

# Corso di Dottorato: Ingegneria dell'Informazione

https://drii.unibs.it

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## 4 Curricula

1) Computer Science/Engineering and Control Systems

SKILLS

COMPETENCE EXPERIENCE 2) Electronic Engineering, Sensors and Instrumentation

ANDULE DGE

3) Telecommunication engineering

4) Physical, Chemical and Mathematical Scien Engineering

ABILITY

ROWIN

#### 1) Computer Science/Engineering and Control Systems

artificial intelligence automated planning and reasoning, automated diagnosis knowledge engineering robotics human-machine interaction information systems databases computational argumentation analysis and control of linear and nonlinear systems system identification and estimation adaptive systems management and planning of complex systems

web services and semantic web security of critical-mission hardware and software systems

#### 2) Electronic Engineering, Sensors and Instrumentation

electronic instrumentation analogue and digital signal processing micro/nano-sensors microfabrication (MEMS) technologies optical instrumentation optoelectronics 3D artificial vision web sensors wireless sensors sensor networking Microelectronics organic electronics interface circuits for sensors energy harvesting, electronics for energy autonomous sensors sensors and instrumentation for biomedical and agro-food applications.

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### 3) Telecommunication engineering

Antennas and microwaves (ultra wideband signal transmission and reception, elettrosmog, ...) Digital Signal Processing (wavelets, linear transform families, approximation theory, ...) Information Theory (source coding methods, channel coding bounds, ...)

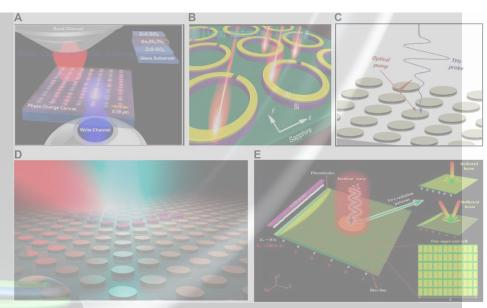
Multimedia Signal Processing (emotion modeling and recognition, face recognition, image and video compression, multimedia indexing, multimedia information retrieval, music information classification, watermarking technologies, ...)

Optical communications (non linear fiber optics, optical components, ...)

Nanophotonics (optical antennas, imaging,

graphene photonics ...)

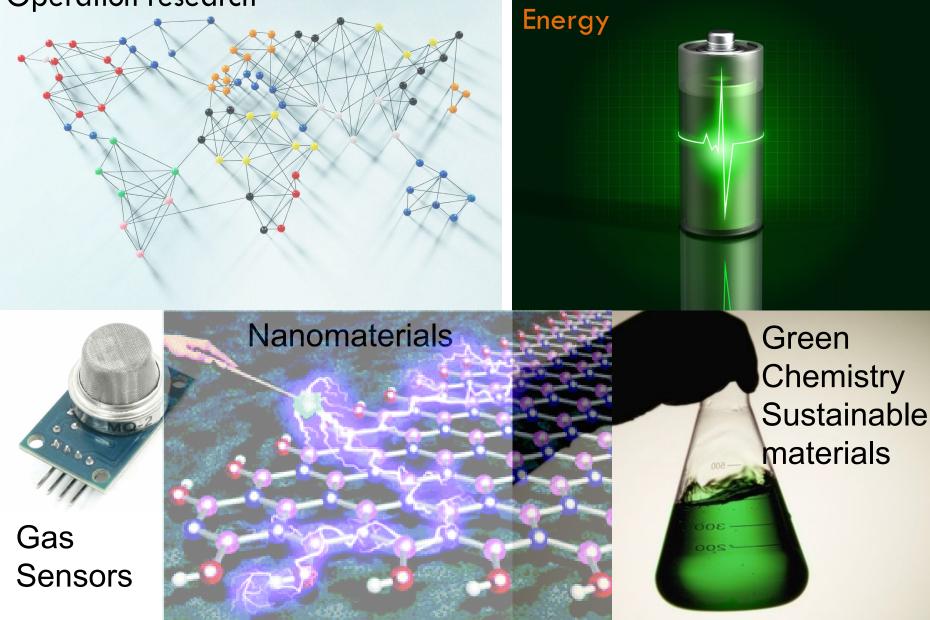
Networking (information security, protocols, traffic classification, ...).





#### 4) Physical, Chemical and Mathematical Sciences for Engineering

**Operation research** 





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