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## **SDI Review Form 1.6**

Journal Name:	Journal of Advances in Mathematics and Computer Science
Manuscript Number:	Ms_JAMCS_50647
Title of the Manuscript:	A Comparative Analysis of Selected Fisher Linear Discriminant Based Algorithms in Human Faces
Type of the Article	Original Research Article

## **General guideline for Peer Review process:**

This journal's peer review policy states that <u>NO</u> manuscript should be rejected only on the basis of '<u>lack of Novelty'</u>, 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)
<u>Compulsory</u> REVISION comments	The author says that 240 facial images plus one hundred images were used. The images are from the same person? Or there were 240 different people? This means different datasets that are really important to take any conclusion about LDA processing. Without this information it is impossible to discuss further.	
	A typical classification system is made of signal pre-processing, feature extraction, dimension reduction, classification and classification analysis. This study compares different types of LDA. LDA is an algorithm for dimension reduction and is mentioned many times in the text that it is used to extract features and is also used for classification. In my point of view this is wrong. Lines: 135-138, 167, figure 1, figure 2, 441, 456 and in conclusion.	
	Equations are unreadable: Lines: 182, 226, 228, 232, 235, 246, 461, etc. check all equations.	
	Feature extraction is explained little in lines 435-437. Which features were collected?	
	Classification is not well described at 3.3, line 456. Which are the test and reference vectors? How the distance, and which distance is measured? This is the classifier and not the LDA. LDA prepares the multidimensional matrix of features and reduce its dimension to be used for classification. How many dimensions has the final matrix? LDA needs to know the number of datasets being used to generate the new projection. This regards to my first question of how many classes were used.	
Minor REVISION comments	Lines 145-147: The meaning of the "curse of dimensionality" is wrong. Check what richard bellman wrote about this sentence in 1961.	
	Lines 155-161: Here are two different concepts in the same paragraph that are not related to each other.	
	3.2 items b and c are not the same?	
	The author measures the training time for the LDA under Matlab. Is this really important once the training phase occurs just once? What is important is the weight matrix generated by LDA to reduce the dimension. A good measure of performance would be, using the	

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	same input datasets, to compare the distances among datasets after Ida processing.  Obviously, compare classifier performance is also a measure, but the paper propose to measure differences among dimension reduction algorithms.  Line 720-722: the phrase is ambiguous. There are two different opinions about the same affirmation.	
Optional/General comments	The author proposes to explain about a comparative Analysis of selected fisher linear discriminant based algorithms in Human Faces. The paper is well written with some minor grammar mistakes. The author introduces very well the topic and do a valuable bibliography review.  Please review double words like "using by using" and so on.	

# PART 2:

		<b>Author's comment</b> (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)	

# **Reviewer Details:**

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