

Society of Automotive Engineers of Japan, Inc.

The Society of Automotive Engineers of Japan (JSAE) was founded not long after WWII in 1947 at the General Assembly of the Society of Automotive Engineers (held on February 2) by a group of engineers imbued with the spirit to organize a single powerful society that would earnestly pursue automotive engineering, create many excellent automobiles, and devote all its energy to the invention of progressive new vehicle models. In June of that year the Society was sanctioned as a corporation by the Ministry of Education (the present Ministry of Education, Culture, Sports, Science and Technology, MEXT), the Ministry of International Trade & Industry (the present Ministry of Economy, Trade and Industry, METI) and the Ministry of Transport (the present Ministry of Land, Infrastructure, Transport and Tourism, MLIT) with the objective of advancing and developing sciences and technologies in connection with automobiles, whereby the Society will contribute to the promotion of science and culture, the progress of industry and economy, and the improvement of the quality of life of the people. Counting a little over 1,500 members at its founding, the JSAE steadily increased its membership in step with the rapid expansion of the Japanese automotive industry, to exceed 50,000 individual members, making the society one of the preeminent academic organizations in Japan. Furthermore, the JSAE is also actively carrying out activities outside Japan as an influential member of FISITA (International Federation of Automotive Engineering Societies) and APAC (Asia Pacific Automotive Engineering Conference).

On April 1, 2011, it also made a fresh start with the approval of a change of status to a Public Interest Incorporated Association by the Cabinet Office. Following the celebration of its 70th anniversary in 2017, the JSAE will further strengthen its activities to enhance its presence in Japan and its influence around the world by continuing to raise its ability to convey information on automotive engineering and stepping up its initiatives involving new technologies.

History of JSAE

1947 The JSAE was founded

Kanto, Chubu, and Kansai branches established

- 1948 The Student Activity Organization was launched
- 1951 JSAE Awards established.
- 1957 The Automotive Engineering Handbook was published
- 1960 The JSAE became a member of FISITA (International Federation of Automotive Engineering Societies)
- 1961 First enactment of 8 standards by the Japanese Automotive Standards Organization (JASO)
- The Kyushu branch of the JSAE was established
- 1964 Tenth FISITA World Automotive Congress held in Japan (Tokyo and Kyoto)
- 1971 The Japan-Australia Automotive Engineering Conference was established
- 1976 Sixteenth FISITA World Automotive Congress was held in Tokyo
- 1978 The Tohoku and Hokkaido branches of JSAE were established
- 1979 The Japan-Australia Automotive Engineering Conference was eliminated to establish the expanded International Pacific Conference on Automotive Engineering (IPC, now APAC).
- 1992 First Automotive Engineering Exposition was held
- 1997 The JSAE 50th anniversary ceremony and commemorative exhibition were held The Japanese-English Dictionary for Automobiles was published
- 2000 Awarded the Minister's Prize of Trade and Industry as a Corporate Contributor to Engineering Standardization
- 2002 Automotive Engineering Fundamentals was published
- 2003 First Student Formula Japan Competition was held
 - The Basic Automotive Engineering Course was started
- 2004 The JSAE Fellow Grade system was started
- 2005 The JSAE was appointed as a Competent Standardization Body of METI (received approval to formulate JIS standards)
- 2006 The number of individual JSAE members exceeded 40,000
 - The FISITA 2006 World Automotive Congress was held in Yokohama The JSAE Automotive Engineer Level accreditation system was started
- 2008 First Kids Engineer 2008 event held in Yokohama
- 2009 The Engineering Education Award was established
- 2010 The JSAE Journal, Review of Automotive Engineering became a full-color publication The internet-based English language JSAE Journal was started
- 2011 New start as a Public Interest Incorporated Association
 - First EV Technology Conference (EVTeC' 11) was held
- 2012 First Car Design Contest
- 2013 Started book ordering service for members
 - First New Car Technical Seminar
- 2014 First Automotive Engineering Exposition in Nagoya.
- 2015 The number of individual JSAE members exceeded 50,000

