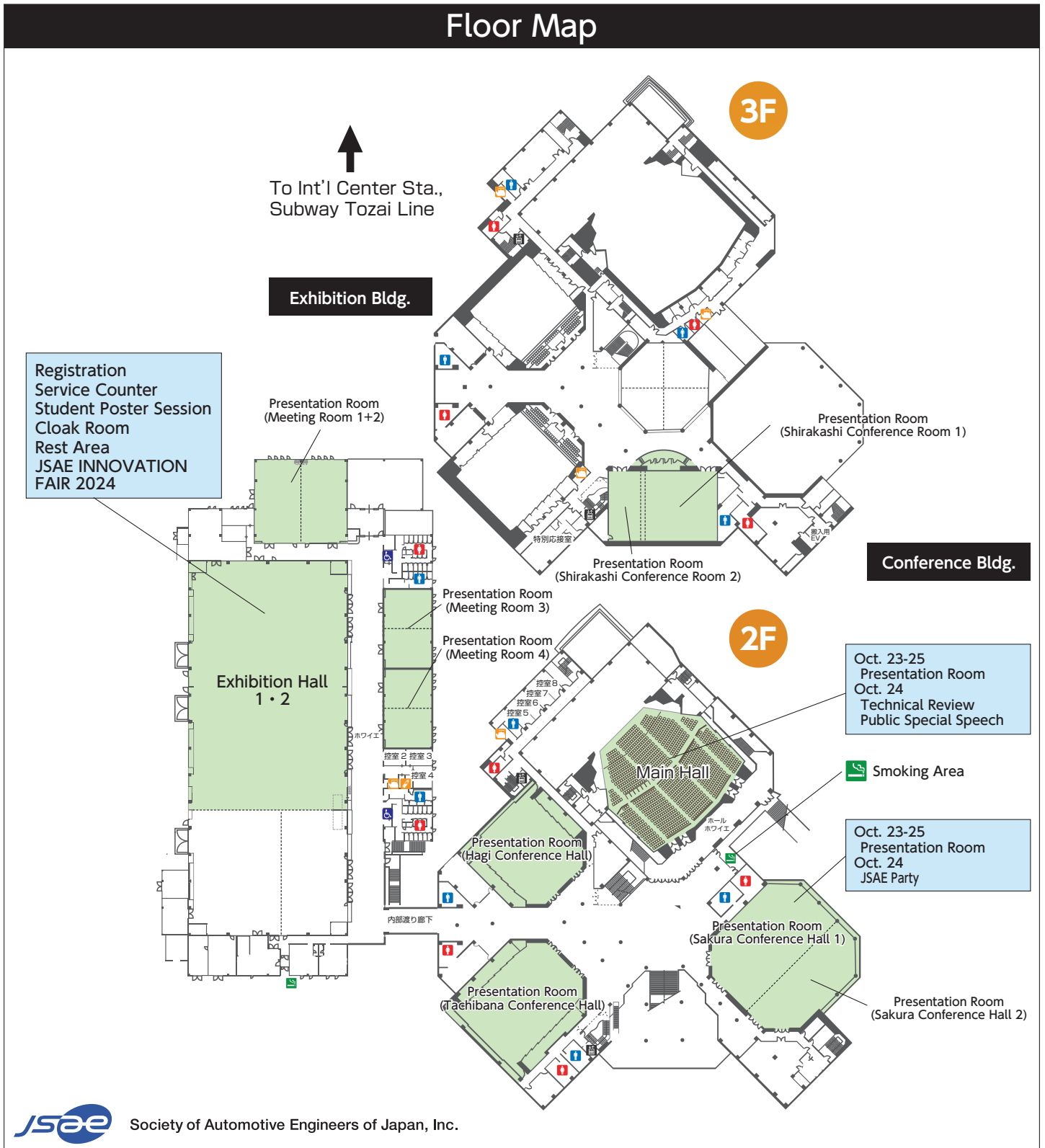


2024 JSAE Congress (Autumn)

Wednesday, Oct. 23 - Friday, Oct. 25 2024 / SENDAI INTERNATIONAL CENTER

Final Program

Floor Map



約16万件以上の文献を収蔵!

文献・情報検索システム

本会発行文献・JASO規格の他、
SAE 等他団体発行文献についても検索・ご購入いただけます。

各社で発行している「技報情報」も
無料で閲覧できます（一部ダウンロード可）。



<https://tech.jsae.or.jp/paperinfo/ja>

より安全により確実に

～ ADAS 試験のテストベンチ構築に最適 ～

ADAS 試験

操舵対応
タイヤハウスに
納まるサイズ

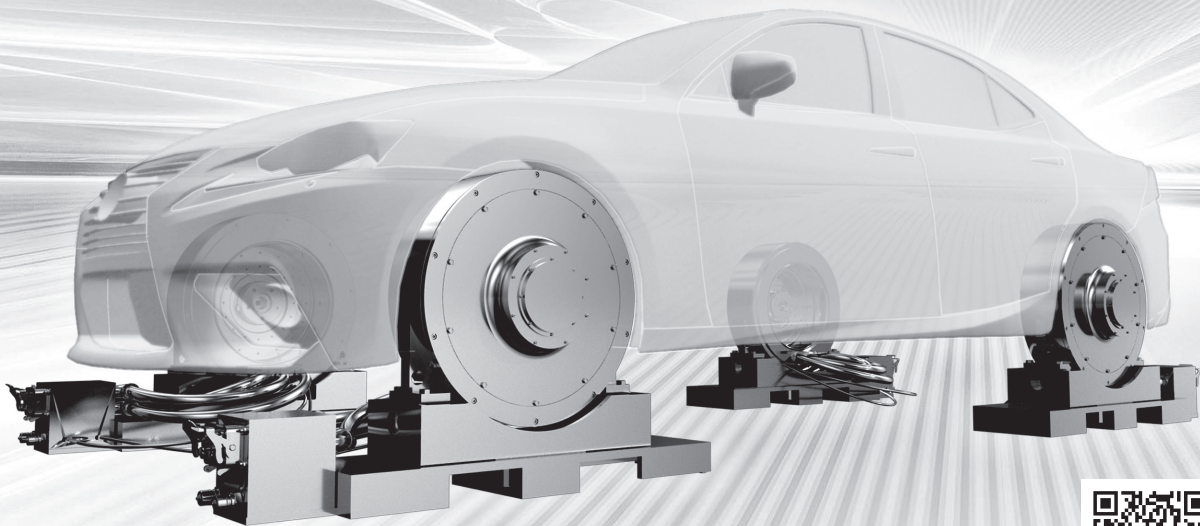
シャシーダイナモ 代替

モード運転
急発進・急ブレーキ可能

コンパクト

ピット工事不要
2階や3階にも
設置できる

【インタイヤハウスダイナモ】 In-Tyre-House Dynamometer



自動車試験システムについて
詳しくはこちら ▶



滋賀竜王製作所にて
トライアル試験受付中

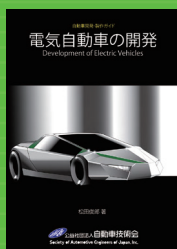
2024年秋季大会 展示会参加者

現地・
オンライン

限定

一般の方も本会会員の方も
本会発行書籍が

30%OFF (一部40%OFF)



詳細、
申込みは
こちら



<https://motorcycle.official.ec/>

会場特別価格期間

2024年10月23日(水)～2024年10月25日(金)

3日間限り

※BASE以外からのお申込みは会場特別価格対象外です

2024 JSAE Congress (Autumn)

Period : Wednesday, Oct. 23 to Friday, Oct. 25, 2024

Venue : SENDAI INTERNATIONAL CENTER

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Thursday, October 24	20-24
Friday, October 25	25-32

