



The Imperceptible Sensing

Smartex

SMARTEX PROFILE

Smartex was founded in 1999 to exploit new findings in the field of smart materials and development research and to find innovative solutions and products for the textile world.

E-textile is the main field of activity: electronic textile is conceived as a new class of materials where sensors, electronics and interconnections are woven into the fabric.

MISSION

To introduce innovation and high technology through the integration of traditional know-how in the textile field with the innovation required by a highly competitive context.

Smartex is active in the realisation of wearable electronics cloths for health care, rehabilitation, sport, protection, psycho and fisiological monitoring.

E TEXTILE: A NEW FRONTIER

Electronics textile is a new branch dealing with flexible, conformable, informative and interactive systems, where the essential instrumental functions such as sensing, actuating, processing and power supplying are implemented into the fabric structure. Functional textile materials, starting from fibers through differentiated structures, leads to a new class of human-technology interfaces.

Conductive yarns, piezoresistive fabrics, optical fibers, 3D textile capacitors, coated functionalised cloths are pieces of a broader concept for a new wireless textile circuitry. Multifunctional electronic textile gives an added value to the traditional textile and clothing industry; the possibility to make daily life healthy and safe in a comfortable

SMARTEX CASE HISTORY

NASA
MIT
TNO
CSEM
PHILIPS
UNIVERSITA' DI PISA
POLITECNICO MILANO
INCA
TELECOM
ENEL
ENI
DCU
INSA
Decathlon

Smart materials in fiber form

Augmentation of material properties



DAY

Wherever you are

Taking care of you...

Cardio-Respiratory Monitoring

ECG

Respiratory signal

Heart Rate,

Breathing Rate

HR Variability

Stress Monitoring

Activity level classification,

Posture



NIGHT

whatever you're dreaming

Watching your sleep

Smart Bed System

Sleep Quality Monitoring

Apnoea detection

Cardio-Respiratory Monitoring @ night



Behavioral & attitudinal sensors

Behavioral & Attitude sensors

Cardio-Respiratory Monitoring@ Work

Stress Monitoring

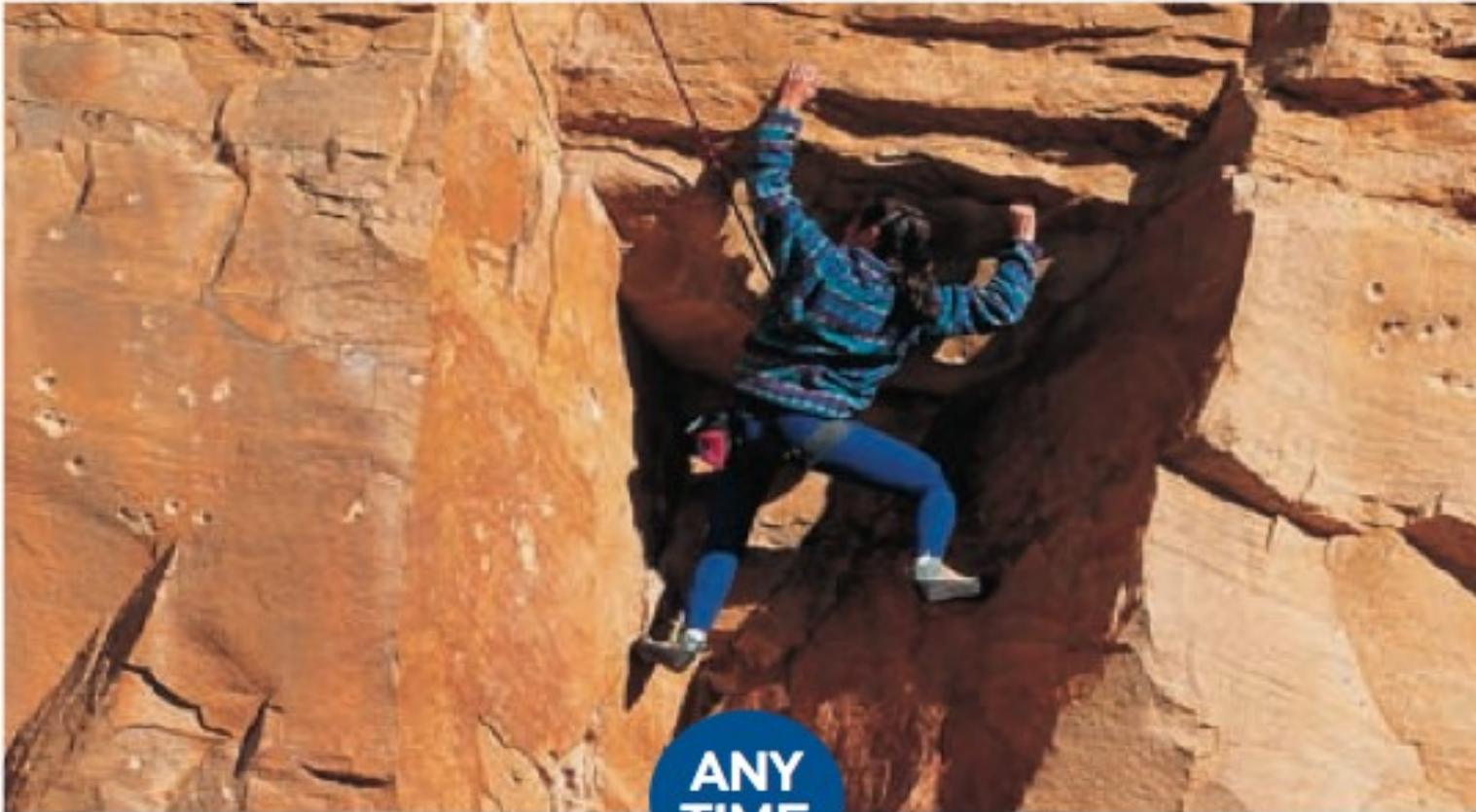
Activity level classification,

Posture

Temperature

Multivariable approach to track the instinctual side of human behavior

Alarms Management System



ANY
TIME

whatever you're doing

- Non verbal language
- Gesture & Movement detection
- Posture Recognition
- Joints articulation
- Muscles activity