

State-of-the-art facilities belong to the APT Laboratory and are employed for its research tasks :

- Engine test cell
- Gaseous emissions analyzers (CO, CO₂, O₂, NO_x, HC)
- Fast mass spectrometer for exhaust gas analysis (Airsense)
- Soot filter regeneration testing unit
- Ceramic filter and membrane testing unit for hot gas clean-up
- Sprays and atomization nozzle characterization rig
- Lab scale aerosol reactor and catalytic coating development rig
- Aerosol and particle measurement (3nm to 1000 nm) and generation instrumentation
- Phase-Doppler Analyser (Dantec with Ar-ion laser)
- Aerosizer & Aerodisperser (Amherst Process Instruments)
- Single Particle Counter Sizer Velocimeter (PCSV-Process Metrix)
- Scanning Mobility Particle Sizer (TSI)
- Electric Low Pressure Impactor (Dekati)
- Differential Mobility Analyzer (DMA-Vienna type)
- Nano-DMA (Yale U. /U. Malaga/CIEMAT design)
- Condensation Nucleus Counter (TSI, 2 models)
- Multiwavelength Extinction Aerosol Sensor
- Nanomet particulate measuring system
- Ultrasonic Nebulizer
- Electrospray droplet generator
- Mini-dilution tunnels for exhaust sampling
- Commercial and in-house developed simulation software (CFD, FEM, discrete particle dynamics) in serial and parallel implementations.
- A range of DEC Alpha 500 workstations and an 18-node Linux workstations cluster integrated into a high speed network completes our infrastructure.