INFORMATION

<https://www.jsae.or.jp/2024aki/english/index.php>

All events are in Japanese unless otherwise specified

Events	Notes	Oct 23	Oct 24	Oct 25
Technical Sessions	Registration Required / Charged	●	●	●
Technical Review	Registration Required / Free		●	
Public Special Speech	Registration Required / Free		●	
JSAE Party	Registration Required / Charged		●	
8th Student Poster Session	Registration Required / Free	●	●	●
JSAE INNOVATION FAIR 2024	No Registration Required / Free	●	●	●

Smoking Area	Exhibition Bldg. 1F, Conference Bldg. 2F
Consession Stand	Conference Bldg. 1F
Food Truck	Exhibition Bldg., Exhibiton Room 1 *OPEN: 11:00-15:00

Opening Hours

Tuesday, October 22

Registration	Exhibition Bldg. Exhibition Hall 1•2	15:00~17:00
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Wednesday, October 23

Registration	Exhibition Bldg. Exhibition Hall 1•2	8:00~17:00
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Service Counter	Exhibition Bldg. Exhibition Hall 1•2	8:00~18:00
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Cloak Room	Exhibition Bldg. Exhibition Hall 1•2	8:00~18:30
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Speaker Preparation Room	Exhibition Bldg. Exhibition Hall 1•2	8:00~18:00
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JSAE Members Lounge	Exhibition Bldg. Exhibition Hall 1•2	8:00~18:00
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Thursday, October 24

Registration	Exhibition Bldg. Exhibition Hall 1•2	8:30~17:00
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Service Counter	Exhibition Bldg. Exhibition Hall 1•2	8:30~17:30
-----------------	--------------------------------------	------------

Cloak Room	Exhibition Bldg. Exhibition Hall 1•2	8:30~17:30
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Speaker Preparation Room	Exhibition Bldg. Exhibition Hall 1•2	8:30~17:00
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JSAE Members Lounge	Exhibition Bldg. Exhibition Hall 1•2	8:30~17:00
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Friday, October 25

Registration	Exhibition Bldg. Exhibition Hall 1•2	8:30~17:00
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Service Counter	Exhibition Bldg. Exhibition Hall 1•2	8:30~18:00
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Cloak Room	Exhibition Bldg. Exhibition Hall 1•2	8:30~18:30
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Speaker Preparation Room	Exhibition Bldg. Exhibition Hall 1•2	8:30~18:00
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JSAE Members Lounge	Exhibition Bldg. Exhibition Hall 1•2	8:30~18:00
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OTHER EVENTS

Technical Review

[Registration Required / Free] *Language: Japanese

October 24th 14:30-16:30, Conference Building 2F Main Hall

Speaker

1. Takanori Fukao (University of Tokyo)
2. Yuka Nakagawa (Chukyo University), Nakagawa Law & Consulting



Public Special Speech

[Registration Required / Free] *Language: Japanese

October 24th 16:15-17:15, Conference Building 2F Main Hall

Speaker

Hironao Ito (Honda Motor)



JSAE Party

[Registration Required / Charged]

October 24th 17:30-19:00, Conference Building Sakura Hall 1

8th Student Poster Session

[Registration Required / Free] *Language: Japanese

October 23th - October 25th 10:00-16:00, Exhibition Building Exhibition Hall 1•2

JSAE INNOVATION FAIR 2024

[No Registration Required / Free]

October 23th - October 25th, Exhibition Building Exhibition Hall 1•2

JSAE

モビリティを通して、
技術革新をここ仙台で。

INNOVATION FAIR 2024

初開催

出展企業・団体一覧 (2024年9月20日現在) [50音順]

アキュイティ(株) / エースポイントシステムズ(株) / (株)エクセディ
SCSK(株) / (株)大手技研 / (株)構造計画研究所 / コンカレント日本(株)
(株)サーモ理工 / サンゴバン(株) / (株)ティー・イー・エム / 東洋電機製造(株)
(株)トヨタシステムズ / ナイラ・ダイナミクス / 日本カンタム・デザイン
(株) / 日本タングステン(株) / (株)NeU / パイオニア(株) / (株)フィジックス
テクノロジー / プロメテック・ソフトウェア(株) / (株)ランデフト

会期: 2024年10月23日(水) - 25日(金)

9:30~17:00 ※最終日25日(金)は16:00まで

会場: 仙台国際センター 展示棟

主催 JSAE 公益社団法人 自動車技術会

運営・管理: 株式会社 日刊工業コミュニケーションズ

Wednesday, October 23 Congress Timetable

Room	SENDAI INTERNATIONAL CENTER					
	Meeting Room 1+2 (Exhibition Bldg.)	Meeting Room 3 (Exhibition Bldg.)	Meeting Room 4 (Exhibition Bldg.)	Tachibana Conference Hall (Conference Bldg. 2F)	Hagi Conference Hall (Conference Bldg. 2F)	Sakura Hall 1 (Conference Bldg. 2F)
9:30	Vehicle Development I 001 002 003 004 No. 85 No. of presentation: 4 11:10	Fuel Cell Technology 015 016 017 018 No. 88 No. of presentation: 4 11:10	Aerodynamics 023 024 025 026 No. 90 No. of presentation: 4 11:10	Vibration, Noise, Ride Quality I 034 035 036 10 min. Break 037 038 039 No. 93 No. of presentation: 6 12:10	Vehicle Dynamics and Control I 050 051 052 053 054 No. 96 No. of presentation: 5 11:35	Elderly Driver 061 062 063 10 min. Break 064 065 066 No. 98 No. of presentation: 6 12:10
13:00	Vehicle Development II 005 006 007 008 009 No. 86 No. of presentation: 5 14:15	Battery Technology 019 020 021 022 No. 89 No. of presentation: 4 13:50	CFD 027 028 029 No. 91 No. of presentation: 3 13:25	Vibration, Noise, Ride Quality II 040 041 042 10 min. Break 043 044 045 No. 94 No. of presentation: 6 15:50	Vehicle Dynamics and Control II 055 056 057 10 min. Break 058 059 060 No. 97 No. of presentation: 6 15:15	Driver Sensibility 067 068 069 070 071 No. 99 No. of presentation: 5 15:15
15:00	Vehicle Development III 010 011 012 013 014 No. 87 No. of presentation: 5 17:00		Pedestrian-Vehicle Interaction 030 031 032 033 No. 92 No. of presentation: 4 15:45	No. 95 No. of presentation: 4 18:10		Driver Comfort 072 073 074 075 076 No. 100 No. of presentation: 5 18:00
17:00						
18:00						

- ☑ Time allocated for a presentation is 25 minutes; 15 minutes for presentation and 10 minutes for Q&A.
 - ☑ Program subject to change.
 - ☑ Boxed numbers denote English presentations.
 - ☑ Online participation is available for each session.
 - ☑ Please appreciate your feedback on this presentation.
- A QR code for the evaluation form is posted at each presentation room.

