

EPS main topics

Power electronics – electrotechnology

- Numeric design and multiphysic simulations of high integrated power assembly using silver sintering technology
- Experimental test bench for integrated electromechanical conversion chains

Autonomous and collaborative Robotics

- Developments in Robotic machining
- Mobile robotics

Mechatronics (mechanical engineering + CAD + electrotechnology)

- Development of a two-wheeled, self-balancing, battery-powered electric vehicle (Segway[®]) with the ENIT means
- Finalization and optimization of 3D printer photosensitive resin
- Design, realization and control of a powered exoskeleton robotic system
- Global design of a homemade 3 rotors flying drone
- Design and realization of mechanical elevation system for wheelchairs
- Polar 3D Printer

Material science

- Ceramics
- Polymers
- Metals

Civil engineering

- Sustainable buildings
- Sustainable civil engineering materials

We particularly focus on:

- Very strong relationship with the local industry
- Project management methods (rigor)
- Our carried-out projects follow a product life cycle approach involving all steps from needs expression to customer acceptance
- Projects regularly lead to the delivery of customized machines (such as 3D printers for instance)