

FORMULA STUDENT EAST

FOR FUTURE VOLUNTEERS

IF YOU ARE
INTERESTED
TO JOIN OUR TEAM

AUG
7<>11
2021

<INFORMATION PACKAGE>

#FSEASTAUG7<>11

RELEASE

VERSION 1.2

RELEASE DATE: 13TH OF JULY 2021

FURTHER DETAILS AT [FSEAST.EU](https://fseast.eu)

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THE PARTICIPATING TEAMS OF FS EAST 2019

REGISTER! **LOGIN.FSEAST.EU**



COVID-19 INFO

Based on the current Covid regulations in Hungary, participants of FS East are expected to be allowed to enter the premises of the event only with a valid immunity certificate accepted in Hungary* or a negative SARS-CoV-2 PCR test (issued in up to 72 hours).

*[EU Digital COVID Certificate](#) & certificates listed on the [website of the Ministry for Foreign Affairs of Hungary](#).

...AND THE ORGANIZERS OF THE EVENT:



2021

VOLUNTEER INFORMATION

HUNGARORING, HUNGARY

HELLO,

you will find some information about attending Formula Student East 2021 below. The document is online for one simple reason: if you have questions/comments, we can update and improve it for the future. Please use it confidentially.

GET FAMILIAR:

- The webpage of the event:
<http://fseast.eu>
- The gallery of the 2019 event:
<https://fseast.eu/gallery-2019>
- A summary of 2021's splendid registrations:
<https://fseast.eu/official-registration-results>

BASIC FORMULA STUDENT INFO

WHAT IS FORMULA STUDENT?

A short and well explained answer can be read on the webpage of BME Formula Racing Team, so it is convenient to link it here:

frt.bme.hu/?id=hu/tudasbazis

WHICH ARE THE HUNGARIAN TEAMS?

- Győr - Arrabona Racing Team
- Budapest - BME FRT
- Kecskemét - KEFO
- University of Miskolc
- Debrecen - Gerundium Racing Team

HOW MANY TEAMS ARE ATTENDING FS EAST IN 2021?

The announced 84 places were taken promptly, with a huge oversubscription:

fseast.eu/registration

(You should visit the Facebook pages of the teams - they have great informative sites, which are already filled with a lot of information and data about the racecars they will bring to us.)

WHICH ARE THE RACES OUTSIDE OF HUNGARY?

FS Germany, FS UK, FS Italy, FS Austria, FS Spain, FS Czech, USA several competitions, Japan, Australia, China, India, Brazil, FS Russia, FS Switzerland, FS Andorra

HOW DOES A RACE LOOK LIKE?

- The teams register at the beginning of the year.
- Between April and June the teams submit their mandatory documents, which are a proving, that their racecar is designed and built according to the rules and safety regulations.
- In the summer time the winner is chosen during a 6 day long competition. The three main stages of the event are scrutineering, design judging, racing on the track

WHERE CAN THE TEAMS FIND THE RULES?

- Every race has its own rules, which contain some additional regulations for the teams. The rule of FS East is updated annually, and it is uploaded to the webpage. (You can also find the rules of the previous years at the same place.)
- The full rulebook itself is more complex. In 2017 there was a major change, the European races developed a brand new rulebook. (This gives more space for engineering creativity than the original SAE -Society of Automotive Engineers- rulebook.)
- This rulebook can be found here:
formulastudent.de/fileadmin/user_upload/all/2020/rules/FS-Rules_2020_V1.0.pdf





ADDITIONAL FS EAST INFO (FAQ)

WHERE WILL BE THE RACE LOCATED?

After our successful preparation event - **FS Easter**
- FS East will be organized at the famous Hungaroring racetrack, just one week after the 36th Hungaroring Grand Prix.

WHAT IS GUARANTEED FOR THE VOLUNTEERS BY THE ORGANIZERS?

Every organizer receives at least 2 FS East T-shirts and towels for the 6 days, but since the tasks define the color of the T-shirts, and some of the organizers have multiple tasks it is possible that somebody will receive multiple colors.
Food and drinks, or a coupon for them is also guaranteed.
The catering should be comfortably enough for everyone at the racesite.

