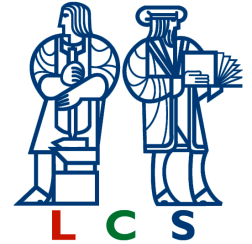


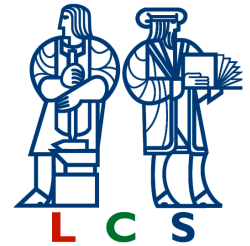


Project Overview



Develop robust person tracking system for multimodal conversational interface:

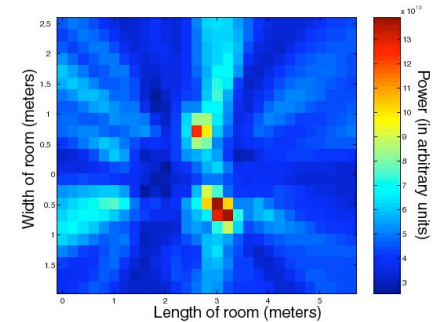
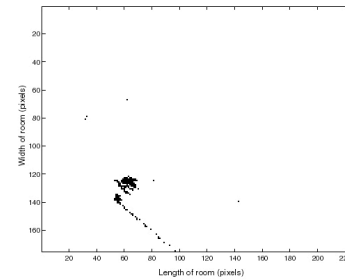
- Know number of users in environment
- Recognize using face and/or gait cues
- Track face pose for turn-taking and agreement gestures signaled using head nod/shake
- Track arm gestures for pointing and other gestures.



Progress Through December 2002

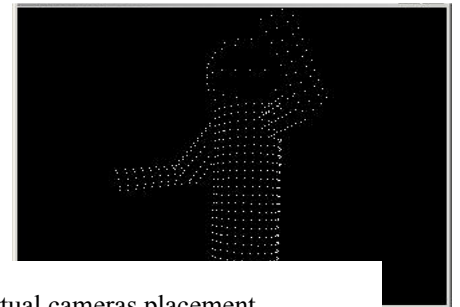
Integrated audio and video person tracking:

- new audio-visual particle filter:



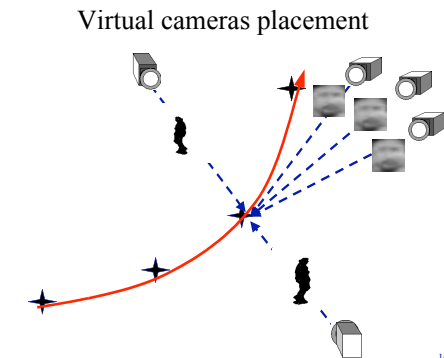
Articulated tracking:

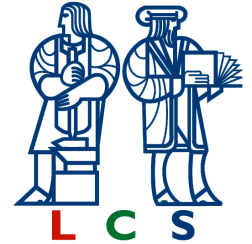
- linearized joint constraint



View-normalized Face/Gait recognition

- image-based visual hull





Research Plan for the Next Six Months

Face and arm gestures for multimodal pointing gestures

Object recognition of items in hand...

- “What is this?”
- “This is the XYZ document”

Add class-specific prior to aid segmentation in image-based view-normalized rendering system.