SDI Review Form 1.6

Journal Name:	**Asian Research Journal of Mathematics**
Manuscript Number:	**Ms_ARJOM_42333**
Title of the Manuscript:	**ON THE BUCKLING MODES AND BUCKLING LOAD OF AN INFINITELY LONG BUT HARMONICALLY IMPERFECT COLUMN LYING ON CUBIC – QUINTIC FOUNDATION.**
Type of the Article	

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
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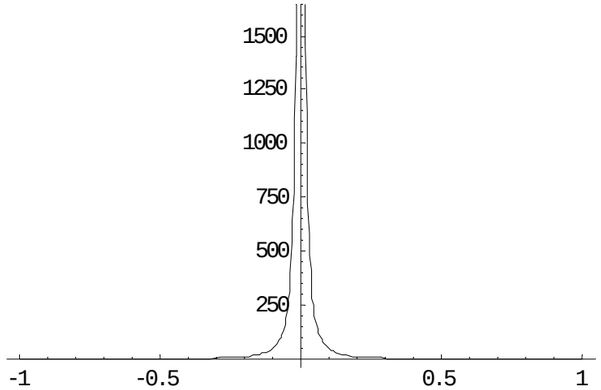
PART 1: **Review Comments**

	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	a) **What is the source of this?** $EI\frac{d^4W}{dX^4} + 2P\frac{d^2W}{dX^2} + k_1W + \alpha k_2W^3 - \beta_1 k_3 W^5 = -2P\frac{d^2\bar{W}}{dX^2}, \quad -\infty < X < \infty \qquad (2.1)$ **Quote** b) "*We shall solve the equation in two slightly different approaches whereby, in the first approach, we adopt the perturbation and asymptotic parameter as a component of displacement whereas in the second approach, we adopt the perturbation parameter as a component of the applied load*" **Are these methods yours? If they are not yours quote the source. If they are yours justify use of them.** **c)** Plot[(n^4+1)/(2*n^2),{n,-1,1}] .**Out of curiosity I tried to plot** $\lambda = \frac{1}{2n^2}(n^4+1)$ **To see if the lowest value of lamda is when n=1 the graph from Mathematica gave different opinion that its lowest on n less than 0.5 . Check**  ***You need to justify the use of these so many let or you quote the source method like equations 4.1, 3.8 .e.t.c***	1. We are extending what was done in reference [4] (which dealt on columns resting on cubic foundations) to the case of a column resting on a cubic – quantic non – linear elastic foundation (see page 2). 2. The method used in this work was first used by Amazigo [2] (see page 3). 3. We have given more details on pages 3 and 12. Some of the assumptions made in this work were made because of the conditions placed on the boundary conditions, orthogonality conditions and the small parameters used in the perturbation technique.
Minor REVISION comments	i. **Discuss your graphs** ii. **Quote the source of methods and give insight to reader on what they entail**	We have discussed the graphs on page 12. Please, see page 3 for the source of the methods.
Optional/General comments		