



International Workshop on Ubiquitous Computing, Management, and Applications in Healthcare (UbiHealth-09)

**International Workshop on Ubiquitous Computing, Management, and Embedded Applications in Healthcare (UbiHealth-09): Strategies and Application Case Studies**

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**Description:** Ubiquitous computing is enormously empowering health-related activities with the maturation of the Internet and wireless communications, and with the ubiquity of microchips in computers, appliances, and sensors. Embedded software is now very pervasive; and its use in medical devices is of heightened interest since a failure or malfunction may result in the loss of human life(s). There are also important issues related to how to manage healthcare information and devices. The goal and objective of this workshop is to bring together researchers and practitioners from the healthcare, software, and management research and development fields to share their practical and research experiences with ubiquitous computing and management in healthcare. It is anticipated that the workshop will foster collaborative efforts among practitioners and academicians, accelerate knowledge discovery, and reduce the cost of healthcare.

**Focus and Perspective Audience:** The focus of the workshop will be from two perspectives: practitioner and academic. The practitioner perspective will provide the opportunity for practitioners to present case studies and narratives on the deployment, use, and management of embedded software and systems in health-related activities and facilities. Success and

failure stories are especially welcomed. The academic perspective will give academicians the opportunity to present and discuss current and future breakthroughs in the design, testing, and deployment of ubiquitous computing techniques for healthcare.

**Topics:** Case studies and theoretical works related on computing and management in health applications are both emphasized, and the following areas will be given top priority considerations:

1. Developing, testing, and using embedded applications in healthcare service provision
2. Technical infrastructure for health: data coordination and computational thinking
3. Informatics systems for electronic records integrating image data with clinical data for health care decision support
4. Universal interface to transmit image data across institutions/hospitals
5. Interoperable electronic health record (HER)-based research platform
6. Data mining for medical records database, including mining clinical notes, test data and abnormal images
7. Artificial intelligence techniques to support complex decision making in health care or clinical research
8. Protection of individual privacy for aggregate anonymous data, security and privacy policies for health care
9. Technologies to address rural health disparities, geographic disparities in medicare usage and cost

**Workshop format:** The format of the workshop will include activities in various forms including tutorials, demonstrations, panel discussions, and posters presentations.

***The duration of the workshop:*** one to two full days (depending on number of submissions). Tentatively, individual sessions will range from 60 minutes to 90 minutes, including a 15 minutes break.

**All submissions should be sent to the workshop chair in Microsoft word or PDF format.**

***Submission Deadline:*** May 24, 2009

***Acceptance Notification:*** June 5, 2009

***Final Paper Due:*** June 15, 2009

***Workshop:*** August 29 – 31, 2009

***Instructions for Initial Submission:*** Submit a 300 word abstract and a summary (1500 - 2500 words) outlining the content of your activity for the workshop, and the approximate time required. Any graphics, demonstration software, or request for special equipment to facilitate your activity should be included as an appendix and submitted at the same time. If what you are planning for is work in progress, clearly indicate so as well as the expected date of completion.

***Instructions for Final Submission:*** Final papers will be acceptable in MS-Word format. The max number of pages is 6, plus 2 extra pages to be purchased if necessary. The paper should be submitted in the PDF format. The accepted papers will be published by **IEEE CS Press** as a separate proceeding (indexed by EI). Selected papers, after further revisions, will be invited for inclusion in a special issue of the **International Journal of Embedded Systems (IJES)**, Inderscience Publishers.

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