The smartphone sales are blossoming. Apple set the records of selling 1 million each of the iPhone 3G and the iPhone 3GS in their initial weekend of sales in 2008 and 2009, respectively. The iPhone 4 sales were even better. The sales topped 1.7 million units for the first three days after its launch on June 24, 2010. What’s more is iPhone was not even the top one of smartphone sales in 2009 according to Table 1 based on various market research reports (http://www.handheldresearch.org/). The International Journal of Handheld Computing Research provides a forum for scholars, researchers, and practitioners to discuss and examine the current status and future trends of smartphone/handheld computing. This issue includes five outstanding articles. A snippet of each article is given next.

Article 1. MICA—A Mobile Support System for Warehouse Workers: This paper presents a mobile assistance system, MICA, for warehouse workers to apply the new Interaction-by-Doing principle, which is an enhancement of Interaction-by-Movement. MICA effectively reduces picking times and error rates by unobtrusively navigating the worker through the warehouse and effectively preventing picking errors using RFID. Consequentially, job training periods are shortened, while at the same time pressure put on the individual worker is reduced. This leads to lower costs for warehouse operators and an increased customer satisfaction.

Article 2. Survivability Enhancing Techniques for RFID Systems: Radio Frequency Identification (RFID) has been applied to various high security and high integrity settings and RFID security techniques could be used to enhance an RFID system’s survivability. This research classifies the RFID security techniques according to three aspects: (i) resilience, (ii) robustness and fault tolerance, and (iii) damage assessment recovery. This paper also presents a threat model which can help users identify devastating attacks on an RFID system. The results show an RFID system must be empowered with strong protection to withstand those attacks and provide essential functions to users.

Article 3. Mobile Agent Based Network Defense System in Enterprise Network: A configurable intrusion detection and response framework named Mobile Agents based Distributed (MAD) security system is proposed for enterprise network consisting of a large number of mobile and handheld devices. The key idea of MAD is to use autonomous mobile agents as lightweight entities to provide unified interfaces for intrusion detection, intrusion response, information fusion and dynamic reconfiguration. This paper includes three major contributions:

- An object-based intrusion modeling language (mLanguage) is proposed to allow easy data sharing and system control.
- A data fusion engine (mEngine) is used to provide fused results for traffic classification and intrusion identification.
- To ensure Quality-of-Service (QoS) requirements for end users, adaptive resource allocation scheme is also presented.

Article 4. Interactive Rendering of Indoor and Urban Environments on Handheld Devices by Combining Visibility Algorithms with Spatial Data Structures: This work presents a comparative study of various combinations of visibility algorithms including (i) view-frustum culling, (ii) backface culling, and (iii) a simple yet fast
algorithm, called conservative backface culling, and different settings of standard spatial data structures including (i) non-uniform Grids, (ii) BSP-Trees, (iii) Octrees, and (iv) Portal-Octrees for enabling efficient graphics rendering of both indoor and urban 3D environments, especially suited for low-end handheld devices. The results demonstrate that navigation at interactive frame rates on low-end handheld devices can be obtained using geometry rather than image-based rendering or point-based rendering.

Article 5. Effect of Personal Innovative-ness, Attachment Motivation and Social Norms on the Acceptance of Camera Mobile Phones: an Empirical Study in an Arab Country: This research develops a model to assess the consumer acceptance of Camera Mobile Phone (CMP) technology for social interaction. The model is based on the following theories: (i) the technology acceptance model, (ii) the theory of reasoned action, (iii) the attachment motivation theory, (iv) innovation diffusion theory, and (v) the theory of flow. Two research methods were used in this paper:

- The first one was a qualitative field study that was used to identify the variables that most drive CMP acceptance and build the research model using a sample of 83 consumers.
- The second method was a quantitative field study. Data was collected from a sample of 240 consumers in Kuwait and was used to test the proposed model.

The results show that personal innovativeness, attachment motivation and social norms have an important effect on CMP acceptance.

The five articles cover the most up-to-date topics of Radio Frequency Identification (RFID) research, network security, rendering of indoor and urban environments, and a study of mobile phone acceptance. Hope you will enjoy reading this issue. Any comments and suggestions are welcome.

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