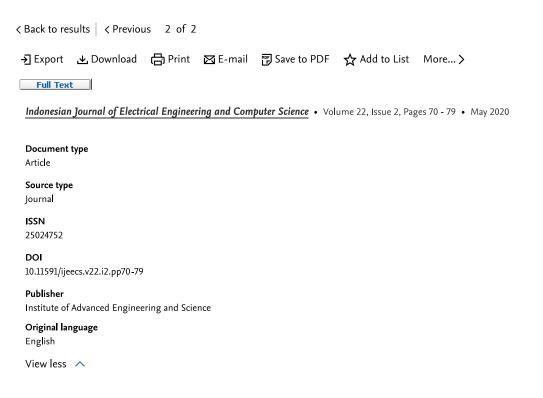


Search Sources Lists SciVal >

Create account

Sign in



# Classification of Quranic topics based on imbalanced classification

Arkok B. ⋈ , Zeki A.M.

Save all to author list

<sup>a</sup> Kulliyyah of Information and Communication Technology, International Islamic University Malaysia, Selangor, Malaysia

1 41th percentile Citation in Scopus FWCI (?) View all metrics >

Full text options ∨

### **Abstract**

Author keywords

SciVal Topics

Citations

Metrics

## **Abstract**

Imbalanced classification techniques have been applied widely in the field of data mining. It is used to classify the imbalanced classes that are not equal in the number of samples. The problem of imbalanced classes is that the classification performance tends to the class with more samples while

# Cited by 1 document

Text mining based sentiment analysis using a novel deep learning approach

Abdullah, E.F., Alasadi, S.A., Al-Joda, A.A. (2021) International Journal of Nonlinear Analysis and Applications

View details of this citation

Inform me when this document is cited in Scopus:

Set citation alert >

### Related documents

Classification of Quranic Topics Using Ensemble Learning

Arkok, B., Zeki, A.M. (2021) Proceedings of the 8th International Conference on Computer and Communication Engineering, ICCCE 2021

Classification of Quranic Topics Using SMOTE Technique

Arkok, B., Zeki, A.M. (2021) International Conference of Modern Trends in ICT Industry: Towards the Excellence in the ICT Industries, MTICTI 2021

Text mining approaches for analyzing an Indonesian tafseer and translation of the Holy Quran

Ayu, M.A., Irawan, E., Mantoro, T. (2022) Indonesian Journal of Electrical Engineering and Computer Science

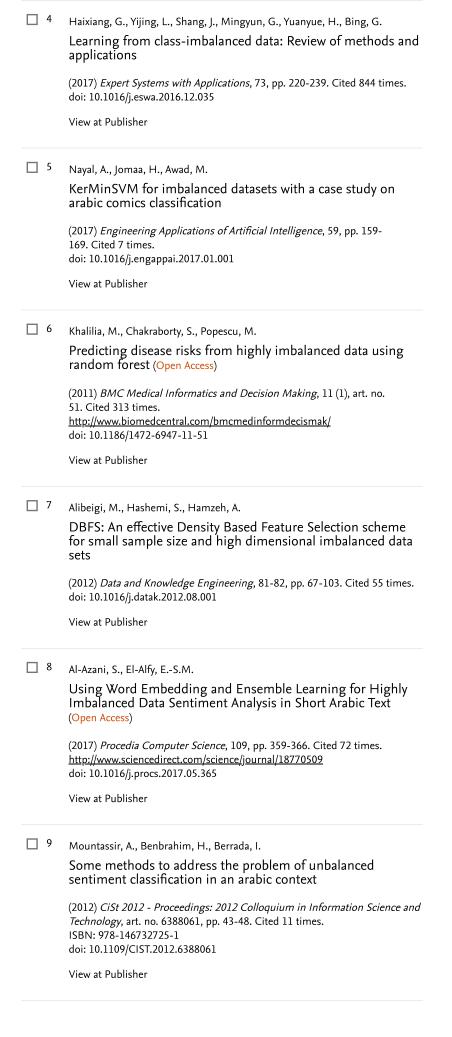
View all related documents based on references

