## GAS SENSORS CHARACTERIZATION SYSTEMS LABORATORY

**Innovations and Benefits -** The laboratory is equipped with three gas sensor characterization plants for the measurement of the electrical performances of chemoresistors and gas sensor devices exposed to controlled concentration of volatile chemical compounds dissolved in air.

Up to 5 sensors can be measured simultaneously in a controlled atmosphere where can be injected up to three gas target simultaneously and / or volatile organic compounds. One of this systems is capable to host a sensor systems complete with electronics and houses to evaluate the performance of the sensors inside the systems where they are installed.

## **Uses** -

- Electrical Resistance measurement in controlled atmosphere of gas sensors based on chemiresistors
- high precision calibration of heated gas sensors in controlled environment
- high precision calibration of embedded systems based on gas sensors array in controlled environment.

**Past and present activities** - Nanostructured chemiresistors based on innovative materials such as graphene and polymeric compounds can be electrically evaluated when exposed to controlled concentrations of atmospheric pollutants. Calibration of "Taguchi" or MOX resistive solid-state sensors for the air quality application scenario.

Calibration of embedded gas sensor systems for the evaluation of atmospheric pollutants.

All the activities mentioned are included in various European and PON projects. Collaborations with industries are underway for the validation of the gas sensor prototypes benchmark.



Characteristics: CUSTOM Thanks to its flexibility, the service can be adjusted to different needs and contexts



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