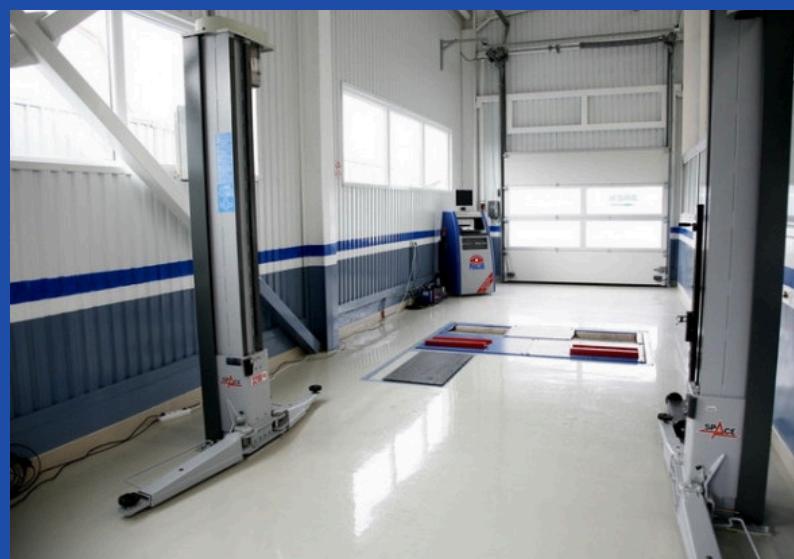
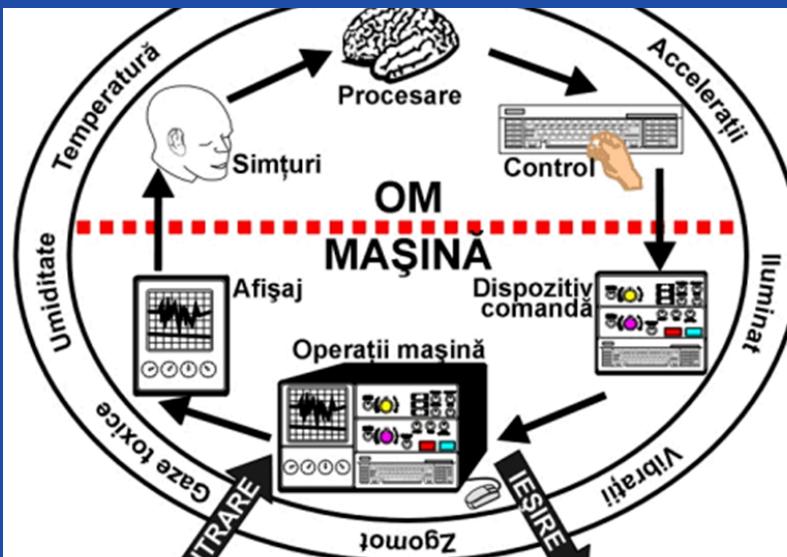




# THE RESEARCH AND INNOVATION CENTER FOR THE OPTIMIZATION OF ENVIRONMENTAL PARAMETERS IN THE OPERATION OF THERMAL SYSTEMS

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„DUNAREA DE JOS” UNIVERSITY OF GALATI  
FACULTY OF ENGINEERING



## ABOUT

The research and innovation center for the optimization of environmental parameters in the operation of thermal systems within the University "Dăñarea de Jos" in Galati, Faculty of Engineering, Department of Thermal Systems and Road Vehicles aims to analyze the possibilities of functional and energy optimization of local heating systems installations equipped with reversible heat pumps.



