IJASAT

International Journal on Islamic Applications in Computer Science and Technology

Volume 10 *Issue 4*

December 2022

International Journal on Islamic Applications in Computer Science And Technology

Volume 10, Issue 4, December 2022

EDITED BY

Prof. Dr. Mohammed Zeki Khedher

ISSN (Online): 2289-4012

International Journal on Islamic Applications in Computer Science and Technology is published both in traditional paper form and in Internet. This journal is published at the website http://sign-ific-ance.co.uk, maintained by Design for Scientific Renaissance, Malaysia.

Some of the papers published in this periodical may contain personal opinions which are the responsibilities of the authors and are not necessarily agreed by the editor of the periodical

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, re-use of illustrations, recitation, broadcasting, reproduction on microfilms or in any other way, and storage in data banks. In its current version, and permission for use must always be obtained from Design for Scientific Renaissance.

Design for Scientific Renaissance

Malaysia

Typesetting: Camera-ready by author

Editor-In-chief

- Prof. Dr. Mohammed Zeki Khedher, Jordan University, Jordan

Advisors

- Prof. Dr. Zaghloul al-Najjar, The World Islamic Science and Education University, Jordan
- Prof. Dr. Hany Ammar, West Virginia University, USA
- Prof. Dr. Idris Al-Kharchaf, University of Mohammed V, Rabat, Morocco

Managing Editor

- Dr. Akram M. Zeki, International Islamic University Malaysia, Malaysia

Assistant Editor

- Dr. Mustafa Ali Abuzaraida, Misurata University, Libya

Editors

- Prof. Dr. Abdelhak Lakhouaja, Mohammed First University, Morocco
- Prof. Dr. Abdelkader Adla, University of Oran 1 Ahmed Benbella, Algeria
- Prof. Dr. Abdeslam JAKIMI, Moulay Ismail University, Meknes, Morocco
- Prof. Dr. Adnan Abdul-Aziz Gutub, Umm Al-Qura University, Makkah, Saudi Arabia
- Prof. Dr. Ahmed Ferchichi, University of Tunisia, Tunisia
- Prof. Dr. Teddy Montoro, Universitas Siswa Bangsa International, Indonesia.
- Dr. Abdelbasit Mohamed Sharif Mohamed, International University of Africa, Sudan
- Dr. Abdellah Yousfi, University of Mohamed V, Morocco
- Dr. AbdulSattar M. khidhir, Mosul Technical Institute, Iraq
- Dr. Ali A. Alwan, International Islamic University Malaysia, Malaysia
- Dr. Hikmat Ullah Khan, COMSATS Institute of Information Technology, Pakistan
- Dr. Ibrahim Suliman Ahmed Ashmaiq, International Islamic University Malaysia, Malaysia
- Dr. Jamil Itmazi, Palestine Ahliya University, Palestine
- Dr. Marzanah A. Jabar, Universiti Putra Malaysia, Malaysia
- Dr. Mohamed Tahar Ben Othman, Qassim University, Saudi Arabia
- Dr. Mohammad Abdolshah, Islamic Azad University, Iran
- Dr. Mohammad Said Desouki, Higher Institute of Applied Science and Technology, Syria
- Dr. Nor Hasbiah Ubaidullah, Sultan Idris Education University, Malaysia
- Dr. Omar Tayan, Taibah University, Saudi Arabia
- Dr. Rashid A. Saeed, Sudan University of Science and Technology, Khartoum, Sudan
- Dr. Talaat Wahby, Sudan University of Science and Technology, Sudan
- Dr. Yousef Daradkeh, Salman Bin Abdulaziz University, Saudi Arabia
- Dr. Yousef Farhaoui, Moulay Ismail University, Morocco
- Dr. Youssef Iraqi, Khalifa University, UAE
- Dr. Youssef Zaz, Abdelmalek Essaadi University, Morocco

FOREWORD

By the grace of Allah, it is a great pleasure to introduce this issue of: **The International Journal on Islamic Applications in Computer Science and Technology**

The success and the welcome of this Journal by researchers from many countries gave us great encouragement for continuing issuing in the due time. This Journal is aimed at publishing original research papers in the field of Islamic Applications in computer science and technology. This field is catching a momentum in the recent years. As a Journal interested in this field, it is the first International Journal of its specific field. As research is growing in this field, we hope that this Journal will be a platform for researchers working in the field to publish their research.

This issue contains four papers. The first one is entitled: **Challenges in the Islamic Question Answering Corpora**

In the past, researchers in Islamic question-answering systems created their datasets to evaluate their systems due to the lack of the dataset, making it difficult to compare the performance of the systems. In this research, an attempt to review and explore the Islamic questions and answers datasets, study the percentage of its coverage of the Quran or Hadith, evaluate them using thirteen criteria, and identify their weaknesses which could serve as a basis for future research. We concluded that there is a limited number of Quran questions, and their answers are available in Arabic only.

The second paper is entitled: **A game-based learning Quran reading application: A performance evaluation of the Special Needs Children**

Understanding the core difficulties and challenges of different types of special needs children during language e-learning would facilitate the process of designing personalized learning methods via computer applications. To support this theory, a desktop-based application incorporating an adaptable method like gamification with multiple modules and analyzed the accuracy and time attributes from the collected actual target group’s data is developed. The proposed application could identify where the students frequently make mistakes while learning using the application. It is also observed that most of the students quickly embraced the proposed game-modules resulting in a positive effect in their Arabic language learning.

The third paper is entitled: **Detecting Arabic Fake News on Social Media using Sarcasm and Hate Speech in Comments**

It is hypothesized that the existence of sarcasm or hate language in the comments and responses to a news post may be used as an indicator of the authenticity of the post itself. Therefore, this paper proposes a new technique incorporating hate language and sarcasm detected in users' comments as significant features for identifying fake news. We used three Arabic datasets to conduct this study and experimented with various state-of-the-art models. As a result, it is concluded that considering these features in news responses can help detect fake news since it is found that the existence of sarcasm or hate speech in comments of false tweets is approximately double that in true ones.

The fourth paper is: **Awareness Level of the Cyber Security and Ethics at Students in University of Ha'il**

This paper deepens into a serious problem in cyber security, which is measuring the awareness level of people about cyber security and its related topics. It adapts a quantitative method by conducting a questionnaire which is adapted and built based on literature review of several papers and resources, and it is aimed to a specific category which is the Ha'il university's students in the Kingdom of Saudi Arabia. Then, there is another qualitative method used to understand the point of view of some specialist in security, and to gain benefits from the experiences to address the problem properly. At the end, this research provides steps to raise the knowledge of the society about the cyber security field; also, it is recommended to design an educational brochure which has the basic information and guidance for people who are not specialized in computer science, in order to make them more aware and careful with the internet world.

TABLE OF CONTENTS

Title / Authors	Page No.
Challenges in the Islamic Question Answering Corpora Sarah Alnefaie, Eric Atwell, Mohammad Ammar Alsalka	**1**
A game-based learning Quran reading application: A performance evaluation of the Special Needs Children Fatima Jannat, Unaizah Obaidellah	**11**
Detecting Arabic Fake News on Social Media using Sarcasm and Hate Speech in Comments Saud Althabiti, Mohammad Ammar Alsalka, Eric Atwell	**28**
Awareness Level of the Cyber Security and Ethics at Students in University of Ha'il Lamya Khalid Alsumair, Meiad Jrad Aljrad, Nujud Ahmed Alghurairy, Hind Khalid Alswayegh, Modhi Alanazi, Kawther Al-Dhlan	**37**