS OF AUTHOR

JVE-22619 Submission Received

Yahoo/Inbox

JVE Journals <publish@jvejournals.com>

To:kakasimon@ymail.com

Thu, Apr 21 at 5:54 PM

Dear Simon Kaka,

Thank you very much for submitting your manuscript, entitled

Damping Transformation Modeling on Wheel Suspension Using Pneumatic Cylinder Thrust Force as a Substitute for Vehicle Weight

to Journal of Vibroengineering.

Manuscript No. JVE-22619 has been assigned to your submission. Please refer to this number in future correspondence regarding this manuscript.

We hope to get back to you in 1 - 3 months with reviewers reports.

You can access your submission and follow its status

online: <https://manage.jvejournals.com/article/author/22619>

Your user name is: kakasimon@ymail.com

Thank you for your valued contribution.

Kindest Regards,

Minvydas Ragulskis

Editor in Chief

Journal of Vibroengineering

www.jvejournals.com

www.jveconferences.com



International JVE Conferences:

Damping Transformation Modeling on Wheel Suspension Using Pneumatic Cylinder Thrust Force as a Substitute for Vehicle Weight

Simon Kaka; Daniel Kambuno; Abram Tangkemandu;
Received 2022-04-21 Revised 2022-06-24
Manuscript PDF Biographies File History
Submit Revised Manuscript
Deadline: 2022-09-30 (55 days left)

The second Reviewer did not respond to our invitation to check the revised manuscript.

Therefore, the manuscript has been re-checked at the Editorial Board of the Journal.

A major revision is still required:

#1. The photo of the automobile in Fig. 1 is not necessary. The schematic diagram is sufficient for the clarity.

#2. All variables should be explicitly introduced right after the first time they are met in a formula or in the text.

#3. The presentation style suffers from poor English language. The authors should use professional service to improve the language style. A typical example: "konstanta" in Eq. 10.

#4. All symbols written inline should be typed using the Equation Editor. It is not allowed to leave "Av" in the text, for example (after Eq. 10

#5. The authors talk about the "flexible pavement layers" (Fig. 3). How those layers are modelled, how they are represented in the governing equations of the system?.

#6. The quality of Fig. 5 part (a) is not acceptable. The resolution and clarity should be increased. an

#7. Fig. 7 shows the schematic diagram of the model of the controller. What are the mathematical equations?

#8. Section 4.1 - how the percentage of damping is optimized?.

#9. The style of figures 8, 9, and 10 should be unified.

#10. What about the stability of the controller?.

#11. Can the presented computational results be validated experimentally?.

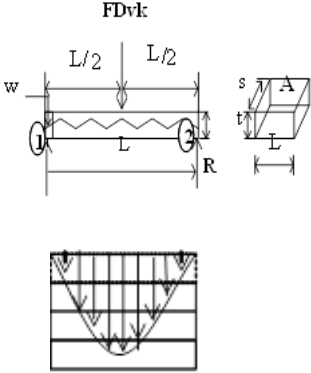
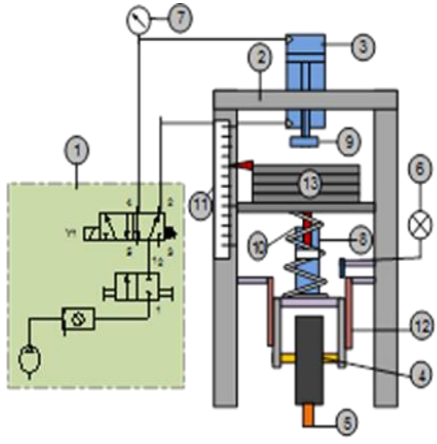
A major revision is required.

Please do not forget to add a separate amendments file with a careful description of all changes you had made according to reviewer'(s) comments.

