



University of Parma

Dept. of Information Engineering



University of Parma

Alma Universitas Studiorum

Parmensis

- Historical roots in the middle age
- Founded in the XI century, is among the world oldest universities
- Currently a state administration, with administrative autonomy
- 18 Departments
- Teaching and research staff: ~ 1000
- Technical and administrative staff: ~ 900
- Students: ~25.000
(Parma population: ~175.000)



University of Parma

Alma Universitas Studiorum

- Dept. of Arts and literature, history and social studies –
- Dept. of Biomedical, Biotechnological and Traslational Sciences
- Dept. of Chemistry
- Dept. of Civil, environmental, land management engineering and architecture
- Dept. of Classics, Modern Languages, Education, Philosophy
- Dept. of Clinical and Experimental Medicine
- Dept. of Economics
- Dept. of Food Science
- Dept. of Industrial Engineering
- Dept. of Information Engineering
- Dept. of Law
- Dept. of Life Sciences
- Dept. of Mathematics and Computer Science
- Dept. of Neuroscience
- Dept. of Pharmacy
- Dept. of Physics and Earth Sciences "Macedonio Melloni"
- Dept. of Surgery
- Dept. of Veterinary Science



University of Parma

Alma Universitas Studiorum

View of Science Campus *Parmensis*



S. Elisabetta University Congress Center

University of Parma

Alma Universitas Studiorum

Departments of Engineering *Parmensis*

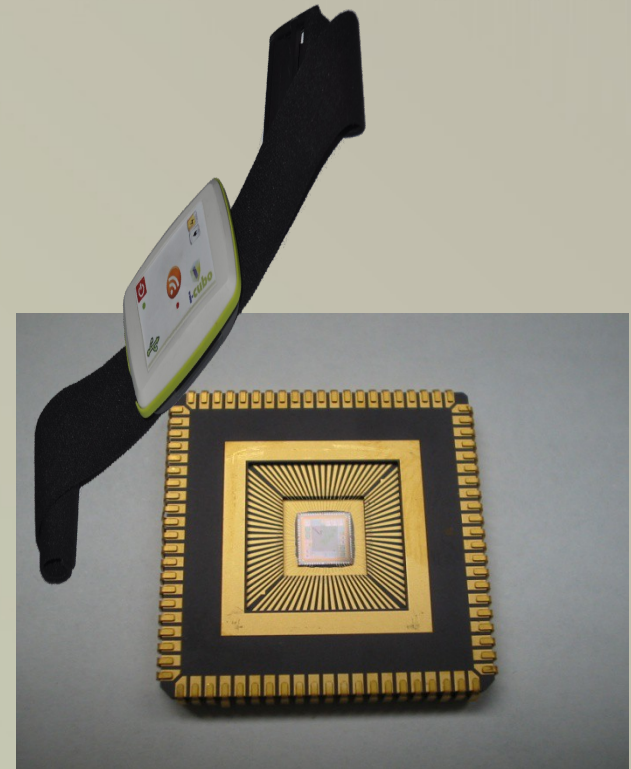


Dept. of Information Engineering

Research Activities Electronic Systems

Research fields:

- Integrated circuits
- Radio frequency electronics
- Digital electronic systems
- IC characterization
- Assistive technologies

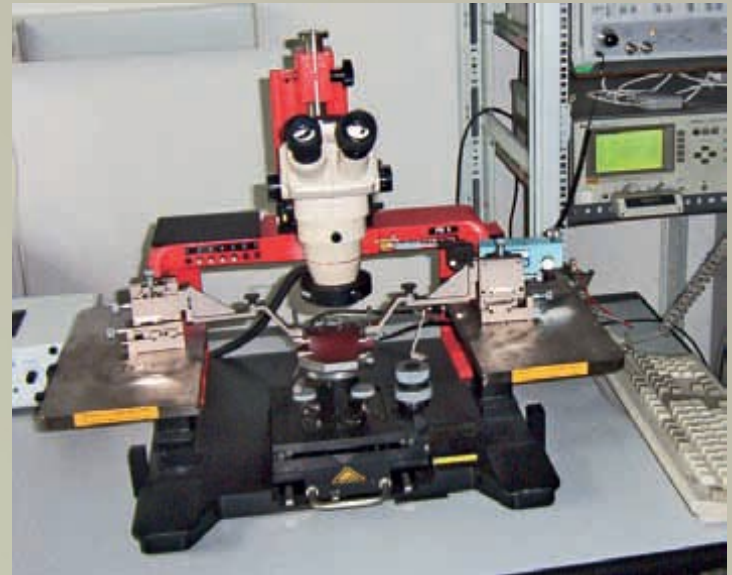


Dept. of Information Engineering *Research Activities*

Microelectronics and Devices

Research fields:

