



SDI Review Form 1.6

Journal Name:	British Journal of Mathematics & Computer Science
Manuscript Number:	Ms_BJMCS_23880
Title of the Manuscript:	A NUMERICAL METHOD BASED BOUNDARY INTEGRAL EQUATION TO SOLVE MULTIPHASE MOVING BOUNDARY PROBLEMS
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)
Compulsory REVISION comments	The author(s) presents a numerical method for solving moving boundary problem by using boundary integral formulation for fixed boundary. The present form of the paper needs major revision. The authors should address the following comments in the revised version. #1 : Abstract, Line 8, author(s) stated that "<u>The new in the present paper</u>, is to use the boundary integral formulation for fixed boundary to solve moving boundary problem." Comment 1: The sentence above is not well written. This sentence should be rephrased. # 2: Abstract, Line 9 – 12, author(s) stated that "...is an unknown found from an iterative algorithm developed within the main algorithm <u>then solve phases with moving boundaries as fixed boundaries.</u>" Comment 2: The meaning of this sentence could not be easily fetched. Author(s) should reconstruct such that readers can get the direction of this article. #3 : Abstract, Line 9 – 12, author(s) stated that "<u>Two test problems solved</u> to check the availability of the proposed algorithm." Comment 3: This statement is not scientific. "Two test problems are solved to check..."	



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	# 4 : Abstract, Line 13 – 15, author(s) stated that “<u>The results due to the present</u> algorithm for the first test problem compared with previous <u>results based on boundary integral formulation for moving boundaries</u>, while the results due to the second test problem compared with available analytical solution.” Comment 4: This sentence should be restructured. The meaning cannot be easily deduced. Author(s) should first break this quoted sentence into two simple sentences. # 5 : Abstract, Line 16 – 17, author(s) stated that “A good agreement for both problems is obtained within prescribed errors.” Comment 5: Reconstruct “A good agreement between the two... is observed” # 6 : Introduction, Line 22 – 23, author(s) stated that “Moving boundary problems <u>frequently appear</u> in physical, engineering, industrial and other problems of technological interests [1-2].” Comment 6: Reconstruct. Author(s) is/are encouraged to take note of the underlined words. # 7 : Introduction, Line 33 – 35, author(s) stated that “... is an unknown found from an iterative algorithm developed within the main algorithm, then solve phases with moving boundaries as fixed domain.” Comment 7: Reconstruct. # 8 : Introduction, Line 40 – 41, author(s) stated that “A good agreement for both two test problems is obtained within	
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	prescribed errors. Comment 8: Reconstruct. #9 : It is noticed that the major aim of this article is to present a numerical method for solving a certain problem. Author(s) should briefly explain how any method has been used to solve moving boundary problems. Although, author reported that <i>“Practical engineering problems are efficiently solved nowadays only by numerical methods, such as finite difference [4], finite element [5-7] and boundary elements [8-9].”</i> Comment 9: This does not justify comment #9. Author(s) should explain how any method has been used to solve moving boundary problems. # 10 : Can we use Adomian Decomposition method to solve moving boundary problems? Comment 10: Author(s) should review the following related articles and properly add them to introduction section. Adomian G. Nonlinear stochastic systems: Theory and application to Physics. Kluwer Academic Press. 1989. Aluko OB, Animasaun IL. Semi-Analytic Solution of NonLinear Coupled Differential Equation using Adomian Decomposition. World Journal of Young Researchers 2013;3(1):23-30. J. Crank and R. S. Gupta, “A moving boundary problem arising from the diffusion of oxygen in absorbing tissue,” Journal of the Institute of Mathematics and Its Applications, vol.10, pp.19–33, 1972. Lazhar Bougoffa, The Adomian Decomposition Method for Solving a Moving Boundary Problem Arising from the Diffusion of Oxygen in Absorbing Tissue, Hindawi Publishing Corporation, The Scientific World Journal Volume 2014, Article ID 579628, 7 pages http://dx.doi.org/10.1155/2014/579628	
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	# Line 144: “Also, It is found from the computation ...” should be corrected to “Also, it can be deduced from the computation ...” # Line 116 – 164, author(s) should present their numerical results by using good tenses and logical statements. Comment : # : Conclusion, Line 175 – 177. Author(s) should not add question but draw out meaniful conclusion(s) and how the conclusion(s) are obtained. # : Conclusion, Line 179, “It is found from the computations the following:” Comment : “ Based on the computation, it can be concluded that : “	
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		

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