

Brake Forum in Japan



November 28 and 29, 2016
(Conference & Exhibition)

Venue

Tochigi Prefecture Cultural Center
(Community Center)

Japanese: 栃木県総合文化センター

Access

Utsunomiya

• From Tokyo: 1 hour by JR Tohoku Shinkansen
• From Narita Airport and Haneda Airport: 160-170 minutes by Express Bus

Registration
Fee

JPY25,000

Official
Language

English

(Simultaneous Interpretation for Q&A)

<http://brakeforum2016.com/index.html>

Organizers

Takeshi Tsuchiya
(JSME Chair of Translog Div., The University of Tokyo)

Hidetoshi Shimizu
(Chair, Brake Forum in Japan)

Executive Committee

Toshiharu Okuda (Advics Co., Ltd.)
Takashi Kudo (Akebono Brake Industry Co., Ltd.)
Toshikazu Okamura (Kiriu Corp.)
Masahiro Namba (Nisshinbo Brake Inc.)
Takashi Nakae (Oita University)
Masaaki Nishiwaki (Teikyo University)
Yukihiro Shiomi (Toyota Motor Corp.)

International Advisors

Yao Wang (CFSMA)
Harald Abendroth (EuroBrake)
Jayashree Bijwe (Indian Institute of Technology)
Roy Link (SAE Brake Colloquium)
Seong Rhee (SKR Consulting LLC)

Supported by: JSAE (Japan Society of Automotive Engineers)

Organizer

JSME

The Japan Society of Mechanical Engineers

Program

Monday, November 28

9:00 - 9:30 **Opening**

Takeshi Tsuchiya (JSME Chair of Translog Div., The University of Tokyo)
Roy Link (General Chair, SAE Brake Colloquium)
Masaaki Nishiwaki (Chair, Friction Induced Vibration Forum)
Hidetoshi Shimizu (Chair, Brake Forum in Japan)

9:30 - 11:30 **1. Voice of OEM (Organizer: Yukihiro Shiomi)**

Noriyuki Ishihara (Toyota Motor Corp.)
Kunimichi Hatano (Honda Motor Co., Ltd.)
Makoto Eguchi (Mazda Motor Corp.)
Osamu Saito (Subaru)

11:30 - 12:00 **Lunch**

12:00 - 12:50 **2. Special Lecture for
Hybrid System & Regenerative Brake**



Dr. Takehisa Yaegashi
(Cordia Corp.ltd.,)

12:50 - 13:00 **Break**

13:00 - 17:00 **3. NVH-1: Brake Squeal and Noise (Organizer: Toshitaka Izumihara)**

13:00 - 13:30 **1) A Long Journey of Brake Squeal Research and
Current Technical Issues**

Masaaki Nishiwaki (Teikyo University)

13:30 - 14:00 **2) New Measurement Technology for
Elucidating Brake Squeal and Friction Phenomenon**

Yukio Nishizawa (Advics Co., Ltd.)

14:00 - 14:30 **3) Study of Creep Groan Simulation by Implicit
Dynamic Analysis Method of FEA**

Katsuhiko Uchiyama (Nisshinbo Brake Inc.)

14:30 - 15:00 **4) Brake Disc Rotor and Judder**

Toshikazu Okamura (Kiriu Corp.)

15:00 - 15:30 **Networking Break**

15:30 - 16:00 **5) Activities to Reduce Brake Noise and Vibration of Disc Brake
Using TEST and CAE Technology**

Hayuru Inoue (Hitachi Automotive Systems, Ltd.)

16:00 - 16:30 **6) Effect of Added Mass of Pad on In-Plain Squeal
in Automotive Disc Brake**

Takashi Nakae (Oita University)

16:30 - 17:00 **7) Non-Destructive Measurement of Anisotropic Elastic Constants
of Friction Materials of Disk Brake Pads Using Inverse Analysis**

Masanori Inoue (Akebono Brake Industry Co., Ltd.)

18:30 - 20:30 **4. Networking Dinner (Tobu Hotel)**

Tuesday, November 29

8:30 - 12:30 5. Materials (Organizer: Michinari Ishikawa)

- 8:30 - 9:00 1) **Stability of the Friction Coefficient of the Disc Brake Pad**
Yasuhiro Hara (Hitachi Chemical Co.,Ltd.)
- 9:00 - 9:30 2) **Effect on Friction Characteristic of Brake Friction Material with Biomass Based Phenolic Resin**
Motoki Kuroe (Akebono Research and Development Centre, Ltd.)
- 9:30 - 10:00 3) **Chemical Effects of Titanate Compounds on the Thermal Reactions of Phenolic Resins in Friction Material**
Emiko Daimon (Otsuka Chemical Co., Ltd.)
- 10:00 - 10:30 4) **New Bio-Soluble Mineral Fibres: Tribologic Effect on NAO Copper Free Friction Materials Surface. A Comparative Study Based on Mineral Fibre Properties.**
Diego Santamaria (Lapinus Fibres)
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- 10:30 - 11:00 **Networking Break**
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- 11:00 - 11:30 5) **Resilient Graphitic Carbon, Role and Influence in Today and Future Brake Pad Performance Especially Cu Free Pads**
Yujie Feng (Superior Graphite)
- 11:30 - 12:00 6) **Carbon Powders as Key Ingredient for Environmental Friendly, High Performing and Easy to Produce Brake Pads**
Raffaele Gilardi (Imerys Graphite & Carbon Switzerland Ltd.)
- 12:00 - 12:30 7) **OEM Quality Future Trend Requirement for Friction Material and Influence of Rotor Composition on Friction Material Characteristics**
Eros Sales (ITT Motion Technologies)

12:30 - 13:00 Lunch

13:00 - 13:50 6. Special Lecture Friction, Wear and Wear Debris Dynamics



Prof. Dr. Georg Ostermeyer
(Technische Universität Braunschweig)

13:50 - 14:00 Break

14:00 - 17:00 7. Technology (Organizer: Yukio Nishizawa)

- 14:00 - 14:30 1) **Corrosion Analysis on Gray Cast Iron Disc through Electrochemical Methods**
Agusti Sin (ITT Friction Technologies)
- 14:30 - 15:00 2) **Advanced Finishes for Brake Components and Other Castings**
Björn Dingwerth (MacDermid Enthone Industrial Solutions)
- 15:00 - 15:30 3) **Phenolic Pistons for Disk Brake Caliper : Advantages and characteristics**
Nobuaki Nakamura (Sumitomo Bakelite Co., Ltd.)
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- 15:30 - 15:45 **Break**
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- 15:45 - 16:15 4) **Inertia Simulation for Hybrid Vehicles and Actual Traffic Simulation by Dynamometer**
Isao Fujimoto (Link Japan)
- 16:15 - 16:45 5) **Friction Material Selection for China after Market**
Cindy Chan (Hi-Pad Brake Technology Co.,Ltd.)
- 16:45 - 17:15 6) **Electric Parking Brake - Next Steps to be Standard in All Passenger Vehicles**
Shunsuke Kusaka (Continental Automotive Corp.)

17:15 - 17:20 Closing Remarks

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* in alphabetical order

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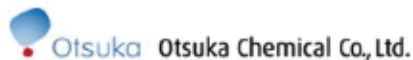
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JSME

The Japan Society of
Mechanical Engineers