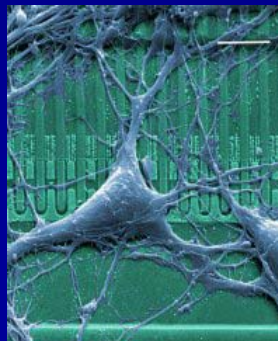
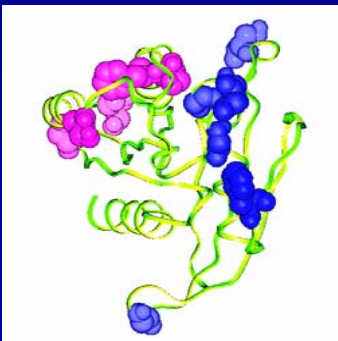


Hot Trends in Biomedical Engineering

Metin Akay

Harrington Department of Bioengineering

Arizona State University, AZ 85255 USA



Intelligent Monitoring Systems

Wearable Technology from Micro to Nano



Figure 1, The SenseWear™ Pro Armband is a wearable device capable of gathering physiological signals for later analysis using a personal computer. Transmission of the physiological signals to the device can be performed via a miniature transmitter, which is approximately the size of a postage stamp.

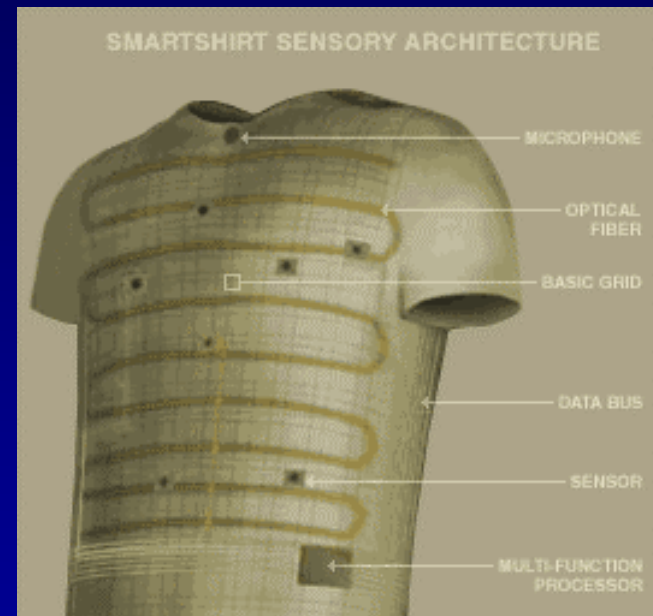
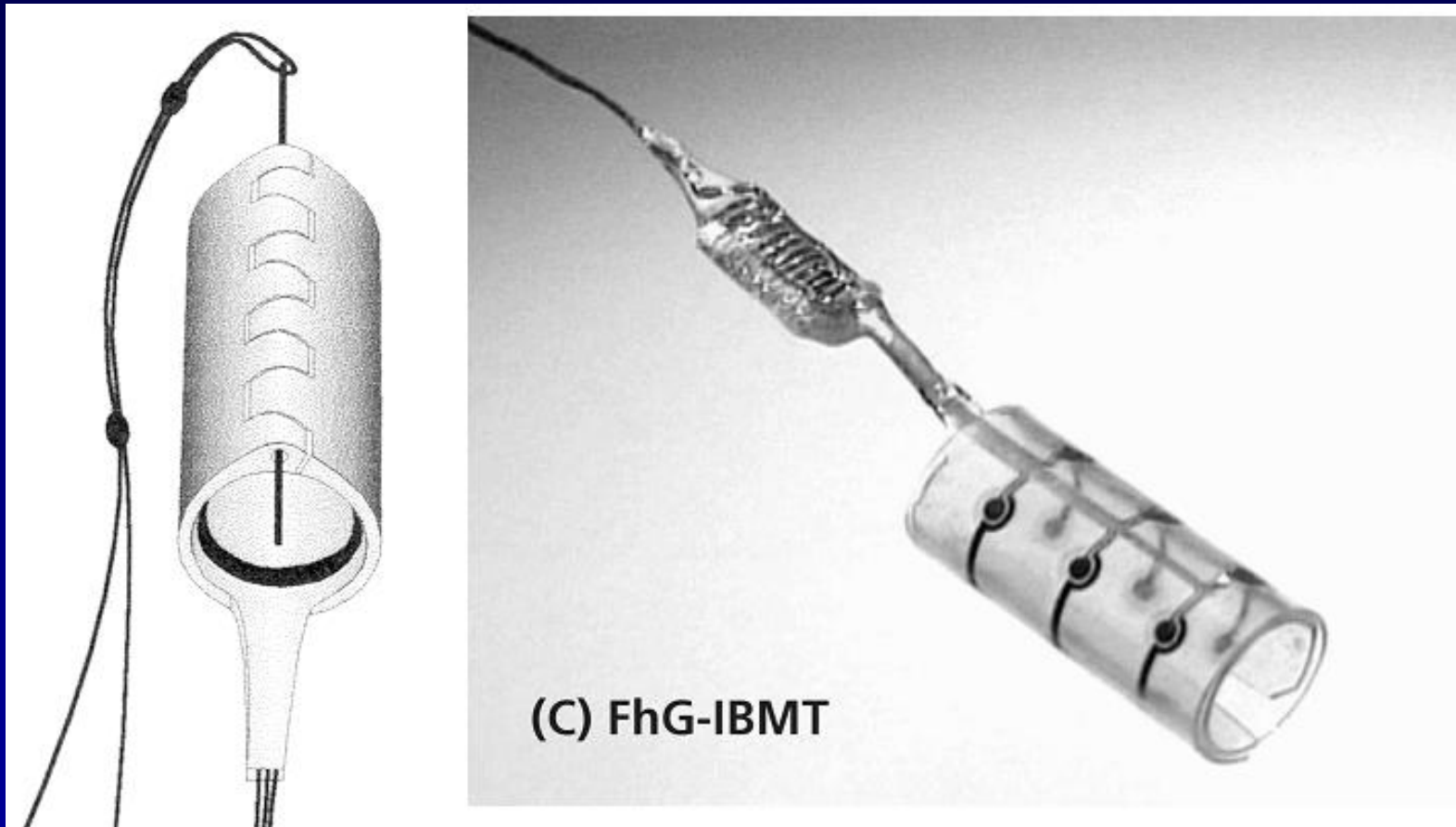


