

2016 Student Formula Japan – Monozukuri Design Competition – Participation Rules

(Revised: March 23, 2016)

This competition is held by JSAE according to the 2016 Formula SAE® Rules, the Local Rules and the Participation Rules.

Article 1 Competition Name

2016 Student Formula Japan – Monozukuri Design Competition –

Article 2 Date

Tuesday, September 6 to Saturday, September 10, 2016

* All the date is scheduled by Japan Standard Time.

*The detail time schedule of the competition will be announced by Official announcement later.

Article 3 Venue

ECOPA (Ogasayama Sports Park), Shizuoka Prefecture

Article 4 Organizer

Society of Automotive Engineers of Japan, Inc. (JSAE)

Article 5 Competition Officers

| | |
|------------------------------------|------------------------------------|
| Chairman: | Tokuhisa Nomura |
| Vice Chairmen: | Hiroshi Takemura Takao Kubozuka |
| Implementation Committee Chairman: | Yasushi Matsumoto |
| Technical Inspection Captain: | Hiroshi Miyake |
| Static Events Captain: | Hideto Arigaya |
| Dynamic Events Captain: | Hiroataka Nakazawa |
| EV Captain: | Tadashi Tamashou |

Article 6 Competition Classes

1. ICV Class
2. EV Class

Article 7 Schedule to the 2016 Student Formula Japan

Friday, January 29

Deadline for Registration and Payment of Registration Fee

Notice: Teams that fail to pay the registration fee shall not be allowed to proceed to the next step.

The EV class teams must submit “Electrical Systems Officer and Electrical Systems Advisor Form” by the deadline of January 29, 2016. Submission delay will incur a penalty of 10 points a day.

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Beginning of February

Notification of Vehicle Number on the official website



Friday, February 26

Deadline for declaration of **Alternative Frame Rules** and **Electronic Throttle Control**

Notice: Teams using the AF Rules / Electronic Throttle Control must declare by the deadline of February 26, 2016. If you use them, fill out the application form on team page and submit it to Secretariat by email:

formula@jsae.or.jp



Friday, May 13

Deadline for Submission of **Electrical System Form (ESF)** and **Failure Modes and Effects Analysis (FMEA)** – EV Class Only –



Monday, May 23

Deadline for Submission of **Structural Equivalency Sheet** and **Impact Attenuator Data**



Wednesday, June 8

Deadline for Submission of **Design Report** and **Design Spec Sheet**



Friday, June 17

Postmarked Deadline for Submission of **Cost Report** (Both of the Printed Documents and CD-R)



Tuesday, July 5

Deadline for Submission of **Business Logic Case**



Friday, July 29

Announcement of **Document Screening Result** on the official website



Friday, August 12

Deadline for Submission of **Written Oath, Certificate of Insurance Coverage, Student Identification Card, Driver's License**



Friday, August 26

Deadline for Submission of **Shakedown Certificates**



September 6 to 10

2016 Student Formula Japan

Article 8 Vehicle Production Regulations

The vehicles shall be fabricated according to the 2016 Formula SAE® Rules and the Local Rules for 2016 Student Formula Japan.

Article 9 Participation Requirements

The team shall fulfill the following requirements;

1. Team

- 1) Each educational institute shall be permitted to register only one team and one vehicle.
- 2) However, multiple teams shall be permitted if the institute has multiple campuses.
- 3) It is permitted that one educational institute will have one team for ICV Class and one team for EV Class at the 2016 SFJ. In that case, each team may share their team members, drivers and faculty advisors at the competition.

2. Team Members

- 1) Team members shall be 18 years old or above and the students of national colleges of technology, junior colleges, universities, graduate schools, or similar education / training institutes. Individuals who have graduated within seven months prior to the competition date are also eligible.
- 2) All team members shall be the students of the educational institute that registered for the competition.
- 3) Drivers participating in the competition shall be 18 years old or above and possess a valid government-issued driver's license.
- 4) The team member must submit the following documents by the deadline of August 12, 2016;
 - a. Written Oath
 - b. Certificate of Insurance Coverage (copy)
 - c. Student Identification Card (copy)
 - d. Driver's License (copy)

3. Faculty Advisors (FA)

- 1) During the period of competition, the FA shall be responsible for all team activities even regarding non-competition matters such as safety, health, and the attitudes of team members, and shall also accompany the team throughout the competition.
- 2) The FA shall be responsible for all team activities as a representative of each educational institute and shall register for the competition in the same way as the team members.
- 3) The FA shall be full-time members of the faculty staff of the educational institute to which the team belongs.
- 4) A team may have multiple FAs.
- 5) Teams without FA shall not be allowed to participate. If the FAs are absent during the competition, the team members shall not be allowed to work in the pit area and participate in events during that period of absence.
- 6) During the period of competition, the FA shall accompany the team when using any facility or the like loaned by other educational institute, and application shall be made in advance to the organization for approval.
- 7) If the educational institute join in both ICV and EV Class, the FA who is both ICV and EV Class is acceptable.

