# 2020 Formula SAE Japan – Monozukuri Design Competition – 2020 FSAEJ Participation Rules

(Issued: December 20, 2019)

2020 Formula SAE Japan (FSAEJ) is hosted by the Society of Automotive Engineers of Japan (JSAE) in accordance with the rules described below, the Formula SAE® Rules 2020, the 2020 FSAEJ Participation Rules, and the 2020 FSAEJ Local Rules. Items described in the Participation Rules and the Local Rules must take priority over the Formula SAE® Rules 2020.

## **Article 1 Competition Name**

2020 Formula SAE Japan - Monozukuri Design Competition -

Abbreviation Code: FSAEJ

#### Article 2 Date

From Tuesday, September 8 to Saturday, September 12, 2020

- \* Unless specified, all dates adopt Japan Standard Time (JST).
- \* The detailed time schedule of the competition will be officially announced at a later date.

## Article 3 Venue

ECOPA (Ogasayama Sports Park), Shizuoka Prefecture, URL: https://www.ecopa.jp/english/

# Article 4 Organizer

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

# **Article 5 Formula SAE Japan Office**

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

Address: 10-2 Gobancho, Chiyoda-ku, Tokyo 102-0076 Japan

Tel.: +81-3-3262-8214, email: formula@jsae.or.jp

# **Article 6 Competition Officers**

Board of Formula SAE Japan

Chairperson: Seigo Kuzumaki
Vice Chairpersons: Shunichi Toyomasu

Hiroshi Takemura

Yuichi Azuma

Rules Committee

Chairperson: Takuya Saito Vice Chairperson: Natsuo Tsuji

**Executive Committee** 

Chairperson: Hirotaka Nakazawa Vice Chairpersons: Hiroaki Mizutani

Yuu Oowada

Technical Inspection Leader: Hideyuki Nishi
EV Leader: Kazunari Shirai
Presentation Event Leader: Takahiko Masuda

Cost & Manufacturing Event Leader: Ken Suzuki

Design Event Leader: Junichi Hasegawa

Dynamic Events Leader: Hirotaka Nakazawa

Secretariat: Shinichiro Doi, Hideyuki Iijima

# **Article 7 Official Languages**

Japanese or English

# **Article 8 Competition Classes**

1. ICV Class

2. EV Class

Up to a total of 98 teams may participate.

Note for ICV teams: Gasoline will be the only fuel provided. No E85 will be provided.

# **Article 9 Vehicle Production Regulations**

The vehicles must be fabricated in compliance with the Formula SAE® Rules 2020 and 2020 FSAEJ Local Rules.

# **Article 10 Participation Requirements**

The teams must fulfill the following requirements.

- 1. Educational institutes must be permitted to register only one team and one vehicle, excluding the following cases.
  - 1) An institute has multiple campuses and each campus has one team.
  - 2) An institute has one team in the ICV class and one team in the EV class.
  - 3) A team is composed of members from two or more educational institutes.

#### 2. Team members

- 1) Team members must be 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. There is no age limit.
- 2) When one educational institute participates in both ICV and EV classes, team members and drivers may participate in both classes.
- 3) Drivers participating in the competition must be 18 years old or above complying with rule AD.3.3 of the Formula SAE® Rules 2020.

#### 3. Faculty Advisors (FA)

- During the period of competition, a FA must be responsible for all team activities including non-competition matters related to safety, health, and the attitudes of team members, and must also accompany the team throughout the competition.
- 2) The FA must be responsible for all team activities as a representative of the educational institute and must register for the competition in the same way as the team members.
- 3) The FA must be a member of the faculty staff of the educational institute to which the team

belongs.

- 4) A team may have multiple FAs and FAs may be changes until the team registers on-site.
- 5) Teams without an FA must not be allowed to participate in the competition. If the FA is absent during the competition, the team members must not be allowed to work on the vehicle or participate in any events during the absence. (The FA must stay within the event venue and remain in contact with the team.)
- 6) If the educational institute participates in both the ICV and EV class, the FA may be responsible for both ICV and EV entries.
- 7) Teams composed of members from two or more educational institutes must have at least one FA from each institute.

