



EXHIBITION INFORMATION

Automotive Engineering Exposition
人とするまのテクノロジー展
NAGOYA 2023

7/5 WED 10:00-18:00 **6** THU 10:00-18:00 **7** FRI 10:00-17:00

Aichi Sky Expo

ONLINE STAGE 2 **6/28** - **7/19**

Please note that this information may be subject to change without notice. Check our website for the latest information.

The Nagoya Exposition is changing.

Nagoya welcomes new events, new areas, and a new location!

New Events

New events just for Nagoya, including the Japan Automotive AI Challenge Showcase hosted by the JSAE and an exhibition of vehicles featuring the latest technologies!

New Areas

A new dedicated exhibition area for start-ups and academic research institutions.

New Location

The gateway to central Japan by land, sea, and air. Directly connected to Chubu Centrair International Airport
Aichi Sky Expo

Aichi Sky Expo

Total area of exhibition hall Approximately **20,000㎡**
Number of booths At least **600** [planned]
Number of exhibiting companies At least **250** [planned]

A glimpse of upcoming technologies at Japan's biggest automotive engineering exposition

Procedure for visitors to the Exposition

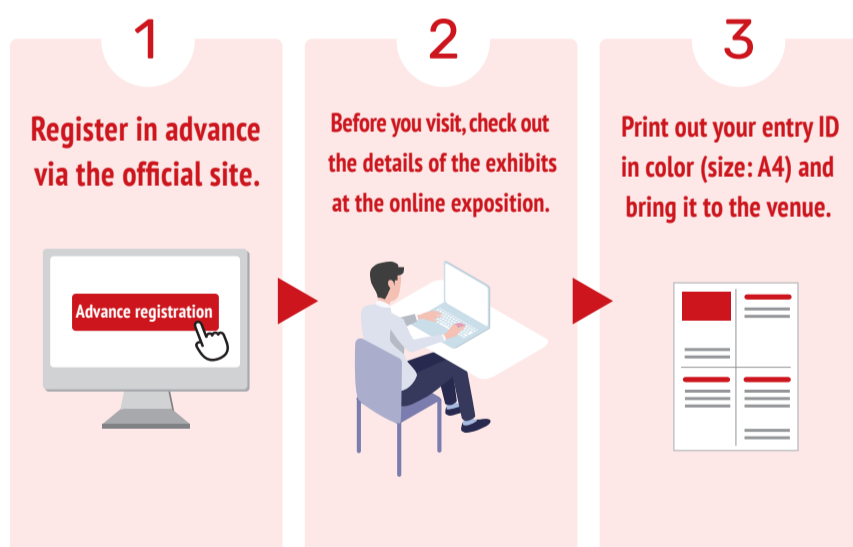
Please register in advance before arriving at the venue. Registrations will not be accepted onsite. Register in advance via the following QR code or URL.

Advance registration

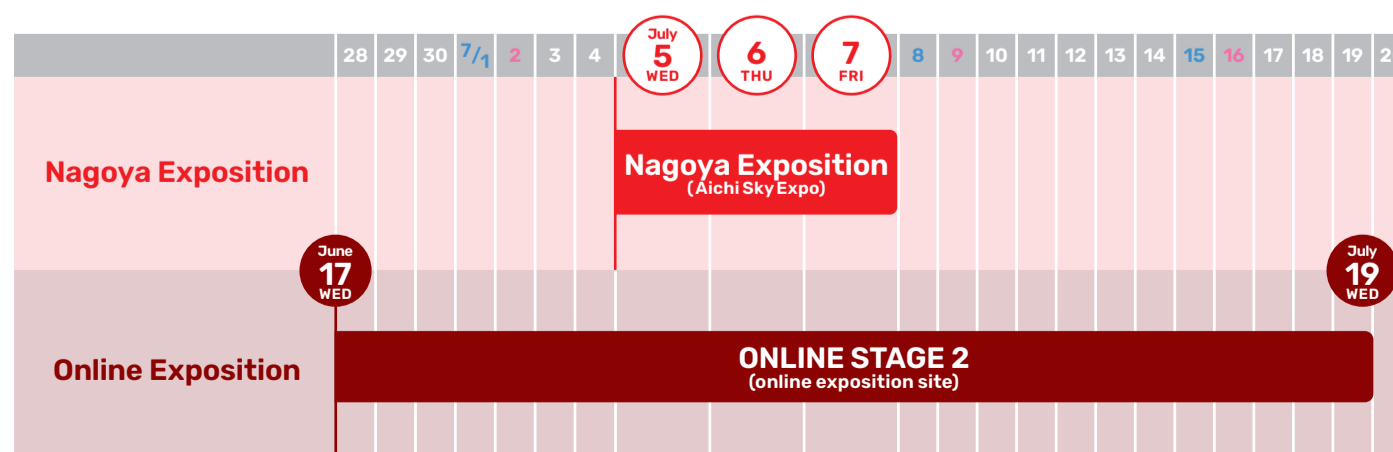
<https://aee.expo-info.jsae.or.jp/ja/>



* Everyone attending this year's Exposition must register in advance (admission is free).