Find more related documents in Scopus based on:

Authors > Keyword >

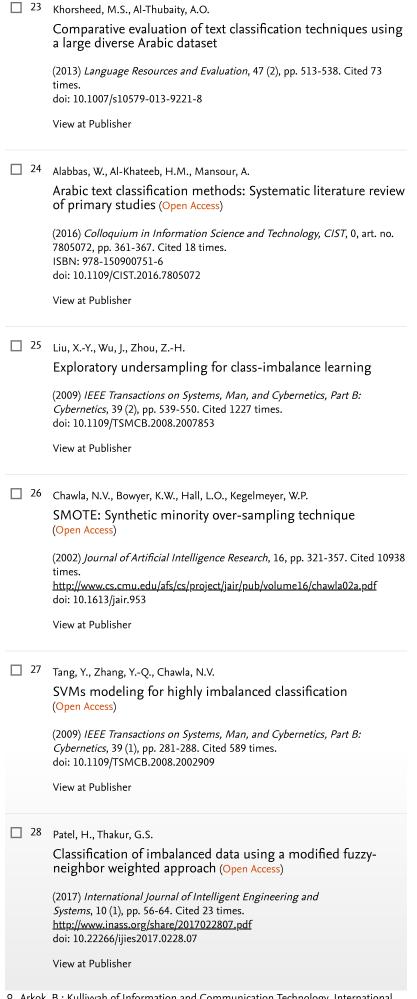
the class with few samples will obtain poor performance. This problem can be occurred in the Quranic classification due to the different in the number of verses. Many studies classified Quranic verses, which depended on the traditional classification. However, no study classified Quranic topics based on the techniques of imbalanced classification. Therefore, this paper aims to apply the methods of imbalanced classification as synthetic minority oversampling technique (SMOTE), random over sample (ROS), and random under sample (RUS) methods to classify the Quranic topics that are imbalanced. Many metrics were used in this research to evaluate the experimental results. These metrics are sensitivity/recall, specificity, overall accuracy, f-measure, g-mean, and matthews correlation coefficient (MCC). The results showed that the Quranic classification performance improved when imbalanced classification techniques were applied. © 2020 Institute of Advanced Engineering and Science. All rights reserved.

5-3/-LT	
SciVal Topics (i)	
Metrics	
	References (28) View in search results format
	□ All  Export □ Print ☑ E-mail ☑ Save to PDF Create bibliography  □ 1 Siddigui, M.A., Faraz, S.M., Sattar, S.A.
	☐ ¹ Siddiqui, M.A., Faraz, S.M., Sattar, S.A.  Discovering the Thematic Structure of the Quran using Probabilistic Topic Model
	(2013) Proceedings - 2013 Taibah University International Conference on Advances in Information Technology for the Holy Quran and Its Sciences, NOORIC 2013, art. no. 7277252, pp. 234-239. Cited 10 times. ISBN: 978-147992823-1 doi: 10.1109/NOORIC.2013.55
	View at Publisher
	<ul> <li>Salloum, S.A., AlHamad, A.Q., Al-Emran, M., Shaalan, K.</li> <li>A survey of Arabic text mining</li> <li>(2018) Studies in Computational Intelligence, 740, pp. 417-431. Cited 38 times.</li> </ul>
	http://www.springer.com/series/7092 doi: 10.1007/978-3-319-67056-0_20 View at Publisher
	Ali, H. A review on data pre-processing methods for class imbalance problem (2019) <i>International Journal of Engineering Technology</i> , 8 (3), pp. 390-397. Cited 6 times.