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

- 1) An ESO must accompany the car whenever it is operated or moved around the event site.
- 2) The FA may be the ESA if the requirements are met.
- 3) The ESA must have significant experience of the technology that is being developed and its implementation into vehicles or other safety critical systems, such that they are adequately qualified to advise the team on their proposed electrical and control system designs.

Note: It is not necessary for the ESA to be a staff member of the educational institute. Teams may have more than one person acting as ESA to achieve this requirement.

(Refer to rules AD.5.2 and AD.5.3 of the Formula SAE® Rules 2020.)

#### 5. Insurance

All team members and FAs must have effective insurance to cover injury and medical treatment during the period of the competition.

Note: It is highly recommended that teams obtain insurance that covers their Formula Student activities throughout the year.

# Article 11 Team Participation Application

**1. Application:** From 12:30, Tuesday, January 21, 2020

**2. Application Deadline:** 14:00, Friday, January 31, 2020

3. How to Apply

Please apply online via the following website.

https://tech.jsae.or.jp/formula/2020team\_en/registration.aspx

4. Number of Registered Teams: The upper limit is 98 teams.

The registered teams are determined by the following priority order.

**First priority:** The 20 teams with the highest overall score at the 2019 Formula SAE Japan and 2018 Student Formula Japan.

Aichi Institute of Technology, Ibaraki University, Kasetsart University, Kobe University, Kyoto Institute of Technology, Kyoto University, Meijo University, Nagoya Institute of Technology, Nagoya University EV, National Tsing Hua University EV, Nihon Automobile College, Nippon Institute of Technology, Osaka University, Ritsumeikan University, Saitama University, Shibaura Institute of Technology, Shizuoka Institute of Science and Technology, Shizuoka University, Sophia University, Tokai University, Tokyo City University, Tokyo University of

Agriculture and Technology, Tokyo University of Science, Tongji University, Tongji

University EV, U.A.S. Graz, University of Fukui, Waseda University, Yokohama National University

Note: First priority is given to participation in the same class (EV or ICV) in which the overall score was achieved, unless the team converts from the ICV to the EV class.

**Second priority:** Teams from countries not listed as a first priority in order of application arrival.

(Each country may only count once as a second priority).

**Third priority:** Teams that the JSAE have approved as a special case.

Fourth priority: In order of application arrival

#### 5. Finalizing the Registration

The first **Pending List** and **Waiting List** will be released on Monday, February 10, 2020 on the official website (https://www.jsae.or.jp/formula/en/). The deadline for payment of the registration fee is Monday, February 17, 2020.

Note: The Pending List contains the teams that can register for the 2020 Formula SAE Japan by paying the registration fee. The Waiting List contains the teams waiting to be moved to the Pending List.

- After application, teams will be allocated to the Pending List or Waiting List in the above priority order. Teams at or above 98th place in this order will be placed on the Pending List and teams at or below 99th place will be allocated to the Waiting List.
- Teams must complete their registration by paying the registration fee only after being placed on the Pending List.
- Teams must submit an image of their payment certification to the FSAEJ Office by email (<a href="mailto:formula@jsae.or.jp">formula@jsae.or.jp</a>).
- Teams that fail to submit this payment certification image by the payment deadline will be regarded as withdrawn and removed from the Pending List.
- If 98 teams have not completed registration by February 17, teams on the Waiting List will be added to the Pending List following the priority order.
- After Monday, February 24, 2020, the pending list will be updated every Monday until the 98th team is added, and the deadline for payment of the registration fee will be Friday of the same week.
- Teams on the Waiting List MUST NOT pay the registration fee. <u>Once paid, the registration fee will</u> not be refunded under any circumstances.
- The last update to the Pending list and Waiting list is scheduled for Monday, July 13, 2020.
- All schedules of the Team Participation Application may be changed due to unavoidable circumstances.

#### **6.** Additional Application

If the number of Registered Teams does not reach the upper limit (98 teams), an additional application may be opened after February 3, 2020.