AMENDMENTS

LIST OF EDITOR COMMENTS AND IMPROVEMENTS IN THE MANUSCRIPT

No.	Comments	Improvements in the manuscript	Page
#1	The photo of the automobile in Fig. 1 is not necessary. The schematic diagram is sufficient for the clarity.	<p style="text-align: center;">Fig. 1. Mechanism of suspension system on vehicle wheels</p>	2
#2	All variables should be explicitly introduced right after the first time they are met in a formula or in the text.	Variables such as air pressure, P_2 in equation (7), (8) and (9) whose magnitude varies from 1 to 6 bar will have a significant effect on the effective force, F_{P2} and the deviation, y (m) that occurs at suspension mechanism.	4
#3	The presentation style suffers from poor English language. The authors should use professional service to improve the language style. A typical example: "konstanta" in Eq. 10.	In order to improve the quality of writing in English and to avoid mistakes in writing words such as "konstanta" in equation 10, which should be "constant" in the manuscript, then I agree to follow the professional English services offered by sending a revised manuscript file.	4
#4	All symbols written inline should be typed using the Equation Editor. It is not allowed to leave "Av" in the text, for example (after Eq. 10).	<p>All symbols in the line include "A_v" for example after equation 10 has been written using "Equation" as follows:</p> $\frac{\sigma_{Dv}}{\sigma_o} = \frac{F_{Dv}/A_v}{F_o/A_o} = \text{constant} \quad (10)$ <p>A dimensionless parameter value in equation (10) according to [10][16] is obtained from the comparison between the vehicle's vertical dynamic load stress F_{Dv}(N) against the tire contact area A_v (m^2) with the road construction surface tension, F_{Ao}(N) on the area, A_o (m^2).</p> <p>If the tire width S is 215 mm (0.215 m), the contact length L is 14.5 cm (0.145 m), then the contact area is $A_v = 0.145 \times 0.215 = 0.0312$ (m^2) and the area of the compression test on the road structure A_o is 1 cm^2 (10^{-4} m^2).</p>	4
#5	The authors talk	"flexible pavement" is a form of road layer that is not rigid. The load deflection	5

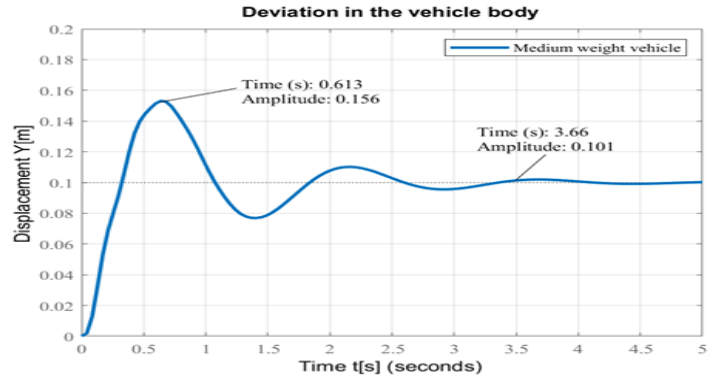
	<p>about the "flexible pavement layers" (Fig. 3). How those payers are modelled, how they are represented in the governing equations of the system?.</p>	<p>model that occurs on the road when experiencing vertical dynamic loads is as shown in Figure 3. The vertical dynamic load, FD_v acting on the road surface area, A_o is shown in equation (12).</p> $\sigma = \frac{Fg}{A} = \frac{FDvk}{L \times s} \text{ kg/cm}^2 \quad (12)$  <p>Fig. 3. Distribution of vertical dynamic load on flexible pavement layers.</p>	
#6	<p>The quality of Fig. 5 part (a) is not acceptable. The resolution and clarity should be increased.</p>	 <ol style="list-style-type: none"> 1. Electro-Pneumatic Circuit 2. Support frame 3. Pneumatic Cylinder 4. Tire wheel 5. Load Sensor 6. Ultrasonic Sensor 7. Manometer 8. Shock Absorber 9. Connecting Rod 10. Suspension Spring 11. Deviation Measuring 12. Lower Arm 13. Load Cells <p>Figure 5(a) Pneumatic system dynamic load testing simulation tool</p> <p>The 5(a) image quality has been improved in resolution so that it looks clearer than the previous image.</p>	6
#7	<p>Fig. 7 shows the schematic diagram of the model of the controller. What are the mathematical equations?</p>	<p>The mathematical equation of the schematic diagram shown in Figure 7(a) is simplified in the block diagram in Figure 7(b) as follows:</p> $\left. \begin{aligned} Y(s) &= F.U(s) \\ Z(s) &= F.G.U(s) \\ X(s) &= F.G.H.U(s) \end{aligned} \right\} \quad (13)$	8