				Exhibition Hall 1・2	
Sakura Hall 2 (Conference Bldg. 2F)	Main Hall (Conference Bldg. 2F)	Shirakashi Conference Room 1 (Conference Bldg. 3F)	Shirakashi Conference Room 2 (Conference Bldg. 3F)		
Automated Driving and Advanced Driver Assistance I 077 078 079 080 No. 101 No. of presentation: 4	Gasoline Engine I 089 090 091 092 No. 104 No. of presentation: 4	Design Optimization 101 102 103 104 105 No. 107 No. of presentation: 5	Metal Materials I 114 115 116 117 118 No. 110 No. of presentation: 5	10:00	8th Student Poster Session JSAE INNOVATION FAIR 2024
11:10	11:10	11:35	11:35		
12:10	12:10				
Automated Driving and Advanced Driver Assistance II 081 082 083 084 No. 102 No. of presentation: 4	Gasoline Engine II 093 094 095 096 097 No. 105 No. of presentation: 5	12:35 Charging/Power Supply 106 107 108 109 No. 108 No. of presentation: 4	12:35 Metal Materials II 119 120 121 10 min. Break 122 123 124 No. 111 No. of presentation: 6		
13:50	14:15	14:15			
14:30	14:55	14:55			
Automated Driving and Advanced Driver Assistance III 085 086 087 088 No. 103 No. of presentation: 4	Gas Engine 098 099 100 No. 106 No. of presentation: 3	System Design 110 111 112 113 No. 109 No. of presentation: 4	15:15 15:55 Metal Materials III 125 126 127 128 No. 112 No. of presentation: 4	16:00	
16:10	16:10	16:35			
			17:35		
				17:00	

Engine・After treatment・Powertrain	Body・Chassis・Production machining	ITS・Human Engineering	Parts・Materials	CAE/NV・Measurement・Fluid	HV・PHV・EV	Safety	Others
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Detail of technical sessions: page 12-32.

Thursday, October 24 Congress Timetable

Room	SENDAI INTERNATIONAL CENTER					
	Meeting Room 1+2 (Exhibition Bldg.)	Meeting Room 3 (Exhibition Bldg.)	Meeting Room 4 (Exhibition Bldg.)	Tachibana Conference Hall (Conference Bldg. 2F)	Hagi Conference Hall (Conference Bldg. 2F)	Sakura Hall 1 (Conference Bldg. 2F)
9:30	Safety and Future Engineering 129 130 131	VOC I 135 136 137 138	Thermal and Fluid Engineering I 143 144 145 146 147	Vibration, Noise, Ride Quality III 152 153 154 155 156	Dynamics and Control of Tires and Motorcycles 163 164 165 166	HMI 172 173 174 175 176
	10 min. Break 132 133 134	No. 114 No. of presentation: 4 11:10	No. 116 No. of presentation: 5 11:35	No. 118 No. of presentation: 5 11:35	No. 120 No. of presentation: 4 11:10	No. 122 No. of presentation: 5 11:35
	No. 113 No. of presentation: 6 12:10	12:10	12:35	12:35	12:10	
13:00		VOC II 139 140 141 142	Thermal and Fluid Engineering II 148 149 150 151	Vibration, Noise, Ride Quality IV 157 158 159	Numerical Analysis of Engine 167 168 169 170 171	
		No. 115 No. of presentation: 4 13:50	No. 117 No. of presentation: 4 14:15	10 min. Break 160 161 162	No. 121 No. of presentation: 5 14:15	
15:00				No. 119 No. of presentation: 6 15:15		
17:00						17:30
18:00						JSAE Party
						19:00

- ☑ Time allocated for a presentation is 25 minutes; 15 minutes for presentation and 10 minutes for Q&A.
 - ☑ Program subject to change.
 - ☑ Boxed numbers denote English presentations.
 - ☑ Online participation is available for each session.
 - ☑ Please appreciate your feedback on this presentation.
- A QR code for the evaluation form is posted at each presentation room.

				Exhibition Hall 1・2
Sakura Hall 2 (Conference Bldg. 2F)	Main Hall (Conference Bldg. 2F)	Shirakashi Conference Room 1 (Conference Bldg. 3F)	Shirakashi Conference Room 2 (Conference Bldg. 3F)	
Automated Driving and Advanced Driver Assistance IV 177 178 179 180 No. 123 No. of presentation: 4 11:10	Mobility as a Social System 181 182 183 184 185 No. 124 No. of presentation: 5 11:35	Motor Technology 186 187 188 189 190 No. 125 No. of presentation: 5 11:35	Polymer Materials I 195 196 197 198 199 No. 127 No. of presentation: 5 11:35	10:00 8th Student Poster Session 16:00 17:00
12:35				JSAE INNOVATION FAIR 2024
		HEV Technology 191 192 193 194 No. 126 No. of presentation: 4 14:15	Polymer Materials II 200 201 202 203 204 No. 128 No. of presentation: 5 14:40	
14:30				
Technical Review 16:00 16:15				
Public Special Speech 17:15		Speaker 1. Takanori Fukao (University of Tokyo) 2. Yuka Nakagawa (Chukyo University)		
		Speaker Hironao Ito (Honda Motor)		

Engine·After treatment· Powertrain	Body·Chassis· Production machining	ITS·Human Engineering	Parts·Materials	CAE/NV· Measurement·Fluid	HV·PHV·EV	Safety	Others
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Detail of technical sessions: page 12-32.

Friday, October 25 Congress Timetable

SENDAI INTERNATIONAL CENTER						
Room	Meeting Room 1+2 (Exhibition Bldg.)	Meeting Room 3 (Exhibition Bldg.)	Meeting Room 4 (Exhibition Bldg.)	Tachibana Conference Hall (Conference Bldg. 2F)	Hagi Conference Hall (Conference Bldg. 2F)	Sakura Hall 1 (Conference Bldg. 2F)
9:30	Diesel Combustion I 205 206 207 No. 129 No. of presentation: 3 10:45	Efficiency Evaluation 213 214 215 ----- 10 min. Break 216 217 218 219	Communication and Electronics I -Evaluation Technology- 229 230 231 232 233 No. 134 No. of presentation: 5 11:35	Crash Safety 242 243 244 ----- 10 min. Break 245 246 247 248	Intelligent Vehicle 254 255 256 257 258 No. 139 No. of presentation: 5 11:35	Driver Behavior 268 269 270 271 No. 142 No. of presentation: 4 11:10
	Diesel Combustion II 208 209 210 211 212 No. 130 No. of presentation: 5 14:15	No. 131 No. of presentation: 7 12:35 13:35 Provide Information and Cyclist Response when Undetected/ False Detection Occurs 220 221 222 No. 132 No. of presentation: 3 14:50 15:30	Communication and Electronics II -Communication and SDV- 234 235 236 No. 135 No. of presentation: 3 13:50 14:30	No. 137 No. of presentation: 7 12:35 13:35 Weak and Small Mobility (Wheelchairs, Electric Kick Scooters, Bicycles) 249 250 251 252 253 No. 138 No. of presentation: 5 15:40	12:35 13:35 Injury Prediction and Damage Reduction 259 260 261 262 263 No. 140 No. of presentation: 5 14:40 15:20	Driving Assistance 272 273 274 275 276 No. 143 No. of presentation: 5 14:15 14:55
13:00						
15:00						
17:00		Traffic Safety Support and Traffic Safety Education 223 224 225 ----- 10 min. Break 226 227 228 No. 133 No. of presentation: 6 18:10	Communication and Electronics III -Design, Development and Sensors- 237 238 239 240 241 No. 136 No. of presentation: 5 16:35		Accident Analysis 264 265 266 267 No. 141 No. of presentation: 4 17:00	Driver Model/Sensing 277 278 279 280 281 No. 144 No. of presentation: 5 17:00
18:00						

- ☑ Time allocated for a presentation is 25 minutes; 15 minutes for presentation and 10 minutes for Q&A.
- ☑ Program subject to change.
- ☑ Boxed numbers denote English presentations.
- ☑ Online participation is available for each session.
- ☑ Please appreciate your feedback on this presentation.

A QR code for the evaluation form is posted at each presentation room.

