#### SCIENCEDOMAIN international

www.sciencedomain.org



#### **SDI Review Form 1.6**

| Journal Name:            | Asian Research Journal of Mathematics   |
|--------------------------|---|
| Manuscript Number:       | Ms_ARJOM_50223  |
| Title of the Manuscript: | DYNAMIC BUCKLING ANALYSIS OF A CLAMPED AND VISCOUSLY DAMPED COLUMN RESTING ON A QUADRATIC – CUBIC ELASTIC FOUNDATION BUT PRESSURIZED BY A STEP LOAD |
| Type of the Article      |   |

#### **General guideline for Peer Review process:**

This journal's peer review policy states that <u>NO</u> manuscript should be rejected only on the basis of '<u>lack of Novelty'</u>, provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline)

### **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) |
|------------------------------|--|---|
| Compulsory REVISION comments |  |   |
| Minor REVISION comments      | The research discussed the analysis of the dynamic buckling of a clamped finite imperfect viscously damped column that is subjected to a step load lying on a quadratic-cubic elastic foundation, using the methods of asymptotics and perturbation technique. The formulation of the governing equation contains $\delta$ and $\varepsilon$ independent parameters which are used in asymptotic expansions of the relevant variables. Through the research, two main conclusions are obtained, the dynamic buckling load decreases with increased imperfections, the dynamic buckling load decreases with increase in damping.  The perturbation and asymptotic techniques applied in this work made it possible to change ordinary differential equations to partial differential equations. This method turns ordinary differential equations into partial differential equations to solve them. This method is not limited to the elastic model structure, but can also be used in other structural forms. |   |
| Optional/General comments    |  |   |

#### PART 2:

|  |   | 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? | (If yes, Kindly please write down the ethical issues here in details) |   |

Created by: EA Checked by: ME Approved by: CEO Version: 1.6 (10-04-2018)

# SCIENCEDOMAIN international www.sciencedomain.org



## **SDI Review Form 1.6**

## **Reviewer Details:**

| Name:                            | LIN Huang-bin           |
|----------------------------------|-------------------------|
| Department, University & Country | Jimei University, China |

Created by: EA Checked by: ME Approved by: CEO Version: 1.6 (10-04-2018)