



SDI Review Form 1.6

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2014_BJAST_13675
Title of the Manuscript:	AUTOMATED DETECTION OF BREAST CANCER'S INDICATORS IN MAMMOGRAM VIA IMAGE PROCESSING TECHNIQUES
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>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment <i>(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)</i>
REVISION comments	Brief summary of manuscript: What is the intent of the study? The authors evaluated uses software designed to improve how radiologists interpret mammograms. What conclusions do the authors reach? They found that the method presented in this paper could assist the medical staff and improve the accuracy of breast cancer detection. Do you believe this study has previously been published in whole or in part? In whole.	
	The Title Does the title adequately reflect the content of the manuscript? Yes	ok
	The Key words Are the key words appropriate? Yes	ok
	The Abstract Is it structured? yes Does the Abstract adequately summarize the manuscript? Yes – but it may be helpful to put the exclusion criteria in the abstract. Can the abstract be understood without reading the	ok. We hereby ask for what you meant by the exclusion criteria.



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	manuscript? Yes Does it specify outcome measures, and provide salient statistics? No Do any discrepancies exist between the Abstract and the rest of the paper? No - The Introduction Is the Introduction brief? No Is the rationale for conducting the study explained based on a review of the medical literature? No. They do a small review the literature, but they do not explain the rationale. It is well established in the literature that there is automated detection of breast cancer's indicators in mammogram via image processing techniques. What is different in this paper? Is the purpose of the study clearly defined? The objective is stated clearly. Is there a well-described hypothesis? Yes - Materials and methods Is the design of the methods appropriate to allow the hypothesis to be tested? Methods were appropriate based on the stated objective of the study. Could another investigator reproduce the study using the Methods as outlined? Yes	ok The paper now specifies the outcome by comparing the result of the original images with the outcome of the proposed method by using the detection rate metrics ok The introduction has been shortened. medical literature have been reviewed The paper relies on the work of Fu et al. (2005) which detects only micro calcification. This major contribution of this paper is that it introduces an image classification technique which uses both clustering and fuzzy logic techniques to detect the three cancer indicators as opposed to existing methods that only detected one or two indicators. Thus, this work is just an enhancement of an existing method. ok ok ok
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	Is the sample or participant recruitment described in detail with the inclusion and exclusion criteria? No. Is there any participant? Have the authors obtained Informed Consent and Ethical Committee Approval (if relevant)? No Are the statistical methods described? No - Results Are the Results clearly explained? Yes. However, figures 1-5 should probably be showing the mammographic findings, and how the method improve the breast cancer diagnostic. - Discussion Is the Discussion concise? Yes, very concise. Does it compare the results with the relevant literature? No Are the conclusions justified by the results found in the study? Yes Is the clinical applicability of the study findings discussed? No, only a short comment. Are the limitations of the study clearly stated? No - Figures and Graphs Are all figures referred to in the text? yes	No participant was involved. All images were obtained from the minimias database. No participant was involved. All images were obtained from the minimias database which is in the public domain. Hence, the authors feel that there is no need for ethical approval The figures now show the mammographic findings ok ok The study now compare with the result of Fu et al. (2005) ok There is now a section showing the clinical application of the proposed system There is now a section showing the limitations of the proposed system
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	Are the figures and graphs correct and appropriately labeled? No. In the figures legends, the mammograms are not explained. Do the figures and graphs adequately show the important results? yes Are the figure legends self-sufficient and understood without making reference to the remainder of the manuscript? Yes • Tables Do the tables appropriately describe the Results? yes • Are the abbreviations used in the tables explained at the bottom? Yes • References Does the reference list contain obvious mistakes? Yes They are not presented in the order they appear in the paper. Do any important medical references need to be added? A lot. Is the number of references adequately ? No • Please summarize the Major strengths and Major weaknesses of the manuscript, and make your decision according to your answer to following questions; 1. Does the article provide novel information (data, techniques or idea) that is not already available in the literature? The information is not new. 2. Do the authors provide a solid rationale for conducting this study? No.	ok This has been effected in the body of the work This has been effected in the body of the work ok ok The references have been reordered Medical literature has been added This has been provided in the body of the work
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	3. Has the data analysis been performed appropriately? There really wasn't any statistical data analysis, which could have been performed. 4. Have the results been clearly and accurately presented? Yes	Performance evaluation has been carried out ok
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