				Exhibition Hall 1 · 2		
Sakura Hall 2 (Conference Bldg. 2F)	Main Hall (Conference Bldg. 2F)	Shirakashi Conference Room 1 (Conference Bldg. 3F)	Shirakashi Conference Room 2 (Conference Bldg. 3F)			
Engine Components, Lubricants, Tribology 282 283 284 285 286 No. 145 No. of presentation: 5 11:35	Road Traffic Environment 298 299 300 301 No. 148 No. of presentation: 4 11:10	Power Transmission I 311 312 313 314 315 No. 151 No. of presentation: 5 11:35	Production and Manufacturing 324 325 326 327 328 No. 154 No. of presentation: 5 11:35	10:00	JSAE INNOVATION FAIR 2024 8th Student Poster Session	
12:10						
12:35 Exhaust Gas Emission I 287 288 289 290 291 No. 146 No. of presentation: 5 14:40	Three Way Catalyst 302 303 304 305 No. 149 No. of presentation: 4 13:50 14:30	12:35 Power Transmission II 316 317 318 319 320 No. 152 No. of presentation: 5 14:40	12:35 Accident Avoidance 329 330 331 332 No. 155 No. of presentation: 4 14:15			
15:20 Exhaust Gas Emission II 292 293 294 10 min. Break 295 296 297 No. 147 No. of presentation: 6 18:00	Alternative Fuel 306 307 308 309 310 No. 150 No. of presentation: 5 16:35	15:20 Cognition/Workload 321 322 323 No. 153 No. of presentation: 3 16:35	14:55 Recycling/Circular Economy 333 334 335 No. 156 No. of presentation: 3 16:10	16:00		16:00

Engine·After treatment· Powertrain	Body·Chassis· Production machining	ITS·Human Engineering	Parts·Materials	CAE/NV· Measurement·Fluid	HV·PHV·EV	Safety	Others
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Detail of technical sessions: page 12-32.

JSAE Congress Autumn, Technical Session Program

- This program is based on the data as of September 12, 2024.
- The abstracts of the presentations are available on the timetable of the website.
[<https://www.jsae.or.jp/2024aki/english/program.php>]
- There may be withdrawn presentations.
- Boxed numbers denote English presentations.

Meeting Room 1+2

[9:30~11:10]

85 Vehicle Development I
Jonas Aditya Pramudita (Nihon University)

- 001 Construction of a One-platform Analysis Technology for Fluid and Structural Analysis (First Report)
Hiroshi Kuribara · Haruka Egami (Honda Motor)
Dianxiang Xiang · Anh Viet Nguyen · Nam Ha Tran (TechnoStar)
- 002 The Development of The Testing Method by the Connection between Driving Simulator and Powertrain Test Bench for Multi-function Synchronous Vehicle Development
Shoichi Ishigaki · Takuya Kusakabe · Hiroshi Sho · Yasuhiro Hiasa · Ryutarō Moriguchi · Yuki Iizawa (Toyota Motor)
- 003 Introduction of Agile Development Technique using New Segmented Mock-up Model with Aerodynamic Noise as Example
Takahiro Nakajima (Honda Motor)
Takuya Iso (Auto Technic Japan)
Sanu Kimu (Persol Cross Technology)
- 004 Development of Pedal Robot for Vehicle Testing on Chassis Dynamometer
Daeyup Lee (Inha University / SPLT)
Byeonghee Choi (Inha University)
Sungwoon Choi (Inha University / SPLT)
Jimyeong Kang (Inha University)
Yechan Jo · Hyunwoo Shin (Inha University / SPLT)
Seoyeon Jeon (Inha University)
Jongtae Lee · Jongmin Kim · Keonwoo Kang · Jaesik Shin (National Institute of Environmental Research)
Hiroaki Suzuki · Sohju Tominaga (Japan21)

[12:10~14:15]

86 Vehicle Development II
Akira Suto (Honda R&D)

- 005 Development of Vehicle's Body for Ride Comfort by Actual Driving Simulation
Tomoya Aou · Takayoshi Shigihara (Toyota Motor)

- 006 Multidisciplinary Design Method for Off-road Vehicles using Differential Evolution Based Adaptive Sampling
Hiroaki Kawamura · Kazuki Tsuda · Tomotaka Sugai · Kohei Shintani · Koji Nishikawa (Toyota Motor)
- 007 Development of Automatic Hood Mastic Sealer Arrangement Technology Considering Manufacturing Constraints and Performance Requirement
Noriko Ohtsuka · Hiroaki Onodera · Mashio Taniguchi · Masatake Kimura (Toyota Motor)
- 008 Development of Prediction Method for FDS (Flow Drilling Screw) Joint Rupture Phenomenon using Machine Learning
Kojiro Chujo · Hiroshi Sato · Yoshiteru Ishibashi · Hisashi Ihara · Hisahide Matsuoka (Nissan Motor)
- 009 Development of CAE Models of Arc Welds Including Aluminum Casting
Yuri Ichikawa · Kazushi Urakawa · Eita Niisato · Hiroaki Kawamura · Toshiyuki Isono (Toyota Motor)

[14:55~17:00]

87 Vehicle Development III
Toshiaki Sakurai (former Iwaki Meisei University)

- 010 A Study on Improving Correlation between Analysis and Test Results for Vibration Fatigue Durability and Computational Fluid Dynamics
GeonHee Cheon · NamJin Kim · JinKyu Song · WonSeok Choi · JungSub Kim (Seojin Industrial)
GyuHo Shim (Eco-Plastic)
- 011 A Study on the Development of High Strength Rear Trailing Arm for Electric Vehicles
HeeSang Gong · JinKyu Song · JinSung Kim · MoonSub Song · HoSang Park · DongHoon Kim (Seojin Industrial)
- 012 Development of Accuracy Improvement Technology for Surrogate Models using Shape Generation AI
Hiroaki Onodera · Noriko Ohtsuka · Mashio Taniguchi · Masatake Kimura (Toyota Motor)
- 013 Study of Surrogate Model Construction for Evaluation of Crash Box Performance
Yoshitaka Wada (Kindai University)
Asuka Endo (Marelli)
Yuki Okumoto (Mazda)
Kai Morimoto (DENSO)
Takasue Kikuchi (DAIHATSU MOTOR)

- 014 Study on the Body Torsional Rigidity of Personal Mobility Vehicles (PMVs) with Active Tilting Mechanisms
Tetsunori Haraguchi
 (Nagoya University / Nihon University)
 Tetsuya Kaneko
 (Osaka Sangyo University / Nihon University)

- 022 Evaluation of Thermal Runaway Propagation of Prismatic Lithium Ion Battery, whose Cell Case Was Made by Steel
Kosuke Kawamoto · Yasuto Goto (Nippon Steel)
 Tatsuo Nagata (Nippon Steel Technology)

Meeting Room 3

[9:30~11:10]

88 Fuel Cell Technology
 Kotaro Ikeda (Toyota Motor)

- 015 Development of Low-cost Bipolar Plates for New Structure Fuel Cell Stack
Kazuo Nunokawa · Kentaro Ishida · Hiroshi Shinkai · Shuhei Goto (Honda R&D)
 Satoshi Oyama (Honda Motor)
- 016 Development of UEA with Both Durability and Cost Performance for New Structure Fuel Cell Stack
Takashi Kato · Akira Nakahara · Takuya Ohkura · Masakuni Yamamoto · Satoru Terada · Akihiro Noda (Honda R&D)
 Nagayuki Kanaoka (American Honda Motor)
- 017 Lifetime Assessment of Fuel Cell Output Control on Fuel Cell Hybrid Test Train
Takashi Yoneyama (Railway Technical Research Institute)
 Minhao Wen · Yida Bao · Sihai Xu · Wei-Hsiang Yang · Yushi Kamiya (Waseda University)
 Kenichi Ogawa · Manato Kaneko (Railway Technical Research Institute)
- 018 Development of Model-based Humidity Control using Humidifier Model in Fuel Cell Systems
Shuto Maniwa · Yohei Hidaka · Koichi Kimura · Nobuki Koiwa (Honda R&D)

[12:10~13:50]

