



SDI Review Form 1.6

Journal Name:	British Journal of Mathematics & Computer Science
Manuscript Number:	Ms_BJMCS_24725
Title of the Manuscript:	Harmonic solution of a weakly non-linear second order differential equation governed the motion of a TM-AFM cantilever
Type of the Article	Original Research 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.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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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)
<u>Compulsory</u> REVISION comments	In page 2 there is the following sentence “ the differential equation possess solutions which are uniquely determined once the values of initial conditions are given”. The fact of the matter is that this is not true in general. First because not always we may guarantee existence of solutions even with given initial values, second , the existences and uniqueness is granted once the function describing the ODE meets the requirements of the Theorem of Existence and uniqueness, for instance if that function is locally Lipschitz or differentiable. There are results which guarantee existence but not uniqueness like Peano Theorem; therefore the mentioned sentence must be removed from the manuscript. It should be a good idea to indicate the relationship between the whole analysis performed here and the micro cantilever based on TM. This analysis is okay but it is important knowing how it affects in some way the object governed by this differential equation.	-that sentence is deleted -It's known that the external excitation ω and the squeeze damping η are important for the design of dynamic of cantilever in TM-AFM so, we investigated the model (1) to obtain ω and η values which give the best results for that model; the best result means obtaining stable solutions which haven't discontinues points then, we enhance the work of the system.
<u>Minor</u> REVISION comments	References are okay. It is a well written manuscript.	
<u>Optional/General</u> comments		