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## ABBREVIATIONS

<b>AAIR</b>	ASF Add Item Request	<b>EDR</b>	Engineering Design Report
<b>ADR</b>	Autonomous Design Report	<b>ESF</b>	Electrical System Form
<b>ASF</b>	Autonomous System Form	<b>ESOQ</b>	Electrical System Officer Qualification
<b>ASRQ</b>	ASR Qualification	<b>ETC</b>	Electronic Throttle Control
<b>BPES</b>	Business Plan Executive Summary	<b>EV</b>	Electric Vehicle
<b>CBOM</b>	Costed Bill of Material	<b>FSG</b>	Formula Student Germany
<b>CCP</b>	Charging Connector and Power	<b>FTO</b>	Fuel Type Order
<b>CEST</b>	Central European Summer Time	<b>HIC</b>	Health Insurance Certificate
<b>CET</b>	Central European Time	<b>IAD</b>	Impact Attenuator Data
<b>CRD</b>	Cost Report Documents	<b>SE3D</b>	Structural Equivalency 3D Model
<b>CV</b>	Internal Combustion Engine Vehicle	<b>SES</b>	Structural Equivalency Spreadsheet
<b>DSS</b>	Design Spec Sheet	<b>SESA</b>	SES Approval
<b>DV</b>	Driverless Vehicle	<b>TMD</b>	Team Member Designation
<b>EAIR</b>	ESF Add Item Request	<b>VSV</b>	Vehicle Status Video

# DE FORMULA STUDENT GERMANY COMPETITION HANDBOOK 2017

## DE 1 GENERAL INFORMATION

### DE 1.1 One Site - Three Competitions

DE 1.1.1 Three competitions will be organized by Formula Student Germany (FSG). These are for the Internal Combustion Engine Vehicle (CV) class, the Driverless Vehicle (DV) class and for the Electric Vehicle (EV) class. All three competitions will take place during the same week at the same location.

### DE 1.2 Competition Dates and Place

DE 1.2.1 FSG 2017 will be held from the 8<sup>th</sup> until the 13<sup>th</sup> of August 2017 in Hockenheim, Germany.

### DE 1.3 Competition Website

DE 1.3.1 The URL of the FSG website is <https://www.formulastudent.de>.

### DE 1.4 Date and Time Format

DE 1.4.1 The competition date/time format is "YYYY-MM-DD hh:mm" according to ISO 8601<sup>1</sup>.

DE 1.4.2 The competition time zone is Central European Time (CET)<sup>2</sup> or Central European Summer Time (CEST) from last Sunday of March to last Sunday of October, Europe/Berlin.

DE 1.4.3 The time of the competition website is the official time for all deadlines and decisions:  
<https://www.formulastudent.de/time>.

### DE 1.5 Vehicle Shipping

DE 1.5.1 Teams are advised to consult their shipping company or freight forwarder to ensure that their shipment fully complies with all relevant, customs, import/export and aviation shipping requirements.

DE 1.5.2 Customs and other paperwork like ATA Carnet<sup>3</sup>, inspecting shipments, reporting and documenting damage to the shipment is the sole responsibility of the team.

<sup>1</sup>[https://en.wikipedia.org/wiki/ISO\\_8601](https://en.wikipedia.org/wiki/ISO_8601)

<sup>2</sup>[https://en.wikipedia.org/wiki/Central\\_European\\_Time](https://en.wikipedia.org/wiki/Central_European_Time)

<sup>3</sup>[https://en.wikipedia.org/wiki/ATA\\_Carnet](https://en.wikipedia.org/wiki/ATA_Carnet)

DE 1.5.3 Detailed vehicle shipping procedures are published on the competition website.

## DE 2 REGISTRATION

### DE 2.1 Team Registration

DE 2.1.1 The team registration will take place in the form of a quiz. There will be one quiz for all three classes. The topic for the quiz is: Formula Student Rules 2017 (excluding the specific rules for CV, EV and DV) and basic engineering knowledge.

DE 2.1.2 The URL of the registration website is <https://reg.formulastudent.de>.

DE 2.1.3 Teams must create a team account on the competition website and assign a team captain and two deputies. The deadline for this is 24 h before the registration quiz is opened. These three team members may complete the quiz, register the team for the competition and assign team members as participants simultaneously.

DE 2.1.4 Once the quiz has been successfully completed, the team captain or one of his deputies must register the team for the competition by agreeing to the rules and by selecting a free vehicle number. Requests for changing the vehicle number are only possible within the first week after the registration.

	EV	CV	DV(EV)	DV(CV)
vehicle numbers	001-199	201-399	401-499	501-599

DE 2.1.5 The quiz will be closed after five hours so that the registration slots can be assigned (see DE 2.2).

DE 2.1.6 Reserved slots (see DE 2.2.2 and DE 2.2.3) will be assigned to the teams based on past achievements, countries and their registration time. All remaining and unused reserved slots will be assigned to all other teams, with regard to their registration time.

DE 2.1.7 All assigned teams will be placed on the pending list on the competition website. In order to move to the participating list, they have 72 h to pay the registration fee (see DE 2.3). Once all slots have been filled, all additional teams will be placed on a waiting list (see DE 2.4). Once this process is completed, the registration for those who missed the quiz will open.

DE 2.1.8 The scrutineering order at the competition will be based on the registration time.

