

PROJECT

DIAS

Smart Adaptive Remote Diagnostic Antitampering Systems

Funding: European (Horizon 2020)

Duration: Sep 2019 - Aug 2022

Status: Ongoing

Total project cost: €4,990,063

EU contribution: €4,990,063



[CORDIS RCN : 223206](#)

Objectives:

Emissions standards for vehicles have managed to introduce state-of-the-art emissions controls that have brought significant reductions in the actual emissions levels. However, there is increasing clear evidence of illegal manipulation of emission control systems by vehicle owners and widespread usage is observed in the market. In general, it is almost always the vehicle's owner or operator that tampers the EPS for economic advantages; either to reduce fuel or urea costs, or to avoid costly repairs of aged or malfunctioning equipment.

Traditional OBD systems are designed to inform users about malfunctions of systems and components and notify the users of the repair needs and cannot prevent tampering. The primary target of DIAS is thus to harden vehicle environmental protection systems (EPS) against such tampering. This means that any changes in EPS hardware, software that degrade the performance of the system will be prevented or detected.

DIAS will develop innovative protection and security measures to increase the level of prevention. In case detected, information about the tampering attempt is available and is used to introduce countermeasures e.g. the activation of the driver inducement systems. DIAS brings together a highly qualified interdisciplinary team that starts with OBD and takes a two-step approach that involves implementing first measures to take early action against these activities, and a second cloud-based step that prepares methodologies and means for dealing with tampering attempts in the future that are currently unknown.

Additionally, DIAS will take into account that effective upcoming new tampering countermeasures can also be applied on vehicles already in the field to have an even stronger impact on preventing unnecessary environmental pollution. Finally, DIAS takes advantage of future vehicle connectivity, both as opportunity and challenge, since these systems are intended to operate throughout Europe and even on a global scale.

Parent Programmes:

[H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Other programmes: LC-MG-1-4-2018 Hardening vehicle environmental protection systems against tampering

Lead Organisation:

Aristotelio Panepistimio Thessalonikis

Address:

KEDEA BUILDING, TRITIS SEPTEMVRIOU, ARISTOTLE UNIV CAMPUS
54636 THESSALONIKI
Greece

Organisation Website:

<http://www.auth.gr>

EU Contribution: €704,375

Partner Organisations:**Robert Bosch Ag****Address:**

LUTERBACHSTRASSE 10
4528 ZUCHWILL
Switzerland

EU Contribution: €453,000

Ethniko Kentro Erevnas Kai Technologikis Anaptyxis**Address:**

Charilaou Thermi Road
57001 Thermi Thessaloniki
Greece

Organisation Website:

<http://www.certh.gr>

EU Contribution: €190,750

Robert Bosch Gmbh**Address:**

Robert-Bosch Platz
70839 Gerlingen-Schillerhoehe
Germany

Organisation Website:

<http://www.bosch.com>

EU Contribution: €1,467,625

Nederlandse Organisatie Voor Toegepast Natuurwetenschappelijk Onderzoek Tno**Address:**

ANNA VAN BUERENPLEIN 1
2595 DA DEN HAAG
Netherlands

Organisation Website:

<http://www.tno.nl>

EU Contribution: €635,125

Vrije Universiteit Brussel**Address:**

Pleinlaan
1050 Brussel
Belgium

Organisation Website:

<http://www.vub.ac.be>

EU Contribution: €28,250

Icct - International Council On Clean Transportation Europe Ggmbh

Address:

Neue Promenade 6
10178 Berlin
Germany

EU Contribution: €118,250

Universitatea De Medicina, Farmacie, Stiinte Si Tehnologie Din Targu Mures

Address:

STREET GHEORGHE MARINESCU 38
540139 TARGU MURES
Romania

Organisation Website:

<http://www.umftgm.ro>

EU Contribution: €259,500

Ford Otomotiv Sanayi Anonim Sirketi

Address:

AKPINAR MAH HASAN BASRI CAD NO 2 SANCAKTEPE
34885 ISTANBUL
Turkey

EU Contribution: €205,000

Fev Europe Gmbh

Address:

Neuenhofstrasse 181
52078 Aachen
Germany

EU Contribution: €548,438

European Commission - Joint Research Centre (Brussels)

Address:

Rue de la Loi 200
1049 BRUXELLES
Belgium

Organisation Website:

[Organisation Website](#)

EU Contribution: €379,750

Technologies:

Safety systems
Technologies to improve road safety

STRIA Roadmaps: Other specified

Transport mode: Road transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Other specified

Geo-spatial type: Other