Welcome to the International Journal of Mobile Computing and Multimedia Communications (IJMCMC)

The field of mobile computing and multimedia is expanding in an unprecedented pace. Indicators are the rapidly increasing penetration of the cellular phone market around the world, and the mobile computing market is growing nearly twice as fast as the desktop market. In addition, technological advancements have significantly enhanced the usability of mobile communication and computer devices. From the first CT1 cordless telephones to today’s Iridium mobile phones and laptops/PDAs with wireless Internet connection, mobile tools and utilities have made the life of many people at work and at home much easier and more comfortable. As a result, mobility and wireless connectivity are expected to play a dominant role in the future in all branches of economy. The addition of mobility to data communications systems has not only the potential to put the vision of “being always on” into practice, but has also enabled new generation of services, e.g., location-based services. For these reasons, we believe that this is the right time to introduce a specialised journal in the area of mobile computing and multimedia communications.

The primary goal of the journal is to provide researchers and academic communities around the world with the highest quality articles while reporting the state-of-the-art research results and scientific findings allowing students, developers, engineers, innovators, research strategists and IT-managers in this field to gain greater insight into mobile multimedia as they relate to applications, management, and opportunities within any given construct.

The journal publishes original research papers, state of the art reviews, technical notes, case studies, innovative projects, books reviews on topics leveraging all aspects of mobile and multimedia computing: from underlying technologies to applications, theory to practice, and servers to networks to devices.

The coverage of these authoritative titles ranges from innovative topics to research findings to trends analysis on mobile multimedia and related theories, technologies, methods, applications, and services from all engineering, business and organizational perspectives. A summary of the scope of mobile computing and multimedia communication includes:

- New Mobile and Multimedia Applications and Services
- Mobile and Multimedia Markets and Business Models
- Enabling Infrastructures for Mobile Computing and Multimedia
- Regulatory and Societal Issues of Mobile Computing and Multimedia
In this inaugural issue, we include six papers. The first paper entitled *Scenario-based Cluster Formation and Management in Mobile Ad Hoc Networks* by V. S. Anitha and M. P. Sebastian from India proposes a scenario-based algorithm for cluster formation and management in mobile ad hoc networks. In this algorithm, the clustering setup phase is accomplished by a distributed (k, r) – Dominating Set finding algorithm for choosing some nodes that act as coordinators of the clustering process.

In the second paper entitled *Fast Vector Quantization Encoding Algorithms For Image Compression* by Ahmed Swilem from Egypt, two fast encoding algorithms for VQ are proposed. To reduce the search area and accelerate the search process, the first algorithm utilizes three significant features of a vector that are, the norm, and two projection angles to two projection axes. The second algorithm uses the first two features with the projection value of the vector to the second projection axe. The algorithms allow significant acceleration in the encoding process. Experimental results are presented on image block data. These results confirm the effectiveness of the proposed algorithms.

The third paper *FCVW - Experiments in Groupware* by Ivan Tomek, and Elhadi Shakshuki from Canada surveys several groupware products and describes FCVW (Federated Collaborative Virtual Workspace), an experimental project designed to explore certain groupware aspects that are not sufficiently addressed by existing products.

While the fourth paper *A Cross-Layer Model for Video Multicast Based TCP-Adaptive FEC over Heterogeneous Networks* by Ghaida A. AL-Suhail, Liansheng Tan, and Rodney Kennedy from Iraq, China and Australia presents a simple cross-layer model that leads to the optimal throughput of multiple users for multicasting MPEG-4 video over a heterogeneous network. For heterogeneous wired-to-wireless network, at the last wireless hop, there are bit errors associated with the link-layer packets that are arising in the wireless channel, in addition of overflow packet dropping over wired links. The authors employ a heuristic TCP function to optimize the cross-layer model of data link and physical (radio-link) layer.

The fifth paper *A Model For Mobile Learning Service Quality In University Environment* by Nabeel Farouq Al-Mushasha, and Shahizan Hassan from Jordan and Malaysia proposes a service quality model for m-learning in a university environment. A questionnaire survey was conducted which measured ten dependent variables and three independent variables. The dependent variables were meant to measure service quality, information quality, and system quality. The dependent variables were meant to measure the causal relationship between overall learners’ perceived service quality, learner satisfaction, and learner behavioural intention to use the service in future. The findings revealed that the factors that lead to service quality of m-learning in a university environment were interface design, reliability, trust, content usefulness, content adequacy, ease of use, accessibility, and interactivity. The findings also indicates that there are causal relationships between learner satisfaction with overall service quality, and learner satisfaction with learner behavioural intention.

The final paper in this issue is *Evaluating E-Communities of Wireless Networks Worldwide* by Theodoros I. Kavaliotis and Anastasios A. Economides from Greece. This paper presents an evaluation framework and analyzes the current status of such Electronic Communities of Wireless Networks (ECWNs) in four continents: Africa, America, Europe and Oceania. The evaluation framework contains fifty criteria categorized into four categories: Usability, Technical Characteristics, Community’s Commitment, and Members’ Commitment. The results show that there are large differences among ECWNs with respect to the forum structure, archives accessibility, interactivity, services, members’ commitment, participation and relationships.

In closing, we would like to thank all the members of the editorial board, and the IGI Global, for making this journal possible. We would also like to thank the authors who have chosen this journal as a medium to publish their research results. We hope that readers will find these articles useful, informative and innovative.