WHERE WILL I SLEEP? CAMPING

The judges will be accommodated in hotels and hostels at Budapest. For the other volunteers we will try to guarantee the most ideal housing. Volunteers can sleep in a huge camping, together with the teams and the organizers, which is really Awesome!
You can also sleep in a student hostel.

HOW CAN I BECOME A VOLUNTEER?

The best way to apply is by filling out the questionnaire on the webpage:

<https://login.fseast.eu/register>

If you already have a preferred responsibility, please contact the organizers of the related field of activity mentioned in the table on the next page.

IN WHICH KEY AREAS ARE YOU LOOKING FOR VOLUNTEERS IN PARTICULAR?

- Track marshall
- Engineering scrutineer
- Electric scrutineer
- Event control assistant - Event Control asszisztens
- Ticket center assistant - Ticket Center asszisztens
- Event support member - Rendezvény támogatás
- Charging tent supervisor

HOW GOOD MY ENGLISH SHOULD BE?

- **Track marshall** - not necessary, some basic useful sentences should be enough
- **Engineering scrutineer** - with basic knowledge, only basic specifications can be checked, intermediate level is recommended
- **Electric scrutineer** - with basic knowledge, only basic specifications can be checked, intermediate level would be useful
- **Event control** - it is mostly about communication, intermediate level is mandatory, being fluent is preferred
- **Event support** - it can be handled without foreign languages, but it is hard to avoid talking to someone in a foreign language during an international event like this:)
- **Charging tent supervisor** - intermediate level and knowing basic electrical terms is expected
- **Judge (Design/Cost/Business)** - strong intermediate level is expected, since it must be understood, what the teams are explaining about their racecar and specialties

HOW CAN I BECOME AN ORGANIZER?

If you are interested in being a	Track marshal	then apply on the webpage, or contact	Gergely Légrádi - gergely.legradi@fseast.eu	who will put you on the	Track marshal's	mailing list. Hurray! :)
	Engineering scrutineer		Péter Lindner - peter.lindner@fseast.eu		Scrutineering + tech	
	Electric scrutineer		Péter Lindner - peter.lindner@fseast.eu		Scrutineering + tech	
	Event control		Szandra Hofer - szandra.hofer@fseast.eu		Separate	
	Event support		Tímea Nagy - timea.nagy@fseast.eu		Separate	
	Charging tent supervisor		Péter Lindner - peter.lindner@fseast.eu		Scrutineering + tech	
	Judge (Design/Cost/Business)		Benjamin Bruncsics - benjamin.bruncsics@fseast.eu		Scrutineering + tech	

THIS IS THE WAY.

Or you can try this way too.

WHAT WILL THE EXACT TASK BE?

TRACK MARSHAL

- In this year, we organise a preparation race called FS Easter in June, where you can learn everything what a Track Marshal needs.
- Visiting the practical training several weeks before the race, where you can sunbath while you learn how to handle "smoking" and "burning" cars, flag signals, proper movement and important safety procedures on a proper racetrack (e.g.: Hungaroring, Euroring, Tököl Airfield ...).
- Arriving to the racetrack Friday evening, where we will prepare everything for the race
- Friday evening you can prepare for the upcoming days with your preferred beverage
- Teams are also arriving on Friday to the Race Track. On Saturday and Sunday teams are supposed to go through scrutineering. The track marshalls are checking racetrack specific items, which can not be checked by the scrutineers in the boxes. These are mostly the tests which require a running engine, such as brake test, noise test, rain test for electric cars. Well, actually for the lateral G simulation tilt test you do not need a running engine...):
- The group leaders will show you everything (all of these should not be new since you already learned it during the theoretical training) on the first days, in order to be and feel confident.
- During Saturday and Sunday fever track marshalls are needed, so if you are interested in scrutineering, you can help the scrutineers with the checklists in the team boxes. If you want to do this you need to know the relevant rules even if you are woken up in the middle of the night, but we will discuss this below...
- The rivalry on the racetrack will start on Monday: 8 shape track and acceleration in the morning, time qualification in the afternoon. (Certainly to re-organize the racetrack is the job of racetrack staff.)
- Tuesday is top notch for all non driverless teams - the 22 km long endurance race, with 4-5 racecars simultaneously on the track.
- Wednesday morning is for the Driverless teams for all of their dynamic events. Wednesday afternoon is the time to clear the racetrack.
- Tuesday evening you should not miss the award ceremony, where all the organizers are invited to the podium, where we have the opportunity to say thanks to the teams for the fun times spent together. You will have the chance to enjoy some free time on all evenings, but on Tuesday there are fewer limits. You are not weak, are you?! :).

