



دانشکده مهندسی کامپیوتر

سمینار

Embedded Medical Monitoring: Algorithms, Architecture and application

ارائه کننده: دکتر مجید صرافزاده

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تالار خوارزمی

Abstract:

Ubiquitous computing defines a new era in which a large number of heterogeneous systems can potentially collaborate to support the execution of medical applications and health care monitoring. In the first half of the talk, I will describe a system for rapidly constructing low-cost prototypes for medical monitoring by leveraging tiny embedded computers. Our platform is an architecture called "CustoMed" that will reduce the customization and re-configuration time for medical systems. A few health care monitoring systems built based on CustoMed will also be introduced.

The second half of the talk will portray the challenges of implementing complex biological/medical applications on resource constrained networked embedded. Particularly, I will focus on Electrocardiogram (ECG) analysis algorithm and a few more.

Biography:

Majid Sarrafzadeh (M'87, SM'92, F'96) received his B.S., M.S. and Ph.D. in 1982, 1984, and 1987 respectively from the University of Illinois at Urbana-Champaign in Electrical and Computer Engineering. He joined Northwestern University as an Assistant Professor in 1987. In 2000, he joined the Computer Science Department at University of California at Los Angeles (UCLA). His recent research interests lie in the area of Embedded and Reconfigurable Computing, VLSI CAD, and design and analysis of algorithms. Dr. Sarrafzadeh is a Fellow of IEEE for his contribution to "Theory and Practice of VLSI Design". He received an NSF Engineering Initiation award, two distinguished paper awards in ICCAD, and the best paper award in DAC. He has served on the technical program committee of numerous conferences in the area of VLSI Design and CAD, including ICCAD, DAC, EDAC, ISPD, FPGA, and DesignCon. He has served as committee chairs of a number of these conferences. He is on the executive committee/steering committee of several conferences such as ICCAD, ISPD, and ISQED.

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