



## ***Power to the People (PTP): Learning and Leveraging the Relationship between Architectural Properties and User Satisfaction***

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### resumen:

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The ultimate goal of any product is to satisfy its users. In this talk, I will describe our work in trying to understand the relation between hardware performance and user satisfaction. Our results show that the satisfaction of the user is strongly correlated to the performance of the underlying hardware and more importantly, that user satisfaction is highly user-dependent.

Our first set of experiments show that there is large variation in expected performance among individual users. This variation can be exploited by clients/servers to optimize their services according to the needs of the individual users. To achieve this, computers need to collect information about user satisfaction. The second part of my talk focuses on our efforts to achieve this goal. Specifically, I will describe our work on the development of new biometric input devices for providing the computer information about the user's physiological traits. The goal in this work is to understand the users' involvement by monitoring their physiological traits and making architectural decisions accordingly.

In the third part of this talk, I will describe our work on understanding user patterns for mobile smart phones.

### sobre Gokhan Memik:

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Prof. Gokhan Memik is an Associate Professor at the Electrical Engineering and Computer Science Department of Northwestern University. He received the B.S. degree in Computer Engineering in 1998 from Bogazici University and PhD in Electrical Engineering from University of California at Los Angeles (UCLA) in 2003 under the direction of William H. Mangione-Smith. He was associated with Bimtek, a startup company providing internet solutions between 1997 and 2000, and BlueFront Defenses, a startup company that designs hardware-based network security solutions, between 2000 and 2002.

Dr. Memik works in the area of computer architecture. He is the author of 2 book chapters and over 90 refereed journal/conference publications. He co-invented snoop filtering for bus-based multiprocessor systems, which was presented at HPCA (2001). Snoop filtering is currently adopted by a variety of products from IBM (e.g., IBM BlueGene), Intel (e.g., Quad-core Xeon), and others. He is also the co-author of NetBench and MineBench, two widely used benchmarking suites for networking and data mining applications, respectively.