#### 7. Registration Fee: There are two classes of registration fee.

1) If all team members (including FAs) are members of one of the following societies: (1) SAE International (2) SAE Australasia (3) SAE Brazil (4) IMechE (5) VDI or (6) JSAE: ¥110,000 per team (tax included)

Note: ALL members must be qualified as a member of one of societies (1)-(6) and input their Membership Number upon registration.

2) In all other cases: ¥220,000 per team (tax included)

Note: This fee includes consumption tax. This tax is charged to both Japanese and non-Japanese participants in accordance with the law. **All bank charges must be paid by the team.** 

#### 8. Payment: Bank Transfer (only the following details are valid)

1) Bank Details:

Bank Name: MUFG Bank, Ltd., 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: 4-1, Kojimachi, Chiyoda-ku, Tokyo, 102-0083 Japan

## **Article 12 Submission of Documents**

Documents for registration and the competition events must be submitted as follows.

#### 1. Registration documents

Information about the registration documents will be released on the team page.

Documents to be submitted	Submission deadline	Submit to	Note	
Copies of student IDs with			Not needed if ALL team members are members of the	
pictures	14:00, July 20		societies listed in Article 11.	
Copies of driver's license		Team Page	ALL drivers are required to submit a copy of their driver's	
			license.	
Certificate of insurance			Check the Information of the registration documents on the	
coverage			team page.	

[NOTE] Team Page Login: https://tech.jsae.or.jp/formula/2020team\_en/login.aspx

#### 2. Documents for Events

If a team fails to submit (or is regarded as failing to submit) the required documents, that team may be disqualified from the competition.

Category	Items to be submitted Submission format (file format/maximum size)		Submit to	Note	Deadline		Delay Deadline
EV (EV class only)	ESO/ESA form dedicated format for FSAEJ Word/10MB			If it change after the deadline, email to formula@jsae.or.jp	-14:00, February 28.		14:00,
ETC (ICV using ETC only)	Electronic Throttle Control (ETC) Notice of Intent	dedicated format for FSAEJ Word/10MB		Also submit the ESF for ETC	14.00, February 26.		March 4
ETC (ICV using ETC only)	Electrical Systems Form (ESF)	dedicated format for FSAEJ/20MB		Re-submission may be	Initial Submission Deadline	14:00, May 11	14:00, May 16
EV (EV class only)	Electrical Systems Form (ESF)	dedicated format for FSAEJ/20MB	Team page	requested several times depending on degree of completion.	Middle Resubmission	14:00,	1,20, 10
EV (EV class only)	Failure Modes and Effects Analysis (FMEA)	dedicated format for FSAEJ Excel/20MB		(Article 14)	Deadline Final Resubmission Deadline	June 22 14:00, July 29	
				V 1	Initial Submission Deadline	14:00, March 13	
	Structural Equivalency Spreadsheet (SES)	Excel/20MB		Non-submission Team is disqualified from FSAEJ (Article 13)	1st Resubmission Deadline	14:00, May 11	
					2nd Resubmission Deadline	14:00, June 12	

Category	Items to be submitted		Submission format (file format/maximum size)	Submit to	Note	Deadline	Delay Deadline
Cost Report :Electronic data							
		Entry sheet for Cost Report	dedicated format for FSAEJ, Excel/10M	Team page			
Cost		Bill of Materials (BOM)*	dedicated format for FSAEJ,		Refer to the Article	14:00, June 3	14:00, June 5
Manufacturing Event		Cost calculation data(FCA) for each part*	Excel and PDF				
		Supporting documentation for cost calculation*	PDF				
Design documents			The delay penalty for the				
Design		Design Report	PDF/10MB		design documents shall be	14.00	1400
_ ~		Design Specification Sheet	Excel/3MB	Team page	equivalent to the higher penalty to either documents.	14:00, June 16	14:00, June 18
Presentation Event	n Sales Presentation Document (SPD)		dedicated format for FSAEJ, PDF/10 MB	Tourn page	_	14:00, June 22	14:00, June 24
Shakedown Certificate	n Shakedown Certificate		MPG, WMV/20MB		_	14:00, August 28	

