



The FSG Academy organises workshops and lectures for the students throughout the year.

In 2016, for the first time, there will also be workshops at the FSG event!

These workshops will be offered to this year's participants by the sponsors of Formula Student Germany.

They will give students even more opportunities for further training and to gain expertise on various topics.

So take the chance and sign up for these free workshops!

### Any Questions?

Please ask for Helena Reinke in the FSG Forum or write an email to [academy@formulastudent.de](mailto:academy@formulastudent.de).

## Wednesday, 10th of August

09:45 - 11:15 - South Stand Room A **Brose**

### Successful Presentations - How to convince your audience

In this workshop you will learn more about successful presentations and things you have to observe while preparing and holding your presentation. Any questions are very welcome and will be answered while giving you valuable tips.

*Claudia Desselmann, HR Brose Group*

09:45 - 11:15 - South Stand Room B **Brunel**

### Check your résumé

At the FSG Academy, international engineering service provider Brunel is offering to check your résumé. In ten-minute slots, we examine your application documents and give you helpful hints on how to make a successful start to your career.

11:30 - 13:00 - South Stand Room A **Continental**

### E-Mobility from Continental: Intelligent, Safe and Clean

An efficient and successful EV needs a lot of holistic system solutions and a global view to the whole architecture. This workshop focuses on three solutions: Bidirectional charging, Inductive charging, An optimized cabin room concept.

*Peter Säger, Director Lighthouse Advanced Electric Vehicle*

11:30 - 13:00 - South Stand Room B **Daimler**

### Are you functional or safe?

Join our workshop to make your electrical drivetrain functional AND safe. Discuss life saving technologies with experienced e-drive engineers from the Mercedes-Benz Technology Center Sindelfingen.

*Dr. Menne, Mr. Ott, Mr. Hollaender*

14:15 - 15:45 - South Stand Room A **Faurecia**

### Interview & application coaching for a successful start into your career

In the Faurecia workshops we will show you some basics how to prepare a correct application and how an interview is structured. After the basics some practical exercises will be done, to make you feel more comfortable during an interview situation.

16:00 - 17:30 - South Stand Room A **Mahle**

### Requirements and solutions for motorsports engines components yesterday - today and tomorrow

Development of regulations in various racing categories • specific loads on components • Pistons yesterday - pistons tomorrow • Tribological systems • Component protection • Hybrid systems - plug and play? • Quo vadis racing

17:45 - 19:15 - South Stand Room A **Mathworks**

### MathWorks Physical Modeling Train

Learn about longitudinal vehicle dynamics and 3D suspension modeling. Use the knowledge to predict lap times / energy consumption and to optimize your suspension kinematics. Make sure you bring your own computer with MATLAB, Simulink, Simscape installed.

*Dr.-Ing. Daniel Weida*

17:45 - 19:15 - South Stand Room B **Porsche**

### Porsche Advanced Engineering: Vehicle Bodies for the next Generation of Sports Cars

The automotive industry is experiencing a period of significant change with continued electrification and a push towards efficiency. In this workshop the participants will take on the role of different departments at an OEM and plan out the integration of a high performance body part for a new vehicle project.

*Philipp Knothe, Entwicklung Aufbau Vorentwicklung / Body Advanced Engineering*

## Thursday, 11th of August

08:45 - 10:15 - South Stand Room A **Daimler**

### Can I have more electric power, please?

Join this workshop to create ideas to make a pure electric car-powertrain accelerate faster from 0-100km/h.

*Koray Ahiskali*

08:45 - 10:15 - South Stand Room B **Siemens PLM**

### „A day in a team's life“ - efficient collaboration for innovative teams

Predictive Engineering analytics (PEA) for Formula Student teams. Get to know the Siemens PLM Software development approach that helps with the design of complex products- your team's racing car. It concerns the introduction of new software tools, the integration between those, and a refinement of simulation and testing processes to improve collaboration between analysis teams that handle different applications.

10:30 - 12:00 - South Stand Room A **SKF**

### Automotive Business @ SKF

Everything that keeps a car rolling. From wheel ends to transmission, clutch, suspension, engine and e-powertrain.

10:30 - 12:00 - South Stand Room B **Volkswagen**

### Race of Futures

In the workshop "Race of Futures" participants and the VW Group Research Foresight-Team will create new perspectives for the future of racing. Different phases of Futures Thinking are used to develop and present innovative and trailblazing ideas.