		<p style="text-align: center;">(a)</p> <p style="text-align: center;">(b)</p> <p style="text-align: center;">Fig. 7. (a) Mathematical model suspension work optimization (b) Block diagram.</p> <p>If the actuator force $F = 707 P_2$ as in equation (8) whereas $\frac{X(s)}{u(s)} = F \cdot G \cdot H = 707 P_2 \cdot G \cdot H$ then based on equation (8) equation (14) is obtained as follows:</p> $\frac{X(s)}{u(s)} = F \cdot G \cdot H = 707 P_2 \cdot G \cdot H$ $= \frac{707 P_2 k_1 [m_2 s^2 + cs + k_2]}{[m_1 s^2 + cs + k_1 + k_2] [m_2 s^2 + cs + k_2] - (cs + k_2)^2}$ <p style="text-align: right;">(14)</p>	
#8	Section 4.1 - how the percentage of damping is optimized?.	<p>To optimize the damping that occurs in the suspension system, it can be done by comparing the damping force of the overshoot condition, F_c (N) to the dynamic load of the vehicle, FD_v (N). The magnitude of the opposing force that dampens during the overshoot condition, is equal to:</p> $F_c = C(Xd - Yd) = 1000 \frac{Ns}{m} \times 1.496 \frac{m}{s} = 1496 \text{ N}$ <p>The dynamic load of the vehicle, FD_v is 5660 N, which is obtained from the total weight of the axle m_1 of 150 kg (1500 N) and the weight of the vehicle body m_2 of 416 kg (4160 N). So the optimal damping percentage is:</p> $\frac{F_c}{FD_v} \times 100 \% = 1496 / 5660 \times 100 \% = 26.43 \%$	9

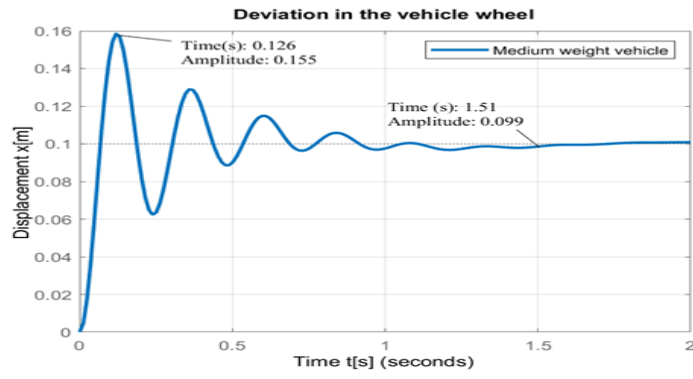
#9

The style of figures 8, 9, and 10 should be unified.

10

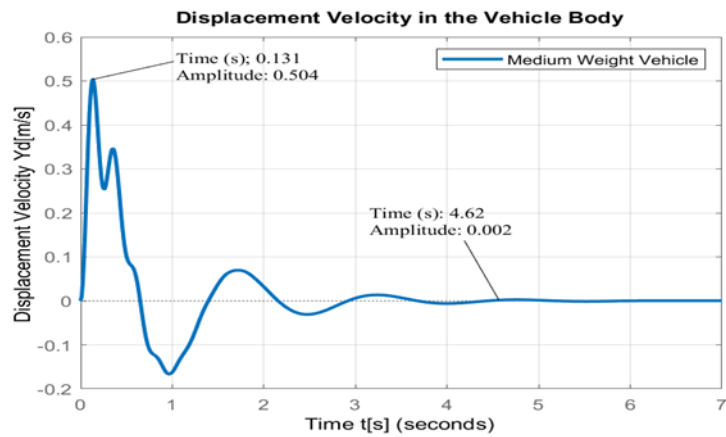


(a)

