



Press release

FORMULA SAE ITALY, FORMULA ELECTRIC ITALY & FORMULA DRIVERLESS: YESTERDAY THE STATIC EVENTS CONCLUSION WITH THE PUBLICATION OF THE RANKINGS AND FINALISTS OF THE BUSINESS PRESENTATION EVENT, DESIGN EVENT AND COST EVENT

Varano de' Melegari, July 14^{th, 2018 - Yesterday ended with the publication of the positions, for the static events of Formula SAE Italy, which involved teams from all classes being tested on their Business Presentation as well as the Design and Cost tests.}

Since the FSAE event is not yet finished, in this 2018 edition it has been decided to publish the rankings without revealing the overall positions on the podium, those that have been listed in their respective rankings according to the increasing number of vehicles. The winners of the static tests will not be announced until tomorrow at the closing ceremony.

For the Driverless (1D) Class, the static events were held following the outline of the Formula Student Germany (FSG) competition.

In the Business Presentation event, competing students were asked to simulate a presentation of their proposed car in front of an audience of potential investors. The teams then presented a business plan and tried to convince the target audience to invest in their project. In fact, the car that they took to the race must be potentially marketable. From then on, there was a study of their business model they intend to use to assess potential clients and the market, the marketing and communication methods, the classic economic-financial analysis (return on investment, break-even point) and any other specific request for investment from the judges.

The judges' assessment of the Business Presentation was divided into five sections, based on the five elements dictated by SAE Regulations: content of the business plan with a focus on the degree of innovation and originality of the idea and on the business model; the layout of the presentation; visual aids used; "delivery", i.e. descriptive performance; the ability to answer questions. The maximum score for this was 75 out of a total of 1,000 points for the competition as a whole. For the Driverless class, a new evaluation table had been introduced that included nine elements, all with different weightings based on the topics, including: in-depth subjects (specific driverless topics), innovations (linked to new technologies) and finances (focused on the analysis of the business plan).

The average level in this section was similar to that of the last editions. Year after year the teams have shown that they understand both the importance of the Business Presentation and the suggestions that they received in previous years so that they can incorporate more specialised technical skills and economic capabilities. The top places, in particular presented high-quality projects that were very well balanced, positioning themselves a few points apart. As far as the Driverless Class was concerned, the effort of the teams to think outside the box was very much





appreciated as they had to compete against business models that were already established, the self-driving cars section was this year a new category, so they had to deal with this challenge.

In 1C Class (internal combustion cars), the PWR Racing Team from the University of Wroclaw, TU Graz Racing Team from the Technical University of Graz and the UPBracing Team from the University of Paderborn reached the finals, with excellent scores in all the tests and thanks to the original concepts presented.

In 1E Class (electric cars), the **Aristurtle** team from the Aristotle University of Thessaloniki, **FST Lisboa** from U Lisbon - Instituito Superior Técnico and the **Blue Flash Mobility Concepts** team from HAWK Göttingen won the first positions, again with some high accomplishments in all tests.

In Class 3 (presentation only of the car's project) we found two Italian teams on the podium - PoliBa Corse of Bari Polytechnic and Polimarche Racing Team of Marche Polytechnic University - together with the VIA Hunters Racing team of VIA University College.

Finally, the municHMotorsport team of the University of Applied Science in Munich and AMZ Driverless of ETH Zurich, achieved the best results in the 1D Class, demonstrating that they have the skills to grow further in the coming years.

Turning to the **Design event**, one of the most popular tests among students, with a maximum score of 150 points (out of a possible total of 1,000) being awarded by a panel of experts from the automotive world - these twelve panels were made up of high-level designers - it is engineering that is behind the car.

The judging committee's assessment is based on the classic categories of suspension, chassis and engine but it also assesses the team's management model and awards a number of points to the vehicle's appearance and to the level of creativity and innovation of the design idea.

A lot of attention is paid to the finals: after the judges' face-to-face dialogue with the students in the pit, three 1C Class teams and three 1E Class teams are selected to take part. It is the moment when the best cars are presented publicly, and all the judges have the opportunity to look at them closely and directly compare them.

In this section of the Design event we found a rather mixed level of team preparation and a rather biased one towards the extremities, with a relatively small concentration of medium-high level teams.

Among the finalists in the 1C Class of the Design event was the Joanneum Racing Graz team which, in addition to having an excellent powertrain, they were one of the few teams to have built up know-how which had been passed on from previous generations of students. Also, in the final was UPBracing Team e.V., from the University of Paderborn, who were also recognised by their excellent powertrain system, and Dynamis PRC from Politecnico di Milano, which did an excellent job on dynamics and tyres, presenting a car that was generally well designed and very lightweight.