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15:45 - 17:15 - South Stand Room B **Continental**

**The Future of Vision** Vision is the most important human sense: through it, we are able to accomplish a series of complex and important tasks. The rapidly increasing chip performance has led in the last years to a huge improvement of the machine vision technology and algorithms. Which human tasks can be already be accomplished by machines? Which ones will follow in the future?  
*D. Aiello, Head of Technology Development, H. Hofmann, Project Manager Technology Development*

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## Friday, 12th of August

### 10:00 – 15:00 - South Stand Room B **Mathworks**

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*Dr.-Ing. Daniel Weida*

### 11:45 - 13:15 - South Stand Room A **Porsche**

#### Case Study: The Art of Decision Making in automobile races

To race or not to race? That is the question and you will have to make a decision based on technical input, historical failure data and many other given aspects

*Ashley Blakemore, Integration Manager*

### 13:30 - 15:00 - South Stand Room A **Siemens PLM**

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### 15:15 - 16:45 - South Stand Room A **Volkswagen**

#### Volkswagen's modular electrification of the powertrain

In this session we will discuss Volkswagen's approach to a modular electrification of the powertrain based on a modular matrix of electric and hybrid components. The electrified powertrain of the Golf GTE Plug-in Hybrid will be presented in detail.

### 15:15 - 16:45 - South Stand Room B **SKF**

#### Racing @ SKF

Get some insights about the fascinating world of SKF Racing.

### 17:00 - 18:30 - South Stand Room A **Porsche**

#### Engine Development and Design of the Porsche 919 Hybrid

A presentation about the development of the V4 engine of the Porsche 919 Hybrid, which earned two consecutive victories at the 24h Race of Le Mans. It focuses on the concept finding and gives an insight of the variety of challenges that has to be phased

*Hendrik Steurer, Engine Design*

### 17:00 - 18:30 - South Stand Room B **Siemens PLM**

#### Product Lifecycle Management for Formula Student Teams

Overview of Integrated Process:

Requirements, Product Development, Simulation and Product Costing Solutions.

34 workshops free of charge for 20 students each, provided by our sponsors. Please register for each on the booth of the sponsor.

## Saturday, 13th of August

### 10:00 - 11:30 - South Stand Room A **Brose**

#### International Public Relations and Media – between Newspaper, Television and Social Media

Learn how to use the media to your advance. The Media Director of the eight-times German Basketball Champion Brose Bamberg will give insights into successful PR- and media work of an international successful sports club.

*Thorsten Vogt, Media Director of the Bamberg Basketball GmbH*

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#### Automated Driving

As a leading tier-1 supplier Continental has a long-standing success story in the field of automated driving. In this Workshop we want to discuss with motivated teams future FSD activities.

*Chen Zhang, Head of Strategic Academic Liaison & Special Projects*

### 11:45 - 13:15 - South Stand Room B **Adam Opel**

#### Opel Style Workshop

Learn how industrial Car Design is made, how every automotive project begins with Design proposals, what tools can be helpful and especially how conflicts with Engineering can be managed. See how an interface between FSAE Rules and exciting Designs can work.

*Friedhelm Engler, Frank Starz, Sven Weinfurtner*

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### 17:00 - 18:30 - South Stand Room B **Schaeffler**

#### Project management in interdisciplinary development projects

The workshop introduces project management basics to reach development goals in a structured and efficient way and to make interdisciplinary projects a success. Key factors to control the „magic“.

*Sebastian Wielgos, Corporate Innovation*

## Sunday, 14th of August

### 08:15 - 09:45 - South Stand Room A **Siemens PLM**

„A day in a team's life“– efficient collaboration for innovative teams  
Predictive engineering analytics (PEA) for Formula Student teams. Get to know the Siemens PLM Software development approach that helps with the design of complex products– your team's racing car. It concerns the introduction of new software tools, the integration between those, and a refinement of simulation and testing processes to improve collaboration between analysis teams that handle different applications.

### 10:00 - 11:30 - South Stand Room A **Volkswagen**

#### The challenge of autonomous driving

All forecasts show that we will be driven autonomously in the future. In this session we will give an overview over current systems and discuss the technical, legal and economic hurdles on the transition process to this goal.

### 11:45 - 13:15 - South Stand Room A **SKF**

#### Grease as the bearing's most important component

Which grease suits your most stressed bearing in your car? What should you take care of in the selection process? Which effects can be reached by lubrication-for-life?