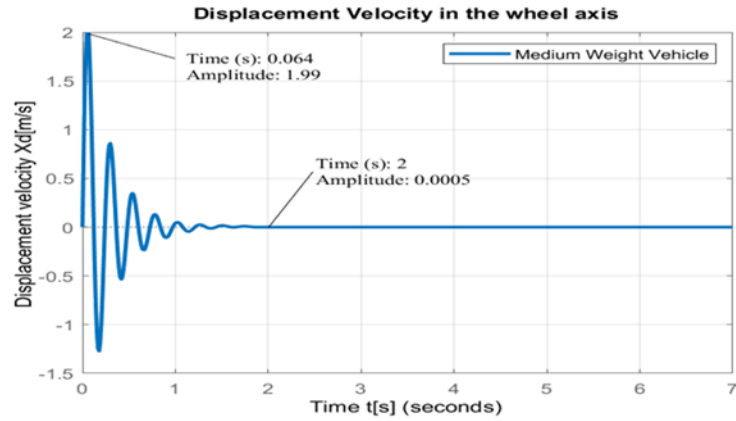


(b)

Fig. 8. (a) Characteristics of deviation on the vehicle body (b) Axle of vehicle with INPUT resistance, U is 0.1 m



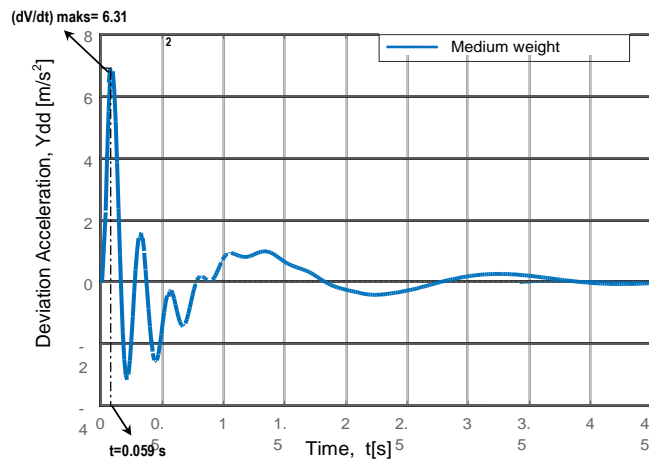
(a)



(b)

Fig. 9. (a). Characteristics of displacement velocity on the vehicle body with resistance U is 0.1 m

(b). Characteristics of speed deviation on the wheel axis of the vehicle with resistance, U is 0.1 m.



(a)

Fig. 10. Deviation acceleration on the vehicle body

#10 What about the stability of the controller?.

The mechanism for controlling the motion of the pneumatic actuator on the working mechanism of the suspension system on the vehicle wheels is stabilized using electropneumatic control as shown in Figure 6 (a). If the solenoids Y_1 and Y_2 are energized when pressing the T button, the pneumatic cylinder will load the suspension in the down and up directions. The amount of the load can be adjusted by adjusting the air pressure P_2 on the regulator from 1 to 6 bar.

		<p>(a)</p> <p>(b)</p> <p>(c)</p> <p>(d)</p> <p>(e)</p> <p>Fig.6. (a) Electropneumatic control, (b) 5/2 Actuation solenoid valve and selection lever, (c) Shock Absorber, (d) suspension Spring, and (e) Leaf Spring</p>	
#11	Can the presented computational results be validated experimentally?.	The results of calculations carried out using several equations can be validated by comparing them with experimental results.	

Language editing offer

Reviewers have indicated that your manuscript requires English language editing. Did you know that JVE International could offer such a service? Please visit our Services website (<https://www.jvejournals.com/editing>), upload your latest and revised (if needed) manuscript, and we will do the rest.

Review Report R1 - Reviewer A

English language and style

I don't feel qualified to judge about the English language and style

Comments and suggestions for authors

The authors have made some revisions in response to the referees' comments. I think the paper is accepted for publication.

Decision

Accept as it is

VE-22619 Revision Request

Yahoo/Inbox

JVE Journals <publish@jvejournals.com>

To:kakasimon@ymail.com

Tue, May 31 at 4:10 PM

Dear Dr. Simon Kaka,

Reviewers have finished reviewing your manuscript submitted to Journal of Vibroengineering, entitled:

Damping Transformation Modeling on Wheel Suspension Using Pneumatic Cylinder Thrust Force as a Substitute for Vehicle Weight

Your manuscript requires a revision before it could be accepted to Journal of Vibroengineering. We would kindly ask you to revise your manuscript in 60 days.

