# Research Report इ



# COMPLEX MEASUREMENTS FOR THE DETERMINATION OF POLLUTANT EMISSIONS AT THE TIMISOARA (16 MĂCIN STR.), ORAVIȚA, LUPENI AND MARGHITA UNITS OF THE COMPANY TRW AUTOMOTIVE SAFETY SYSTEMS

## Goal of the project

Identifying the level of pollution generated by specific units in the company. Thus, by analyzing the results, the specialists from TRW Automotive Safety Systems can adapt and reconsider their technologies, in order to optimize/ reduce the emissions' levels/concentrations, if they are not appropriate and in correlation with the emission control legislation.

Thus the company can maintain its leading position in the frame of all Romanian production companies, knowing that TRW Automotive Safety Systems gained by 2018 the third place for cooperation in Romania (diploma offered by ListaFirme.ro, 2018).

#### Short description of the project

#### TESTS:

- 1.Gravimetric tests (dust) (emissions);
- 2.Electrochemical tests;
- 3.Flame ionization tests;
- 4. Physical tests.

#### SCOPE:

- 1. Determination of total dusts (emissions).
- 2. Determination of combustion gas concentrations (02, C0, C02, H2S, S02 and CH4)
- 3. Determination with flame ionization detector of COV / COT.
- 4. Determination of physical parameters (pressure, speed and flow).

#### FEEDBACK:

The client is offering a feedback by filling in a specific file, that enables us to improve the offer and cooperation activity for the future.

# Implementation period

Starting 15.04.2019, up to 24 months, with potential prolonging of the cooperation availability of the contract, at request

# Project implemented by

• LACIEDIN of UPT (Laboratory for Fuel Analysis, Ecological Investigation and pollutants' Dispersion of the Politehnica University of Timisoara) www.mediu.ro

• The LAB is profound anchored in the reality of the present society and devoted to the protection of the environment. Through the product offered it assists and helps all the clients greatly to prevent and combat the specific pollution level resulted from their production. LACIEDIN is fully implementing standard 17025/2018.

## Main activities

- Identification of the most representative regimes for measuring
- Identification of the safety conditions for the workers
- Preparation of the measuring points (measuring plan)
- Calibration of the instruments
- Measurements and verification of the results
- Calculations
- Conceiving the report (Technical Bulletin) in accordance with the RENAR specifications





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#### Results

Technical Bulletins attesting the level of pollution exhausted by diverse facilities, as identified by the Agency of Environmental protection as to be monitored on specific intervals, during representative technological episodes.

#### Applicability and transferability of the results

- Development of a strategy of monitoring, according to the specific needs of the client.
- Raising the visibility of UPT on the free market concerning the collaboration with industrial units.
- Offering to the members of the team a modality to perform, also in industrial cooperation, in addition to the main duties as researcher or university teacher.
- Maintaining the quality according to existing RENAR accreditation.
- Developing skills and knowhow for all personnel involved.
- Supporting practical development for the students and correlation of research with theory.

# Construction of the second of



## **Research Centre**

Research Centre for Thermal Machines and Equipments, Transportation and Environmental Pollution Control, http://www. upt.ro/Informatii\_-research-centre-for-thermal-machines-andequipments-transpo\_109\_en.html

Through the RENAR acreditet laboratory LACIEDIN www.mediu.ro

#### Financed through/by

• Contract BC 40/12.04.2019 signed by UPT with TRW Automotive Safety Systems

#### Research team

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