昭和二十一年月

2017 Celebrated the 70th Anniversary of the JSAE

Breakdown of JSAE activities









荒牧 博 巖 技 術会創立世 盛次 博 島 二宮 川越 治寛 庸 鈴木 長谷川信治 川田 正一

の強力な団体、即ち一言にして言へば日本に於ける 動車技術に関する限り各方面に互る障害を取 夫等既成団体及其の事業を打つて一丸とし事自 斯界に夫々貢献して来たが、 な新型式自動車の創案に全力を奮ふべきである。 ニヤース)を急拠結成したいと思ふ。何卒宜しく 際問題を解決し合ひ、技術と真剣に取組む所のつ 支援の程 をわれわれ一同懇願して止まない。 これ迄自動車界には各種の技術団体があつて 、A、E(ソサエテイ、オブ、オートモーテイブ、エンジ 互に手を取合つて学術を究めると共に日常実 機運の熟した今、 御

るであらう外国車の研究に、 更に進んでは飛躍

水道、 しつつある。 於て公的には汽車電車と同じく、 力に国民の自動車に対する認識は格段の飛躍を示 辺りに飛び交ふジープ、軍用トラック、大型バスの偉 興運動が澎湃として湧き起らうとし、 くさせられ復興輸送達成に大きな支障を来してみ 務は自ら明かである。 の他による生産危機に直面しつつあり 全修理に全力を尽くすと共に、 してもつと良い車をもつと沢山作り、今ある車の 此の現状を考へる時、 。此の時一方に於ては新指導者層による産業復 、電気、ラジオ同様生活必需品の一つである。 今日自動車は平和愛好の文化国家に われわれ自動車技術者の 即ち乏しい資材を充分活 私的にはガス、 将来輸入され 他方眼の

自 未會有の歴史的大敗戦を喫してより既に一年 全国民は未だに飢餓にふるへ住むに家なき有

産業界はと見ればストック資材の枯渇、燃

動 車 技 術 숲 設 立 意

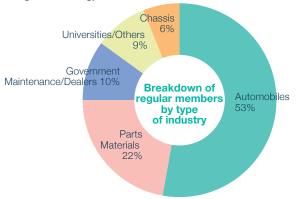
Membership

Individual Membership

Regular Members...Regular members are those who have scholastic knowledge and experience in the field of automotive engineering and technology.

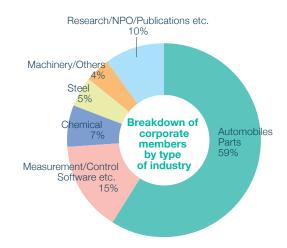
Student Members...Student members are current university undergraduate or graduate students, junior college students or students of equivalent level schools or institutions.

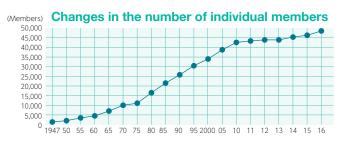
Honorary Members...Honorary members are those who have made considerable contributions to the achievement of JSAE aims or who have rendered distinguished service in the automotive engineering or technology fields.

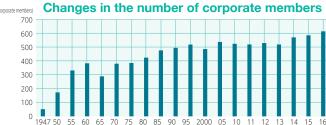


Corporate Membership

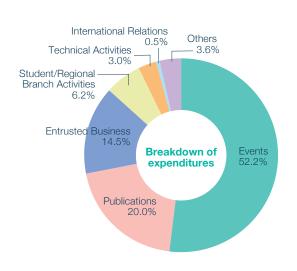
Corporate members are corporations and organizations that support the aims of JSAE and actively assist in the running of activities and programs.





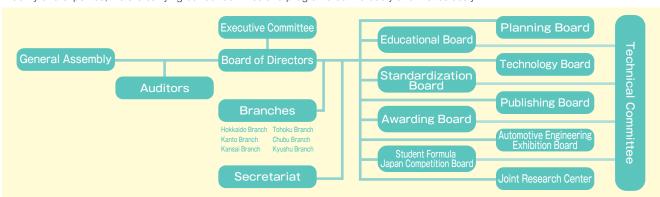






Organization

In the JSAE, a number of committees representing different fields of expertise have been established under our different boards. By combining mobility and expertise, we are carrying out our activities and programs both broadly and meticulously.





Investigation and Research

Technology Board

This board consists of about 50 committees representing different fields of technical expertise. They work to achieve solutions to automotive technology problems through investigation and research, as well as the promotion of activities geared toward the collection and integration of automotive technologies. The results are then widely disseminated throughout society by means of symposiums, forums, and reports.

(Non-members can also participate.)

Symposiums

The newest technologies and future trends are introduced to the leading professional automotive engineers.

Forums

Recent technology trends and other topics are introduced to both automotive engineers and engineers in fields outside automotive engineering. (Free.)

