



Co-funded by the
Erasmus+ Programme
of the European Union



E – DRIVETOUR

Beyond the Border of Electric Vehicles: an Advanced Interactive Course

Project Description

GREEN DEAL CLUSTER EVENT, July 6th-7th, 2021

Theodoros Kosmanis

Associate Professor

Department of Industrial Engineering and Management

International Hellenic University

Greece

E-DRIVETOUR Aims and Objectives



Aim

Development of an **interactive course on electric vehicles** with a comprehensive multidisciplinary curriculum that includes multiple educational methods and tools

- *reconfigurable laboratory apparatus,*
- *innovative demonstrator,*
- *group assignment*
- *industrial experience.*

Objectives:

- **Develop an innovative course** on Electric Vehicles
- **Recognised by academia & industry** throughout the EU by using the ECTS credit system
- Create **an easily deployable course** for use by other EU educators
- Set the **foundations for developing a Masters course** on Electric Mobility

E-DRIVETOUR Partnership



E-DRIVETOUR is funded in the frame of Erasmus Plus KA2 (Knowledge Alliances) action under GA 612522-EPP-1-2019-1-EL-EPPKA2-KA.

Project duration: 3 years (2020-2022)

3 Higher Educational Institutions (HEIs)

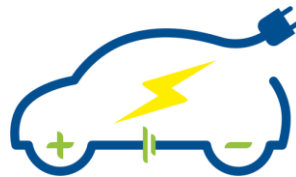
- International Hellenic University, Greece (CORDINATOR)
- University of Technology and Humanities in Radom, Poland
- University of Craiova, Romania

1 Research Institute

- Hellenic Institute of Transport (CeRTH), Greece

6 Small and Medium Enterprises (SMEs)

- Cerca Trova, Bulgaria
- eZee Europe, Belgium
 - Inteligg, Greece
 - eProInn, Italy
- TRIGGO S.A., Poland
- ECQA GmbH, Austria



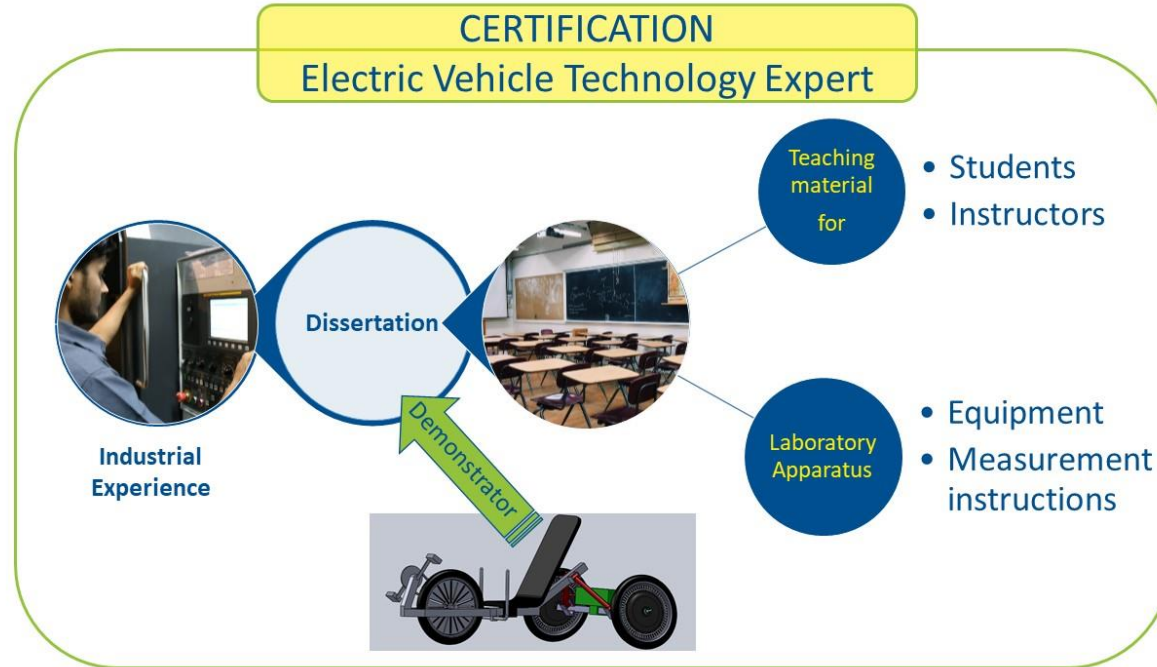
Project LOGO

E-DRIVETOUR Details



- 3-year project (2 years preparation – 1 year actual education)
- Work is divided into 6 work packages (1 preparatory, 3 development, 1 dissemination, 1 Project management)
- Educational Procedure
 - **3 educational periods**
 - **1st period**
 - **Place:** Thessaloniki, Greece
 - **Time:** 2 weeks full time schedule
 - **2nd period**
 - **Place:** Radom, Poland
 - **Time:** 2 weeks full time schedule
 - **3rd period**
 - **Place:** Greece, Belgium, Italy, Poland
 - **Time:** 2 weeks full time schedule
 - Practical Experience

