

Season 2023

Formula Student (FS) is an international engineering design competition for students. University teams are challenged to design, manufacture and assemble a competitive formula type race car.

During the competition season, the challenge is to perform against FS teams from all over the world.



What we do

Formula Student project gives engineering students an opportunity to develop their skillset in the Motorsport industry.

- In 2013, Metropolia team made the transition from combustion to electric race car
- Before switching to electric vehiclecategory, the Team has developed 10 combustion vehicles
- In its electric era, the Team has built 8 cars

HPF021 car was developed for the season 2021-2022.

- First 4-wheel driven electric car
- Top speed 125 km/h
- Weight 215 kg
- Battery voltage 600 V
- Maximum power 80 kW

FS Competitions are held annually. The right to participate is gained via entry quizzes or an entry fee.

- Teams are evaluated on: Engineering design, Cost, Business Plan presentation, Skid pad, Acceleration, Autocross, Efficiency, Endurance
- In 2022, our Team attended FS Czech Republic, FS Germany, FS Switzerland and Baltic Open Estonia
- In 2023, the participation in FS competitions is to be decided during spring 2023

Who we are

Metropolia Motorsport Formula Engineering team was founded in 2000. It consists of 8 subsystems: Chassis, Suspension & Steering, Aerodynamics, Composites, Brakes, Drivetrain & Cooling, Electrics & Programming, Media & Marketing.

- The project is **fully** run by students
- The Team consists of 60 members
- First and **highest performing** FS team formed in Finland
- Team's main partner is Metropolia UAS
- The **design** of the car is created by the Team members
- 80% of manufacturing is done by the Team



C†J

"Performance is our passion"

- Santeri Lappalainen, Team Manager



What to expect in 2023?

- Major design changes
- Transition from steel tube space frame to carbon fiber monocoque
- Decoupled suspension
- More advanced computer-aided driving and telemetry system
- CFD-optimized aerodynamics and cooling system
- Computer-aided driving: self-developed yaw controlled torque vectoring
- Competitions and events

Smart design - Electric future

Metropolia Team's FS car is currently the only electric car in the same category in Finland.

Main sponsor - Alumeco

Alumeco has been Team's main sponsor since 2015.

Honorary member - Mika Salo

In 2022, the former Formula driver announced his intention to support the Team's development.

Find us at

	<u>https://www.metropolia-</u> <u>motorsport.net/</u>
٩	+ 358 40 3345 403
	motorsport@metropolia.fi
0	<u>metropoliamotorsport</u>
•	<u>Metropolia Motorsport</u>
\bigcirc	<u>Metropolia Motorsport</u>
in	<u>Metropolia Motorsport Formula</u> <u>Engineering</u>