Press release

FORMULA SAE ITALY 2024, FS TEAM TALLIN secured first place in the electric car class, while MoRe MODENA RACING HYBRID led in the thermal combustion car class and the design event and business presentation event. EFORCE PRAGUE FORMULA emerged victorious among the driverless cars, and lastly, UNIBO MOTORSPORT HYBRID of the University of Bologna triumphed in class 3.
The UniNa Corse - Squadra Corse from the University of Naples Federico II secured third place in the driverless cars category. Additionally, the Sapienza Corse team from the Sapienza University of Rome won the Cost Event in the thermal combustion cars category.

Varano de' Melegari, 9th September 2024 - The 19th edition of Formula SAE Italy ended with the closing ceremony at *20*.30 yesterday. ANFIA organised the international educational event in partnership with SAE International, the 'R. Paletti' Circuit of Varano de' Melegari, and the primary sponsorship of Iveco Group. The event saw participation from about 1,600 students representing 17 countries. A total of 63 teams competed, with 50 of them being European, including 21 Italian teams from 18 different universities, and 9 teams from outside Europe.

In the **Class 1CV (internal combustion cars)**, the top three positions saw **MoRe Modena Racing Hybrid** of the University of Modena and Reggio Emilia securing first place. The team performed exceptionally well across all the tests, clinching victories in the Business Presentation Event and the Design Event, where they showcased their hybrid system design. Additionally, they emerged victorious in the Endurance and Autocross in Class 1C with their high-standard, competitive car embracing hybrid technology. Their unique layout with a longitudinal engine further set them apart. **Aixtreme Racing** of UAS Aachen secured the second place with their competitive, simple, yet practical car, finishing second in Endurance and Autocross. In the third position was the **Fuf Racing Team** of Frederick University.
In **the Class 1EV (electric cars) category, FS Team** Tallinn from Tallinn UT/UAS emerged as the winner. They secured first place in the Cost Event and Design Event. They performed exceptionally well in the dynamic tests, especially in the Endurance and Autocross events, where they secured first place. Their success was attributed to their car's outstanding design, construction, and technical solutions, including the use of four electric motors in the wheels and highly effective control systems**.**

Joanneum Racing Graz of UAS Graz took second place, excelling in Endurance 1EV and Autocross and securing second place in the Cost Event. The **TU Graz Racing** Team of Graz University of Technology secured third place with a strong performance in the Endurance and second place in the Design Event, showcasing a car with advanced aerodynamics.

In **Class 3**, the **UniBo Motorsport Hybrid** team from the University of Bologna claimed the top spot. The **AAM Driverless Racing Team** from the Arab Academy for Science, Technology and Maritime Transport secured second place, and the **Salento Racing Team** from the University of Salento came in third.
In **Class 1DV (Driverless),** technical inspections for the teams' cars generally went smoothly this year as the cars were already mature and didn't have significant issues. However, some teams faced challenges with their autonomous driving systems during the dynamic tests, and the rainy weather conditions also caused difficulties, resulting in fewer total laps being completed.

The first prize was awarded to **eForce Prague Formula** from the Czech Technical University in Prague. They excelled in the Acceleration and Autocross tests, securing the 1st place. They were also the only team to complete the Trackdrive due to their car's exceptional performance, which closely resembled human driving. This was evident in the Skidpad test, where there was only a one-tenth difference between autonomous and human driving. Second place went to **FS Team Tallinn** UT/UAS, showing great potential despite their immature autonomous driving system. Finally, **UniNa Corse - Racing Team of the University of Naples Federico II secured third place.**

"*The 19th edition of Formula SAE Italy has been a great success,*" said **Gianmarco Giorda, Director General of ANFIA**. *Approximately 1,600 participating students showed great enthusiasm and dedication while being evaluated by automotive and motorsport experts. They were assessed based on the technical and design choices related to the prototypes they presented, their business plan proposals, and their ability to argue for their projects' economic and environmental sustainability.*

This event offers a unique learning opportunity for aspiring engineers from 17 countries, including Indonesia and Egypt. In addition to technical skills, the students learn how to work in a team, meet deadlines for technical documentation, and develop strategies combining the car's compliance with technical regulations and performance on the track. The experience enriches them personally and professionally as they come into contact with different approaches and cultures during the five-day event.

Gianmarco Giorda thanked the 31 sponsors, the scrutineering team, the track staff, and the event's partners for their support and excellent recruitment and networking opportunities. The new FSAE Italy app, introduced this year, enhanced these opportunities.

Preparations are underway for the 2025 edition of the event, which will mark the twentieth anniversary of Formula SAE Italy. This milestone encourages the organisers to promote the further development of young talents and the dialogue between universities and businesses, which are crucial components in addressing the significant challenges and technological transformations in the mobility sector in recent years".

Yesterday, **the Endurance test** (275 points out of 1,000) occurred on the track. This test aims to assess the overall performance of the individual cars in the race and represents one of the competition's main events. The test takes place along a total track length of around 22 km. Team members are not allowed to intervene in the vehicle during the test, but there is a driver change in the middle of the test. The results of the Autocross test determine the order in which the individual teams take to the track. This year, the two teams in the dual-class 1CV+1DV started first to allow them to recharge their cars and thus also participate in the track drive for self-driving vehicles, followed by the other teams from fastest to slowest. The overall endurance time is given by the sum of the times of each driver, plus any penalties, compared with that of the fastest team on the track.

