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Prof. Dr. Mohammed Zeki Khedher

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FORWARD

By the grace of Allah, we are presenting the first issue of the forth volume of the publication of this Journal: **The International Journal on Islamic Applications in Computer Science and Technology**

The success and the welcome of the previous issues 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 recent years. This Journal is the first International Journal completely devoted for this 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.

The Third International Conference on Islamic Applications in Computers and Technologies was held at Necmettin Erbakan University located in Konia, Turkey from 1-3 October 2015. It was a successful event, in which more than 40 papers were delivered among more than 100 papers received by the conference. Some of the papers are published in this issue and some others will be published in the coming issues Inshallah.

This issue contains four papers. The first paper is entitled: **In Search of Credible Knowledge.** In this paper modern knowledge management and its basic model proposed by Nonaka. Humans have been studied. Similarly, there were other management theories since that time. One of them is Hadith knowledge management. Islamic scholars collected the largest number of hadiths several hundred years after the Prophet (PBUH). Validation model used through centuries to find the authenticity of the knowledge is studied. Modern Nonaka Knowledge Management Model and Hadith knowledge management were compared. A new knowledge management module Farooqui Fauzan knowledge management Model is introduced. A new module is added, Validation to amalgamate the authenticity mechanism of Hadith knowledge management in modern Nonaka Knowledge Management Model. Furthermore, a point based system to implement Hadith type of validation into the modern knowledge management is proposed.

The second paper is entitled: **Building Al-Shatiby learning system of HOLY QURAN services both Combination and Individual recitation.** This paper shows the development a Computer Software for the Teaching and Training of the "Recitations of the Holy Quran" i.e. "Al-Qiraat", using the Seven Recitation Methods of Al-Shatiby which covered the first six parts of the Holy Quran. The system teaches and recites readings for "Individual" i.e. "Ifrad" to be integrated with "Combination" i.e. "Aljam' " in order to facilitate the "Individual" reading of the holy Quran and facilitating searching the rules of "Osool" for beginners and interested and practicing reciters. This comprehensive system is done through the expansion of the databases management that contain the "Combination" so that the system includes both the "Combination" and "Individual". The system also includes the link between each "Wajeh" (way) and "Osool" that enables searching by a specific "Osool" (rule) for one or more verses, Sura, chapter, or all the Quran. In this paper, the databases management system for Individual was designed to utilize the current Combination database without the need to use extra storage space, Osool (rules) relations are added and linked with the existing database to support the search facility. The system is built on two phases: phase 1 where the existing Combination database, which contains six parts of the holy Quran, is reused by utilizing the texts and audio recording of this system, modifying the needed relations, and linking them to the new relations then update the database to support the Individual

recitation and Osool searching. Phase 2 that automatically allows the linking of verses to the relations in the Individual system simultaneously with their insertion in addition the link of the Osool. The system is maintained completely through adding, deleting and editing operations thus allowing the user to obtain both a Combination and Individual systems without the need of doubling the storage area.

The third paper is entitled: **Arabic Computer Programming Education Tool.** In this paper, we present a programming tool, which is built to help students write their programs in Arabic in a smart environment and execute them directly on the machine or displaying their execution through a simulation. The simulator is used to help students understand the machine's architecture and how programs are internally executed. Over the simulator a small kernel is added to manage a set of programs concurrently executed. This kernel gives an idea to the students of how the operating system is scheduling different programs at different types of priorities. This tool is a part of a project that aims to have an entire environment in Arabic used for teaching several programming languages related courses.

The fourth paper is entitled: **Ontological approach for semantic modeling and querying the Qur'an.** This project adopts an approach that enables humans and computers to understand the Qur'an knowledge throughout the creation of a Qur'anic ontology. The goal of the ontology is to build a computational model capable of representing as much as possible of the concepts mentioned on the Qur'an and the relationships between them using Protégé-OWL. The ontology can be queried using SPARQL queries. For non-technical users a tool will be built that enables them to browse the content of the ontology.

Editor-In-chief

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