89 Battery Technology
 Daichi Imamura (Japan Automobile Research Institute)

- 019 Sensitivity Analysis on Charging Condition and Operating SOC Range to Degradation of LFP-type lithium-ion Battery
Kenichiroh Koshika (NTSEL)
 Hideki Tsuruga (JET)
 Tomokazu Morita (TOSHIBA)
 Keizoh Honda (JET)
- 020 Charge-Discharge Behavior and Safety Evaluation of Pouch-type Lithium-ion Battery using Laminated Steel Sheets for Cell Case
Misaki Masatsugu · Shintaro Yamanaka · Takehiro Takahashi · Yasuto Goto (Nippon Steel)
- 021 Study of Optimal Thermal Management System for Battery based on Vehicle System 1D Simulation Model (Second Report)
Yuya Hato · Poyuan Liu · Wei-Hsiang Yang · Toshio Hirota · Yushi Kamiya (Waseda University)
 Kiyotaka Sato (Mazda)

Meeting Room 4

[9:30~11:10]

90 Aerodynamics
 Munehiko Oshima (Nissan Motor)

- 023 Proposal of Concept Shape for Drastic Improvement of Aerodynamic Performance of Heavy-duty Vehicles -Optimization of Overall Vehicle Shape-
Daisuke Kawano · Soma Iiboshi · Takayuki Ogawa (Osaka Sangyo University)
- 024 Aerodynamics Development of Sit-ski for Beijing 2022 Paralympics
Ayaka Iwawaki · Kazuki Funahashi · Tatsuya Mita · Yuko Kobayashi (Toyota Motor)
- 025 Study of Aerodynamic Performance Surrogate Modelling for Minivan Vehicles
Hiroshi Tanaka · Yuya Ishiguro · Keiko Amano (Toyota Systems)
 Tatsuya Komamura (Toyota Auto Body)
- 026 Numerical Study of the Parameters used in Boiling Heat Transfer Prediction Models under Low Pressure Subcooled Boiling
Yoshiki Tanaka · Takaya Sato · Takeshi Ooyama (DENSO TECHNO)
 Yukinori Hamaji · Masayuki Tokitani (National Institute of Fusion Science)
 Yoshiyuki Tsuji (Nagoya University)

[12:10~13:25]

91 CFD
 Yasushi Noguchi (Toyota Motor)

- 027 Numerical Analysis of Under-expanded Jets for Gas Fuel Injection using OpenFOAM
Makoto Nagaoka · Daiki Shindo · Hiroki Sowa · Kanta Takiguchi (Osaka Sangyo University)
- 028 Development of a Technology for Predicting Exhaust Airflow Noise during Engine Combustion using a Hybrid Method
Toru Tsurumoto · Kyoji Ishihara · Toshiyuki Hirobe · Osamu Torobu (Mazda)
 Naoki Nakamura · Takahiro Shinkawa (HIROTEC)
- 029 Development of Prediction Method of Parts Temperature in Idling State and Factor Analysis of Temperature Rise from Heat Source
Yuki Morita · Koichi Ishikawa · Hiroyuki Takamura (Mitsubishi Motors)
 Reon Wachi (Mitsubishi Automotive Engineering)
 Zongguang Wang (Mitsubishi Motors)

【14:05~15:45】

92 Pedestrian-Vehicle Interaction
Motoki Shino (Institute of Science Tokyo)

- 030 Scalable Simulation of Multiple Pedestrian and Drivers based on Behavior Models
Yuki Ban · Toru Watanabe · Hiroyuki Okuda · Tatsuya Suzuki (Nagoya University)
Takuma Yamaguchi · Chieko Nishizawa · Kazunori Ban (Toyota Technical Development)
- 031 Analysis of Decision-making of Pedestrians' Crossing Behavior for Incoming Car Fleet
Takashi Nishimoto · Hiroyuki Okuda · Tatsuya Suzuki (Nagoya University)
Chieko Nishizawa · Takuma Yamaguchi · Kazunori Ban (Toyota Technical Development)
- 032 Impact of Communication Delay on Passing Walk Behavior in a Pedestrian Simulator
Takuma Yamaguchi (Toyota Technical Development)
Hiroyuki Okuda · Tatsuya Suzuki (Nagoya University)
Eisuke Kobayashi · Kazunori Ban (Toyota Technical Development)
- 033 Trust Estimation of Pedestrians in Vehicles Approaching a Pedestrian Crossing in a Real Environment
Chisato Moriyama · Takuya Hamamoto · Da Li (Fukuoka University)
Toshihiro Hiraoka (JARI)
Shintaro Ono (Fukuoka University)

Tachibana Conference Hall

【9:30~12:10】

93 Vibration, Noise, Ride Quality I
Koiji Sugiyama (Suzuki Motor)

- 034 Proposal of a Simulation Model Considering Engine Block Mating Surfaces
Natsuki Takahashi · Masato Mikami (Yamaguchi University)
- 035 Enhancement of Two-motor Hybrid Engine Start-up Vibration Performance by Motor Starting Torque Control Considering Power Plant Resonance
Satoshi Watanabe (Honda Motor)
Koichi Tahara · Tomohiro Kitayama (Auto Technic Japan)
- 036 Improvement of NVH Performance and AWD Performance by Applying a Torsional Damper to 4-wheel Drive Vehicles with CVT
Hiroyuki Fukudome · Satoshi Yamashita · Jun Fujita · Tomohiko Tezuka (Honda Motor)
- 037 Establishment of Factors Analysis for Equipment Differences in Sound and Vibration Measurement in the Transmission Unit and Determination Method of Appropriate Jig Specifications
Toshiki Nagamine · Takuya Kusakabe · Hiroshi Sho · Toshio Fuwa · Kazuki Takase (Toyota Motor)

- 038 A Planetary Gear Noise Analysis based on the R-S Coupling Principle

Masatoshi Kanno · Hiroyuki Shintani · Masanori Ogawa (Estech)

- 039 Gear Structure Optimization of Diesel Engines using Generative Design
Seiya Yamagishi · Kazuya Okazaki · Yasuhiro Ishikawa · Kennichi Yamashita (Isuzu Advanced Engineering Center)

【13:10~15:50】

94 Vibration, Noise, Ride Quality II
Kei Ichikawa (Honda Motor)

- 040 Tire Pass by Noise Prediction Model with Tire Structure Data and Pattern Image
Yonghun Kim · Jonghun Seo · Kibum Kim (Hankook Tire and Technology)
- 041 Prediction of Tire Pattern Noise Considering Road Surface Roughness
Takahito Sakuma · Ryota Tamada · Masaki Shiraishi (Sumitomo Rubber Industries)
- 042 Simple Method for Estimating Tire/Road Noise under Acceleration Torque based on Tread Block Rigidity
Satoshi Ato (Nihon Michelin Tire)
Takashi Kondo (Toyota Motor)
Yoshinori Saito (Nihon Michelin Tire)
Masashi Komada (Toyota Motor)
- 043 Development of Suspension for Reducing Road Noise using Multi-objective Optimization Method with FRF Based Substructuring
Masaki Kobori · Hirotaka Shiozaki · Hiroki Aoyama · Yuki Sugiura (Mitsubishi Motors)
- 044 Experimental Identification of Tire Modes Contributing to Dynamic Axle Load
Hironori Yamada · Keisuke Abe · Naoto Sato · Jun Tanaka (SUBARU)
- 045 Tire/Road Noise Modeling with Considering Acceleration for Exterior Noise Prediction
Ayumu Yanagibayashi · Yoshihiro Shirahashi · Kai Kurihara (Kanagawa University)
Masayuki Wada (Nissan Motor)
Toru Yamazaki (Kanagawa University)