For the 1E Class, the finalists were **DHBW Stuttgart** and **FS Team Tallinn**, both featured good electric powertrains on sophisticated cars and **Lisboa FSTs**, with a car that had a good powertrain but was more standard in terms of the vehicle used.

In Class 3, Polimarche Racing Team presented a chassis with a static driving simulator, showing the engine, the powertrain system and the chassis in an advanced stage of development and made of composite material. The car layout and suspension were also at an advanced stage. The team demonstrated their research, with excellent skills in terms of simulation and exposure, and also by proposing some original solutions. Unipr Racing team, from the University of Parma, demonstrated clarity in their presentation of the project and a high degree of attention to detail, while the Egyptian MASR Motorsport team, from the Arab Academy for Science, Technology & Maritime Transport, focused on a successful virtual presentation of their vehicle, concentrating on some innovative elements compared to the normal the state of the art ideas.

In the 1D Class, the Design event scoring was out of 175 points, compared to 150 in the other stages. Points were awarded on the basis of the development of the autonomous system and not on the basis of vehicle design. The overall level of teams in this test was high, considering the complexity of the projects, with a high degree of integration of mechanics, electronics and information technology. The solutions put forward were very different from each other, as this was still a very underexplored area. Some teams however, set themselves apart from others by better organisational and development structures. Those who considered the complexities of the vehicles system, without focusing exclusively on software, were rewarded.

Due to this being a new stage, also for the judges, some interesting ideas in terms of method and comparison were derived by the teams, with a constructive and collaborative approach.

Finally, the Cost event (which stands for 100 points out of a possible total of 1,000) focuses on the analysis of the Cost reports - produced by the teams who submit the quantities of materials and vehicle components used for their project on charts that contain information regarding standard costs - by way of macro-categories: total cost (the lower cost is the one that earns the most points, up to a maximum of 40); clarity (30 points); management of the race trial (30 points). Also, during the event the five Cost jury members meet directly with the students who are then asked to give a presentation of their team, describing the project presented in terms of costs and sustainability, answering the judges' questions and checking the car precisely for materials actually used. This analysis is worth a maximum of 10 points to which are added to the 20 achievable points in the Real case scenario, a simulation of a business situation in which a hypothetical top management asks to reduce costs by 20% in the three macro-areas.

The evaluation of this test takes into account how much the students are aware of the necessity to compromise between budget management and performance. Once again this year there were variations in performances among the teams which, on the whole, achieved good results thanks in part to the availability and support of the Cost Jury throughout the year which permitted continuous improvement.





As far as the Driverless class was concerned, despite the small number of teams participating a vast range of technical solutions came to light and the students immediately showed a cooperative and constructive approach. The German evaluation model applied for this stage involved, for the judges, competences that were more engineering than economic-financial and required the students to deal with problems of cost understanding - an evaluation of how the team conceived and applied the elements of the cost of the car.

The list of the top three classifications in 1C Class included E-Team Squadra Corse from the University of Pisa - one of the most active in requesting advice during the year - UPBracing Team from the University of Paderborn, a growing team this year's edition, and the Race UP Combustion team from the University of Padua, which for years has been known for producing well-prepared reports. In the 1E Class the finalists were the PoliTO Racing Team of the Politecnico di Torino, the Blue Flash Mobility Concepts team by HAWK Göttingen and the University of Padua with the Race UP Electric team; all those students demonstrated a level of continuity in the Cost event from recent editions. Among the finalists of Class 3 were Poliba Corse from Bari Polytechnic and the two teams from the Arab Academy for Science, Technology and Maritime Transport - Arab Academy Motors and MASR Motorsport - that demonstrated how well Africa has been performing in recent years. Finally, in the 1D Class, the KA-Racing team from the Karlsruhe Institute of Technology and AMZ Driverless from ETH Zurich delivered the best results.

A last element to be emphasised from the Formula SAE is that instead of it being just a competition, it is indeed a formative-didactic event. Therefore, the importance of feedback sessions for the students - held today from 9.30 a.m. to 12.45 p.m. - in which the judges' committees who assessed the various teams have individual interviews with those teams who request it, aiming at providing suggestions for improvements. Year after year, the teams are able to show that they are able to accept and understand these suggestions and that they are able to introduce them into their proposals of the following years competition.

For further information you can visit the website of the initiative (https://www.formula-ata.it/), where you can find the complete program, list of participants and all the details of the event.

The following link shows the official daily videos of FSAE Italy 2018:

https://www.youtube.com/channel/UCs4_AZpgOWjuQDLTNjE3ZHg

For more information: ANFIA Press Office

Miriam Gangi (Ms.) - m.gangi@anfia.it

Telephone: +39 011 5546502

Mobile: 338 7303167

National Association of Automotive Industry (ANFIA)





ANFIA - Italian Association of the Automotive Industry - is one of the leading Italian Trade Associations, members of CONFINDUSTRIA.

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.