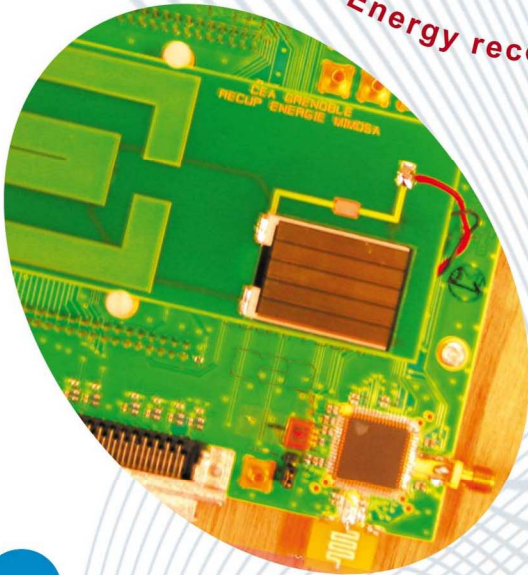


Mimosa

Autonomous TAG

• Energy recovery - Sensors network - Ambient intelligence



> Description

The autonomous TAG is a single node that can combine sensor and communication functions and is able to meet its own energy needs from its local environment.

Technologies developed

- Antennas for energy recovery in the GSM-900 band.

Associated research topics

- Antenna design
- Low power electronics

Potential fields of application

- Sensor network for :
- Surveillance and monitoring in buildings
 - Home automation
 - Interaction between an individual and his immediate environment

Presentation

As part of the MIMOSA project, Leti developed a unitary node capable of powering itself from ambient energy available in buildings. The development work concerned a system for jointly recovering the energy emitted by mobile phones in the GSM-900 band and light energy in an indoor environment. The recovered energy range runs from μW to mW . With appropriate storage combined with careful management of this recovered energy, numerous new applications can now be developed in building-type environments. Examples include the detection of intrusion or people present in a room, objects which become interactive depending on the presence of someone nearby or more simply the monitoring and tracability of objects during storage.