The AUTOMOTIVE ENGINEERING EXPOSITION 2023 YOKOHAMA is a hybrid event that is being held both at **Aichi Sky Expo** and **Online**.



Gathering the Collective Wisdom of the Automotive Industry for Carbon Neutrality and the Recycling-oriented Society of the Future

As the world accelerates its efforts to realize decarbonization and sustainability, Japan as well as many other countries and regions are making progress toward carbon neutrality. Creative collaboration and recycling are the keys for overcoming global-scale issues and achieving a sustainable society. The automotive industry has a wide-ranging and powerful impact on society as a whole, and initiatives to eliminate carbon over the whole vehicle life cycle are absolutely essential for achieving carbon neutrality. To successfully implement these initiatives, the automotive industry must move on from the conventional linear process of resource exploitation, manufacturing, and disposal, to a socially oriented recycling-based system focused on the 3Rs (reduce, reuse, and recycle). Although we are standing at the crossroads of transformation, it will be no easy matter to change our common values. For this reason, we have to question conventional wisdom, look at things from new perspectives, and take on this challenge through a process of creative collaboration with new partners. We must ask ourselves, "What technologies will make people and the world happy?" and build a value chain to help create new value through creative collaboration. We hope that everyone involved in the world of cars can meet at the Automotive Engineering Exposition 2023 and gather together our collective wisdom.

Using our knowledge, skill, and craftsmanship to create new value chains for achieving a recycling-oriented society!

This exhibition showcases new ways to expand the value chains of the automotive industry to support the shift from a conventional linear society to a circular recycling-oriented society. Based on the theme of a circular economy, exhibits have been prepared about natural resource technologies, recycling schemes of other industries, steel recycling, regenerative technologies for chemicals in plastics, carbon recycling technologies, and technologies enabling the re-use of resources at production sites. This is the ideal forum for the whole industry to come together and consider how we can use our knowledge, skill, and craftsmanship to help achieve a recycling-oriented society.