【16:30~18:10】

95 Sound Quality
Hiroko Tada (Honda Motor)

- 046 Sound Quality Evaluation Difference to Vehicle Interior Noise between Automatic and Manual Driving Condition
Yudai Irie · Nawoki Okabayashi · Junji Yoshida (Osaka Institute of Technology)
- 047 Feature Extraction of Car Driving Sound using Neural Network with Acoustic Multi-parameters
Yota Oshima · Kai Aso · Soichiro Tanabe · Takeshi Toi (Chuo University)

048 Study of Engine Operating Point Optimization Incorporating Human Cognitive Processing (2nd Report)
-Comparison of Cognitive Processing Characteristics for Engine Noise during Driving between Japan and U.S.-
Shimpei Nagae · Takaaki Yamanaka · Toshio Enomoto (Nissan Motor)

049 Development of Automatic Evaluation System for BSR
Kazutaka Yonemori · Shoki Tsuchibuchi · Takaaki Yamanaka · Yoshinari Tokunaga · Yohei Kurami · Takayuki Kume (Nissan Motor)

Hagi Conference Hall

[9:30~11:35]

96 Vehicle Dynamics and Control I
Etsuo Katsuyama (Toyota Motor)

050 Rear Wheel Steering System with Target Characteristic of Vehicle Slip Angle
Shogi Fukukawa · Yoshiaki Tsuchiya (AISIN)
Yoshitaka Fujita (Toyota Motor)
Takuya Yamamoto (AISIN)

051 The Influence of Vertical Suspension Friction on Planar Vehicle Dynamics
Ayumu Tanaka · Yasuji Shibahata · Makoto Yamakado · Masaki Yamamoto · Masato Abe · Yoshio Kano (Kanagawa Institute of Technology)

052 Analysis of Coupled Roll and Plane Motion
Eiji Matsuura · Hideki Sakai (Kindai University)

053 Quantitative Evaluation of Roll Feeling
Yuji Yoshioka · Kei Sakamoto · Jun Nakahara (Honda Motor)

054 Enhancement of Feeling in Turn by Control of Pitching Behavior
Naoto Ohkubo · Takashi Yanagi (Honda Motor)

[12:35~15:15]

97 Vehicle Dynamics and Control II
Yoshikazu Hattori (Toyota Central R&D Labs.)

055 Consideration on Modeling of Chassis Torsional Stiffness around Roll Axis and Analytical Parameter based on Vehicle Dynamics
Ikei Kobayashi · Fumiya Yoshida · Liting Fu · Yusuke Ebashi · Hayato Yamada · Jumpei Kuroda (Tokai University)
Taro Kato (Tokyo University of Technology)
Ayato Endo (Fukuoka Institute of Technology)
Hideaki Kato · Takayoshi Narita (Tokai University)

056 Effect of Tire Tread Profile on Cornering Characteristics
Takayuki Toyoshima (Honda Racing)
Eisei Higuchi (Honda R&D)
Toshiaki Matsuzawa · Takeshi Hotaka · Tomonori Sakai (Honda Motor)

057 Slip Control of Two-Input Two-Output Torque Vectoring System for Electric Vehicle Considering Turning Trajectory
Ryota Takahashi · Kaoru Sawase · Naoki Takahashi (Mitsubishi Motors)
Hiroyuki Fuse · Hiroshi Fujimoto (The University of Tokyo)

058 Improving Roll Dynamics by Focusing on the Response Difference between Electric Drive Units and Friction Braking Units
Hiromitsu Toyota
(The University of Tokyo/Mitsubishi Motors)
Binh-Minh Nguyen · Sakahisa Nagai · Hiroshi Fujimoto (The University of Tokyo)
Kaoru Sawase (Mitsubishi Motors)

059 Internal Torque of AWD with Propeller Shaft and its Effect on Vehicle Dynamics
Shinya Konishi (Toyota Motor)

060 Dynamic Performance Evaluation of a Personal Mobility Vehicle (PMV) with an Inward Tilt Mechanism on Uneven Roads
Tetsuya Kaneko · Junlang Zhou · Shohei Kitazawa (Osaka Sangyo University)
Tetsunori Haraguchi · Ichiro Kageyama (Nihon University)

Sakura Hall 1

[9:30~12:10]

98 Elderly Driver
Toshihisa Sato (AIST)

061 Analysis of Statistical Data on Single-vehicle Accidents Caused by Pedal Misapplications
Yoko Kato · Yasuhiro Matsui · Akihiro Abe · Michiaki Sekine (NALTEC)

062 The Effects of Visual Field Training on Driving Performance of Elderly Drivers
-Study on Driver Characteristics for Delaying Driving Cessation (43)-
Akio Hirano · Kunitomo Aoki (Nagoya University)
Kazuhiko Yamashita · Hidenori Horita · Kazumasa Onda (Suzuki Motor)
Sueharu Nagiri (Nagoya University)
Makoto Inagami (Gunma University)
Hiroshi Kishi · Takashi Yonekawa · Hirofumi Aoki (Nagoya University)

063 Evaluation of Driving Ability in Elderly Drivers through Dynamic Grip Strength Analysis
Ryuma Majikina · Yasumi Ito · Ryuichi Yamada · Ryosei Naito · Qin Xu · Takashi Nonaka · Ayumu Honda · Yoshiyuki Kagiya (University of Yamanashi)
Yuki Tanaka (Gunma University)
Tetsuya Nemoto (University of Yamanashi)

064 Driver Evaluation System based on Head Movement Data: Feedback Effect for Changing Driving Behavior of the Elderly Driver
Yuki Yoshihara (Nagoya University)
Hiroko Tanabe (Hokkaido University)
Nihan Karatas · Hitoshi Kanamori · Asuka Harada (Nagoya University)
Motoshi Kojima · Shuhei Manabe (Toyota Motor)
Takahiro Tanaka (Nagoya University)

- 065 Examination of the Effect of Age-related Changes in Body Schema on Pedal Operation
Takashi Hosokawa · Takashi Tagawa (JARI)
 Machiko Hiramatsu · Hiroyuki Mae (JAMA)
- 066 Age-related Changes in Pedal Operation and Their Effects on Driving (3rd Report)
 -How to Make Pedals Easier to Operate for Elderly Drivers-
Machiko Hiramatsu · Tsutomu Kawano · Yui Kato ·
 Akihiko Ebina · Tsuyoshi Sakuma (Nissan Motor)

【13:10~15:15】

99 Driver Sensibility
 Yukiyo Kuriyagawa (Nihon University)

- 067 Examining the Effectiveness of Cross-Modal for Guidance in Automobile Driving
Miyu Kamota (Sophia University)
 Takashi Otomo · Hideki Sakamoto (Alps Alpine)
 Shoichiro Takehara (Sophia University)
- 068 Structure of Model to Quantify Psychological Aspects of Tactile Feedback of Switches (First Report)
Takashi Otomo (Alps Alpine)
 Miyu Kamota (Sophia University)
 Hideki Sakamoto (Alps Alpine)
 Shoichiro Takehara (Sophia University)
- 069 Development of Sensory Evaluation Methods and Verification using the Large Driving Simulator for Driving Pleasure
Takumi Aoki · Shoichiro Takehara (Sophia University)
 Katsunori Tanaka · Hiromi Fujita · Koichi Onishi (Nissan Motor)
- 070 KANSEI-indexing for Creating Experiential Value in Moving Spaces
Ava Sakuma · Hirotohi Nozaki · Yu Yamamoto ·
 Yoshiko Ohzu (Sumika Chemical Analysis Service)
- 071 Estimation of Passenger Anxiety State using Physiological Indexes under Real Vehicle Conditions
Yuta Aoki (Honda Motor)
 Tomohiro Imai · Masamitsu Shiono (Honda R&D)

