



SDI Review Form 1.6

Journal Name:	Journal of Advances in Mathematics and Computer Science
Manuscript Number:	Ms_JAMCS_45965
Title of the Manuscript:	Solution to the Dirichlet Problem on Irregular Domains using Wavelet-Based Approach
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:

(<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	In section 2: The FDFDWM with Penalty on Irregular Domain; What is ϕ here ? what is its dimension ? This part needs to be fully documented. In Equation 3, for $i = 1, 2, 3, \dots$? to what ? n or m or what? This part needs to be fully documented before moving to ant theorem or proof. Are there similar works on FDFDWM ? Needs to talk about well-possedness too.	I agree with the reviewer's revision comment here and I have made the necessary corrections and updates. Thanks you. This paper is an aspect of my postgraduate thesis.
Minor REVISION comments	(a) It's difficult to see why the FDFDWM is better than the traditional methods. What is the yardstick for measuring this? (b) How was the MATLAB carried out? Not requesting you to show your code. But you need to show what parameters you used and you used them. At least, show some skeletal part of the code. Writing out results without this is not good.	(a) I compared the relative L^2 norm errors of FDFDWM and Finite Element Method (FEM) and realized that the error of FDFDWM decays faster than that of FEM (see Figure 3). As we are aware, the relative error correlates strongly with the accuracy of the approximate solutions. I did not compare the FDFDWM with traditional Finite Difference Method (FDM) because of its difficulty in handling irregular domain due to the topologically square network use to discrete the PDE as discussed in the 'Introduction'. (b) The MATLAB implementation has a lot of code which will not be suitable for including in the manuscript. However, I have made an attempt to say something briefly about the implementation.
Optional/General comments	In overall, the paper is good with the above suggestions.	

PART 2:

	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)
Are there ethical issues in this manuscript?	(If yes, Kindly please write down the ethical issues here in details)	