### RESPONSABLE

Conf. dr. Gabriel Bogdan Carp

### TEAM

S.I. dr. ing. Valentin Tiberiu Amortilă

S.I. dr. ing. Cristian Dragos Obreja

S.I. dr. ing. Viorica Ghisman

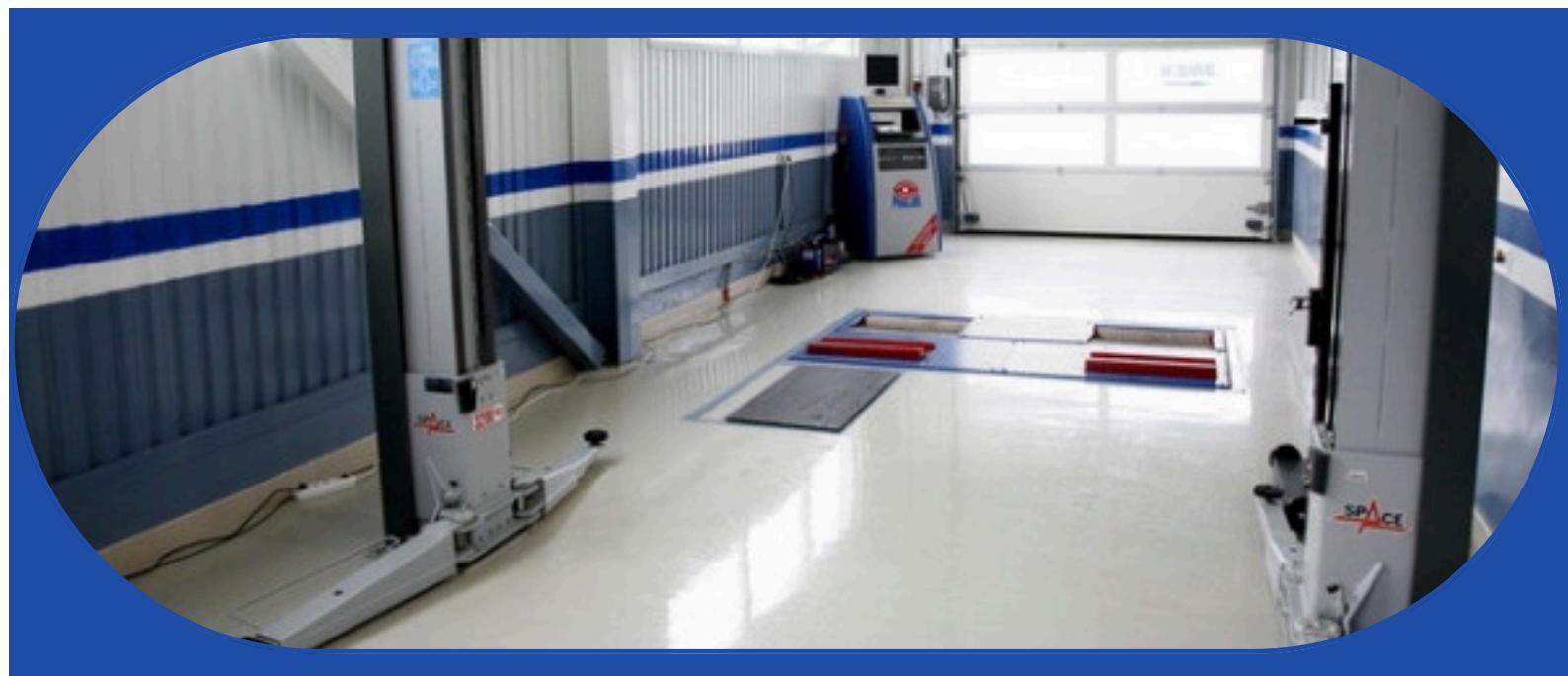
Ing. Cristian Răileanu

## SCOPE

The research and innovation center for the optimization of environmental parameters in the operation of thermal systems agrees with the new environmental action program supports the environmental and climate objectives of the European Green Deal and builds on them and provides a favorable framework for the achievement of six priority objectives:

- achieving the 2030 objective of reducing greenhouse gas emissions and achieving climate neutrality by 2050;
- increasing the capacity to adapt, strengthening resilience and reducing vulnerability to climate change;
- promoting a regenerative growth model, decoupling economic growth from resource use and environmental degradation and accelerating the transition to a circular economy;

- pursuing the goal of zero pollution, including for air, water and soil and protecting the health and quality of life of Europeans;
- protecting, conserving and restoring biodiversity and improving natural capital, especially air, water and soil and forest, freshwater, wetland and marine ecosystems;
- reducing climate and environmental pressures related to production and consumption, especially in the fields of energy, industrial development, construction and infrastructure, mobility and the food system.



## RESEARCH DOMAINS

- Evaluation of vehicle consumption in different propulsion regimes
- Optimization of processes and the operation of heat engines with the reduction of greenhouse emissions.
- Optimization of environmental parameters in the field of optimal operation of heat engines

# DEVELOPMENT STRATEGIES AND OPPORTUNITIES

- The development of CDI activities in the field of optimizing the performance of thermal engines and associated dynamic systems under the conditions of minimizing the complex emissions resulting from the operation of internal combustion engines.
- Supporting less polluting means of transport (through the development of sustainable transport infrastructures) will contribute to improving public health, the state of environmental factors and, at the same time, economic competitiveness;

**DYNAMIC**



- Increasing individual transport costs (absorption of externalities);
- Plans and actions for the gradual elimination of vehicles without exhaust gas reduction technology.

## INFRASTRUCTURE

- Preparation space
- Paint booth with diesel burner,
- Giraffe crane 2 tons
- Elevator 4 columns, 5.5 tons,
- Smart inductor
- Mobile gas extractor for cars and utility vehicles



## TEAM