- Radiation detectors
- Superintegration
- Measurements
for microelectronics
- Microfluidic devices
- Modeling and reliability
of electronic and photovoltaic devices
- Power devices
- Fabrication processes

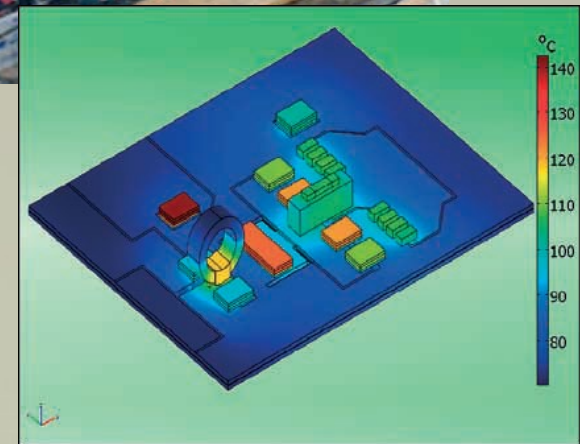
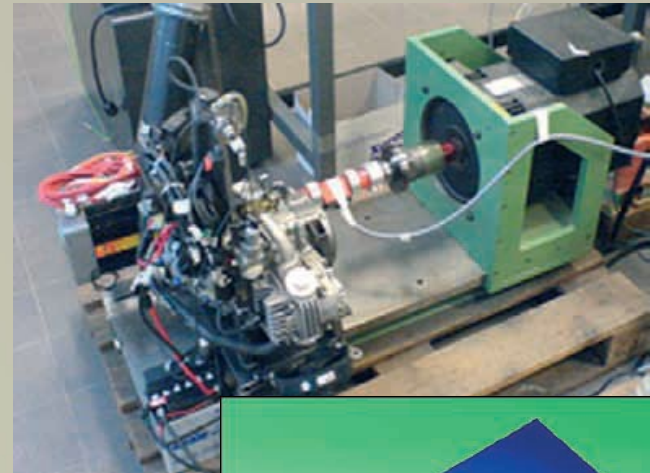


Dept. of Information Engineering *Research Activities*

Industrial Automation

Research fields:

- Digital control of electric drives
- Static energy conversion
- Switching audio amplifiers
- Power converters
- Measurements
for industrial applications
- Electric and hybrid-electric vehicles

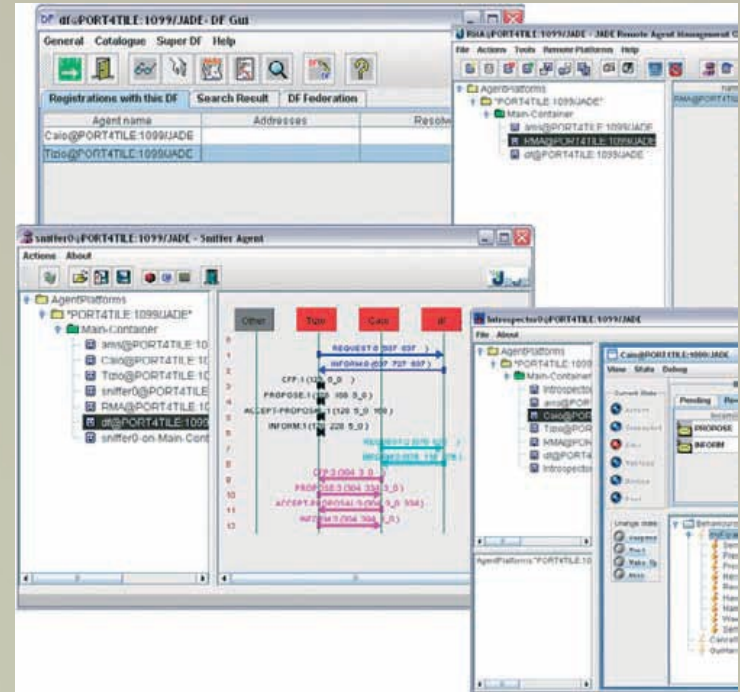


Dept. of Information
Engineering
Research Activities
Information Systems

Information Systems

Research fields :