The Endurance event involved 30 electric and five combustion cars, with 35 vehicles admitted. The planned course, similar in some parts to that of the Autocross, is quite racy, with some challenging sections. Compared to recent years, the average level of the teams was higher because the cars at the end of the season were more ready to face the dynamic tests. The rain, which characterised part of the Endurance event, did not particularly affect the teams' performance, and there were no significant surprises: the teams that have consistently performed best, such as Tallin and Graz, lived up to expectations. There was regret, however, for some cars that stopped immediately after the first corner and could not restart.
In this dynamic test, in the **1CV Class,** first place was taken by the MoRe Modena Racing Hybrid team from the University of Modena and Reggio Emilia, whose car stood out in absolute performance level, even compared to electric vehicles. In second place was Aixtreme Racing from UAS Aachen, and in third place was the FUF Racing Team from Frederick University.
In **Class 1EV,** the winner was the Endurance FS Team Tallinn of Tallinn TU/UAS, which had the best performance thanks to the drivers and the control logic implemented on the car, which enabled it to perform all the various manoeuvres on the track very cleanly and effectively. In

second place was Joanneum Racing Graz of UAS Graz, and in third place was WHZ Racing Team of Westsächsische Hochschule Zwickau.
In **Class 1DV, which tackled Trackdrive instead of Endurance**, the eForce Prague Formula from the Czech Technical University in Prague took first place.

At the awards ceremony, the **prizes for the static events - Cost Event, Business Presentation Event, and Design Event** - were a**warded**, formalising the winners' podium.

In the **Cost Event** for Class 1DV, FS Team Tallinn of Tallinn TU/UAS secured first place, followed by eForce Prague Formula of the Czech Technical University in Prague in second place, and CURE Mannheim e.V. of DHBW Mannheim in third place. In Class 1EV, FS Team Tallinn of Tallinn TU/UAS took first place, followed by Joanneum Racing Graz of UAS Graz in second place, and HAWKS Racing e.V. of HAW Hamburg in third place. Finally, in Class 1CV, the top positions were secured by the Sapienza Corse team of the Sapienza University of Rome, the Bengawan Formula Student Team UNS of Universitas Sebelas Maret, and the Formula Racing Team of the University of Cyprus.

For the **Business Presentation Event** in Class 1DV, FS Team Tallinn of Tallinn TU/UAS claimed first place, followed by Firenze Race Team of the University of Florence in second place, and UniNa Corse - Racing Team of the University of Naples Federico II in third place. In Class 1EV, ISC FS Racing Team of the ICAI | Comillas Pontifical University secured first place, followed by Dynamics e.V. of OTH Regensburg in second place, and Joanneum Racing Graz of UAS Graz in third place. For Class 1CV, the top positions were held by MoRe Modena Racing Hybrid of the University of Modena and Reggio Emilia, followed by Bengawan Formula Student Team UNS of Universitas Sebelas Maret and Sapienza Corse of the Sapienza University of Rome.

For the **Design Event** in Class 1DV, first place goes to FS Team Tallinn of Tallinn TU/UAS, followed, in second place, by eForce Prague Formula of the Czech Technical University in Prague and, in third, by UniNa Corse of the University of Naples Federico II. In Class 1EV, FS Team Tallinn of Tallinn UT/UAS is confirmed in first place, followed, in second place, by TU Graz Racing Team of the Graz University of Technology and, in third, by eForce Prague Formula of the Czech Technical University in Prague. Finally, for Class 1CV: MoRe Modena Racing Hybrid of the University of Modena and Reggio Emilia, followed by Aixtreme Racing of UAS Aachen and Sapienza Corse of Sapienza University of Rome.

We are also highlighting the special prizes and awards provided by sponsors. FS Team, Tallinn of Tallinn UT/UAS, received the **Dallara Award** for the best Car/Resources balance. The teams

in Classes 1CV and 1EV that came first in the dynamic Endurance & Efficiency test were awarded prizes by **Ferrari S.p.A**.; MoRe Modena Racing Hybrid of the University of Modena and Reggio Emilia and FS Team Tallinn of Tallinn TU/UAS received these awards. The **FEV eXaV** prize for 'Innovative Strategies for e-PWT System Control' was given to UniBo Motorsport Electric of the University of Bologna. The evaluation focused on technical aspects of e-PWT control system strategies such as Telemetry, Torque Vectoring, Regenerative Braking, and Budget Availability.
Additionally, it considered the Soft Skills that emerged during the presentation phase. The **Geico** 'Top Coating Award' was presented to Joanneum Racing Graz of UAS Graz. The team demonstrated knowledge of material processing and paid attention to detail to achieve an excellent aesthetic result. They showed a passion for adding further information hidden from view, which represents a personal touch and expresses a desire to go beyond mere necessity.