#### The following penalty will be counted on the Overall Score

Category	Submission past deadline	Re-submission	Required level not achieved	Non-submission
EV	10-point penalty for each day past the deadline			Disqualified from FSAEJ
ETC			Regarded as "not	Use of ETC prohibited
<b>Technical Inspection</b>				Disqualified from FSAEJ
Cost and Manufacturing Event Design Event Presentation Event	Unform 20-point penalty	40-point penalty	submitted"	Disqualified from FSAEJ or Penalized
Shakedown Certification				Disqualified for the Technical Inspection

## Article 13 Submission of SES

#### 1. Aim of submission

Early completion of the SES is required as the most effective means of incorporating its details and regulations into the vehicle design, and enabling all cars participating in the competition to proceed to the dynamic events.

The SES Templates that can be downloaded from FSAEOnline.com (http://www.fsaeonline.com/) must be used.

#### 2. Submission deadlines

Initial submission deadline: 14:00, Friday, March 13, 2020. This deadline will not be extended and documents that are not received by this deadline will be regarded as "not submitted."

The acceptability of the initially submitted document will be returned to the team by Friday, April 24, 2020. In some cases, teams may be asked to resubmit the SES.

This is same as the teams on the Pending and Waiting Lists. If the teams intend to participate in the competition, they must submit the SES in time above initially.\*

1st resubmission deadline: 14:00, Monday, May 11, 2020. This deadline will not be extended and documents that are not received by this deadline will be regarded as "not submitted."

The acceptability of the resubmitted document will be notified to the team by Friday, 29 May, 2020. In some cases, teams may be asked to resubmit the SES again.

2nd resubmission deadline: 14:00, Friday, June 26, 2020. This deadline will not be extended and documents that are not received by this deadline will be regarded as "not submitted."

The team whose SES is regarded as unsuitable at the 2nd resubmission deadline will be disqualified from the competition.

Regardless of the acceptability of the submitted and resubmitted documents (up to the second resubmission), teams will not be permitted to pass the Technical Inspection if the vehicle is regarded as unsuitable at the Technical Inspection during the competition.

\*After the submission by the initial deadline, the resubmission deadlines are indicated to the teams on the Pending and Waiting Lists independently.

In this case, teams can resubmit SES twice same as above and the team whose SES is regarded as unsuitable at the 2nd resubmission try will be disqualified from the competition.

#### 3. Screening score

The score will be determined based on the number of items passing the acceptable level at the initial submission deadline. The score will not be disclosed.

However, the priority order for 42 teams by the Technical Inspection at the competition will be determined using the SES screening scores submitted at the initial. The prior schedule with Static Events at the competition will be released on the team page before the competition.

#### 4. Criteria for regarding documents as "not submitted" at the initial deadline

The documents will be regarded as "not submitted" if roughly one-third or more of the document items are not completed.

#### Article 14 Submission of ESF and FMEA

#### 1. Aim of submission

The screening of electrical system design documents is emphasized as the most effective means of ensuring the safety of EVs through the vehicle design, and enabling all cars participating in the competition to proceed to the dynamic events.

Resubmission may be requested several times depending on the degree of completion.

Teams should use the dedicated FSAEJ templates for the ESF and FMEA (these are planned to be posted on the team page at the beginning of February 2020). Please note that additional items may be requested at a later date to supplement the contents of these templates.

#### 2. Submission deadlines

Initial submission deadline: 14:00, Monday, May 11, 2020. Teams that fail to meet this deadline will be penalized and documents that are not received by the extended deadline will be regarded as "not submitted."

Middle resubmission deadline: 14:00, Monday, June 22, 2020. Teams that fail to resubmit the documents will be got zero points for this item. NOT disqualified from the competition.

Final submission deadline: 14:00, Wednesday, July 29, 2020

Regardless of the acceptability of the submitted and resubmitted documents, teams will not be permitted to pass the EV Technical Inspection if the vehicle is regarded as unsuitable at the EV Technical Inspection during the competition.

