

METHODS AND INSTRUMENTS OF ENVIRONMENTAL MEASUREMENTS

- In situ meteorological measurements (laboratory experiment)
- In situ measurements of air quality (laboratory experiment)
- Atmospheric remote sensing using laser techniques (4 hours): lidar technique, Klett method, Raman method, description of lidar instrument, advanced lidar applications, satellite-based lidar
- Radar measurements (laboratory experiment)
- Tropospheric and stratospheric ozone measurements (laboratory experiment)
- Specialized field experiments

Selection and implementation of 2 laboratory experiments:

Exercise 1: Atmospheric Boundary Layer top height lidar measurements (4 hours)

Exercise 2: Vertical aerosol profiles at Athens (4 hours)

Exercise 3: Aerosol optical properties with the use of ground based and satellite based lidar measurements (4 hours)

Exercise 4: Sensitivity analysis of Klett method (4 hours)

Exercise 5: Experimental determination of overlap function (4 hours)