THERE ARE ALSO SOME STUFF TO DO TO MAKE THE TESTRACK CLEAR AGAIN,
SO ON WEDNESDAY, HELPING HANDS ARE WELCOME!
(FREE ICE CREAMS ARE PROVIDED ALSO ;))

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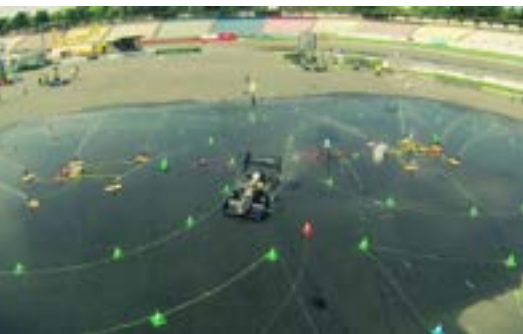
ARRIVING TO THE RACETRACK ON SATURDAY OR FRIDAY, PREPARE EVERYTHING FOR THE RACE



YOU CAN PREPARE FOR THE UPCOMING DAYS WITH YOUR PREFERRED BEVERAGE



TRACK MARSHALLS CHECKING SPECIFIC ITEMS, WHICH CAN NOT BE CHECKED IN THE BOXES



THE RIVALRY ON THE RACETRACK WILL START ON MONDAY MORNING: 8 SHAPE TRACK AKA SKID PAD

ON MONDAY AFTERNOON, THERE IS ACCELERATION AND TIMED QUALIFICATIONS



DURING THE 22KM ENDURANCE EVENT MURPHY IS ALSO WORKING SO YOU HAVE TO BE PREPARED

ENGINEERING SCRUTINEER

- The scrutineering training will also be held at the preparation race, FS Easter, so we are waiting for you!
- If it is possible to decide which parts should be checked by whom, these smaller-bigger parts should be thoroughly studied in the rules.
- Arriving to the racetrack on Friday afternoon or Saturday morning.
- There will be a need for lots of scrutineers on Saturday and Sunday since we are for the teams, and we would like to push them through scrutineering as fast as possible (if they correspond).
- Only DV teams, leftover and problematic EV and CV teams are scrutineered on Monday and Tuesday. In addition, special attention must be paid in the tents to avoid stupid mistakes. The free staff helps out the track marshalls during this time.
- Monday evening you should not miss the dinner together with all of the organisers, but you will have the chance to enjoy some free time all evenings.

YOU ARE NOT WEAK, ARE YOU?! :).



THERE WILL BE A NEED FOR LOTS OF SCRUTINEERS ON SATURDAY AND SUNDAY SINCE WE ARE FOR THE TEAMS, AND WE WOULD LIKE TO PUSH THEM THROUGH SCRUTINEERING AS FAST AS POSSIBLE IF THEY CORRESPOND

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ELECTRIC SCRUTINEER

- The electric scrutineering training will also be held at the preparation race FS Easter in June by Péter Lindner, so we are waiting for you!
- If it is possible to decide which parts should be checked by whom, these smaller-bigger parts should be thoroughly studied in the rules.
- Arriving to the racetrack on Friday afternoon or Saturday morning.
- There will be a need for lots of scrutineers on Saturday and Sunday since we are for the teams, and we would like to push them through scrutineering as fast as possible (if they correspond).
- Battery check
- An electric person will supervise the rain test
- Only DV teams, leftover and problematic EV and CV teams are scrutineered on Monday and Tuesday. In addition, special attention must be paid in the tents to avoid stupid mistakes. The free staff helps out the track marshalls during this time.
- Consumption measurement is a really serious topic, ideally 2-4 helpers are needed under the supervisor, they will constantly check the teams and enforces maximum power limits.
- (There is one more really important electric role - the charging tent supervisor. Due to their significance, below you will find detailed script about them.)

CAMPSITE EVENINGS... YOU KNOW IT!