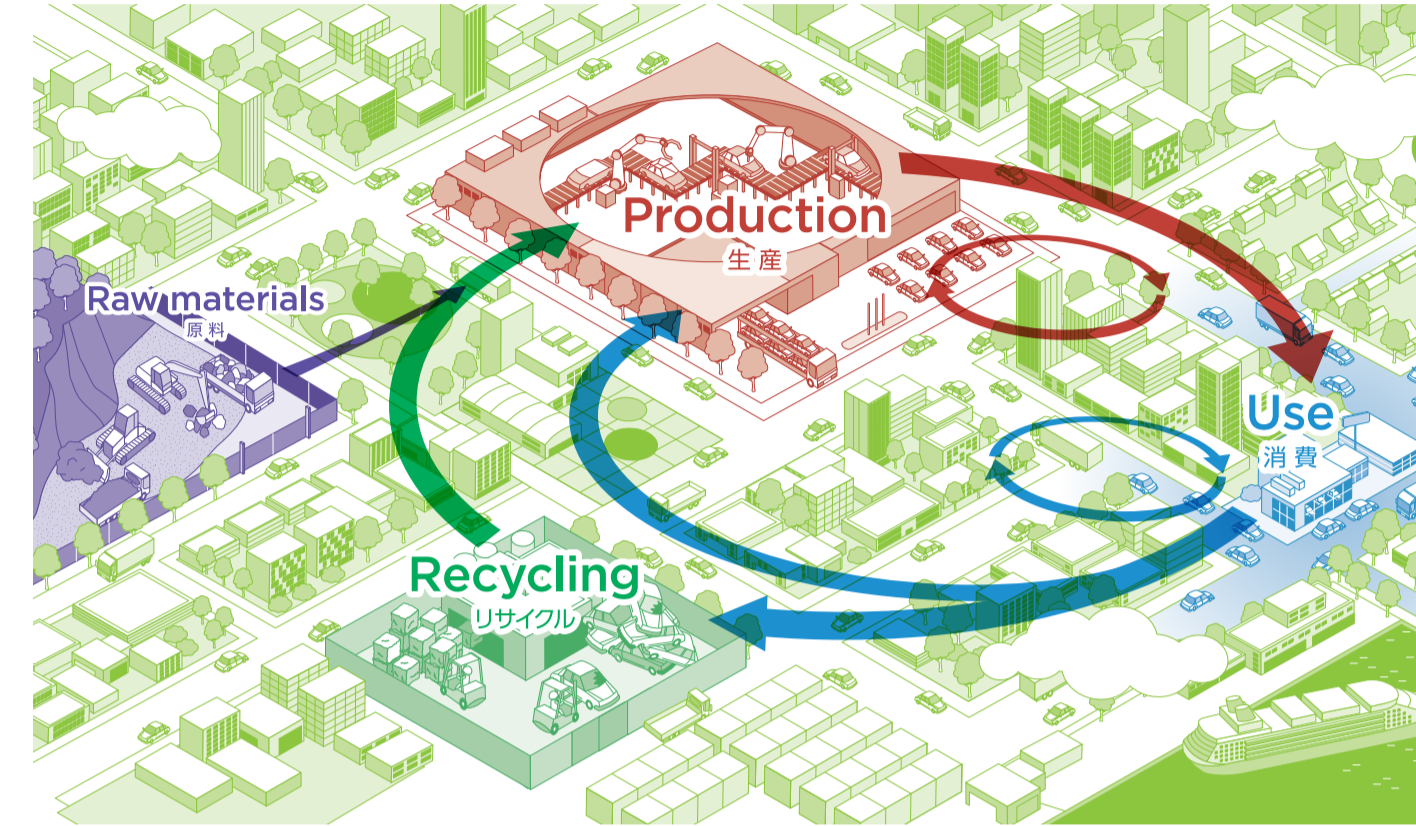


Exhibit collaborators and organizations (in alphabetical order)
Air Water Inc. / AGC Inc. / Dai Nippon Printing Co., Ltd. / DENSO Corp. / Honda R&D Co., Ltd. / JGC HOLDINGS CORPORATION / Mazda Motor Corporation / MIRAI-LABO CO., Ltd. / Mitsubishi Corporation / Mitsubishi Corporation Clean Energy Ltd. / Mitsubishi Motors Co., Ltd. / NIPPON STEEL CORPORATION / NISSAN MOTOR CO., LTD. / Resonac Corporation. / SUBARU Co., Ltd. / TOYOTA METAL CO., LTD. / Toyota Motor Corporation / TOYOTA TSUSHO CORPORATION

JSAE Special Presentations **NAGOYA** **ONLINE STAGE 2**

Conference rooms L3 and L4 (capacity: approx. 300)

Themed presentations will be held in-person at the venue and online.

July 5 WED 11:00-12:00
Studying the Decarbonization of Vehicle Recycling
Learn about emissions levels and the contents of research into countermeasures being pursued by the Japanese Ministry of the Environment toward the realization of carbon neutrality in vehicle recycling based on its report describing assessments and studies of the status of the vehicle recycling system, which was issued in July 2021.
Takeshi Sakaguchi
Deputy Director
Office for Recycling Promotion, Policy and Coordination Division, Environment Regeneration and Resource Circulation Bureau Ministry of the Environment Government of Japan

July 7 FRI 11:00-12:00
Trends and Issues of LCAs of Steel and Other Key Materials
When selecting the key materials that go into building a vehicle, life cycle assessments (LCAs) are attracting attention as a means of assessing which materials have the smallest environmental impact. However, LCA analysis methods that factor in recycling are necessary because materials have different product units and repeated recycling can greatly reduce environmental impacts. This presentation covers the latest trends in this pressing area of research.
Takeo Hoshino
Graduate School of Engineering, Department of Material Science University of Tokyo

The Japan Automotive AI Challenge Presentation **NAGOYA** **ONLINE STAGE 2**

Conference rooms L3 and L4 (capacity: approx. 300)

Presentation: About the Japan Automotive AI Challenge

July 6 THU 11:00-12:00
Current Status of Autonomous Driving Technology and Expectations for the Japan Automotive AI Challenge
The DARPA Urban Challenge kicked off the recent autonomous driving boom. Improvements in the performance of recognition technologies are being supported by data sets such as KITTI. Learn about the future prospects of the framework of this increasingly important project for both technological and engineer development.
Yoshiki Ninomiya
Designated Professor
Global Research Institute for Mobility in Society, Institutes of Innovation for Future Society Nagoya University

A workshop will be held featuring moderator comments and panel discussions between people involved in the challenge.

July 6 THU 14:00-16:00 [planned]
Direction and Prospects for Software Engineer Development Targeted by the JSAE
The Society of Automotive Engineers of Japan (JSAE) has hosted the Japan Automotive AI Challenge since 2019 with the aim of attracting and nurturing software engineers. Moderated by Professor Nobuo Kawaguchi, this presentation will describe the current status of the software used in the Japan Automotive AI Challenge and the transdisciplinary initiatives aiming to realize a wide range of innovations in mobility. A panel discussion will also be held featuring participants in the Japan Automotive AI Challenge.
Nobuo Kawaguchi
Professor
Global Research Institute for Mobility in Society, Institutes of Innovation for Future Society Nagoya University

JSAE Presentations Organized by the Chubu Branch **NAGOYA** **ONLINE STAGE 2**

Conference rooms L3 and L4 (capacity: approx. 300)

This presentation is organized by the Chubu Branch of the JSAE.