Public Information

Sessions of this committee offer an opportunity to present and introduce the results of our daily activities to the public, and anyone who has an interest in automobiles is invited to



A forum presenting the latest trends in technology

Joint Research Center

The center promotes activities that present recommendations for tackling various current and future issues related to automobiles and automotive technologies. Engineers and researchers from a wide range of different fields of expertise are participating under the collaboration of industry, academia, and

Female Engineers Networking Event

Supporting the activities of female engineers by giving them an opportunity to broaden their mutual networks and convey, exchange, and gather information, this event has been held twice a year since 2013.



Female Engineers Networking Event

Spring and Autumn Congresses Technical Paper Presentations

Technical paper presentations are held every year in spring and autumn, giving researchers and engineers from both Japan and overseas the opportunity to present lectures on their most recent research achievements. During these biannual congresses, forums, special lectures, and keynote addresses (spring congress only) are also held (attendance is free) so that not only JSAE members, but also the public can participate. Consequently, these congresses have become major information-sharing events for automotive technologies.





Keynote Address



Academia-industry Poster Session

Automotive Engineering Exposition (Yokohama, Nagoya)



This is a comprehensive exhibition where attendees can view, touch, and experience all the latest in automotive technology. Since 1992, this event has been the premier opportunity for people from around the world who work in the automotive industry and automotive corporations to exchange leading-edge technical information. Here you will find the latest products and technologies on exhibit from automobile, parts, and materials manufacturers, as well as from testing, CAE solutions, and car electronics companies. The exhibition is not just for JSAE members, and every year many members of the public also participate. Since 2014, it has also been held in Nagoya to promote technical exchanges between engineers living west of Central Japan and offer members a more comprehensive service.







Development of Human Resources

Kids Engineer



This event was started in 2008 in the hope of getting elementary students interested in science, technology, and object creation by providing them with an opportunity to have a hands-on learning experience through interaction with automobiles. It is our strong belief that some of the children who experience the fun and challenge of monozu-

kuri at the Kids Engineer event will grow into the engineers who will support Japan in the future.

Student Formula Japan Competition Object Creation and Design Competition –



This competition was launched in 2003 to cultivate students' all-around skills in independent object creation (monozukuri) and foster the development of the next generation of engineers. These students are from universities, junior colleges, and technical colleges and spend one year planning, designing, and manufacturing their vehicles. Through the course of this competition the students will learn the essence and process of monozukuri and the difficulty, fascination, and joy it provides. Many students imbued with both the engineering spirit and the motivation to overcome challenges born from setting ambitious targets during this competition have gone on to productive engineering careers. In addition, the number of participants from outside Japan in the competition has been increasing, allowing it to also serve as a venue for international exchange.

Basic Automotive Engineering Course

The Automotive Engineering Basic Course launched in 2003 provides an opportunity to learn the overall basics of automotive engineering. It is currently offered in 7 locations in Japan, as well as outside Japan (in Thailand), and is used by automakers and other corporations as part of their new employee training.



Basic Automotive Engineering Course in Thailand

Engineer Training Courses, Seminars, and Networking Events for New Engineers and New Members

To enhance the service and advantages offered to members, the JSAE holds these courses, which primarily target new members, to provide opportunities to participate in JSAE activities as well as acquire the knowledge and mindset of an engineer while building relationships that cross organizational boundaries.

Car Design Contest

Targeting junior and senior high school students, the Car Design Contest was launched in 2013 with the goal of discovering and nurturing engineers with a vivid imagination who will support the Japanese monozukuri and automotive industry in the future.



Car Design Contest Award Ceremony

Student Safety Technology Design Competition

Since 2005, this event involving the participation of students has been part of the International Technical Conference on the Enhanced Safety of Vehicles (ESV), which is attended by the authorities responsible for traffic safety policy of various countries, automakers, universities, and other parties.



Students presenting their ideas on safety technology to the judges

Automotive Cybersecurity Course

In conjunction with the development of automated driving technologies, automotive engineers are increasingly required to have technical knowledge of cybersecurity. In this context, the Cybersecurity Course Planning Committee was established in 2016 and courses on that topic were opened.

Automotive Engineer Level Accreditation System

This system certifies the level of the engineer with regard to automotive technology. The purpose of creating this system was to support the engineer's own efforts to continuously improve and maintain their innate abilities and to perform brainstorming. There are 4 levels of accreditation in this system and accreditation is awarded based on the results of past efforts to develop engineering skills, short research papers, and interviews.