#### 3. Screening score

The score will be determined based on the number of items passing the acceptable level at each of the submission deadlines. The score will not be disclosed. However, an "ESF Certificate" will be issued on the team page if the team passes all ESF items.

The priority order for the Electrical Technical Inspection at the competition will be determined using the document screening scores submitted at the initial, intermediate, and final deadlines.

The prior schedule with Static Events at the competition will be released on the team page before the competition.

#### 4. Criteria for regarding documents as "not submitted" at the initial deadline

The documents will be regarded as "not submitted" if roughly one-third or more of the document items are not completed.

#### Article 15 Presentation Event

#### 1. Presentation Concept

The concept of the presentation at FSAEJ is adopted a unique approach referring to Local Rules No. 2 (issued separately) for the details of the concept.

#### 2. Submission of Sales Presentation Document (SPD)

Each team must submit an SPD for screening before the Presentation Event. This document must be submitted as electronic data using the Formula SAE Japan format that can be downloaded from the team page.

SPD that do not reach the required event standard (e.g., if around one-third or more of the document is copied from a previous SPD, if around one-third or more of the details describing one school's ICV and EV are the same, the contents of studies are clearly insufficient, or the like) will be regarded as "not submitted".

In addition, points must be deducted as appropriate if the contents of the submitted document are judged to be insufficient (including format errors, insufficient studies, or the like).

## **Article 16 Cost and Manufacturing Event**

#### 1. Cost Report

In accordance with Local Rules No. 2 (issued separately), each team must submit as electronic data a Cost Report containing: (1) a parts list (i.e., a bill of materials, BOM), (2) cost calculation data for each part (FCA), and (3) supporting documentation.

The Cost Report must be submitted using a storage service as instructed in the Cost Report Entry Sheet (issued separately).

In addition, teams must fill in the necessary items and submit the Cost Report Entry Sheet via the team page by the Cost Report submission deadline. Teams must not update the electronic Cost Report data in the storage service after submission of the Cost Report Entry Sheet.

The configuration of the electronic Cost Report data to be submitted must be in accordance with the Local Rules No. 2 (issued separately).

#### 2. Resubmission of the Cost Report

In the event that a serious insufficiency is found with the electronic data of the Cost Report submitted by the team, the judges may request the team to resubmit the electronic data of the Cost Report. The method of resubmission must be instructed when the resubmission request is issued. Resubmission requests are scheduled to be issued in around the middle of June 2020.

Teams that are requested to resubmit the Cost Report must resubmit the electronic data within 48 hours of the request. A request to resubmit the Cost Report will generate a 40-point penalty. Teams that fail to resubmit when requested to do so will be regarded as "not submitted".

#### 3. Non-Submission of the Cost Report

In addition to rule DR.1.2.5 of the Formula SAE® Rules 2020, the Cost Report must be regarded as "not submitted" in the following cases.

- a. If resubmission of the Cost Report is requested but the Cost Report is not resubmitted by the deadline.
- b. If the BOM is incomplete.
- c. If the cost calculation data (FCA) for each part is incomplete.

# Article 17 Design Event

Since the time allocated to the Design event in the FSAEJ is limited, prescreening of the design documents is emphasized to ensure that the event is productive. The relevant documents must be read thoroughly to ensure submission of design documents with a high degree of completion.

The relevant documents are posted on the official website or on FSAE Online.com (http://www.fsaeonline.com/):

- Guidelines for creating excellent three-view drawings (Three View Drawing Excellence)
- Details of how the Design Event is scored (Formula SAE Design Judging Score Sheet)
- Guidance related to the design judging procedure (FSAE Design Judging: A Student Guide for Understanding the Process)

Other relevant documents may be added in some cases. If different interpretations can be obtained from similar materials, the information on the official website must take precedence.

Teams that are unclear about a decision should submit an inquiry to the official Q&A.

Documents that do not reach the required event standard (e.g., if around one-third or more of the document is copied from a previous) will be regarded as "not submitted".

## **Article 18 Shakedown Certificate**

Teams must submit a **Shakedown Certificate\*** by 14:00, Friday, August 28 in order to prove the completion level of the car. Teams that fail to submit this certificate or if the certificate is not satisfactory must not be permitted to participate in the Technical Inspections.

