

PERSONAL ELECTRIC



We are a Mobility Organization.

We contest in Formula Student Competitions.

Formula Student is an international design challenge where university students design and manufacture prototype race cars to compete in international events.

Prototypes are evaluated as a production item on **speed & reliability, design & construction, and business strategy.**

Over 1,000 companies invest in Formula Student, funding nearly \$1.7 billion.

Quality Engineering, 15 years strong.

Industry-student interaction.

Design, manufacture and testing of a prototype from scratch, with mentorship and technical support from various organizations.

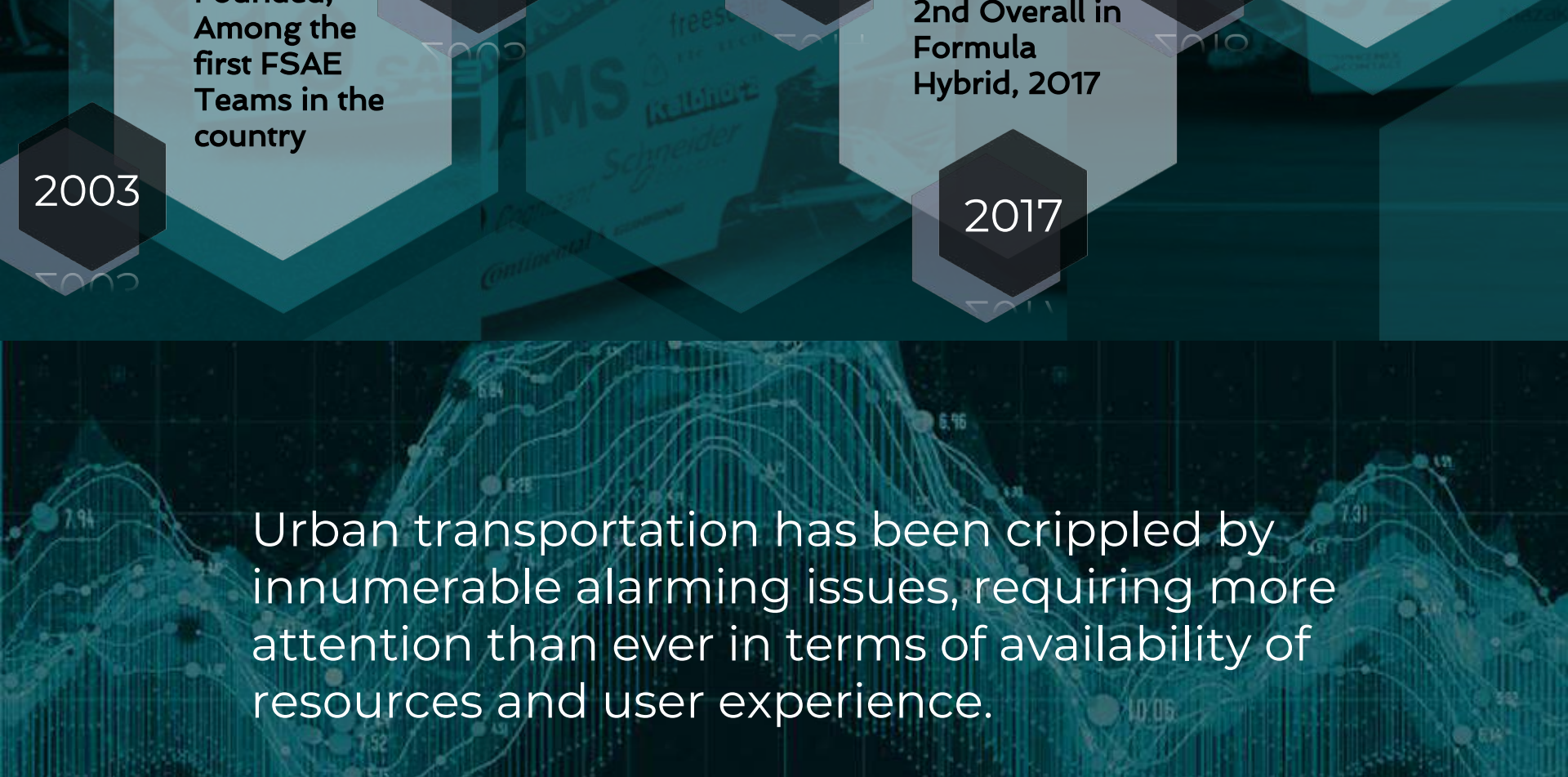
All-round development.