Automotive Engineer Level Accreditation

(Number of certified engineers as of December 2017.)

JSAE Fellow Engineers Automotive Continued 85 Support for continued learning in forms such JSAE Professional Engineers skills **Engineer Accreditation Leve** as self-improvement and practical experience de **JSAE Senior Engineers** continued learning 156 history and supporting the creation of a membership history program database **JSAE Engineers** 2,289 Total: 2.589 Engineers, researchers, and students involved in automotive engineering who are JSAE members

JSAE Awards and Prizes

JSAE Awards

The JSAE Awards were established in 1951 and have received high praise from the academic and industrial worlds as authoritative awards for automotive engineers. At present there are six awards presented to engineers who have demonstrated outstanding performance: the Asahara Science Award, the Asahara



Award of Merit in Technology, the Outstanding Technical Paper Award, the Technological Development Award, the Scientific Contribution Award, and the Technological Contribution Award.



Prizes

Awarded to engineers and researches Engineering Education Award / Outstanding Presentation Award / Award for Contributions to the Field of Engineering / JSAE Fellow / Standardization Activity Merit Prize / Publishing and Editing Commendation / Technical Paper Presentation Administration Commendation / Engineer Education Commendation

Awarded to students Graduate School Research Award / Student Activity Organization Merit Award

International Exchanges

The scope of international activities deployed by the JSAE is not limited to only international conferences, but also includes activities such as the Automotive Engineering Exposition, which has garnered the attention of government-affiliated public corporations and others in Europe and the U.S. as an opportunity to gain a foothold toward opening new markets, and the Student Formula Japan Competition, which has seen remarkable participation from the emerging nations of Asia. In addition, the international activities conducted in our efforts to promote standardization play an extremely important role in the international strategies of the automotive industry.

FISITA

The International Federation of Automotive Engineering Societies. This international body was established in 1948 and is a federation of the major engineering societies in 38 countries. The JSAE joined FISITA in 1960 and hosted the FISITA World Automotive Congress, its largest event, which is held biannually, in 1964, 1976, and 2006. The JSAE was the second society after SAE International to apply for membership in FISITA, and it has sent executives to serve on the board of FISITA. Through its involvement, it supports the activities of engineers aiming to develop and spread automotive technology.

FISITA: The International Federation of Automotive Engineering Societies

International Exchanges

- A program of study and workshops of the Asian Student Formula SAE Competition
- Activities to send young engineers and students to the FISITA Congresses and APAC
- Maintaining cooperative relationships with the SAE in the U.S. and Asian countries
 SAE: Society of Automotive Engineers

International Conferences for Specific Fields of Expertise

The JSAE holds special international conferences focusing on specific technical fields.

- SETC Small Engine Technology Conference
- P, F&L Powertrain, Fuels & Lubricants Meeting
- AVEC Intl. Symposium on Advanced Vehicle Control
- CVT/Hybrid International Congress
- ●EVTeC Intl. Electric Vehicle Technology Conference
- ■BMD Bicycle & Motorcycle Dynamics
- FAST-zero Symposium on Future Active Safety Technology toward zero-traffic-accidents

General International Conferences

- FISITA World Automotive Congress
- ■APAC—Asia Pacific Automotive Engineering Conference



Creation and Spread of Standards

Standardization activities are conducted after careful consideration of their benefit to the general consumer and the needs of society. Furthermore, standardization also serves a wide range of roles, such as improving quality, safety, and reliability, and increasing production efficiency and compatibility, which leads to positive economic effects.

The JSAE is composed of 70 different committees and is making major contributions to promoting standardization in Japan and around the world through activities such as deliberations on the creation of automobile-related international standards at the ISO/IEC and establishing and revising organization standards, JIS, and JASO standards. The results of these activities are displayed widely and publicly via our website and other means as part of our efforts to spread the promotion of standardization.



International Standardization Activities

The JSAE has been appointed as the Japanese deliberative council for ISO/TC22 (Road Vehicles) and TC204 (Intelligent Transport Systems) by the Japanese Industrial Standards Committee (JISC). By dispatching specialists to the ISO international conferences, we are actively participating in the formulation of international standards that should also incorporate the demands of Japan. Furthermore, we are also actively undertaking activities such as holding workshops and seminars in order to promote greater cooperation with the countries in the Asia Pacific region.