### DE 2.2 Registration Slots

DE 2.2.1 FSG 2017 is limited in total to 65 CV slots, 35 EV slots and 15 DV slots.

DE 2.2.2 Reserved slots for the CV class will be assigned to the teams in the given order:

- Ten top teams from the FSG 2016
- Eight top teams from latest World Ranking List (<https://fs-world.org>)
- Three teams from Australia, China, Japan and New Zealand
- Three teams from Canada and the United States of America
- Three teams from Europe (see DE 2.2.5), besides Germany
- Three teams from the rest of the world

- DE2.2.3 Reserved slots for the EV class will be assigned to the teams in the given order:
- Six top teams from the FSG 2016
  - Three teams from outside Europe (see DE2.2.5)
- DE2.2.4 All remaining and unused reserved slots will become available for all other teams after the registration has been closed on the registration website (see DE2.1.5).
- DE2.2.5 Europe is defined to consist of the following countries:  
Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kazakhstan, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russia, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, Vatican City.

### **DE 2.3 Registration Fee**

- DE2.3.1 The registration fee is 750 € and includes a 20-person team. More team members can be registered for 20 € per participant until the TMD deadline (see DE3.2). Team members may register after this deadline for a fee of 50 € per participant. There is no limit in team size and no deadline for late bookings.
- DE2.3.2 The registration fee must be paid online within 72 h by a verified PayPal account after the team has been moved to the pending list in order to move to the participating list. Otherwise the team will be deregistered.
- DE2.3.3 Registration fees are not refundable for any reason.

### **DE 2.4 Waiting List & Withdrawals**

- DE2.4.1 Teams on the waiting list may move to the participating list up to two weeks before the start of the competition. This is possible if registered team withdraws from the competition. Once a slot on the participating list has become available again, the next team on the waiting list will move to the pending list and has 72 h to pay the registration fee in order to move to the participating list.
- DE2.4.2 Teams on the waiting list are required to submit all documents and forms by the same deadlines as teams on the participating list.
- DE2.4.3 Teams on the waiting and participating lists who find that they will not be able to attend the competition are requested to officially withdraw by notifying the officials.

### **DE 2.5 Team Member Designation (TMD)**

- DE2.5.1 Participating team members must be assigned prior to the competition by the team captain or his deputies.
- DE2.5.2 If there are any team members who are studying at a different university, they must choose the team's university during their registration process as a team member.

DE 2.5.3 Team members may only be selected as participants by the team captain, if they have entered the following personal information in their user profiles:

- Personal address
- Clothing size
- Emergency contact person and phone (e.g. parents)
- Valid Health Insurance Certificate (HIC) for Germany (e.g. travel insurance)
- Current target degree of study

DE 2.5.4 All participants who passed the HIC-check, will find personalized standard terms in their account overview. This document must be printed out, signed by the participant and brought to the on-site registration by the team captain.

### **DE 2.6 Visa for Participants**

DE 2.6.1 All participants which passed the HIC-check, will find a personalized letter of invitation with a digital signature in their account overview.

DE 2.6.2 An invitation letter with a hand signature can be ordered on the competition website. Once a fee of 90 € has been paid, the letter will be sent out within two weeks.

## **DE 3 IMPORTANT DATES**

### **DE 3.1 Team Registration**

DE 3.1.1 Team registration (see DE 2.1) for all teams starts on 2017-01-16 13:00 CET and ends two weeks later.

### **DE 3.2 Deadlines**

DE 3.2.1 All required documents and information must be uploaded to the competition website by the team captain and/or his/her deputies by the following deadlines:

Date	Deadline	Class
2017-03-17 13:00 CET	ASF Add Item Request (AAIR)	DV
2017-03-17 13:00 CET	Electronic Throttle Control (ETC)	CV
2017-03-17 13:00 CET	ESF Add Item Request (EAIR)	EV
2017-03-17 13:00 CET	Impact Attenuator Data (IAD)	ALL
2017-03-17 13:00 CET	Structural Equivalency 3D Model (SE3D)	ALL
2017-03-17 13:00 CET	Structural Equivalency Spreadsheet (SES)	ALL
2017-04-14 13:00 CEST	Autonomous System Form (ASF)	DV
2017-04-14 13:00 CEST	Electrical System Form (ESF)	EV
2017-04-14 13:00 CEST	SES Approval (SESA)	ALL
2017-06-02 13:00 CEST	Autonomous Design Report (ADR)	DV
2017-06-02 13:00 CEST	Business Plan Executive Summary (BPES)	ALL
2017-06-02 13:00 CEST	Design Spec Sheet (DSS)	ALL
2017-06-02 13:00 CEST	Engineering Design Report (EDR)	ALL
2017-06-16 13:00 CEST	ASR Qualification (ASRQ)	DV
2017-06-16 13:00 CEST	Charging Connector and Power (CCP)	EV
2017-06-16 13:00 CEST	Electrical System Officer Qualification (ESOQ)	EV
2017-06-16 13:00 CEST	Fuel Type Order (FTO)	CV
2017-06-16 13:00 CEST	Team Member Designation (TMD)	ALL
2017-06-30 13:00 CEST	Vehicle Status Video (VSV)	ALL
2017-07-21 13:00 CEST	Cost Report Documents (CRD)	ALL

## DE 4 STATIC EVENTS

### DE4.1 Costed Bill of Material (CBOM)

DE4.1.1 For FSG 2017 a CBOM for the "Suspension System" must be submitted.