July 5 WED 13:30-14:30
The Carbon Neutrality Declaration of the Mitsubishi Heavy Industries Group: Initiatives for Achieving MISSION NET ZERO
The Mitsubishi Heavy Industries Group issued its MISSION NET ZERO carbon neutrality declaration in October 2021, and is currently building carbon-neutral management systems to achieve this mission. Identifying real-world states through actual practice is a necessary part of building highly effective management systems. The Mihara Machinery Works in Mihara, Hiroshima Prefecture is making progress toward becoming a carbon-neutral plant. This presentation describes the knowledge gained through these carbon-neutral plant initiatives and reports on the progress being made toward achieving MISSION NET ZERO.
Masayuki Morihara
Department General Manager
Carbon Neutrality Promotion Department Mitsubishi Heavy Industries

July 5 WED 16:00-17:00
Technical Trends for Onboard Power Electronics and Example Applications for Higher Performance
This presentation describes technical trends related to power electronics, one of the most important technological fields for the electrification of mobility. It also details some of the basic technologies required for creating high added value in the fields of semiconductors, magnets, and circuits to help realize even higher performance products.
Jun Imaoka
Associate Professor
Institute of Materials and Systems for Sustainability Nagoya University

Available online only **Special Presentations about Technological Development**

These are special presentations focusing on the passion and dedication that engineers apply to development.

FRI July 7 14:00~15:30 [planned]

Development of MAZDA CX-60

The CX-60 is the first model in Mazda's Large Product Group and combines superb product appeal with even lower environmental impacts. Focusing on the company's unique approach to carmaking, the development team elevated the main attraction of the Mazda brand, namely the joy of driving, to new heights while realizing the highest possible environmental and safety performance. Learn about the characteristic technologies that define Mazda's identity while listening to behind-the-scenes anecdotes from the leading engineers of the CX-60.



Kohei Shibata
Project General Manager
Product Development Center
Mazda Motor Corporation

1. Strategy of MAZDA and CX-60 features. Kohei Shibata (Program Manager, Product Development Div.)
2. New 7th generation large FR platform. Yasuyoshi Mushitani (Senior Principal Engineer, Chassis Dynamics Development Dep. Vehicle Development Div.)
3. New 3.3L Inline-6 diesel engine. Kazuhiro Tomizawa (Program Manager, Powertrain Development Div.)
4. New 8-speed automatic transmission, Hybrid technology. Junichi Doi (Program Manager, Powertrain Development Div.)
5. Mixed production technology for multiple models. Naomichi Okabayashi (Staff Manager, Trim & Final Assembly Engineering Gr. Painting, Trim & Final Assembly Engineering Dept. Production Engineering Div.)

The presentations will be streamed online in real time and archived for later viewing. Free admission, advance reservation required. Anyone wishing to see these presentations live and onsite must make a reservation in advance. Archive streaming will be available from Wednesday, July 12 to Wednesday, July 19. * The archives will remain available for JSAE members only from Thursday, July 20 to Friday, July 28.

This is a brand new exhibition for Nagoya's new exposition venue. Learn and interact with cutting-edge technologies through a collection of exhibits featuring the latest passenger vehicles, heavy-duty trucks, and motorcycles.



HONDA ZR-V e:HEV



MAZDA CX-60 Biofuel



NISSAN X-TRAIL



TOYOTA PRIUS



HINO DUTRO Z EV



HONDA EM1 e:



ISUZU GIGA



HINO Fuel cell electric heavy-duty truck

Japan Automotive AI Challenge Exhibition **NAGOYA** Exhibition Hall

The theme of this exhibition is Japan Automotive AI Challenge, a project hosted by the JSAE to foster the development of engineers. This exhibition features exhibits and demonstrations of autonomous driving and is designed as a forum to encourage networking between software engineers and the automotive industry.



Event held with support from: Nagoya University (TM) / AISAN TECHNOLOGY CO.,LTD.

What is the Japan Automotive AI Challenge?

The Japan Automotive AI Challenge is a project designed to attract and nurture software engineers working in new technical fields related to CASE and MaaS. It features annual simulation and integration competitions.



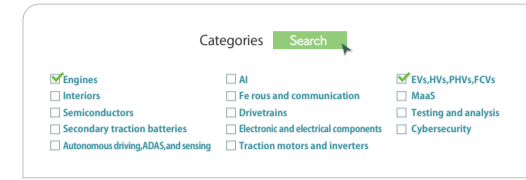
▲ Outline of the 2022 Integration Competition

Recommendations for using the online exposition

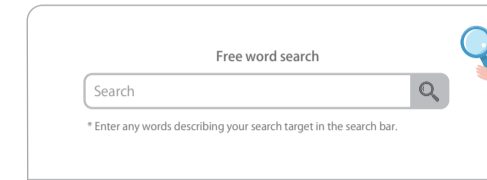
1 Search for the technologies and products that you are interested in.

At the online exposition site...

