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Message from the Editor



Dear Readers and Colleagues,

In this issue, we will have seven papers with diversified topics in Computer and Information Sciences. These will include Arabic language processing and characterization, Communications and Networking, video watermarking, web services, and complex network graphs.

The first two papers are related to Arabic language. The first paper investigates the acoustic characteristics of Arabic vowels pronounced by Malay speakers. For this aim, attributes such as duration, variability, overlapping, and dispersion were used. In the second paper, Arabic text classification and root extraction were the objectives. Transducers were used to model patterns for the extracted roots, and use them in document transformation and representation.

The next two papers are related to data transmission. The first paper considers a wireless noisy channel where Secondary Users have cognitive radio capabilities to sense the spectrum usage of Primary Users. A performance analysis is presented for the probability of false alarm and missed detection. The second paper proposes a new architecture for an on-chip router that should avoid congestion and ensures efficient data flow. Both a performance analysis and a comparison with existing schemes were presented.

The fifth paper proposes a blind video watermarking algorithm resistant against both rotation and collusion attacks.

This was achieved by applying watermarking to each frame and by using the YC_bC_r color model instead of the RGB model. Zernike moments properties were exploited to achieve rotation invariance, and the embedding blocks were randomly selected to avoid collusion attacks.

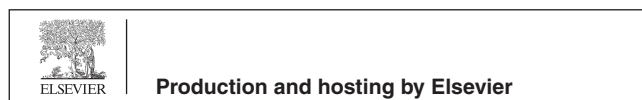
The sixth paper addresses the dynamic modification of Long Composed Services to aid both the end users and consumers to benefit from the open competition among the business service providers. A Finite State Machine was used to model the change management, and a Probabilistic Cellular Automata was used to implement the inference from historical patterns of change incidents.

The last paper presents a new algorithm that maximizes the node matching in complex network graphs. The algorithm was denoted by Maximal Assortative Matching (MAM) and basically includes edges that have lower assortativity weight. A variation of MAM, denoted by MNM, was also presented. It was merely an application of MAM to maximizing the number of nodes matched. The second MAM variation, was a modification to determine a matching with an objective of minimizing the assortativity index.

This concludes our message, and as always, suggestions and remarks of our readership are welcome.

Prof. Nasser-Eddine Rikli
Editor-in-Chief of JKsUCI

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