

# IJASAT

International Journal on Islamic Applications in  
Computer Science and Technology

***Volume 9***

***Issue 1***

***March 2021***

# **International Journal on Islamic Applications in Computer Science And Technology**

**Volume 9, Issue 1, March 2021**

**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, Univeristi Utara Malaysia, Malaysia

### **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 three papers. The first one is entitled: **QDAT: A data set for Reciting the Quran**.

Dataset are considered as an important part of any audio research and an important resource for speech processing. Availability of dataset in speech processing field is important. The effort and time needed to build a complete good dataset are very long. The available public dataset in Arabic language are very little. This paper presents the "QDAT" dataset of audio Arabic speech files. The audio files are manually annotated by expert to show the correctness of the Reciting the Quran with Tajwid--- according to three rules of recitation of Quran. The dataset can be used for training and classification models based on machine learning and deep learning algorithms.

The second paper is entitled: **Ontology Based Knowledge Retrieval and Semantic Modelling of Qur'an with Contextual Information**.

This paper is proposing a technique that helps in learning of Quran by utilizing the semantic based search approach with cross references about subject and context. For this purpose, an application is developed to form several datasets which link chapters, verses, words and concepts with their reference chapters, verses, words and concepts defined in Quran with the help of authentic books written by Islamic scholars and also by consulting different scholars. Then these datasets are transformed into ontology, which links up each subject with other related subjects and context so far, the following concepts is represented: chapter, verse, word, pronoun reference, topic, location, living creation and event. Furthermore, an application is developed to run queries and perform different searches related to Quranic knowledge on this Ontology.

The third paper is entitled: ***Al-Tawbah* Chapter: An Analysis of *Da'wah bil Hal* from Corporate Social Responsibility (CSR) Perspectives**.

This qualitative study involved library research. The data collection method involved content analysis of articles, books and discourse. The data analysis involved the descriptive analysis method. This method was suitable with the study objective, which was to further define the *da'wah bil hal* from corporate social responsibility as used in *al-Tawbah* chapter using *da'wah bil hal services*. The study implications provided clear understanding on the *da'wah bil hal* services by corporate social responsibility which could be improved to be developed and to emerge as the best alternative in the context of current *da'wah*.

**Editor-In-Chief**

## TABLE OF CONTENTS

Title / Authors	Page No.
<b>QDAT: A data set for Reciting the Quran</b> Hanaa Mohammed Osman, Ban Sharief Mustafa, and Yusra Faisal	<b>1</b>
<b>Ontology Based Knowledge Retrieval and Semantic Modelling of Qur'an with Contextual Information</b> Raheel Ahmad, Farrukh Zeeshan Khan, and Muhib Ahmad Khan	<b>10</b>
<b><i>Al-Tawbah</i> Chapter: An Analysis of <i>Da'wah bil Hal</i> from Corporate Social Responsibility (CSR) Perspectives</b> Azizul Razak and Hisyam Rahim	<b>26</b>