▶ Search by field

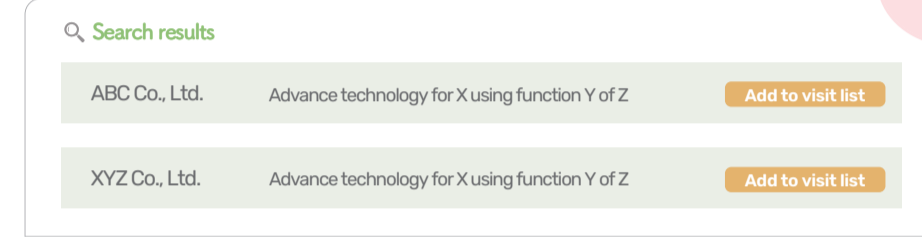


▶ Free word search



2 Create a visit list from the search results.

▶ Create and add search results to your list with a single click.

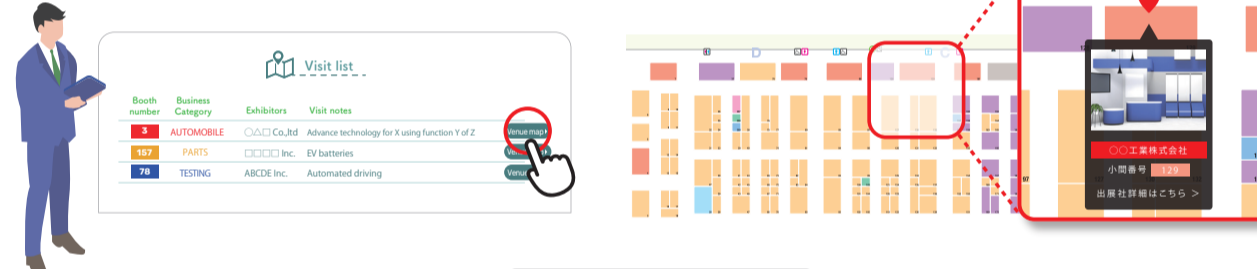


I can check out the technologies and product information of the booths I want to visit even before I get to the venue.

3 Automatically reflect your visit list on a digital map.

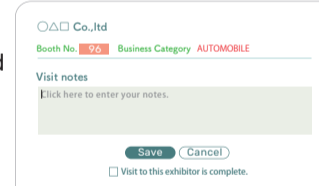
▶ At the venue...

Visitors can check the locations of exposition booths on their list via their smart phone or tablet.

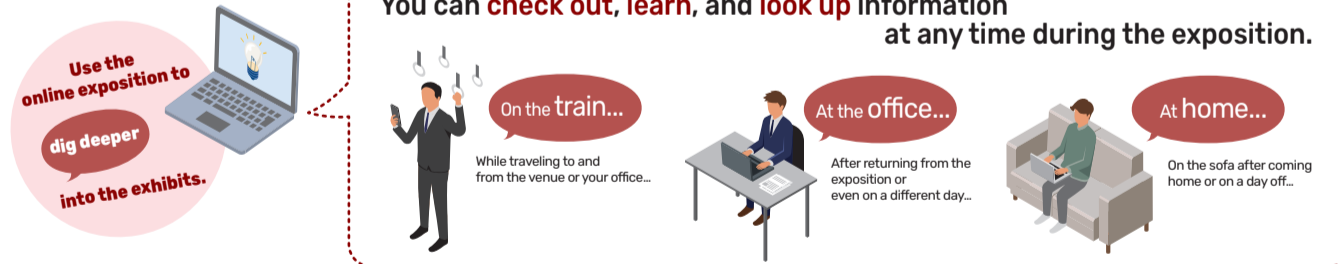


▶ After visiting a booth...

Enter a comment in the visit notes field that you can use when preparing your visit report.



You can check out, learn, and look up information at any time during the exposition.



