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Journal Name:	British Journal of Mathematics & Computer Science
Manuscript Number:	Ms_BJMCS_34622
Title of the Manuscript:	A Machine Learning Algorithm Based on Inverse Problems for Software Requirements Selection
Type of the Article	<i>Original Research Article</i>

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>)



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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	1. Algorithm explanation is not clear. Author should give more information about this algorithm. For example, which programming language and operating system were used to develop? 2. Especially authors have to give more details about attributes of dataset for that they used to develop algorithm. There must be a table of attributes that show all details about attributes. And how these attributes are selected should be mentioned. 3. Also authors should compare the performance of this algorithm with any other tool. 4. Authors say that this is a classification task. Therefore, they need to evaluate ROC (Receiver Operating Characteristic) Analysis in order to observe result. 5. Plagiarism Issue: I have attached an iThenticate Plagiarism report file. Please find that report which shows 36% plagiarism	Thank you for the opportunity to revise the manuscript. Below I summarize my responses to your comments. I believe that all of the comments have been addressed in a way that would be found satisfactory. I thank you for your detailed and thoughtful critiques. The manuscript has been greatly improved as a result of your effort. Our point-by-point responses to comments are detailed on the following pages. (1), (3) & (4) First of all, please know that I appreciate very much your suggestions and advices. I was gladly surprised to see this since my colleague and I are currently working on it as stated in the conclusion section of the paper. This work is by no means exhaustive of the method discussed here. We recognize that improvements have to be done both on the algorithm (different regularizer properties must be investigated) and the model applications. More detailed work is needed to improve the effectiveness of the numerics in general. Also, the answer to exactly how sensitive the method is to moderate amounts of noise should be investigated. Therefore I could not see how to add these without unduly complicating the present paper. Second, the linearization method led us to



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		a Fredholm integral equation of first kind with Riesz kernel. Since this equation represents an ill-posed problem, we needed some kind regularization method to overcome this difficulty. We used the Tikhonov regularization method and, by discretizing the regularized equation, ended up with the system of linear equations. With this enhancement, now the problem is reduced to solving systems of linear equations. This is done conventionally, using MATLAB routines. All experiments were done on a G Hz Intel Core i7-960 processor with 16GB memory running Windows 10. This information is added to page Results and Discussions section in the paper. (2)Regarding the attributes used in the paper: It is already included under the “Results and Discussions” section as “Each requirement is associated with a data point that consists of four real-valued attributes; cost, stakeholder preference, effort, and dependencies”. (5)Thank you for including the report. Report states 26% of similarity index, not 36% as stated here in the reviewer’s comment. When I analyzed it, I found out my two previous papers has the highest similarity index of 3%. “A problem of Data Mining in E-Commerce” is my own paper and modified form of the perturbation method from that paper was provided for the reader’s convenience. To eliminate “Double Dipping”, new manuscript has been modified, perturbation part removed and users are referred to the author’s previously published paper, reference [22]. All
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		manuscript rechecked and the in-text citations are placed within the text if necessary and highlighted in yellow font .
<u>Minor</u> REVISION comments	I don't understand why there are duplicate references. (e.g. Ref 2 and 7 or Ref 15 and 16 are duplicates!)	Ref 7 meant to be different. Changes made in to the Ref [7]. Ref 15 and 16 are different even though they were published by the same researchers. Ref 15 was published at "The 2nd International Symposium on Search Based Software Engineering" in 2010. Ref 16 was published at "Information and Software Technology" in 2013. Changes are indicated in yellow font .
<u>Optional/General</u> comments		