| Journal of  | E-Technology | Volume 2   | Number | 4 | November | 2011 |
|-------------|--------------|------------|--------|---|----------|------|
| oodiiidi oi |              | 10101110 = |        |   |          |      |

| Contents  |     |
|---|-----|
| Editorial   | i   |
| Research  |     |
| Developing an Information Technology Model Curriculum-<br>Khalid Aloufi   | 131 |
| New Approach to Insurance Industry Development Based on Virtualization Technology-<br>Majid Taghiloo, Hasti Tabrizi Nasab | 138 |
| Congitive Theory and the Design of E-Learning Environments-<br>Bijan B. Gillani   | 147 |
| Radix Search- an Alternative to Linear Search-<br>Rajesh Ramachandran   | 154 |
| Dual Particle-Number RBPF for Speech Enhancement-<br>Seyed Farid Mousavipour, Saeed Seyedtabaii                           | 159 |
| Call for Chapter Proposals  | 170 |
| Conference Notification   | 173 |

## **Editorial**

The **Journal of E-Technology** with this issue has completed two years of publication in serving the Electronic Technology community. We are pleased to gain understanding its progress in terms of content, delivery and impact.

This issue has many interesting papers. In the first paper on "**Developing an Information Technology Model Curriculum**" the author *Khalid Aloufi* has presented a good design and model based on the Accreditation Board for Engineering and Technology (ABET) and on the guiding principles of the ISO 2009. The author claims that the proposed model has been applied at an university in Saudi Arabia where the model is found to have good impact.

Majid Taghiloo and Hasti Tabrizi Nasab in their paper on, "New Approach to Insurance Industry Development Based on Virtualization Technology" have highlighted basically the lack of Electronic Technology infrastructure in the domain Electronic Commerce. The insurance industry has the influnece of electronic environment and hence they subjected it to the implementation of a three-dimensional model, where the effect of information technology on the key elements of the industry is analyzed; in order to reduce costs and increase efficiency in managing large-scale insurance industry, a new approach based on virtualization is proposed in which the new arrangement of information technology infrastructure is described. They have further evaluted the effect of virtualization on the development and maintenance of IT infrastructure and come up with efficient methods.

Cognitive activities have impact on e-learning particularly on the students' intellectual development and their capacity to learn and solve problems. Cognitive developmental theories have contributed to the design, process and development of constructive e-learning environments, the author Gillani views and in his paper on, "Cognitive Theory and the Design of E-Learning Environments" applied the Piaget's cognitive theory to create e-learning environments. The author was able to draw a collection of simple, uniform, and effective inquiry-training math web sites for elementary and middle school students.

Search algorithms are central to search engines and the effectiveness of search mechanisms are determined by the algorithms. In a paper on, "Radix Search- an Alternative to Linear Search", the author *Rajesh Ramachandran* has proposed a search algorithm for Radix Search which finds out a particular value in a list by checking each one of its elements. Radix search has benefits over the binary searches and could be well implemented if the list is represented as linked list.

The performance of a dual particle-number Rao-Blackwellized particle filter (RBPF) was evaluated using performance indexes such as the Quality of the processed speech scored by PESQ and computation time by Seyed Farid Mousavipour and Saeed Seyedtabaii in their paper on, "Dual Particle-Number RBPF for Speech Enhancement". Through the simulation results they have found that the RBPF methods outperform some well known Kalman based algorithms in the cost of more computation time.

We wish that the papers published in this issue will have prominence in the content and value.

## **Editors**