#### Shakedown Certificate\*

This certificate must consist of video images of the car moving forward, accelerating, and stopping. A team plate with the following information must be included in the video

- (1) Name of the University, (2) car number, (3) location information, (4) date, (5) name of team FA Note: A sample movie is provided on the team page.
- \* When making the movie, teams must use the driver equipment and impact attenuator, and ensure that driving takes place in a safe location.

**Submission method:** Upload to the team page.

File format/size: mpg, wmv (For Windows Media Player)/maximum 20 MB

#### - EV Class Only -

Teams must submit moving images of the shutdown button operating properly. The images must show that the shutdown complies with the following: "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".

# **Article 19 Dynamic Events**

Teams must pass the Technical Inspections to proceed to the Dynamic Events in accordance with the rules described below; the Formula SAE® Rules 2020, 2020 FSAEJ Participation Rules and 2020 FSAEJ Local Rules.

# Article 20 Schedule of the 2020 Formula SAE Japan

## Tuesday, January 21

Beginning of **Participating Application** 

Friday, January 31

Deadline for Participating Application

Monday, February 10

Notification of the Team Lists is on the official website.

Teams on the Pending List may pay the registration fee by the payment deadline.

After Monday, February 24, the pending list is going to be updated every Monday until the 98th team is added.

Tuesday, February 11

Beginning to Submit the Documents on the team page

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# Friday, February 28 Deadline for Electrical Systems Officer(ESO) and Advisor(ESA) Form [For EV] **Notice of Intent for Electronic Throttle Control [For ICV using ETC].** Friday, March 13 Initial Deadline for **Structural Equivalency Sheet(SES)** Friday, May 11 - EV Class Only -Deadline for Electrical System Form (ESF) and Failure Modes and Effects Analysis (FMEA) - ICV Class using ETC Only -Deadline for Electrical System Form (ESF) for ICV Class Wednesday, June 3 Deadline for Cost Report Entry Sheet Tuesday, June 16 Deadline for Design Report and Design Spec Sheet Monday, June 22 Deadline for Sales Presentation Document Monday, July 13 The last update date for the Team Lists Friday, July 20 Deadline for the Registration Documents Friday, July 31 Static Document screening result with penalties 1 Friday, August 28 Deadline for Shakedown Certificate 1 September 8 to 12 2020 Formula SAE Japan

# Article 21 Official Q&A

Any questions about these rules, the various other rules, or the Competition in general must be submitted via the official Q&A form on the team page that will be set up after the entry period.

However it is not for checking the acceptability about the team's design but the interpretation of rules.

Teams must think carefully before asking to the official Q&A. Easy question or frivolous asking cannot get its answer.

<sup>\*</sup>Team page: https://tech.jsae.or.jp/formula/2020team\_en/login.aspx

## Article 22 Awards

Outstanding Performance Awards, Categorized Awards and Special Awards
\*Check the separate table [Planned Prizes for 2020 Formula SAE Japan Competition]

## **Article 23 Supplements**

- 1. 2020 FSAEJ Local Rules will be announced on the official website at any time if it needs.
  - (1) Local Rule No.1 (Technical Inspection, EV Inspection, etc.) is issued on December 20, 2019
  - (2) Local Rule No.2 (Static Events, Dynamic Events, etc.) will be issued in late January.
- 2. On participating in 2020 Formula SAE Japan, each team and the members must thoroughly read and comprehend the contents of the Formula SAE® Rules 2020 and 2020 FSAEJ Local Rules.
- 3. In case teams abandon to participate in 2020 Formula SAE Japan after the last update of the team list, please declare to do so (Formula SAE® Rules 2020 AD.6.5) with the least delay.
- 4. Teams must comply with Japanese laws.
- 5. When any doubt occurs as to the interpretation of the Rules, the decision of Rule Committee and Execution Committee has priority over all others.
- 6. The organizers, sponsors, and supporting institutions must assume no responsibility whatever for any accident or damage that may occur during the competition unexpectedly. The competition may be stopped based on the judgment of the organizers due to poor weather, unforeseen, or unavoidable circumstances.