Program scheme



E-DRIVETOUR Courses

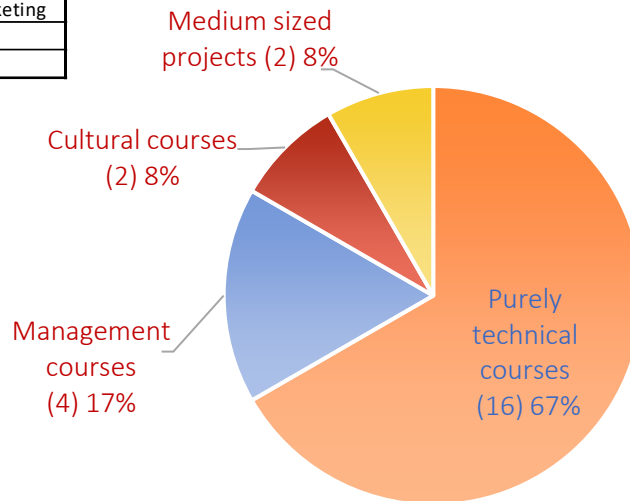


Code	Course title
TS1.1	Introduction to Vehicle Electrification
TS1.2	NI LabVIEW Training
TS1.3	Automotive Energy Sources
TS1.4	Lightweight Materials
TS1.5	Introduction to Vehicle Dynamics
TS1.6	Data Acquisition and EV Sensors
TS1.7	EV Production Management
TS1.8	Electric Motors & Motor Drives for Evs
TS1.9	Autonomous Vehicles
TS1.10	EV Business Administration and Automotive Marketing
TS1.11	Language Lessons
TS1.12	Intermediate Project 1

14 days – 222 working hours

Practical Experience:
14 days – 80 working hours

Total: 20 ECTS



Code	Course title
TS2.1	EV System Modelling and Simulation
TS2.2	EV Energy Storage Systems
TS2.3	EV Charging Systems
TS2.4	Mechanical Drivetrains for EVs
TS2.5	Control System Development
TS2.6	EV Public Policies
TS2.7	EVs and Smart Griding
TS2.8	EV On Board Diagnostics, Troubleshooting & Maintenance
TS2.9	Life Cycle Assessment of EVs
TS2.10	Sustainable Transportation
TS2.11	Language Lessons
TS2.12	Intermediate Project 2

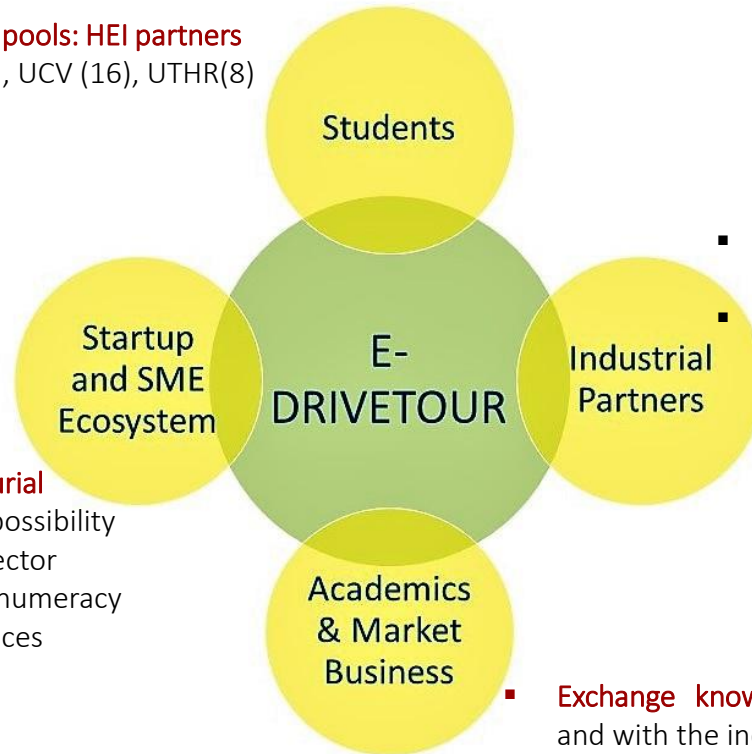
14 days – 218 working hours

Multidisciplinary character of the curriculum

E-DRIVETOUR Target Groups



Student pools: HEI partners
IHU (16), UCV (16), UTHR(8)



- Enhance **entrepreneurial thinking** to increase possibility for a start-up in EV sector
- Enhance literacy, numeracy and digital competences

- Opportunity to **select employees** from candidates trained by them
- Constantly and efficiently **feed their needs**

- **Exchange knowledge** between them and with the industry
- **Enrich course palette**

New / innovative in our approach



- **Certified educational program** based *solely on the Electric Vehicle technology*
- Discussion has already been started on connecting program subjects with **industrially recognized competences (role of ECQA GmbH)**
- **Mix of educational approaches** (not only in-class lectures, but also laboratories, tool demonstrators developed by students, industrial practice, virtual reality tools)
- Initially aiming for students but **open to professionals** as well
- Gain the interest of **participating students** in order to **become the best advertisers** for the future versions
- 2021-2022: first year of the educational procedure



Thank you for your attention !

Project Contact Person

Theodoros Kosmanis

Associate Professor

Department of Industrial Engineering and Management

International Hellenic University

Greece

E-mail: kosmanis@ihu.gr

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