Exhibitors at both **NAGOYA** and **ONLINE STAGE 2**

- A&D Corp.
- AZMAC1 JAPAN K.K.
- ACHILLES Corp.
- ADVANTEST Corp.
- AGC Inc.
- Aiko Spring Co., Ltd.
- Air Water Inc.
- AISIN CORPORATION
- Amphenol Japan Ltd.
- ANALOG DEVICES K.K.
- ANRITSU CORPORATION
- Ansys Japan K.K.
- aptod, Inc.
- ARCHIVETIPS Inc.
- Arkema K.K.
- Ascend Performance Materials Japan K.K.
- ATESTEO Japan K.K.
- ATG Lanka Pvt Ltd.
- AUTO TECHNIC JAPAN Co., Ltd.
- Automax Co., Ltd.
- Bax Inc.
- BETA CAE Systems Japan Inc.
- BOCAR Group Auma Engineered Product K.K.
- Caillau
- Canon IT Solutions Inc.
- Celanesa Japan Ltd.
- Chunichi Craft Co., Ltd.
- CORRENS CORPORATION
- Covestro Japan Co., Ltd.
- CPE ELECTRONICS Co., Ltd.
- CRI Middleware Co., Ltd.
- DAD Co., Ltd.
- DAIDO KOGYO KAISYA,LTD.
- Daido Metal Co., Ltd.
- DAIHATSU MOTOR Co., Ltd.
- Daitron Co., Ltd.
- Dell Technologies Japan Inc.
- DENSHIJIKI INDUSTRY Co., Ltd.
- DENSO Corp.
- DEWEJapan Co., Ltd.
- DITECT Corp.
- DM Card Japan Co.,Ltd.
- DTS INSIGHT Corp.
- DuPont Group
- Easy Measure Co., Ltd.
- EKO INSTRUMENTS Co., Ltd.
- ETAS K.K.
- EVIDENT Corp.
- FORUM8 Co., Ltd.
- Fuji Technical Research Inc.
- FUJIKURA COMPOSITES Inc.
- FUKOKU Co., Ltd.
- Fukui Byora Co., Ltd.
- FURUKAWA ELECTRIC Co., Ltd.
- GAFS Co., Ltd.
- Gallogic Corp.
- GEOMATEC Co., Ltd.
- GEOSURF CORPORATION
- GeoTechnologies Inc.
- Globetech Inc.
- GOHSYU CORPORATION
- HASHIBA INTERNATIONAL Inc.
- Hashimotoya Co., Ltd.
- HEAD acoustics Japan K.K.
- Henkel Japan Ltd.
- Hino Motors Ltd.
- HIOKI E.E. CORPORATION
- HIROSE ELECTRIC Co., Ltd.
- Hitachi Industry & Control Solutions Ltd.
- HOEI METAL Co., Ltd.
- Honda Motor Co., Ltd.
- HONDA TSUSHIN KOGYO Co., Ltd.
- Honortech International Limited Ltd.
- HORIBA Ltd.
- HOTTY POLYMER Co., Ltd.
- Humanetics Innovative Solutions Japan K.K.
- I-PEX Inc.
- IDAJ Co., Ltd.
- igus k.k.
- JTT Co., Ltd.
- IKUYO Co., Ltd.
- Illumination Co., Ltd.
- INOAC CORPORATION
- IP Agent Corp.
- IR System Co., Ltd.
- IRISO Electronics Co., Ltd.
- ISUZU MOTORS LIMITED
- ITACCESS Co., Ltd.
- ITT CANNON Ltd.
- JAPAN 3D PRINTER Co., Ltd.
- Japan Quality Assurance Organization
- Japan Radio Co., Ltd.
- JEOL Ltd.
- JFE Techno Research Corporation
- JL MAG RARE-EARTH JAPAN Co., Ltd.
- JOMESA Japan K.K.
- K6GmbH
- KATO SEISAKUSHO Co., Ltd.
- KEEPER Co., Ltd.
- Keycom Corp.
- KEYENCE Corp.
- KIKUSUI ELECTRONICS Corp.
- Kimura Foundry Co., Ltd.
- Knowles Electronics Japan, K.K.
- KOBELCO Group (Kobe Steel, Ltd.)
- KoyoHighPrecision
- Kurabo Industries Ltd.
- Kuraray Co., Ltd.
- Kurasaki Kako Co., Ltd.
- KURIMOTO Co., Ltd.
- KYOWA ELECTRONIC INSTRUMENTS Co.,Ltd.
- Laser Measurement Corporation
- Lasertec Corp.
- Lauterbach Japan, Ltd.
- LINTEC Corp.
- Loccioni Japan Co., Ltd.
- MAC SYSTEMS CORPORATION Co., Ltd.
- Martinrea Automotive Japan Inc.
- Marubeni Information Systems Co., Ltd.
- MARUBUN Corp.
- Matsumoto Kosan Co., Ltd.
- Matsuo Sangyo Co., Ltd.
- Mazda Motor Corporation