10	Al-Kabi, M. N Statistical classifier of the holy Quran verses (Fatiha and Yaseen chapters) (2005) <i>Journal of Applied Sciences</i> , 5 (3), pp. 580-583. Cited 24 times.
11	Al-Kabi, M. N. A topical classification of Quranic Arabic text (2013) Proceedings of the 2013 Taibah University International Conference on Advances in Information Technology for the Holy Quran and Its Sciences. Cited 15 times.
12	Nassourou, M Using Machine Learning Algorithms for Categorizing Quranic Chaptersby Major Phases of Prophet Mohammad's Messengership, " (2012) International Journal of Information and Communication Technology Research: Citeseer, 2. Cited 5 times.
13	Akour, M., Alsmadi, I., Alazzam, I.  MQVC: Measuring quranic verses similarity and sura classification using N-gram  (2014) WSEAS Transactions on Computers, 13, pp. 485-491. Cited 9 times. http://www.wseas.org/multimedia/journals/computers/2014/a105705-605.pdf
14	Hassan, G. S., Mohammad, S. K., Alwan, F. M. Categorization of Holy Quran-Tafseerusing K-nearest neighbor algorithm (2015) <i>Int. J. Comput. Appl</i> , 129 (12), pp. 1-6. Cited 8 times.
15	Hamed, S.K., Aziz, M.J.A.  A question answering system on Holy Quran translation based on question expansion technique and Neural Network classification (Open Access)  (2016) Journal of Computer Science, 12 (3), pp. 169-177. Cited 32 times. http://thescipub.com/PDF/jcssp.2016.169.177.pdf doi: 10.3844/jcssp.2016.169.177
	View at Publisher

<u> </u>	Rostam, N.A.P., Malim, N.H.A.H.
	Text categorisation in Quran and Hadith: Overcoming the interrelation challenges using machine learning and term weighting (Open Access)
	(2019) Journal of King Saud University - Computer and Information Sciences. Cited 11 times.  www.journals.elsevier.com/journal-of-king-saud-university-computer-and-information-sciences/
	doi: 10.1016/j.jksuci.2019.03.007
	View at Publisher
<u> </u>	oralliadili, dili, raillijaja, ra, mabarok, mis.
	A multilabel classification on topics of qur'anic verses in English translation using K-Nearest Neighbor method with Weighted TF-IDF (Open Access)
	(2019) Journal of Physics: Conference Series, 1192 (1), art. no. 012026. Cited 4 times.
	http://iopscience.iop.org/journal/1742-6596 doi: 10.1088/1742-6596/1192/1/012026
	View at Publisher
_ 19	
	A two-step feature selection method for quranic text classification (Open Access)
	(2019) Indonesian Journal of Electrical Engineering and Computer Science, 16 (2), pp. 730-736. Cited 10 times. <a href="http://lijeecs.iaescore.com/index.php/IJEECS/article/view/19977/13101">http://lijeecs.iaescore.com/index.php/IJEECS/article/view/19977/13101</a> doi: 10.11591/ijeecs.v16.i2.pp730-736
	View at Publisher
	2
	The multi-class classification for the first six surats of the Holy Quran (Open Access)
	(2020) International Journal of Advanced Computer Science and Applications, 11 (1), pp. 327-332. Cited 4 times. <a href="http://thesai.org/Publications/Archives?code=IJACSA">http://thesai.org/Publications/Archives?code=IJACSA</a> doi: 10.14569/ijacsa.2020.0110141
	View at Publisher
_ 2.	Al-Khair, A. A, Kabbani, M. A. "Quran teacher intonation (2003) The Tunisian Company for Distribution, 2003
<u> </u>	Khedher, M. Z. Multiword corpus of the Holy Quran (2017) International Journal on Islamic Applications in Computer Science And Technology, 5 (1), pp. 1-11. Cited 3 times.



Arkok, B.; Kulliyyah of Information and Communication Technology, International Islamic University Malaysia, Selangor, Malaysia; email:bassam.arkok@gmail.com
© Copyright 2021 Elsevier B.V., All rights reserved.

 $\langle$  Back to results  $\mid$   $\langle$  Previous 2 of 2

∧ Top of page

# **About Scopus**

What is Scopus

Content coverage

Scopus blog

Scopus API

Privacy matters

# Language

日本語に切り替える

切换到简体中文

切換到繁體中文

Русский язык

# **Customer Service**

Help

Tutorials

Contact us

# **ELSEVIER**

Terms and conditions *¬* Privacy policy *¬* 

Copyright © Elsevier B.V 对. All rights reserved. Scopus® is a registered trademark of Elsevier B.V.

We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies.