Standardization Activities in Japan

The JASO has an over 40-year history as organization standards and along with the JIS national standards, they provide information about standardization not only to the automobile industry, but also to a wide range of related industries and consumers. As a result, they have been contributing to the technical advancement of the automobile industry, ensuring safety and promoting improvements in the efficiency of manufacturing.

JSAE Publications Contact: book@jsae.or.jp



Journal of Society of Automotive Engineers of Japan (Japanese)

This is an academic journal. Since its founding in 1947, people working in a wide range of fields, not only automotive engineers and researchers, have been introducing information on the latest technologies and leading-edge information in this journal throughout the year. Information is provided about all of our events in the JSAE correspondence pages. (Published every month)



Automotive Engineering Fundamentals (Japanese)

This book is based on basic automotive technology lectures compiled and written by specialists of various fields. Supplementing discussion of automobile performance and development with information on production engineering, this publication covers automobile engineering as a whole.



Transactions of Society of Automotive Engineers of Japan (Japanese, English)

This is collection of scientific papers. After undergoing rigorous examination, the content of superior research and technical presentations is grouped into research papers, technical papers, and reference materials published on CD-ROM. Since the January 2018 issue, they have also become available through J-STAGE.



New Japanese-English-Chinese Dictionary for Automobiles

This dictionary of automotive terms in three languages, Japanese, English, and Chinese, is regularly used by many researchers and engineers. In addition to containing approximately 25,000 automotive terms, it also has relevant charts and diagrams, and an index arranged by numbers, symbols, and English words. This dictionary of terms comes in a smaller size that makes it handy to use in a variety of situations such as daily work, meetings, and on overseas trips.



New Edition: Automotive Technology Handbook (Japanese)

In November 2016, the 10th volume was issued to complete the collection in time to commemorate the 70th anniversary of the JSAE. Automotive engineering information has

been systematically recorded into 10 volumes: Fundamentals and Theory, Environment, Safety & Information, Ergonomics, Design (4 books), Testing and Evaluation (2 books), and Production & Quality. These are useful handbooks for everyone from young engineers and graduate students to professional engineers and researchers working actively on the front lines.



Auto Technology (Japanese)

This is a collection of interviews with engineers who have received the Technological Achievement Award presented by the JSAE.



Automotive Engineering Abstracts (Japanese)

This publication collects Japanese language abstracts prepared from papers published in prominent automotive engineering journals outside Japan, at international conferences, or in technical reports by Japanese automakers. (Published every month)



JSAE Engine Review (Japanese)

This online engine technology journal carries on the tradition of the Engine Technology journal.



International Journal of Automotive Engineering

Issuing of the English language JSAE Journal. In addition to the obvious submissions from Japan, this electronic journal has also received contributions from Asia, Europe, and the U.S. It has been available on J-STAGE since 2016.



Caught on Drive Recorders! (Japanese)

Drawing on an extensive database of near-miss videos, this DVD series offers revolutionary training in anticipation.



Book Ordering Service for Members

Members are eligible for a 5% discount on books, CDs and DVDs sold in bookstores or CD shops.



Start of the JSAE Paper Archives Service

Since 2011, JSAE literature older than five years since its initial publication has been made available free of charge as a perk to individual members.

Publication Purchase and Literature Search (Available on the JSAE Website.)

Publication Purchase http://tech.jsae.or.jp/hanbai/

JSAE Journal / Transactions of the JSAE / Proceedings of the JSAE / Symposium handouts

Books published by the JSAE (Books or publications related to automotive engineering)

JASO Standards

Literature from international conferences

Corporate technical literature / SAE papers / Automotive engineering literature from other countries

Annual subscription, distribution of SAE papers, and more...

Literature Search http://www.bookpark.ne.jp/jsae/book.asp

The JSAE website contains a database of more than 140,000 papers. The search engine makes it easier to consult this literature at any time.



*Abstracts issued by the JSAE are free for members.

People who have subscribed to the Automotive Engineering Abstracts have access to the abstracts for all literature at no charge (limited to documents available in electronic form).

The cover design was created by Hiroyuki Tahara of Subaru for the Journal of Society of Automotive Engineers of Japan Vol. 71, No. 1.



10-2 Gobancho, Chiyoda-ku Tokyo, 102-0076 Japan TEL.+81 3 3262 8211 FAX.+81 3 3261 2204 / Web site http://www.jsae.or.jp/