- MCOR Co., Ltd.
- MEIDENSHA Corp.
- Meiji Electric Industries Co., Ltd.
- METALART CORPORATION
- MICRO FASTENERS Co., Ltd.
- Microtech Laboratory Inc.
- MinebeaMitsumi Inc.
- Misaki Design
- MITEC Co.,LTD
- Mitsubishi Chemical Corporation
- Mitsubishi Motors Co., Ltd.
- Mitsui Chemicals, Inc.
- Miyakichi Glass Co., Ltd.
- Moog Japan Inc.
- Moriroku Group
- Murata Manufacturing Co., Ltd.
- Muratec Mechatronics Co.,Ltd / Muratec Frontier,LTD
- MUSASHI ENGINEERING, INC.
- Myway Plus Corporation
- nac Image Technology Inc.
- Nakashima Sangyo Co., Ltd.
- NEC Solution Innovators, Ltd.
- NewtonWorks Corp.
- NHK SPRING Co., Ltd.
- NI
- NICHICON CORPORATION
- NIHON PLAST Co., Ltd.
- Nikon Corporation /Nikon Solutions Co., Ltd.
- Nikon-Trimble Co., Ltd.
- NIPPO CORPORATION Co., Ltd.
- Nippon Cannon Inc.
- NIPPON DONALDSON, Ltd.
- Nippon Light Metal Company Ltd.
- Nippon Tanshi Co., Ltd.
- NIPPON TELEVISION NETWORK Corp.
- NIRA Dynamics AB
- Nissan Motor Co., Ltd.
- Niterra Co., Ltd.
- Nobby Tech. Ltd.
- ogawa Inc.
- OHE GIKEN, Inc.
- OILES Corp.
- Okayama Prefecture Industrial Promotion Foundation
- Okazaki Manufacturing Company
- ONO SOKKI Co., Ltd.
- OPSOC Inc.
- OSG SYSTEM PRODUCTS Co., Ltd.
- OTA CITY INDUSTRIAL PROMOTION ORGANIZATION
- PHOTRON LIMITED
- Pulstec Industrial Co., Ltd.
- QMAIL
- rPro Limited
- RICOS Co., Ltd.
- RIGOL JAPAN Co., Ltd.
- RION Co., Ltd.
- RPV Co., Ltd.
- S&P Global Mobility
- SABIC Japan
- SAN FANG CHEMICAL INDUSTRY Co.,Ltd.
- SAN-EI Co., Ltd.
- SANKO Co., Ltd.
- Sanyo Trading Co., Ltd.
- Satym Venture Engineering Services Private Limited
- SCSK Corp.
- SEAFORCE CO LTD
- SEIKO ADVANCE Ltd.
- SEKIDAI KOGYO Co., Ltd.
- Sekisui Fuller Co., Ltd.
- SGK CO LTD
- SGS Japan Inc.
- SHIMADZU Corp.
- SINO-JAPAN ELECTRIC HEATER Co., Ltd.
- SJM CO., LTD.
- SMT JAPAN
- Solidray Co., Ltd.
- SOLIDWORKS JAPAN K.K.
- SOLIZE Corporation
- SPAL JAPAN K.K.
- SPC ELECTRONICS Corp.
- Stringo Co., Ltd.
- SUBARU Co., Ltd.
- Sumika Chemical Analysis Service Co., Ltd.
- Sumitomo Bakelite Co., Ltd.
- Sumitomo Chemical Co., Ltd.
- Sumitomo Electric Industries Ltd.
- Sun Ken Industrial Techniqui Co., Ltd
- SUZUKI MOTOR Corp.
- SWCC Corporation
- T.FUKASE Co., Ltd.
- Taica Corp.
- TAIHO KOGYO Co., Ltd.
- TAIYO YUDEN Co., Ltd.
- TAKASAGO, Ltd.
- TASKING Japan Co., Ltd.
- TE Connectivity Gr.
- TEIUN Ltd.
- Teldyne LeCroy
- TESCO Corp.
- Texas Instruments Japan Ltd.
- TOBATASEISAKUSHO CO.,LTD
- TOBII TECHNOLOGY K.K.
- TODA RACING Co., Ltd.
- Tokyo Measuring Instruments Laboratory Co., Ltd.
- TOP Co., Ltd.
- Topia Co., Ltd.
- Toray Industries, Inc.
- TOYO Corp.
- TOYO DRILUBE Co., Ltd.
- TOYO INK GROUP
- TOYOTA AUTO BODY Co., Ltd.
- Toyota Motor Corporation
- TOYOTA TECHNICAL DEVELOPMENT Corp.
- TRIS Inc.
- TSUBAKIMOTO CHAIN Co., Ltd.
- Tsutsui Industry Co., Ltd
- UACJ Corporation Corp.
- UL Japan Inc.
- UNIPULSE Corp.
- UNIVANCE Corp.
- VIOS System Co., Ltd.
- Witzenmann Japan K.K.
- Yukai Engineering Inc.