4. Electrical System Officer (ESO) and Electric System Advisor (ESA) – EV Class Only

- 1) ESO (Not ESA) shall accompany the team throughout the competition period.
- 2) It is acceptable for the faculty advisor to be the ESA if all the requirements are met, see the 2016 Formula SAE® Rules, A.5.3.
- 3) Teams must submit ESO/ESA form by the deadline of January 29, 2016. Submission delay will incur a penalty of 10 points a day.

Teams that don't submit ESO/ESA form by the final deadline of 14:00 February 3, 2016 shall not be allowed to participate in the competition.

5. Insurance

All team members and FA (and ESO, ESA – EV Class only) shall take out an effective insurance to cover injury and medical treatment during the period of the competition. In addition, all participants shall be requested to sign a Written Oath.

Article 10 Team Registration

1. Registration:

From 10am, Monday, December 21, 2015
To 2pm, Friday, January 29, 2016

2. How to Register:

Please register online via the following website.

https://tech.jsae.or.jp/formula/2016team_en/registration.aspx

3. Registration Fee:

- 1) If all team members (including Faculty Advisors (FA)) are members of one of the following societies: (1) SAE International (2) SAE Australasia (3) SAE Brazil (4) ATA (5) IMechE (6) VDI or (7) JSAE ----- ¥108,000 per team

Notice: Each member must be qualified as a member of one of (1)-(7) societies at the timing of registration.

- 2) In all other cases: ----- ¥216,000 per team

Note) The consumption tax is including. It's charged to not only domestic participants but also overseas participants in accordance with the law.

4. Payment:

- 1) Bank Details:

Bank Name: The Bank of Tokyo-Mitsubishi UFJ, Ichigaya Branch
(Bank No.: 0005-014)

Account Holder: Society of Automotive Engineers of Japan, Inc.

Account No.: 1299678 (Ordinary)

SWIFT BIC: BOTKJPJT

SWIFT code: BOTKJPJTXXX

Bank Address: 4-8-20 Kudan-minami, Chiyoda-ku, Tokyo, 102-0074 Japan

- 2) Payment Deadline:

Friday, January 29, 2016

Notice: The competition registration fee is non-refundable for any reason whatsoever.

Article 11 Document Submissions

Document Submissions are as follows.

Submission delay is subjected to the penalty.

| Documents to be Submitted | Submission Deadline | Submission Methods <Form/Capacity> | Important Notes (penalties, etc.) |
|---|--|---|--|
| Electrical System Form – EV Class Only – (Electronic Data) | 2pm, Fri, May 13 | Upload to the Team Page <PDF/-15MB> | Submission delay will incur a penalty of 10 points a day (Delay Deadline is 2pm, Wed, May 18). Teams shall be required to re-submit any documentation judged as “insufficient” in any way several times. The final deadline of the resubmission is 2pm, Fri, August 12. |
| Failure Modes and Effects Analysis – EV Class Only – (Electronic Data) | | Upload to the Team Page <Excel/-10MB> | |
| Structural Equivalency Sheet (Electronic Data) | 2pm, Mon, May 23 | Upload to the Team Page <Excel/-15MB> | Submission delay will incur a penalty of 10 points a day (Delay Deadline is 2pm, Sat, May 28). Teams shall be required to re-submit any documentation judged as “insufficient” in any way. |
| Impact Attenuator Data (Electronic Data) | | Upload to the Team Page <PDF/-15MB> | |
| Design Report (Electronic Data) | 2pm, Wed, June 8 | Upload to the Team Page <PDF/-10MB> | Submission delay will incur a penalty of 10 points a day (Delay Deadline is 2pm, Sat, June 18). |
| Design Spec Sheet (Electronic Data) | | Upload to the Team Page <Excel/-3MB> | |
| Cost Report (Both of the Printed Documents and CD-R) | Postmarked Deadline Fri, June 17 | Mail | Submission delay will incur a penalty of 10 points a day (Delay Deadline is 2pm, Sat, June 25). Teams must submit both of the Printed Documents and CD-R. |
| Business Logic Case (Electronic Data) | 2pm, Tue, July 5 | Upload to the Team Page <PDF/-10MB> | Submission delay will incur a penalty of 5 points a day (Delay Deadline is 2pm, Fri, July 15). |
| Shakedown Certificate (Electronic Data) | 2pm, Fri, August 26 | Upload to the Team Page <mpg, wmv/-20MB> | Teams that fail to submit the Shakedown Certificate or do not pass this stage shall not be permitted to participate in the Technical Inspections and the Dynamic Events. |