Review reports are available online: <https://manage.jvejournals.com/article/author/22619>

Your user name is: kakasimon@ymail.com

We expect you to upload revised files and amendments list using the provided link. Please do NOT resubmit your paper as a new submission.

Thank you for your valued contribution.

Kindest Regards,

Minvydas Ragulskis
Editor in Chief
Journal of Vibroengineering
www.jvejournals.com
www.jveconferences.com
JVE International

JVE 22619 - Revision required

Journal of Vibroengineering

Damping Transformation Modeling on Wheel Suspension Using Pneumatic Cylinder Thrust Force as a Substitute for Vehicle Weight

Simon Kaka; Daniel Kambuno; Abram Tangkemanda;

Received 2022-04-21

[Biographies](#) [Manuscript PDF](#) [File History](#)

[Submit Revised Manuscript](#)

Deadline: 2022-07-30 (44 days left)

Reviewer reports are attached. A Major revision is required before reconsideration. Also, please note that it is essentially important to highlight the novelty of your study in order to attract the attention and citations from the International Engineering Community. Please do not forget to add a separate amendments file with a careful description of all changes you had made according to reviewer'(s) comments.

[Submit revision](#)

[Language editing offer](#)

Reviewers have indicated that your manuscript requires English language editing. Did you know that JVE International could offer such a service? Please visit our Services website (<https://www.jvejournals.com/editing>), upload your latest and revised (if needed) manuscript, and we will do the rest.

Review Report - Reviewer A

Originality / novelty Average

Significance of content Average

Quality of presentation Low

Scientific soundness Average

Interest to the readers Low

Overall merit Low

Does the introduction provide sufficient background and include all relevant references? Must be improved

Is the research design appropriate? Must be improved

Are the methods adequately described? Must be improved

Are the results clearly presented? Must be improved

Are the conclusions supported by the results? Must be improved

English language and style

Extensive editing of English language and style required

Comments and suggestions for authors

1. The innovation of this research is not obviously expressed. It is suggested that the author(s) should more clearly describe the contributions of the work in the introduction. 2. The writing logic of the manuscript is not clear, and the standardization of the format is very poor. 3. The research conclusion is not focused.

Decision

Major revision required

Review Report - Reviewer B

Originality / novelty Average

Significance of content Average

Quality of presentation Average

Scientific soundness Average

Interest to the readers Average

Overall merit Average

Does the introduction provide sufficient background and include all relevant references?

Can be improved

Is the research design appropriate?

Can be improved

Are the methods adequately described?

Can be improved

Are the results clearly presented?

Can be improved

Are the conclusions supported by the results?

Can be improved

English language and style

Extensive editing of English language and style required

Comments and suggestions for authors

This paper presents a vertical dynamic load transformation model for a wheel suspension by using the pneumatic cylinder thrust force as a substitute for the vehicle weight. It is an interesting paper. However, the authors need to address the following major issues before this manuscript is accepted: 1. The Introduction should be rewritten. In the Introduction, the background, studied problem, the literature review, and the new contributions can be discussed. The formulation method can be listed in a separate section. 2. Some new works for the vehicle vibration and dynamics can be found in 'An optimization design method for a body mounting system of a heavy vehicle'. The materials and references can be used here. 3. A key issue is that the current manuscript can be considered as a technical report. The sections should be reorganized. 4. All the equations should be numbered in the manuscript. 5. Some sentences in the text are difficult to be understood. The English language should be improved too.