Exhibitors at the online exposition only

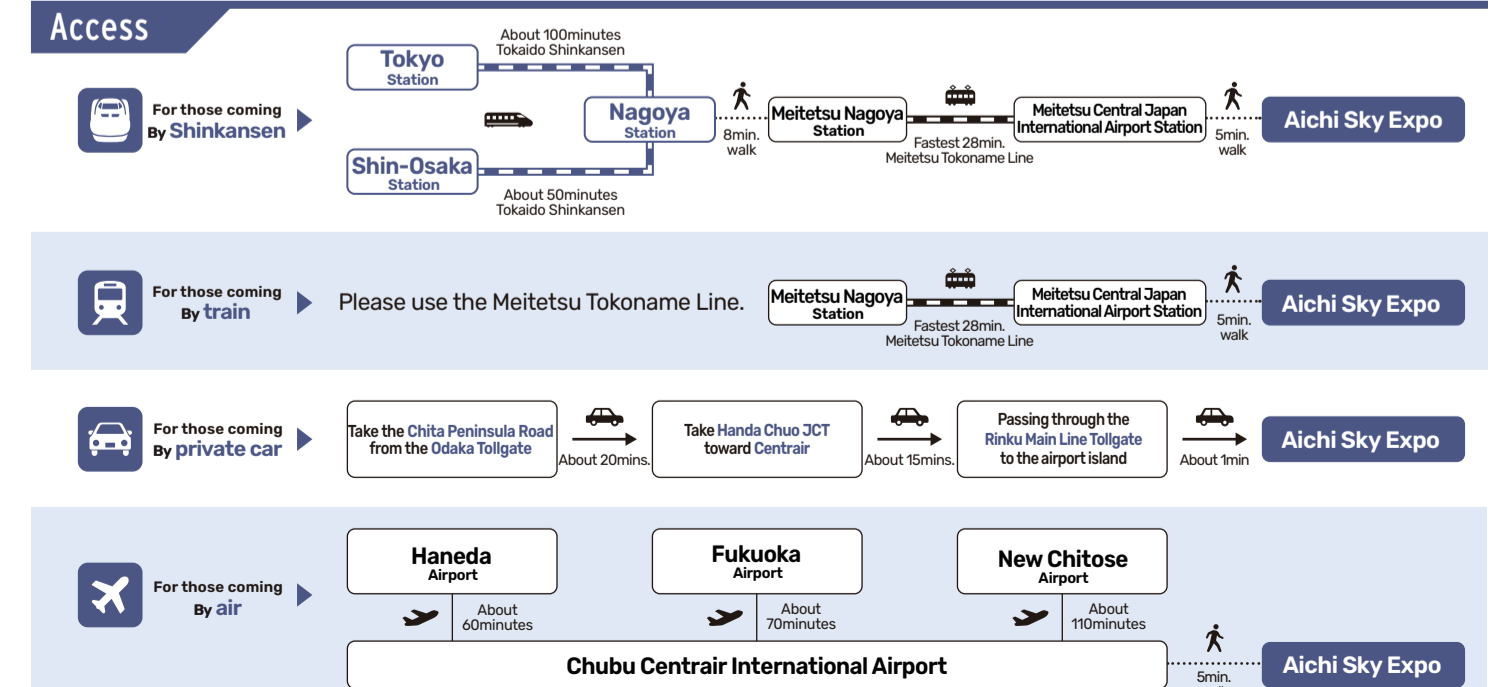
- Carl Zeiss Co., Ltd.
- CDH Japan Ltd.
- Cognex K.K.
- IFLYTEK Automotive Japan Co., Ltd.
- Keysight Technologies Japan K.K.
- LEM Japan K.K.
- NOK Corp.
- Optomet GmbH
- OTSUKA SEIKO Co., Ltd.
- Quest Global
- SANWASEIKI Ltd.
- Shindengen Electric Manufacturing Co., Ltd.
- TECHMATRIX Corp.
- UD Trucks Corp.

July 6 **JSAE Research Report Sessions Organized by the Chubu Branch** **NAGOYA**

Research report sessions organized by engineers in JSAE Chubu region.

Venue 1 Conference room L5 (capacity: approx. 70)			
1		Advics Co., Ltd.	Kazuma Tozawa
2	Core Technology (1) 10:30-11:40	Aisin Takaoka Co., Ltd.	Yoshiya Tanaka
3		Tokai Rika Co., Ltd.	Kento Kataoka
4	Chassis/Body/Non section 12:10-12:55	JTEKT Corporation	Harutaka Tamaizumi
5		Toyoda Gosei Co., Ltd.	Takaaki Kamijo
6	Core Technology (2) 13:40-14:25	Toyota Auto Body Co., Ltd.	Takayuki Ikeda
7		Aisin Corporation	Katsuya Nozue
8		Taiho Kogyo Co., Ltd.	Yuto Kodama
9	Core Technology (3) 14:55-16:05	Jatco Ltd.	Toshihiro Oda
10		Niterra Co., Ltd.	Kentarou Ichihashi

Venue 2 Conference room L6 (capacity: approx. 70)			
1	Powertrain (1) 10:30-11:40	Toyota Central R&D Labs., Inc.	Takato Ikedo
2		Nissan Automotive Technology Co., Ltd.	Tomoyoshi Chiba
3		Daido Metal Co., Ltd.	Akira Ando
4	Powertrain (2) 12:10-12:55	Toyota Motor Corporation	Yoshinori Miyamoto
5		Toyota Boshoku Corporation	Tatsuya Goto
6	Stability/Non section 13:40-14:25	Yamaha Motor Company Limited	Shota Yamaguchi
7		Toyota Technical Development Corporation (TTDC)	Kazuhiro Muraguchi
8	Electronics/Environment Technology 14:55-16:05	Denso Corporation	Yusei Nakayashiki
9		Suzuki Motor Corporation.	Hiroki Osanai



* Listed in alphabetical order (as of Friday, June 16, 2023, not including joint exhibitors).