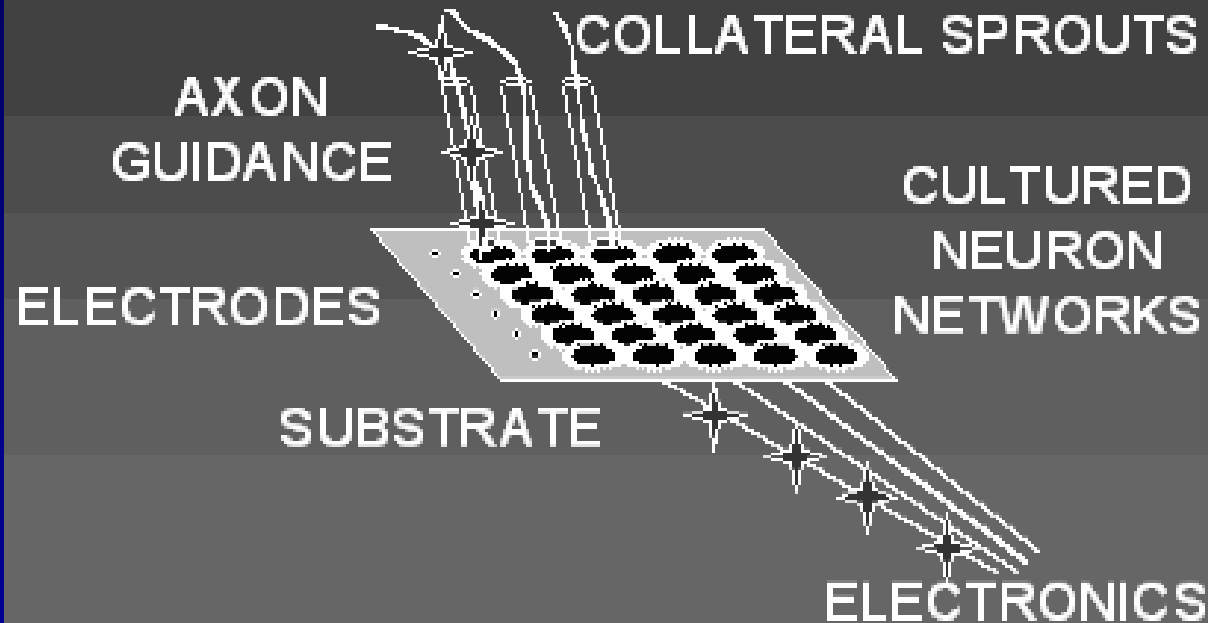
Figure 2 The Smart Shirt by Sensatex, Inc., USA, a garment with embedded sensors for physiological function monitoring.

The Cuff Electrode



- Sinkjaer and Popovic, "*Restoration of Movement by Implantable Neural Motor Prosthesis*", In: Handbook of Neural Engineering, edited by Metin Akay, Wiley and Sons, Inc, NJ, 2006.

CULTURED PROBE



- Rutten et al, "Towards a Cultured Neural Probe: Patterning of Networks and Their Electrical Activity Approach", In: Handbook of Neural Engineering, edited by Metin Akay, Wiley and Sons, Inc, NJ, 2006.

