

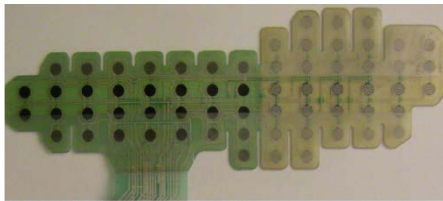
SnT Partner Day 10.05.2012

a
sense
for
IEE
innovation

a
sense
for
IEE
innovation



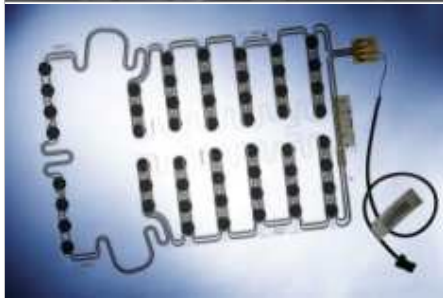
Company Overview



A small start-up 20 years ago with the mission to develop and produce electronic sensors.



First products were so-called 'Force Sensing Resistors' printed on plastic film. Applications were in industrial and medical areas.

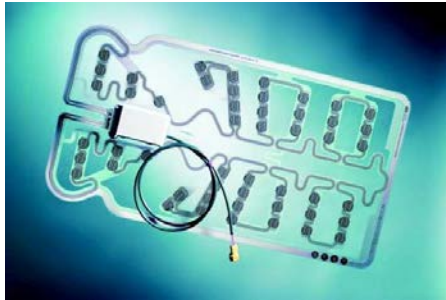


Automotive sensors developed to avoid unwanted airbag deployments to protect occupants & pedestrians. Recent developments of 3D-vision systems for building security.

Today, IEE has 1600 employees and world-wide operations.

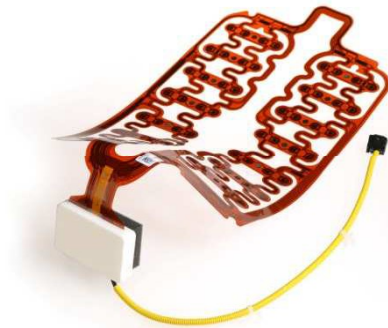


Challenges

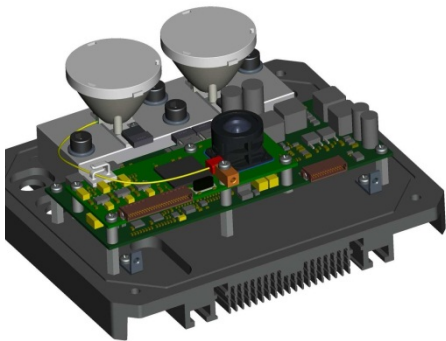


Growing electronics content, rapidly growing embedded software content.

Growing system complexity and increasingly severe customer requirements, e.g. ISO 26262, ...



Rising difficulties to recruit highly qualified employees and no resources for 'academic' and deep-diving investigations.



Collaboration with SnT

History:

- early IEE involvement in LIASIT (predecessor of SnT)
- 3 PhD theses done, one going on and one more starting
- Computer Vision Lab with IEE sensors at the University

Advantages for IEE:

- direct and indirect access to High-level Expertise
- knowledge about theoretical limits as engineering guidance
- common definition of research topics

PhD theses:

Model-driven Process for the Test Selection of Small-size Safety-related Embedded Software

Classification and Localization of Vehicle Occupants Using 3D Range Images

Combining 3-D and 2-D for Depth Data Enhancement

Multi-Sensor Fusion in Mono-View Vision Systems

Multi-Sensor Fusion in Multi-View Vision Systems

52

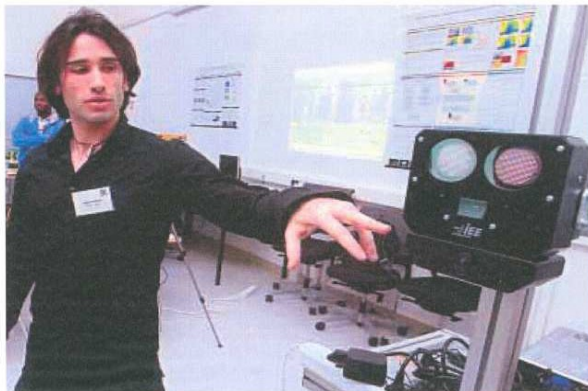
WIRTSCHAFT

Tageblatt

Sa./So., 10./11. März 2012 • Nr. 60

Sicherheitstechnik: SnT und IEE eröffnen Computer Vision Lab

Produkte für die Zukunft – Made in Luxembourg



Tendencies and Needs

Tendencies in our Industry:

- growing system complexity
- low-cost h/w requires competitive algorithms
- big potential and biggest risks in software
- 'bug-free' must be proven
- automated software production

Expected from SnT:

- attract top level Professors to Luxembourg
- innovative, aim oriented research
- methodology to develop reliable systems
- attract good engineers and scientists
- training through PhD and PostDoc programs
- retention for the national economy

