



SDI FINAL EVALUATION FORM 1.1

PART 1:

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

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
#1 : Page 1, Abstract, Line 6 – 7 Author(s) stated that “The results due to the first test problem were compared with previous numerical results based on boundary integral formulation, while the results due to the second one was compared with available analytical solution.” Likewise, on Page 2, Introduction, Line 1 – 5, Author(s) stated that “The results due to the first test problem were compared with previous numerical results based on boundary integral formulation, while the results due to the second one was compared with available analytical solution.” Comment: The underlined quoted group of words should be corrected. Author(s) may consider this <i>“In order to validate the accuracy of the numerical iterative algorithm, the results of the first problem were compared with published numerical solution and the second results were compared with published analytical solution.”</i> Comment: This correction should be implemented on Page 2 #2 : It is noticed that the major aim(novelty) of this article is to present a numerical iterative algorithm for solving moving boundary problems. Author(s) should briefly explain how any method has been used to solve this kind of problem. Comments: It is a must for Author(s) should update the introduction section with the following: - In one or two sentence(s) Author(s) should briefly explain the method of Adomian Decomposition. Ref: Adomian G. Nonlinear stochastic systems: Theory and application to Physics. Kluwer Academic Press. 1989. - In one sentence Author(s) should briefly explain how Adomian Decomposition was used to solve Non-Linear coupled differential equation Ref: Semi-Analytic Solution of NonLinear Coupled Differential Equation using Adomian Decomposition. World Journal of Young Researchers 2013; 3(1): 23-30. - In one sentence Author(s) should briefly explain how Adomian Decomposition Method was used to solve a moving boundary problem arising from the diffusion of Oxygen in absorbing tissue. Ref: 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 - Then, Author(s) should introduce the concept of hybrid technique. Since numerical iterative algorithm is based on hybrid technique as mentioned in conclusion section.	



SDI FINAL EVALUATION FORM 1.1

#3: On Page 4, Numerical iterative algorithm: Author(s) stated explicitly that “In this section, the suggested iterative algorithm <u>starting from determination the time</u> at which phase change starts occurring up to the end of the process is shown in figure (2).” Comment: Author(s) should take not of the underlined quoted group of words. #4 : On Page 4, Numerical iterative algorithm: Author(s) stated that “The details of the proposed algorithm is shown in the flow chart in figure (2).” Comment: Author(s) may consider “Detail of the proposed algorithm is shown in the flowchart in figure (2).” Or “The details of the proposed algorithm are shown in the flowchart in figure (2).” Grammatically, it is not acceptable to use “details” and the verb “is”. Also, it is “flowchart” not “flow chart”. #5: Page 10, Conclusion Author(s) stated that “An iterative scheme based on the boundary integral equation for fixed boundary was developed with prescribed allowable error . It is found from the computations the following:” Comment Author(s) may consider “An iterative scheme based on the boundary integral equation for fixed boundary was developed with prescribed allowable error. The following conclusions can be easily drawn from the computation:” #6 : On Page 2, Physical background “Once the moving boundary becomes known at each time step, then all other unknowns become easy to found.” Comment It is wrong to end the statement with “...to found”. Author(s) may consider “Once the moving boundary becomes known at each time step then all other unknowns become easy to find.” #7 : On Page 6, References The numbering of all the references is wrong. Author(s) should consider: 1. Crank, J., “Free and Moving Boundary Problems”, Clarendo Press, Oxford, 1984. #8: Author(s) should respond to each of the comment. Rebuttal is accepted.	
---	--

Reviewer Details:

Name:	<i>Animasaun, Isaac L</i>
Department, University & Country	<i>Department of Mathematical Sciences, Federal University of Technology, Ondo State, Nigeria</i>