



Mobility Organization. compete in international events. Prototypes are evaluated as a production item on speed & reliability, design &

construction, and business strategy.

invest in Formula Student, funding nearly \$1.7 billion.

Top 15th 2003 18 Percentile

Founded

Prototypes Industry-student

Combustion

2005

Prototype

Competitions **All-round**

Quality Engineering, 15 years strong. Among the

scratch, with mentorship and technical support from various organizations.

Design, manufacture and

testing of a prototype from

interaction.

The Journey So Far

well-rounded, industry-ready engineers.

role, resulting in

development.

Each member is assigned a

technical and managerial

Organizational Functioning. The organization is structured into various interdependent verticals with an emphasis on

Worldwide

accountability and transparent cash flow.

Launch of

Founded:

Among the

first FSAE

country

2003

Teams in the

Urban transportation has been crippled by innumerable alarming issues, requiring more attention than ever in terms of availability of resources and user experience.

Diversification into Hybrid Segment

2014

2nd Overall in

Hybrid, 2017

2017

Formula

2nd Overall in Formula Hybrid, 2018 Diversification into Passenger 2018

Electric

40% 17 60% **STATISTICS** Of all emissions Of R&D costs in developing Deaths occur are attributed to per hour due to EVs to be borne by Union urban transport. road accidents. Govt.

our newest project, the

This brings us to

personal electric.

The Personal Electric Prototype is to be a functional,

production-worthy electric

vehicle, which would further

act as a platform for training

autonomous functionalities.



A Platform for developing Autonomous

Sensor Integration

Aesthetic and

Ergonomic Design

Highly Efficient

Powertrain

technologies In-house designed CAN

network for effective,

integration and

production-level sensor

performance data logging

Internal and external connectivity to various

devices, enabling V2X

technologies.

Electric powertrain optimized to maximum efficiency with intelligent sensing

Ergonomic, aesthetic design

modularity aligned with open

Collection of local road training

local urban features

data so as to result in a driverless

model compatible with a variety of

Time (0-70kmph): 25sec

Battery Pack Capacity: 10kWh **Charging:** Integrated Charging

Motors: 72V Brushless DC Motor

Lighting System: LED Headlights

Seating: 2 Bucket Seats

KM₁

Load

Range: 60km

System

with extended body

source concepts.

FEATURES

Top Speed: 70kmph

1 KM1

CHASSIS AND

BODYWORK

Having detachable cockpit (body) from the ladder chassis enables us

case of roll.

SPECIFICATIONS

IT Systems

Concerned with performance data analysis, infotainment system

design, as well as training and

testing autonomous

functionalities in the car.

Mechanical

Deals with the powertrain and

battery pack design, sensor

integration, Controller Area

with all associated testing.

Network (CAN) design, along

using a chain and a custom designed to have a common platform (ladder compound drive, producing a torque chassis) for different cockpits made of 300 Nm at the wheels with a gear for different purposes. Roll cage to ratio of 7, helping it achieve a speed provide protection to the driver in of 70 kmph.

POWERTRAIN

to the wheels using by effectively

SUBSYSTEMS

Power from the motor is transmitted

Involving finances, logistics, administration and human resources to drive the project to completion within a timeline, optimizing costs incurred.

BATTERY PACK

Arrangement: 22s, 50p

Nominal Voltage: 79.2V

Energy: 9.9kWh

Capacity: 125Ah

Peak Voltage: 4.2V

Electrical

Deals with the powertrain and

battery pack design, sensor

integration, Controller Area

with all associated testing.

Non-technical

► Catalyse research and development of

environmentally sustainable technologies with operational

► Show the viability of connected

▶ Pioneer the development of

demonstrating feasibility and

vehicles to combat traffic congestion,

autonomous vehicles in the country by

performance upgrades in a variety of

swift crisis management, and so on.

excellence.

Network (CAN) design, along

AMF

with open source principles

Our Objectives

Create a platform of contribution

by students to various cutting edge

Deliver mobility solutions tailored

to local market demands, aligning

technologies.

Electric powertrain

functionalities

DESIGN

spirit.

aleo.com

optimized to maximum

efficiency; integration of

sensor networks and key

> MICHELIN CHALLENGE

Challenge Design

Valeo

Valeo wishes to encourage students

and to develop their entrepreneurial

https://valeoinnovationchallenge.v

from all over the world to innovate

Design, prototype with better manufacture and module abstraction testing **PE-01** > TUBITAK ENERGY 2018 **EFFICIENCY**

DIVISIONAL TIMELINE Fabrication of second

use cases.

Implementation of body modularity, ADAS functions, and further operational efficiency second prototype, > FS AUTONOMOUS

COMPETITIONS

2020

Implementation of

higher level features

Efficiency Challenge Electric Vehicle is

of alternative energy use, to raise university students' capability to work across disciplinary boundaries. https://challenge.tubitak.gov.tr

FOR THE FUTURE OF MOBILITY.

an annual competition for universities

organized by TÜBİTAK since 2005. The

which they can compete against teams from all over the world. Safety is paramount and the cars will be tested to the same standards. https://www.formulastudent.de

driverless

An annual Formula Student event at

germany where students build a

single seat formula race car with

Michelin Challenge Design is a collection of events and activities centered around innovative design. https://www.michelinchallengede

2019

PE-02

Fabrication of

competition takes place each summer in Turkey and aims to create awareness

JOIN US TODAY.

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