【15:55~18:00】

100 Driver Comfort
 Akinari Hirao (Shibaura Institute of Technology)

- 072 Relationship between Sensory Evaluation and Body Behavior in Braking During Autonomous Driving
Shoichiro Takehara (Sophia University)
 Masanori Matsuoka (Advics)
- 073 A Study on the Impact of Visual Information on the Comfort Evaluation of Driver's Seat
Ryo Kamae · Manato Furuta (Kyoto Institute of Technology)
 Tetsuya Kitagawa · Ryuji Furumai (Fuji Seat)
 Yukiko Nishizaki (Kyoto Institute of Technology)

- 074 Optimization and Validation of Seat Factors for Fatigue Reduction using a Musculoskeletal Simulator
Ryotaro Yoshida · Shinya Okamoto · Hisato Fukuda (Gunma University)
 Tsutomu Iwase · Toshihiko Kozai (Gunma University / SUBARU)
 Nobuaki Nakazawa (Gunma University)
 Masaaki Sakamoto (Takasaki University of Health and Welfare)
 Kyohei Uchikata · Hikaru Fushimi · Masami Handa (SUBARU)
- 075 Study and Establishment of Method for Evaluating Cabin Air Quality in Large Vehicles
 -Measurement of VOCs Emitted from Large Bus Air Conditioning Equipment by Instrumental Analysis-
Kazuhisa Uchiyama (Tokai Technology Center)
 Kengo Kii (J-BUS)
 Katsuhiro Kan · Takuma Kizu (Isuzu Motors)
 Nanae Iwabuchi (ESPEC)
 Hidechika Matsui · Hiroshi Niwa (Tokai Technology Center)
 Kouichi Tatsu (Isuzu Motors)
- 076 Basic Study of Visual Communication Technology for Indoor Environments on Public Transportation
Jun Sakaguchi (University of Niigata Prefecture)
 Naohide Shinohara (Isuzu Motors)
 Kouichi Tatsu (AIST)

Sakura Hall 2

【9:30~11:10】

101 Automated Driving and Advanced Driver Assistance I
 Toshiyuki Sugimachi (Tokyo City University)

- 077 Evaluation of Effectiveness of Next-generation Lane Change Assist System for Reducing Driver Burden
Shohei Tomikawa · Saki Shindo (Honda Motor)
- 078 Prediction of Merging Vehicle Position using a Rule-based Model based on Machine Learning Insights and Actual Vehicle Validation
Yuta Takashima · Taku Umeda · Tomoki Uno ·
 Yuko Omagari · Kazuo Hitosugi (Mitsubishi Electric)
- 079 Collision Avoidance Assist for Distracted Drivers using Gentle Deceleration
Takuya Niioka · Yugo Yamaguchi · Yoshihiro Oniwa (Honda Motor)
- 080 LKA, a Lane Departure Prevention and a Haptic Information on Risk
Shoma Edamoto · Shuji Kimura · Tsutomu Tamura ·
 Robert Fuchs (JTEKT)

【12:10~13:50】

102 Automated Driving and Advanced Driver Assistance II
Hiroyuki Okuda (Nagoya University)

- 081 Study on Evaluation of Driving Characteristics of a Remote Pilot of a Vehicle for High Speed Range
Asahi Hiratsuka · Naoki Furugoori · Toshiyuki Sugimachi · Toshiaki Sakurai (Tokyo City University) · Jongseong Gwak (Takushoku University) · Yoshihiro Suda (The University of Tokyo)
- 082 Stability Improvement of Remote Driving System with Model Predictive Control
Emi Sakaoka · Go Inoue · Rio Suda (Toyota Motor)
- 083 Research on Tele-operation Support System that Indicates the Moving Position and Estimates the Amount of Movement by In-vehicle Camera Images
Yuu Miyajima (AIST / Tokyo University of Science) · Shin Kato (AIST) · Makoto Itami (Tokyo University of Science)
- 084 Approach Detection of Emergency Vehicles using Siren Sound Processing Considering Ambient Noise in Driving Environments
Ryo Yagyu (AIST / Tokyo University of Science) · Shin Kato (AIST) · Makoto Itami (Tokyo University of Science)

【14:30~16:10】

103 Automated Driving and Advanced Driver Assistance III
Shin Kato (AIST)

- 085 Development of a Map-based Detection Method of Road Markings Degradation by LiDAR-camera Fusion
Akisue Kuramoto (Institute of Science Tokyo) · Ryo Yanase · Keisuke Yoneda · Naoki Suganuma (Kanazawa University)
- 086 Collision Risk-map Robust to Errors in Obstacle's Predicted Trajectory for Trajectory Planning of Autonomous Vehicle
Yuki Kasai · Kazuhiro Sorimachi · Nobuhiro Watanabe · Wataru Yoshiuchi · Nobuhiro Hayashida (Isuzu Advanced Engineering Center)
- 087 Alignment of Map Coordinate Systems Toward Fusion of Multiple Localization Technologies
Ryoma Kakimi · Taishi Shiotsuki (Toyota Motor)
- 088 Data-driven Planner for Autonomous Driving Systems Considering Application to Vehicles with Various Specifications
Akira Ito (Aichi Institute of Technology) · Ken Kinjo · Kenta Mukoya · Yuki Asada (DENSO)

Main Hall

【9:30~11:10】

104 Gasoline Engine I
Kaoru Maruta (Tohoku University)

- 089 Relationship between Mass Burnt Fraction 50% Crank Angle and Low-Frequency Components in Cylinder Pressure
Keiichi Nagashima (Honda R&D) · Kazuo Tsuchiya (Meiji University)
- 090 Wall Impinging Spray Feature in a DISI Engine under Steady State Cross Flow Fields
-Effects of Cross Flow Velocity and Injection Pressure on Liquid Film Formation-
Tomohiro Ishiguro · Dai Matsuda · Eriko Matsumura · Jiro Senda (Doshisha University) · Shigenori Haraguchi · Yoshihisa Sato (Honda Motor)
- 091 Analysis of Knocking Occurs Under High Speed and High Load Conditions in a Turbocharged Gasoline Engine
Changzhi Zeng · Tatsuya Kuboyama · Yasuo Moriyoshi (Chiba University)
- 092 Effect of Combustion Characteristics on In-cylinder Pressure Oscillation
Tatsuya Kuboyama · Naruki Ezawa · Itsuki Hongo · Yasuo Moriyoshi (Chiba University)

【12:10~14:15】

105 Gasoline Engine II
Kaname Naganuma (Kanazawa Institute of Technology)

- 093 Effect of Mixture Distribution on HC Species Formation in SI Engines
Junki Hori · Naoki Yoshioka (Mazda) · Keisuke Yamamoto (Hiroshima University) · Yuya Honda · Michiharu Kawano · Tatsuya Fujikawa (Mazda) · Masahisa Yamakawa · Akira Miyoshi (Hiroshima University)
- 094 Study on Clarification of Formation Factors of Deposits on Air-fuel Ratio Sensors
Kento Okusa · Kenta Furutani · Kazuho Yoshida · Kotaro Tanaka (Ibaraki University) · Shouta Tobe · Kouta Ishizaka · Tasuku Hasejima · Tetsuo Kitagawa · Masahiro Ono (SUBARU)
- 095 Material-less calibration using a One-dimensional Engine Model
Isshu Yoshiki · Hiroaki Tone · Akihiro Katsuura · Suguru Fukuda (Honda Motor)
- 096 Research of Micro Flow Rate Cooling Control System with Electric Water Pump for Gasoline Engine
Keihiro Koide · Takafumi Murakami · Yutaka Yoshida · Masahiro Suganuma · Naoto Sasaki (Honda Motor)
- 097 Analysis and Model Evaluation of Post-Oxidation Phenomena in Exhaust Manifold of Gasoline Engine
Teruaki Ishikawa · Tatsuya Kuboyama · Yasuo Moriyoshi (Chiba University)

