



SDI Review Form 1.6

Journal Name:	<u>British Journal of Mathematics & Computer Science</u>
Manuscript Number:	2014_BJMCS_11601
Title of the Manuscript:	Automatic Check Digits Recognition for Arabic Using Multi-Scale Features, HMM and SVM Classifiers
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>)



SDI Review Form 1.6

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 this work, the multi-scale features and the HMM/SVM classifier play very important roles. 1) I hope the authors can make more experiments with different parameters in multi-scale feature extraction, in order to find which matter plays very important role for Arabic Digit recognition. For example, the number of scales, the dimension of features in each scales etc. Additionally, I am interesting in the image division with different grid sizes. I hope a comparison experiment between the two division methods should be made. The first one is the method in this paper with different grid size. The second one is the method which I suggest with the same grid size. 2) I hope a theory comparison analysis between HMM and SVM should be adopted. In this paper, the authors only provided the experimental results of them, but not provided a theory explain. In addition, a complete comparison from these respects like time cost, recognition accuracy should be considered. Then the reader can know which classifier is more suitable for Arabic Digit Recognition.	The authors would like to thank the referees for their constructive comments, which helped us to improve the manuscript. 1) As for carrying our different experiments with different parameters, scales, grid sizes, we have studies this in previous research and hence was not added in this paper. The reviewer is invited to review our papers “A Multiple Feature/Resolution Scheme to Arabic (Indian) Numerals Recognition Using Hidden Markov Models” for example. 2) We feel that we provided a theoretical explanation for how SVM and HMM works as well as references for more theory if needed. Also recognition accuracy was provided for both HMM and SVM. We have not discussed time, as both HMM and SVM performed very fast for Arabic digits and hence we felt it was not relevant.
Minor REVISION comments		



SDI Review Form 1.6

<u>Optional/General</u> comments		