DURING BATTERY CHECK YOU MUST ALWAYS FOCUS ON SAFETY



AN ELECTRIC SCRUTINEER HAS TO SUPERVISE THE RAIN TEST

EVENT CONTROL

- Arriving to the racetrack on Monday or Tuesday, where we will prepare everything for the race.
- You will have to answer questions of the teams at the information desk during all 6 days.
If you accept this role for some days, it is a great help, but it would work flawlessly if there could be some regular staff.
- Some documents are submitted by the teams here, we also give them devices at the desk, and print the preliminary results. Without event control, the event is dead :)

CAMPSITE EVENINGS... PARTY, PARTY, PARTY!

EVENT SUPPORT

- Arriving Friday morning to the campsite, and from Saturday to the racetrack, where we will prepare everything for the race.
- Only a handful of people are needed for this important role, where you can learn a lot.
He/she is Mr. Wolf, who can help with everything. We can call this role "the fixer" or "the handyman".
 - You need something from the city? He/she will get it.
 - Track marshalls are thirsty? Gets water for everybody.
 - Some of the track marshalls have not had the chance to have breakfast? He/she will bring them sandwiches.
 - Somebody can not fulfill his/her role for a certain time? He/she will jump in as a deputy.
 - Somebody arrived who should get to know the event? Not a problem for him/her:)
 - Printouts are needed for the control tower? He/she helps.
 - etc.:) ...work hard, play hard:

CAMPSITE EVENINGS... TRUTH HAS BEEN SAID!

CHARGING TENT SUPERVISOR

- Arriving to the racetrack on Saturday, where we will prepare everything for the race.
- Preferably this person should be electrician. The charging tent is the only place at the event, where the electric racecar teams can charge and repair their batteries. This is the most dangerous component, usually we are talking about 400V systems, but 600V systems are also quite common. Protective gear is mandatory, but this is only one out of the 10-15 things, where special attention shall be paid. This is one of the most important tasks, but requires constant attention, therefore it would be lucky if 6-8 persons could rotate in this position.
- The chosen lucky ones will get a training from Péter Lindner.

MONDAY EVENING YOU SHOULD NOT MISS THE ORGANISERS'S DINNER... THE REST IS HISTORY.



THE CHOSEN ONES WHO WILL BRING BALANCE TO ALL ELECTRIC CARS WILL GET A TRAINING FROM PÉTER LINDNER

WHAT IS THE ROLE OF THE JUDGES?

A JUDGE IS EITHER AN EXPERIENCED FORMULA STUDENT ALUMNA/ALUMNUS, OR A PRACTICING PROFESSIONAL, WHO COMES FROM THE HIGHER EDUCATION OR FROM THE INDUSTRY. THIS MEANS, THAT THE PROFESSIONAL IS NOT NECESSARILY AN ENGINEER, BUT A MANAGER, FINANCIAL EXPERT ETC.

The main task of the judges on the event is to listen to the presentation of the teams or to have a discussion with the team members in their chosen discipline and evaluate their performance based on the itineraries given by the rules of the Formula Student and by the FS East. Naturally, the organizers of the FS East will do their best to help to prepare the judges properly to the corresponding events.

Since the Static Events are divided into three major events, the participants can apply to become a judge one of the following roles:

- Engineering Design Event Judge
- Cost and Manufacturing Event Judge
- Business Plan Presentation Event Judge

Note that, in the case of the Engineering Design Event Judges, the topics are split into more roles yet. Detailed description of all the judging duties and functions can be found in the following.

Most of the Judging events are held on Saturday and Sunday.

You can find more details about judging in the separate Info for Judges document.

If you have further questions about being a judge at the FS East 2021, please feel free to contact our Static Events Leader, **Benjamin Bruncsics** benjamin.bruncsics@fseast.eu - or write to the static@fseast.eu e-mail address.

REGISTER!
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GO FOR IT FS EAST 2021!

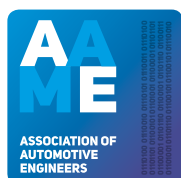
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SEE YOU AT FS
EAST 2021,
WE WILL BE
THERE!

CHANGELOG

Version	Date	Modification	Page
1.0.0	2nd of March 2021	Initial release	-
1.1	5th of July 2021	Date, venue and schedule updates	
1.2	13th of July 2021	Covid updates	2



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