

Review Form 3

Journal Name:	<a href="#">Asian Research Journal of Mathematics</a>
Manuscript Number:	Ms_ARJOM_126149
Title of the Manuscript:	Dynamic Behaviours of Simply Supported Non-Uniform Rayleigh Beam under Variable-Magnitude Accelerating Masses and Resting on Non-Uniform Bi-parametric Foundation
Type of the Article	Research study

## Review Form 3

### PART 1: Review Comments

<b>Compulsory</b> REVISION comments	Reviewer's comment	<b>Author's Feedback</b> (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	This research paper is focused on the study of the bi parametric foundations subjected to different type of dynamic loadings such as vehicular traffic, trains with moving dynamic loads. Dynamic loads such as variable accelerating load.	Yes
Is the title of the article suitable? (If not please suggest an alternative title)	<ul style="list-style-type: none"> <li>● Behavior instead of behaviors is more appropriate</li> <li>● variable loads and variable accelerating masses</li> </ul>	<p>Agreed. ( behaviors to behaviour)</p> <p>Variable-Magnitude Accelerating Masses is the best for this title as it combines the load with changing magnitude and accelerated masses. Coswt in the governing equation indicate the magnitude of the load.</p>
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	<ul style="list-style-type: none"> <li>● The abstract is apt</li> </ul>	
Are subsections and structure of the manuscript appropriate?	<ul style="list-style-type: none"> <li>● The content of the research study is mathematical and the step by step analysis of the derivation should be included.</li> <li>● The three dimensional view of the beams both initial and deformed can be included.</li> </ul>	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	<ul style="list-style-type: none"> <li>● The paper uses expressions for distance which are existing in the literature.</li> <li>● In Eq(13) the (dy/dt) at time t=0 is taken as zero. Should be explain more on why such boundary conditions is used for a simply supported beam.</li> <li>● From the experience of the author, how non-uniform is this Rayleigh beam will likely to be.</li> <li>● Page 7 check V24</li> <li>● Why (<math>k\pi/L</math>) is in subscript. Change it to normal font</li> <li>● Diagrams showing the reader the effect on bi parametric foundations which includes the effect of accelerating load. The diagram showing the Y profile for the particular set of input values.</li> <li>● Three dimensional view showing the variation of EI</li> <li>● Page 16 change generalize to generalized Galerkin method</li> </ul>	<ul style="list-style-type: none"> <li>● Have explained</li> <li>● It was explained in the governing equation. The Raleigh beam is non-uniform because the moment of inertia (I) and mass per unit length (<math>\mu</math>) are function of x.</li> <li>● corrected</li> <li>● corrected</li> <li>● The deflection Y is plotted against time (t) examining the influence of key beam parameters (rotatory inertia) and foundation properties (shear modulus)</li> <li>● EI is flexural rigidity of the beam</li> <li>● Corrected</li> </ul>
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	<ul style="list-style-type: none"> <li>● The references can include parametric study on the influence of geometry on the Y parameter</li> </ul>	
<b>Minor</b> REVISION comments  Is the language/English quality of the article suitable for scholarly communications?	<ul style="list-style-type: none"> <li>● The grammar should be checked</li> <li>● At times, the word variable mass is first letter capitized and sometimes it is in lower case</li> </ul>	Corrected
<b>Optional/General</b> comments	Overall the article is an accept with corrections	

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PART 2:

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