Each member is assigned a technical and managerial role, resulting in well-rounded, industry-ready engineers.

Organizational Functioning.

The organization is structured into various interdependent verticals with an emphasis on accountability and transparent cash flow.

The Journey So Far

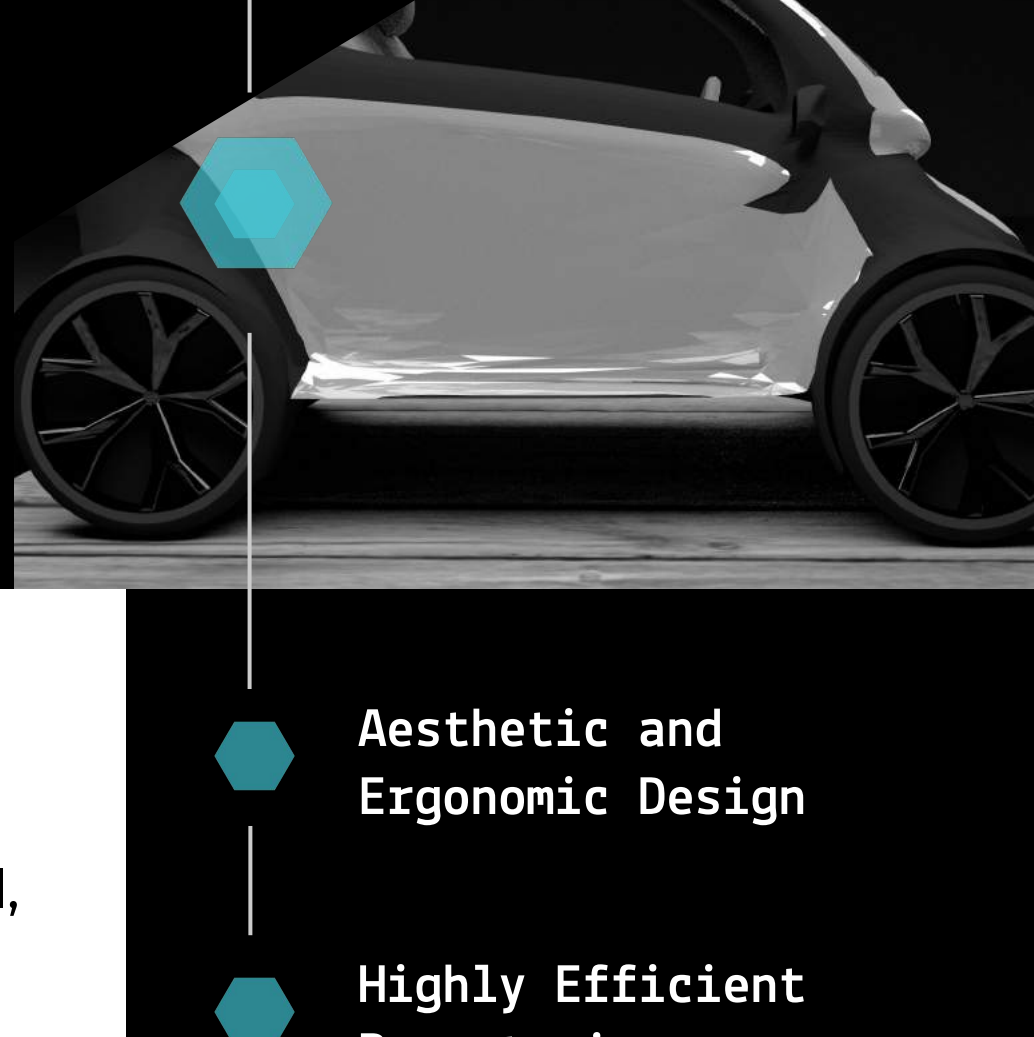


Urban transportation has been crippled by innumerable alarming issues, requiring more attention than ever in terms of availability of resources and user experience.

STATISTICS

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

This brings us to our newest project, the 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.