Decision

Major revision required

Manuscript submitted

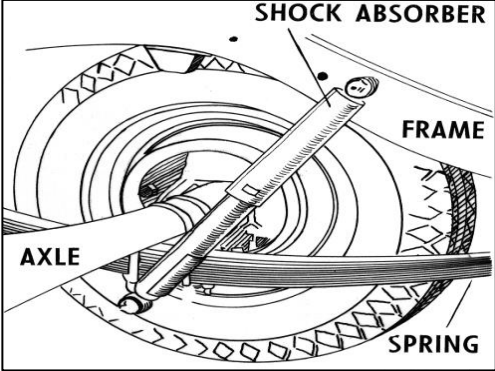
LIST OF REVIEWER-A COMMENTS AND REVISE IN MANUSCRIPT

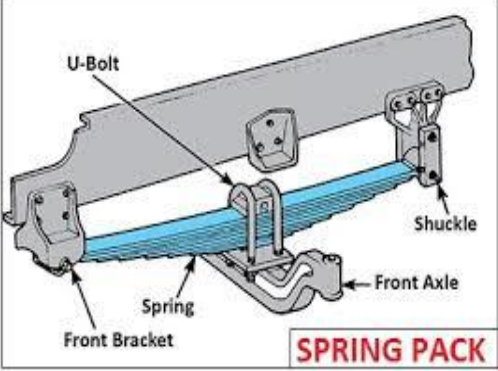
No.	Comments	Improvements in the manuscript	Page
1	<p>The innovation of this research is not obviously expressed. It is suggested that the author(s) should more clearly describe the contributions of the work in the introduction.</p>	<p>1. Introduction</p> <p>Comfort driving on the road is an important factor that must be experienced for passengers and drivers. The current state of affairs is almost all roads that are built, especially in the urban sector, are always damaged due to the dynamic load of vehicles which continues to increase significantly every time. The problem that occurs today is how to overcome the disturbance of driving comfort caused by damage to the road surface. Related to this problem, it is necessary to study the work of the suspension system and the dynamic load transformation of the weight of vehicles and passengers burdening the road surface. The aim of this research is to obtain comfort through the percentage of spring damping and shock absorber on the wheels and the magnitude of the effect of the vertical dynamic load of the vehicle being transformed to the road surface.</p> <p>The level of comfort when driving according to...determined from the acceleration of deviation that occurs in an interval of time.</p> <p>This research is expected to contribute to the application of the development of Electropneumatic control technology on suspension test equipment by utilizing a pneumatic actuator as a substitute for the weight of the passenger and vehicle body. Variations in the weight of light, medium and heavy vehicles that cross the road surface simultaneously and fluctuate will greatly affect the stability of the elastic foundation layer of the road to accepting the load. The occurrence of the vertical dynamic load of the vehicle according to [1][2] begins with the loading mechanism by weight (sprung mass), m_2 and the weight of the axle (unsprung mass), m_1 on the suspension of each vehicle wheel. Several vibrations generated will affect the stability of the elastic foundation of the road in its path.</p> <p>The target to be achieved is to form several formula models related to the magnitude of the vertical dynamic load of passing vehicles, determine the ability of the elastic foundation of the road, comfortable, and produce a ratio between the vertical dynamic load of vehicles and the stability of the elastic foundation strength of the inner road in the form of a dimensionless parameter. In general, the vehicle suspension system according to [3][4] consists of a spring and a shock absorber arranged in parallel as shown in figure 1. The main function</p>	1 to 2

		of this suspension is to support the weight of the vehicle, provide rider comfort to the road conditions, maintain wheel traction on the road surface, and maintain wheel alignment.	
2	The writing logic of the manuscript is not clear, and the standardization of the format is very poor.	Manuscript writing in a standard format has been carried out by referring to the JVE template and journal published in 2022, namely Journal of Vibroengineering, Vol. 24, Issue 3 May 15, 2022, Pages (394-614), ISSN (Print) 1392-8716, ISSN (Online) 2538-8460	From 1 to 13
3	The research conclusion is not focused.	<p>5. Conclusions</p> <p>The vertical dynamic load transformation model that supports the road structure is obtained from the graph which is shown by the relationship between the deviations, each on the body of Y is 0.156 m, vibration time t is 0.613 s and on the wheel axis of X is 0.155 m, time vibrates t is 0.126 s with the displacement speed of the wheel axis relative to the vehicle body (Xd-Yd) is 1.496 m/s.</p> <p>From the graph of the acceleration of the vibration displacement, $Y'' = \frac{\partial v}{\partial t}$ which is obtained is 0.85 m/s^2 in vibration time, $t = 1$ second, indicating that the passengers and drivers do not feel comfortable driving, but in the time interval, $t = 3$ seconds with acceleration deviation, $= 0.25 \text{ m/s}^2$ begins to feel comfortable.</p> <p>The relationship between the vertical dynamic load of vehicles and the strength of the road structure is a contribution to the study of road strength which is expressed in the form of a dimensionless parameter of k_{dvt} is 0.0178.</p>	10

