Distributed Smart Cameras for Real-Time Analysis of Human
Behavior

Marilyn Wolf
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10/27/2015 at 11:00 am
Core A (Room 301)

Abstract
This talk will survey our groups work over the past decade on distributed
smart cameras that perform real-time computer vision. We will start with
single-node smart cameras and describe how we worked at a variety of levels
of abstraction—computer vision algorithms, embedded software, hardware—
to design smart cameras that perform computer vision tasks in real time. We
will also discuss our work on architectures for computer vision and design
methodologies. We will go on to describe our work on distributed smart
cameras that cooperate to analyze larger scenes without requiring the use of
a central server. We will also describe our decade-long effort to commercialize
this technology. We close with a look ahead to next-generation distributed
smart cameras that operate at ultra low energy levels.

Bio
Marilyn Wolf is the Rhesa ”Ray” S. Farmer Distinguished Chair and Geo-
ragia Research Alliance Eminent Scholar at the Georgia Institute of Technol-
o. She received her BS, MS, and PhD in electrical engineering from Stanford
University in 1980, 1981, and 1984, respectively. She was with AT&T Bell
Laboratories from 1984 to 1989. She was on the faculty of Princeton Univer-
sity from 1989 to 2007. Her research interests included embedded computing,
embedded video and computer vision, and VLSI systems. She has received
the ASEE Terman Award and IEEE Circuits and Systems Society Education
Award. She is a Fellow of the IEEE and ACM and an IEEE Computer Society
Golden Core member.

Faculty Host: Dimitris Metaxas