The **Magna** Award, 'The Most Digital Engineering', was presented to HAWKS Racing e.V. of HAW Hamburg. As required, the team developed a detailed and realistic digital twin using custom and standard models. Calibration with natural curves ensures reliable results, and the work done lays the foundation for further developments using artificial intelligence.

The **Marelli** 'Performance and Inclusion in Sustainable Practices' prize was awarded to the Florence Race Team of the University of Florence for showing a strong commitment to sustainability in its organisation and operations. Notably, they applied Design for Sustainability principles and paid great attention to diversity and inclusiveness. The **'Podium Advanced Technologies Best Battery Award**' was presented to the UniBo Motorsport Electric team from the University of Bologna. The team was recognised for their innovative and efficient battery design, demonstrating safety, performance, and energy management excellence. The **SKF** 'Sustainability at 360 degrees: stay tuned, embrace the change' award was given to the UniTS Racing Team from the University of Trieste for their outstanding achievements in technical innovation and global approach to sustainability. They implemented practical and forward-looking solutions to reduce the carbon footprint, using environmentally friendly materials such as flax fibre over traditional carbon fibre. The UniTS Racing Team also integrated the core principles of governance, planet, people, and prosperity into their project, reflecting ethical standards, promoting diversity, and fostering long-term value beyond technical aspects.
The **Teoresi Group** has awarded the 'Electronics Development Process: Innovative Controls, Methods, and Architectures' to the E-Agle Trento Racing Team of the University of Trento. The team is being recognised for conceiving an innovative process for generating databases and code for managing messages on the vehicle network. This process is combined with a continuous integration system that allows for constant monitoring and improvement of the

software. Additionally, the team developed an innovative energy storage system ('battery pack') with improved cooling, modularity, and maintainability.
This year, **ANFIA** awarded the prize **for the Best Social Networker on the FSAE Italy 2024 App** to the student who was most in**volved with the app. This app** feature was introduced to facilitate matchmaking for recruitment purposes between university students participating in the event and the companies sponsoring and partnering the event. The prize was awarded to Muhammad Anas Rabbani of **HAWKS Racing e.V. - HAW Hamburg.**

Any further information can be found on the initiative website (www.formula-ata.it/), including the official rankings: www.formula-ata.it/results-2024/

At the following link, you can find the official daily videos of FSAE Italy 2024: https://bit.ly/3zaQ01z

For more information: **ANFIA Press Office**

Miriam Gangi - m.gangi@anfia.it

Ph. +39 011 5546502

Mob. +39 338 7303167

ANFIA - Italian Association of the Automotive Industry

Born in March 1912, over these one hundred years, ANFIA mission has always been to represent the interests of its associate members and ensure effective communication between the Italian motor vehicle industries on the one hand, and the Public Administration and Italian political bodies on the other, with regard to all technical, economic, fiscal, legal, statistical and quality-related issues referred to the automotive sector. The Association is structured in three product-based Groups, each one chaired by a President. Components: motor vehicle parts and components manufacturers; Car Coachbuilders and Designers: companies working in the sector of design, engineering and style of motor vehicles and/or parts and components for the automotive sector; Motor vehicles: motor vehicles manufacturers in general, including trucks, trailers, camper vans, special means of transport.

www.anfia.it

twitter.com/ANFIA_it

www.linkedin.com/company/anfia-it

The Automotive Production Chain in Italy

5,439 companies

272,000 employees (direct and indirect), the 7.3% of the employees in the Italian manufacturing sector

100.6 billion Euros of turnover, which means 11.5% of the Italian manufacturing sector turnover and of 5.6% the Italian GDP

76.3 billion Euros of tax levy of motorization

Formula SAE Italy

Formula SAE was established in 1981 on the initiative of the Society of Automotive Engineers (SAE) and requires the participating students to design and build a prototype single-seater racing car destined for eventual sale. They must follow specific technical and financial constraints as if a company in the automotive sector commissioned it for a non-professional user. During the event, the teams of students take part in static tests - Design, Business Presentations and Cost Events - and dynamic tests on the track (Acceleration, Skid Pad, Autocross, Endurance; for Class 1D, the Endurance has been replaced by the Trackdrive).
The event aims to focus not on the competition itself, but the skills acquired by the young people in terms of engineering knowledge, commitment, organisation and adherence to deadlines, design coordination and product presentation. Thus, the competition is an educational event in which young people can learn teamwork dynamics, with strict rules and deadlines that must be respected and be put to the test in the actual construction and design phases of a prototype and with all the difficulties that this entails.
Formula SAE arrived in Italy in 2005, organized by ATA (Associazione Tecnica dell'Autoveicolo). After 12 editions, since 2017, with the acquisition of ATA by ANFIA, the organization of the event passed to ANFIA, which organized 4 editions at "R. Paletti" Racing Track of Varano de' Melegari (Parma).

https://www.formula-ata.it/

Social channels of Formula SAE Italy:

@FormulaSAEItaly
x.com/FormulaSAEItaly

Formula SAE Italy
@formulasaeitaly

Formula SAE Italy
facebook.com/FormulaSAEItaly

FSAEItaly
https://www.youtube.com/@FSAEItaly