- Development technologies and tools
- Distributed systems
- Mobile and multimedia systems



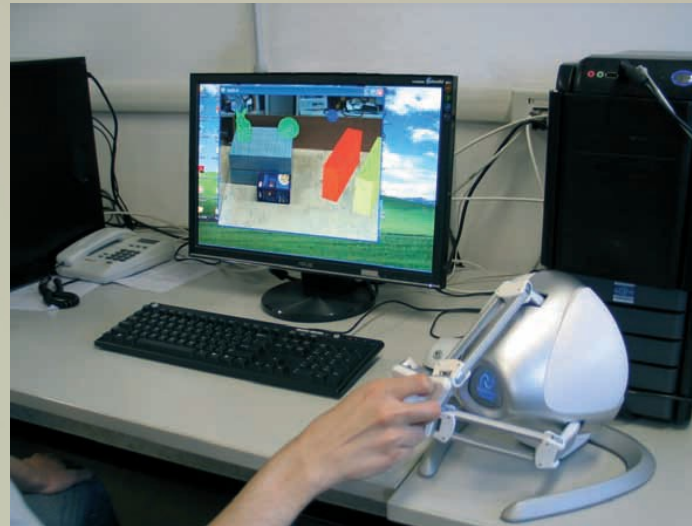
Dept. of Information Engineering

Research Activities

Robotics and Artificial Vision

Research fields :

- Bio-inspired algorithms and sensors
- Non-conventional vision sensors
- Robotic systems

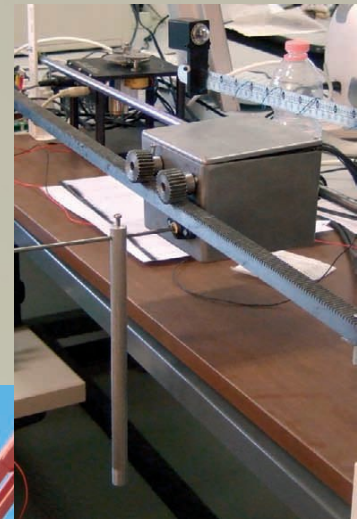


Dept. of Information Engineering *Research Activities*

Control Systems for Automation

Research fields:

- Feedforward/feedback systems
- Mechatronics and industrial robotics
- Autonomous navigation
- Operations research



Dept. of Information Engineering *Research Activities*

Optical Communications and Components

Research fields:

- Fiber optics transmission systems
- Optical amplifiers
- Photonic crystal fibers,
high-power fiber lasers,
optical sensors

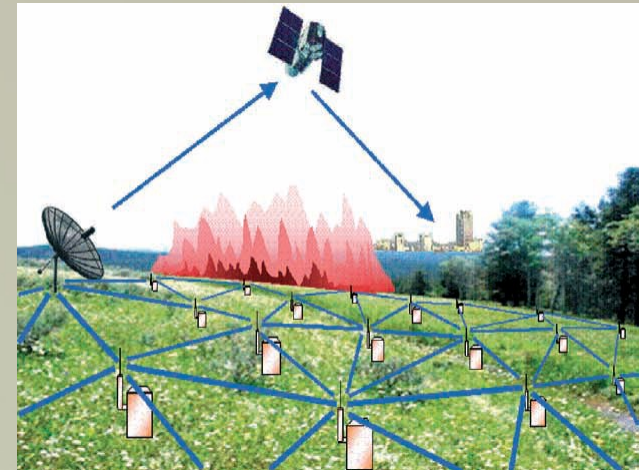


Dept. of Information Engineering *Research Activities*

Communication Networks

Research fields:

- Multimedia communications and p2p networks
- Applications for mobile terminals
- Network security
- Wireless ad-hoc and sensor networks
- Distributed processing and communication in networks
- Vehicular ad-hoc networks (vanets)



Dept. of Information Engineering *Research Activities*

Digital Communications

Research fields:

- Wireless and power-line communications
- Satellite communication systems
- Receivers for optical communication systems
- Digital data storage