LIST OF REVIEWER-B COMMENTS AND REVISE IN MANUSCRIPT

NO.	COMMENTS	REVISION IN MANUSCRIPT	PAGE
1	The Introduction should be rewritten. In the Introduction, the background, studied problem, the literature review, and the new contributions can be discussed. The formulation method can be listed in a separate section.	<p>1. Introduction</p> <p>Comfort driving on the road is an important factor that must be experienced for passengers and drivers. The current state of affairs is almost all roads that are built, especially in the urban sector, are always damaged due to the dynamic load of vehicles which continues to increase significantly every time. The problem that occurs today is how to overcome the disturbance of driving comfort caused by damage to the road surface. Related to this problem, it is necessary to study the work of the suspension system and the dynamic load transformation of the weight</p>	From 1 to 2

		<p>of vehicles and passengers burdening the road surface. The aim of this research is to obtain comfort through the percentage of spring damping and shock absorber on the wheels and the magnitude of the effect of the vertical dynamic load of the vehicle being transformed to the road surface.</p> <p>The level of comfort when driving according to...determined from the acceleration of deviation that occurs in an interval of time.</p> <p>This research is expected to contribute to the application of the development of Electropneumatic control technology on suspension test equipment by utilizing a pneumatic actuator as a substitute for the weight of the passenger and vehicle body. Variations in the weight of light, medium and heavy vehicles that cross the road surface simultaneously and fluctuate will greatly affect the stability of the elastic foundation layer of the road to accepting the load. The occurrence of the vertical dynamic load of the vehicle according to [1][2] begins with the loading mechanism by weight (sprung mass), m_2 and the weight of the axle (unsprung mass), m_1 on the suspension of each vehicle wheel. Several vibrations generated will affect the stability of the elastic foundation of the road in its path.</p> <p>The target to be achieved is to form several formula models related to the magnitude of the vertical dynamic load of passing vehicles, determine the ability of the elastic foundation of the road, comfortable, and produce a ratio between the vertical dynamic load of vehicles and the stability of the elastic foundation strength of the inner road in the form of a dimensionless parameter.</p>	
2	<p>Some new works for the vehicle vibration and dynamics can be found in 'An optimization design method for a body mounting system of a heavy vehicle'. The materials and references can be used here.</p>	 <p style="text-align: center;">(a)</p>	<p>From 2 to 3</p>

		 <p style="text-align: center;">(b)</p> <p>Fig. 2. (a) The main components of the heavy vehicle wheel suspension system (b) The position of the leaf spring on the wheel</p> <p>The layout of the working mechanism of the suspension system on the wheels of heavy vehicles to withstand weight and load is as shown in Figure 2.</p> <p>Experiments that have been carried out using three types of leaf spring materials, namely Mild Steel, Kevlar and S2-Glass have stresses of 40,367 (N/mm²), 63,512 (N/mm²), and 71,634 (N/mm²), respectively. The magnitude of the deviations generated by the experiment for the three materials are 0.169732 (mm), 1.126 (mm), and 1.616 (mm).</p>	
3	A key issue is that the current manuscript can be considered as a technical report. The sections should be reorganized.	This manuscript has been reorganized by referring to the JVE format, Vol. 24, Issue 3, May 15, 2022, Pages (394-614), ISSN (Print) 1392-8716, ISSN (Online) 2538-8460, with issue in 2022. The changes that have been made are adding some subtitles from the main topic.	From 1 to 10
4	All the equations should be numbered in the manuscript.	All equation numbers have been revealed in the writing of the manuscript.	From 3 to 6
5	Some sentences in the text are difficult to be understood. The English language should be improved too.	In order to improve the use of English in this paper, the author would like to send this manuscript after it was revised to the Language editing which has been offered by JVE International for editing purposes, to website (https://www.jvejournals.com/editing).	From 1 to 13

