

Technology Offer

Air depollution equipment for open spaces in conurbations with heavy auto traffic

Summary

A Romanian team of researchers has invented an air depollution equipment for open spaces in conurbations with heavy auto traffic. The device will be able to perform the remediation of ambient air in open spaces, covering both solid particles in air (dust) and toxic constituents of exhaust gases. For further research, as well as for its technological development, partners in the field of research and industry are sought, for technical and research cooperation agreements.

Creation Date	17 December 2015
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Reference	TORO20151217001

Details

Description

A team of researchers from a Romanian institute has developed an invention that consists in a device for the depollution of the atmospheric air in the open spaces of urban agglomerations with heavy car traffic, such as: signalized intersections, bus stops, streets with frequent traffic jams, underground or ground passages located near blocks of flats, etc.

Until now, there aren't any other similar devices currently available on the market, so this technology comes as a novelty.

The equipment consists of five operational sections, grouped from the point of view of construction into two parts:

- the first sub-assembly, consisting of two sections, which is located in the area of the roadway and forms the network of the absorption duct system of exhaust gases;
 - the second sub-assembly, made up of 3 sections, that includes the filtering, electric and automation systems of the equipment, all grouped in a technical premises located on sidewalk.
- The exhaust gases are absorbed from the roadway level, routed through the absorption duct system towards the technical premises where the polluting agents and suspended solids (dust) are removed, after which the filtered and purified air is forcibly discharged into the atmosphere. The Romanian researchers are looking for EU partners in order to establish research cooperation agreements (such as universities, research institutes); they should be willing to develop new applications for this technology, or could test it in laboratory and in real conditions. The Romanian research team is also looking for SMEs active in the field of air filters, air purification and related monitoring equipment able to introduce it in the manufacturing process. These SME should be interested in technical cooperation agreements with the Romanian institute.

Advantages and Innovations

The air depollution equipment:

- can absorb exhaust polluting agents, as well as suspended solids right from the roadway level, thus preventing them to spread into the atmosphere, at the level of the human respiratory system;
- eliminates car exhaust polluting agents and suspended solids from the air by absorbing them from the roadway level and upon its clearing, the air is evicted into the atmosphere;
- has a positive impact on human health in that people breathe fresh air also in urban agglomerations with heavy car traffic;
- can be developed by conventional means, without major changes of the installation location;
- automatically correlates electricity consumption with the degree of pollution.

Stage of Development

Concept stage

IPR Status

Patents granted

Comment Regarding IPR status

Patent applied for at the State Office for Inventions and Trademarks. IP rights on national level - Romania

Keywords

Technology

02008001 Air Transport

Market

08004001 Air filters and air purification and monitoring equipment

NACE

M.72.1.9 Other research and experimental development on natural sciences and engineering

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Dissemination

Send to Sector Group
Healthcare

Client

Type and Size of Organisation Behind the Profile

R&D Institution

Year Established

0

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English

Client Country

Romania

Partner Sought

Type and Role of Partner Sought

The partners sought are:

- research institutes and universities willing to develop new applications for the product, to test it in laboratory and in real conditions, for research cooperation agreements and
- SMEs active in the field of air filters, air purification and related monitoring equipment able to introduce it in the manufacturing process, for technical cooperation agreements

Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME 51-250

Type of Partnership Considered

Technical cooperation agreement
Research cooperation agreement