# Planned Awards for 2020 Formula SAE Japan

## **Outstanding Performance Awards**

Name of prize	Outline
Minister of Economy, Trade and Industry Award	Top finisher in overall which accomplished all events
Minister of Land, Infrastructure, Transport and Tourism Award	Top EV finisher in overall which accomplished all events
Governor of Shizuoka Prefecture Award	Top team overall rating in Static Events, Acceleration, Skid-pad, Autocross, Noise, Fuel Economy, Safety, and Weight Reduction
Mayor of Kakegawa City Award	Top team overall rating in Dynamic Events
Mayor of Fukuroi City Award	Top team overall rating in Static Events
JAMA Chairman Awards	Teams accomplished all Static & Dynamic Events (exc. penalized by Noise or document submission delay)
JAPIA Chairman Awards	Top team overall rating in Cost & Manufacturing, Presentation, and Weight Reduction in all teams which accomplished Endurance
TOP 6 Awards in Overall	Top 6 finishers in overall which accomplished all events
Spirit of Excellence Award for ICV Class	Top ICV finisher in overall which accomplished all events
Spirit of Excellence Award for EV Class	Top EV finisher in overall which accomplished all events

## **Categorized Awards**

Name of prize	Outline
Cost Awards	Top 3 teams in Cost & Manufacturing
Design Awards	Top 3 teams in Design
Presentation Awards	Top 3 teams in Presentation
Acceleration Awards	Top 3 teams in Acceleration
Skid-Pad Awards	Top 3 teams in Skid-pad
Autocross Awards	Top 3 teams in Autocross
Endurance Awards	Top 3 teams in Endurance
Efficiency Awards	Top 3 teams in Fuel Economy

#### **Special Awards**

Name of prize	Outline
Rookie Awards	Teams participating in the Competition for the first time with the highest overall score.  The term of disqualification for participation is 5 years.
Jump-UP Awards	Teams that participated in all the events and that improved their overall score compared to the previous competition.
Sportsmanship Awards	Teams that are highly rated in terms of sportsmanship, management, safety, and the like.
Lightweight Engineering Awards	Teams that participated in all the events other than the Endurance and that manufactured the lightest car.
Team management Awards	Teams that are highly rated in team managemant.
Best Inspection Awards	Teams that are highly rated in Technical Inspection.
Best Electrical System Awards	Top 3 EV teams with the best electrical circuit design including the design of Tractive System and its harness etc.
Good Accumulator Container Design Awards	Top 3 EV teams have good design of the Accumulator Container: battery, container and the control systems on the documents (ESF and Design Report) and the vehicle for its safety, performance and control design. Some kinds of challenging for the Accumulator Container.
Best Lap Awards	Top 3 teams recorded the fastest rap in Endurance.
CAE Awards ※	Teams that achieved highly efficient and excellent designs making effective use of CAE technology.
Best Suspension Awards ※	Teams that achieved a high-performance suspension based on the good geometry setting concept, component weight, manufacturing accuracy, appearance, times in the dynamic events, vehicle behavior, and so on.
Best Three-View Drawing Award ※	Awarded to teams that communicated more information most accurately to the judges through the drawings as the distillation of the team's design work.
Best Aerodynamics Award 💥	Teams that completed the Autocross, and that analyzed and implemented the aerodynamic and thermo-fluid aspects of a racing car most effectively.
Best Composite Award ※	Teams that achieved the most complete composite parts in terms of the Lightweight, High Rigidity and Good Looking etc as a racing car.
Ergonomics Awards ※	Teams that achieved excellent ergonomics in terms of the driving position, good pedaling and steering wheel, meter visibility etc as a racing car.

(\*) Teams wishing to be considered for these awards are required to enter in advance. Teams wishing to enter should submit an entry sheet. These entry sheets will only be used to select the special awards and will not affect the scoring of the Design Event. Details, such as the entry sheet formats and submission methods will be posted on the official website by Saturday, February 29, 2020.