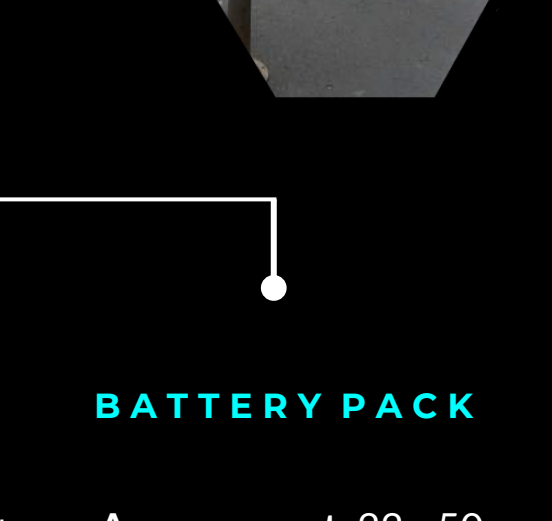
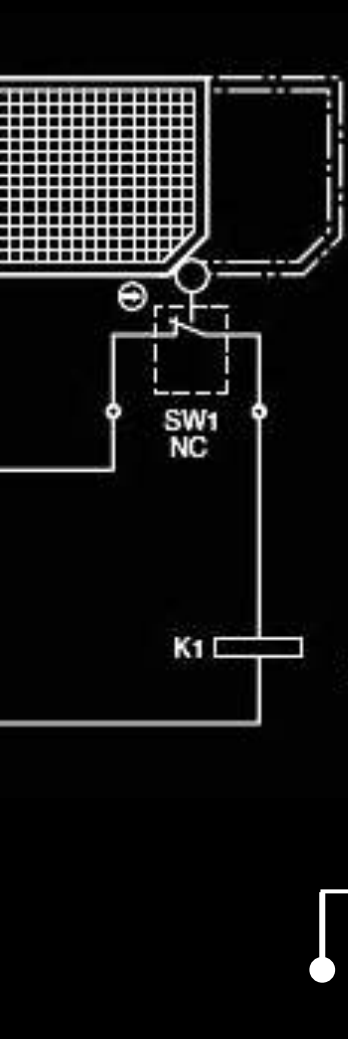
FEATURES

- Aesthetic and Ergonomic Design
- Highly Efficient Powertrain
- Sensor Integration
- A Platform for developing Autonomous technologies



SPECIFICATIONS

- Top Speed** : 70kmph
- Time (0-70kmph)** : 25sec
- Range** : 60km
- Battery Pack Capacity** : 10kWh
- Charging** : Integrated Charging System
- Motors** : 72V Brushless DC Motor
- Seating** : 2 Bucket Seats
- Lighting System** : LED Headlights



CHASSIS AND BODYWORK

POWERTRAIN

BATTERY PACK

Having detachable cockpit (body) from the ladder chassis enables us to have a common platform (ladder chassis) for different cockpits made for different purposes. Roll cage to provide protection to the driver in case of roll.

Power from the motor is transmitted to the wheels using an effectively using a chain and a custom designed compound drive, producing a torque of 300 Nm at the wheels with a gear ratio of 7, helping it achieve a speed of 70 kmph.

Arrangement: 22s, 50p
Energy: 9.9kWh
Capacity: 125Ah
Nominal Voltage: 79.2V
Peak Voltage: 4.2V

Mechanical

Deals with the powertrain and battery pack design, sensor integration, Controller Area Network (CAN) design, along with all associated testing.

SUBSYSTEMS

Electrical

Deals with the powertrain and battery pack design, sensor integration, Controller Area Network (CAN) design, along with all associated testing.

IT Systems

Concerned with performance data analysis, infotainment system design, as well as training and testing autonomous functionalities in the car.

Non-technical

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



Our Objectives

- Create a platform of contribution by students to various cutting edge technologies.
- Deliver mobility solutions tailored to local market demands, aligning with open source principles
- Pioneer the development of autonomous vehicles in the country by demonstrating feasibility and performance upgrades in a variety of use cases.
- Catalyse research and development of environmentally sustainable technologies with operational excellence.
- Show the viability of connected vehicles to combat traffic congestion, swift crisis management, and so on.

DIVISIONAL TIMELINE



COMPETITIONS

MICHELIN Challenge Design

Michelin Challenge Design is a collection of events and activities centered around innovative design.

<https://www.michelinchallengeesign.com>

EFFICIENCY CHALLENGE ELECTRIC VEHICLE

Efficiency Challenge Electric Vehicle is an annual competition for universities organized by TÜBITAK since 2005. The competition takes place each summer in Turkey and aims to create awareness of alternative energy use, to raise university students' capability to work across disciplinary boundaries.

<https://challenge.tubitak.gov.tr>

driverless formula student

An annual Formula Student event at Germany where students build a single seat formula race car with 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>

FOR THE FUTURE OF MOBILITY.

JOIN US TODAY.