

DARPAICE 2002 Symposium

Fally Casy

The Brain Machine Interface: Augmenting Human Performance

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Biology... DARPA's Future Historical Strength

Behavior

Protecting
Human
Assets

The Bio-Silico Interface

Cell &Tissue Engineering

Brain

Technology

Genomics & Proteomics Enhanced
Human
Performance

Enhanced
System
Performance

Energy Transduction

New Materials

Bioinformatics

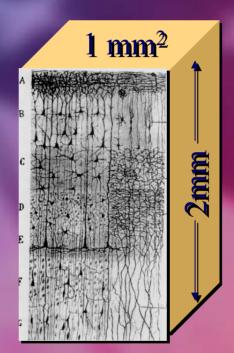
Biocomputation

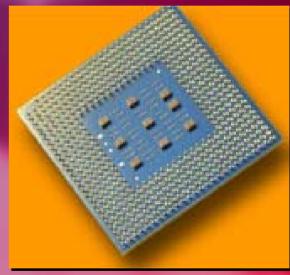




Brains vs. Electronics











Brain Fundamentals

From Pharmacology and Physiology to Learning and Behavior



- Improving brain processing and retention of data
- Evaluating Target sites and Molecules for pharmacological interventions



Insect Locomotion and Mimetics









Intelligent Machines:

Insect Visual Processing In an Autonomous Helicopter







Real Time Two Way Behavioral Communication







Rat Meets Tony

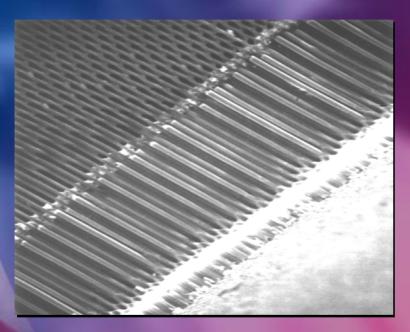






Retinal Prosthetic

Nanochanneled Glass







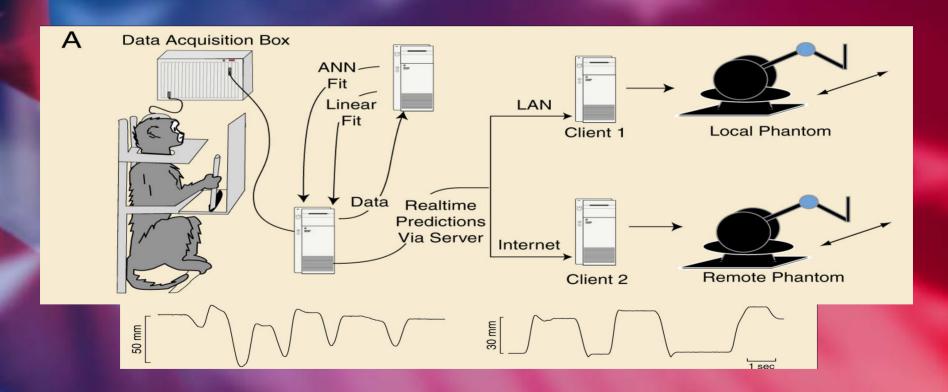
Chip output from digital camera input





Brain Machine Interface

Control devices & machines with thought



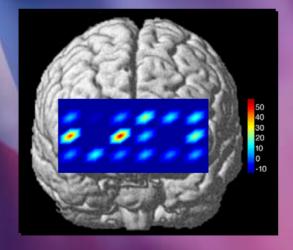


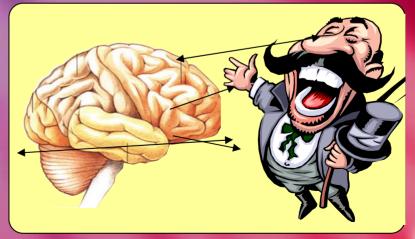


Deception Detection















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