

# **EU/US International Conference on Aging, Disability, and Independence**

***Preparatory Workshop: High Technology Track***

**June 26-27, 2003**

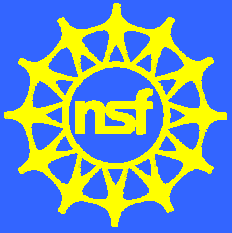
## **NSF Activities in Disability-related Research**

**Gilbert B. Devey, Program Manager**

***Research to Aid Persons with Disabilities Program***

**EPSRC**

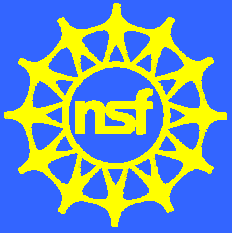




# NSF's Vision and Mission

## VISION

- Enabling the Nation's future through discovery, learning and innovation.
- Realizing the promise of the 21<sup>st</sup> century depends in large measure on today's investments in science, engineering and mathematics research and education. NSF investments – in people, in their ideas, and in the tools they use - will catalyze the strong progress in science and engineering needed to secure the Nation's future.



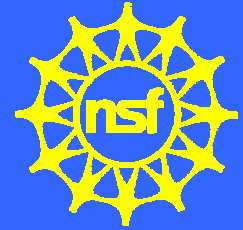
# NSF's Vision and Mission

## MISSION

- To ***promote the progress of science***; to advance the National health, prosperity, and welfare; to secure the National defense; and for other purposes.

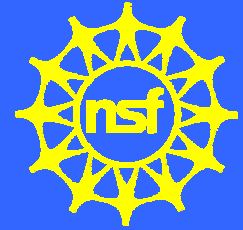
# NSF's Strategic Goals

- **People** - A diverse, internationally competitive and globally-engaged workforce
- **Ideas** - Discovery across frontiers and connections to learning, innovation and service to society
- **Tools** - Accessible, state-of-the-art information bases and shared tools



# PEOPLE – IDEAS – TOOLS

- **Information Technology Research**
- **Nanoscale Science and Engineering**
- **Sensors and Sensor Systems**
- **Small Business Innovation Research**
- **Program for Persons with Disabilities**
- **Human-Computer Interaction; Universal Access**
- **Undergraduate Design Projects (for persons with disabilities)**



# PEOPLE – IDEAS – TOOLS

## Information Technology Research (ITR)

### ▪ The Aware Home:

*Sustaining the Quality of Life for an Aging Population*

Gregory D. Abowd, PhD; Award 0121661; Georgia Institute of Technology

*...advances in three research areas: human-computer interaction; computational perception; software engineering...*

### ▪ MavHome: An Intelligent Environment Home

Diane J. Cook, PhD; Award 0121297; University of Texas, Arlington

*...an intelligent agent able to perceive its environment through the use of actuators and act upon that environment using actuators...*



# PEOPLE – IDEAS – TOOLS

## ▪ Information Technology Research (ITR)

*A Distributed Programming Infrastructure  
for Integrating Smart Sensors*

**U. Ramachandran, PhD; Award 0121638; Georgia Inst. Tech.**

...checking a common class of real-time interrupt-driven systems (flight control; railway signaling; **medical devices**; vehicle management systems)...

**Nanotechnology**

**Infotechnology**



**Biotechnology**

**Cognotechnology**

“Through self-delivered nano-medical interventions, patients in the future will be able in the comfort of their homes to perform noninvasive treatments autonomously or under remote supervision by physicians.” *Converging Technologies for Human Performance* (NSF/DOC June 2002; p. 160)

**The ultimate smart home?**



# Interagency Committee on Disability Research

**“to promote coordination and cooperation among Federal departments and agencies conducting rehabilitation research programs.”**

<http://www.icdr.us>

- **Annual report to President and the Congress**
- **Workshop: *Cell Phone Interference with Hearing Aids***
- ***One click* for all U.S. funded disability research projects**
- **Report: *U.S. Assistive Technology Industry***