*The Form of the Documents

Excel: Microsoft Excel 2010~Recommended /Form: xls, xlsx, **xlsx**

PDF: PDF VERSION 1.7~Recommended

***If there are any specified regulations in each Local Rules, teams must follow what the Local Rules says.**

All documents (Structural Equivalency Sheet, Impact Attenuator Data, Design Report, Design Spec Sheet, Cost Report, Business Logic Case, Electrical System Form(EV Class Only) and Failure Modes and Effects Analysis (EV Class Only)) must be submitted before the deadline dates. Otherwise, you are disqualified to join in Static Events and Dynamic Events.

Teams submitting documentation by the “extended deadline” shall be subject to a point deduction as described in the JSAE Local Rules.

Article 12 Document Screening

1. Document Screening

With the Design Reports, Design Spec Sheet, Cost Reports and Business Logic Case submitted from the teams, document screening shall be performed.

2. Document Screening - Announcement of Results -

The results will be announced on Friday, July 29, 2016 on the official website.

1) Qualified Teams

- a. Teams that have passed the document screening shall be permitted to participate in the competition on the days of the Static Events.
- b. Teams that have not reached the expected level shall be prohibited from taking part in Design Event, Cost Event or Presentation Event during the competition. The Follow-up Program of Cost Event will be prepared at the competition site for those who failed to participate in the Cost Event.

2) Disqualified Teams

- a. Teams that failed to pass the document screening shall be prohibited from taking part in the competition. However, such teams may participate in the Follow-Up Program at the competition.
- b. Follow-Up Program (provisional)
 - Mock Technical Inspection
 - Design Event
 - Cost Event / Only the teams that failed to pass the Cost of the Static Events can participate.
 - Presentation Event / The details will be announced later.
 - Consultation on EV Production / EV Technical Inspection

Article 13 Shakedown Certificate

Teams that have passed the document screening shall submit a **Shakedown Certificate*** by pm 2:00 Fri, August 26 in order to prove the completion level of the car. Teams that fail to submit the Certificate or do not pass this stage shall not be permitted to participate in the Technical Inspections and the Dynamic Events.

Shakedown Certificate*

This certificate shall consist of the moving images of the car being driven, accelerated and stopped. The team plate that has the following information is included in the movie.

- ① Name of the University ② Car Number ③ Place information ④ Date ⑤ Sign of team FA

*There is the sample movie on the team page.

*When teams make a movie, they have to use the Driver Equipment and Impact Attenuator and ensure a safe location.

Submission Methods: Upload to the Team Page

Form/Maximum Capacity: mpg, wmv (For Windows Media Player)/ At most 20MB

- EV Class Only -

Teams shall submit moving images of the shutdown button that operates properly. The images shall include the way it operates as “the voltage in the tractive system drops to under 60V DC or 25V AC RMS in less than five seconds after opening the shutdown circuit” (see the 2016 Formula SAE® Rules.EV5.1.3) -----more details to be announced---

1) **Qualified Teams**

Teams shall be permitted to participate in the competition on the days of the Technical Inspections and Dynamic Events.

2) **Disqualified Teams**

Teams may participate in the Follow-Up Program at the competition.

Article 14 Technical Inspections

Teams that fail to pass the Technical Inspections shall be prohibited from proceeding to the Dynamic Events.

Article 15 Awards

Minister of Economy, Trade and Industry Award / Minister of Land, Infrastructure, Transport and Tourism Award / Governor of Shizuoka Prefecture Award / Japan Automobile Manufacturers Association Award / Award for each competition category, etc.

Article 16 Additional Clause

1. The Local Rules will be announced on the official website at any time.
2. On participating in the 2016 Student Formula Japan, each team and the members shall thoroughly read and comprehend the contents of the 2016 Formula SAE® Rules, the Local Rules and the Participation Rules.
3. When any doubt occurs as to the interpretation of the Rules, the decision of Rule Committee and Student Formula Japan 2016 Implementation Committee has priority over all others.
4. In case you abandon to join in 2016 Student Formula Japan even though the document screening is qualified, with the least delay please declare to do so (2016 Formula SAE® Rules, A.7.8).

Schedule to the 2016 Student Formula Japan