JVE-22619 Revision Received

Yahoo/Inbox

Extrica (JVE Journals) <publish@extrica.com>

To:kakasimon@ymail.com

Thu, Sep 22 at 1:25 AM

Dear Dr. Simon Kaka,

Thank you very much for sending your revised version of paper, entitled:

Damping Transformation Modeling on Wheel Suspension Using Pneumatic Cylinder Thrust Force as a Substitute for Vehicle Weight

We will reply to you at our earliest convenience.

You can access your submission and review reports online: <https://manage.extrica.com/article/author/22619>

Thank you for your valued contribution.

Best regards,

Extrica Support

Publisher of Open Access Journals in Science and Engineering (former JVE Journals)

www.extrica.com



Our solutions towards your innovations.

JVE-22619 Submission Accepted

Yahoo/Inbox

Extrica (JVE Journals) <publish@extrica.com>

To:kakasimon@ymail.com

Thu, Sep 22 at 8:32 PM

Dear Simon Kaka,

We have reached a decision regarding your paper entitled

Damping Transformation Modeling on Wheel Suspension Using Pneumatic Cylinder Thrust Force as a Substitute for Vehicle Weight

Your paper is Accepted to Journal of Vibroengineering.

Quick Answers to Common Questions:

- Acceptance letter is available online.
- Proofreading request will be sent as soon as we finish formatting the paper.

You can access your submission: <https://manage.extrica.com/article/author/22619>

Your user name is: kakasimon@gmail.com

Congratulations and thank you for your valued contribution.

Best regards,

Extrica Support

Publisher of Open Access Journals in Science and Engineering (former JVE Journals)

www.extrica.com



Our solutions towards your innovations.

JVE 22619 - Accepted

Journal of Vibroengineering

Damping Transformation Modeling on Wheel Suspension Using Pneumatic Cylinder Thrust Force as a Substitute for Vehicle Weight

Simon Kaka; Daniel Kambuno; Abram Tangkemanda;

Received 2022-04-21 **Revised** 2022-09-21 **Accepted** 2022-09-22

[Acceptance Letter](#) [Manuscript PDF](#) [Biographies](#) [File History](#)

Submission accepted

Accept to JVE

Friday, 17 February 2023

Subject: Publication improvement

Dear publish@extrica.com

Our manuscript entitled: Damping transformation modeling on wheel suspension using pneumatic cylinder thrust force as a substitute for vehicle weight by authors Simon Ka'ka¹, Daniel Kambuno², and Abram Tangkemandi³

Journal of Vibroengineering, (in Press). <https://doi.org/10.21595/jve.2022.22619>;
Received 21 April 2022; received in revised form 14 September 2022; accepted 22 September 2022; published 26 November 2022

is still in "In Press" form and it has not yet been published online with a number Volume and issue, ISSN number (Print), ISSN number (online) and page number. We hope that it will be corrected soon so that our article will receive recognition from our government (Indonesia). If this article were offered for publication in **Volume 25, issue 2 in 2023**, we would appreciate it. Thank you very much, and best regards from,

Simon Ka'ka

Tuesday, February 21, 2023

Extrica (JVE Journals) <publish@extrica.com>

To: kakasimon@gmail.com

Cc: Martynas Vaidelys

Fri, Feb 17 at 7:52 PM

Dear Simon Ka'ka,

Congratulations on being accepted and published online in the Journal of Vibroengineering.

Your article 22619 titled "Damping transformation modeling on wheel suspension using pneumatic cylinder thrust force as a substitute for vehicle weight" is already scheduled in the 2nd issue, vol. 25 of the Journal.

It will be published in the issue.

If you have any questions, don't hesitate to contact us.

Extrica Support

Publisher of Open Access Journals in Science and Engineering (former JVE Journals)

www.extrica.com

Confidentiality Note: This email may contain confidential and/or private information. If you received this email in error please delete and notify sender.