【14:55~16:10】

106 Gas Engine
Yasuo Moriyoshi (Chiba University)

- 098 A Study on Water Content in Lubricating Oil of Hydrogen-fueled Medium Duty Vehicle on Demonstration
Daisuke Hivama · Itsuki Motomiya (Tokyo City University)
Ko Onodera (ENEOS)
Takuya Yamaura (Flatfield)
Koji Kikuhara (Waseda University)
Kaname Naganuma (Kanazawa Institute of Technology)
Akemi Ito (Tokyo City University)

- 099 A Study on Specifications of Piston Ring for Hydrogen Internal Combustion Engines based on Experimental Investigation and Numerical Calculation
Ryuichi Sasaki · Shinya Koike · Yuusuke Kuga · Keiichi Oshimi · Kazuya Mochizuki · Miyuki Usui (Riken / Riken NPR)
Akemi Ito (Tokyo City University)

- 100 Combustion Characteristics of Blended CH₄-H₂ in Pre-Chamber Engines using Rapid-Compression Expansion Machine Experiments and 3D-CFD Kinetics Simulations
Yixin Feng · Kei Morita · Ryuta Nakao · Ratnak Sok · Jin Kusaka (Waseda University)

Shirakashi Conference Room 1

【9:30~11:35】

107 Design Optimization
Toshiaki Sakurai (Tokyo City University)

- 101 Simultaneous Structure Design Optimization of Multiple Car Models using FMQA
Toshiki Kondo · Takehisa Kohira (Mazda)
Yuki Minamoto (Fixstars Amplify)
- 102 Development of Dynamic Visualization Method of the Load Transfer Analysis Ustar (U*)
Takehisa Kohira · Sadayoshi Okamoto · Hiromasa Kemmotsu · Masanori Honda (Mazda)

- 103 Optimizing Driver Seat Comfort using Vehicle Package Factors
Sun Woo Choi (Hyundai Motor)

- 104 Optimal Function Allocation Method for ECU to Construct Architecture that Balances Aggregation of Functions and Test Reusability
Takaaki Hayashi · Yuto Imanishi (Hitachi)
Hiroki Maehama · Yoshiyuki Yoshida · Ryosuke Ishida (Hitachi Astemo)

- 105 A Study on the Development of Optimum Body Structure for Low Entry BEV using 1D Beam Model
Gyuhee Kim · Jung Hun Choi · Ji Hoon Moon · Hong Suk Chang (Hyundai Motor)

【12:35~14:15】

108 Charging/Power Supply
Takashi Majima (IHI Inspection & Instrumentation)

- 106 D-WPT Installation and Characteristic Changes Due to Surrounding Environmental Factors
Jin Katsuya · Takeshi Hoshinoya · Kenichiro Takahashi (Honda R&D)
- 107 Feasibility Study of Onboard PV for Commercial Vehicle Application (2nd Report)
-Estimation of the On-board Effect of PV Systems by Simulation-
Shuai Pei · Jingxuan Peng · Kimiyoshi Kobayashi · Toshio Hirota · Yushi Kamiya (Waseda University)
Hidenori Mizuno · Takashi Ohzeki (AIST)
- 108 Benefit and Challenge Analysis of EVs Integrated with Photovoltaic Systems
Hidenori Mizuno · Katsuto Tanahashi · Takashi Oozeki (AIST)
- 109 A study of EMC Tests during 150kW Class BEV Charging
Akira Mori (Toyota Motor)

【14:55~16:35】

109 System Design
Satoru Hirano (Hino Motors)

- 110 Proposal on Method of EV Integrated Thermal Management System Comparison and Development Trend
Hosik Lee · Sukjoo Kim · Chiheon Song · Byungsoon Min (TENERGY)
- 111 Reducing Energy Losses in xEV Motors and Batteries through CO₂ Refrigerant Utilization for Lubrication and Thermal Management
Shoko Horibata · Yuma Miyauchi (Mazda)
- 112 Novel eAxle with Integrated Charging System for Electric Vehicle
Yoshihisa Kubota · Soumei Nakatomi · Takumi Todoroki · Naoya Naito · Keisuke Azusawa · Satoyoshi Oya (Honda R&D)
- 113 Pareto Solution Search of Unsprung Mechanical Transfer Characteristics and Control System for In-Wheel Motor Vehicle
Norihiro Sugimoto (The University of Tokyo / DENSO)
Sakahisa Nagai · Osamu Shimizu · Hiroshi Fujimoto (The University of Tokyo)
Yusaku Ishiguro · Isao Kuwayama (Bridgestone)

Shirakashi Conference Room 2

【9:30~11:35】

110 Metal Materials I

Yuji Ichikawa (Tohoku University)

- 114 Method for Evaluating the Ductile Crack Propagation Properties of Steel Sheet under Tensile Stress Conditions
Asato Hatamoto · Hiroshi Shimanuki (NIPPON STEEL)
- 115 Fatigue Strength Evaluation of Lap Fillet Welded Joints using Infrared Thermoelastic Method
Hideki Ueda · Taizo Makino · Hiroshi Shiromizu (Nippon Steel)
Reiji Tanaka (Nippon Steel Technology)
- 116 Effects of Tension and Bending Loads on the Fatigue Threshold in a Stainless Steel Sheet
Gyoko Oh (Tokyo Roki)
- 117 Improving the Fatigue Limit of Spot-Welded Tensile Shear Joints Made of High-Tensile Steel Sheet (First Report)
-Improvement of Fatigue Limit due to Single Overload-
Akifumi Okabe · Tatsuya Ito · Noboru Tomioka (Nihon University)
- 118 Improving the Fatigue Limit of Spot-Welded Tensile Shear Joints Made of High-Tensile Steel Sheet (Second Report)
-Fatigue Life Assessment based on Effective Strain Range-
Tatsuya Ito · Noboru Tomioka · Akifumi Okabe (Nihon University)

【12:35~15:15】

111 Metal Materials II

Koshiro Aoki (Shibaura Institute of Technology)

- 119 Development of the Steel Sheet Battery Housing Concept (1st Report)
-Study of the Load Transfer Structure using Undercover-
Sadao Miyazawa · Shuki Nakamura · Artur Rekets · Kenichi Watanabe (Kobe Steel)
- 120 Development of the Steel Sheet Battery Housing Concept (2nd Report)
-Forming of the Cross Member with Complex Shapes using Hydraulic Presses-
Shuki Nakamura · Sadao Miyazawa · Rekets Artur · Kenichi Watanabe (Kobe Steel)
- 121 Development of Delayed Fracture Prevention Technology for 1470 MPa Class High-Strength Steel Sheet Parts
Kentaro Kobari · Kazuki Ishiguro (Suzuki Motor)
Yosuke Honda · Ryuji Shibue (BELLSONICA)
Shinnosuke Nishijima · Takayuki Nozaki (NIPPON STEEL)
- 122 Evaluation Method for Delayed Fracture of Steel Sheet by Four-point Bending Specimen
-Influence of Baking Treatment on Delayed Fracture Resistance in Ultra-high Strength Steel Sheets-
Junya Tobata · Hideyuki Kimura · Yuichi Matsuki · Toyohisa Shinmiya · Kouhei Ikeda · Kazuki Matsubara · Masanari Tomozawa (JFE Steel)

- 123 Prediction Method for the Edge Fracture of Steel Sheet Parts in the Automotive Crash
Yuki Taguchi · Kazuyuki Hamada · Mie Tachibana · Shota Chinzei (Kobe Steel)

- 124 Evaluation of Heat Exchanging Performances through Aluminum or Stainless Steel Plates for Thermal Management Parts
Atsutaka Hayashi · Jun-ichi Hamada (Nippon Steel Stainless Steel)
Tsuyoshi Tamogami · Akira Onishi (Nippon Steel Technology)

【15:55~17:35】

112 Metal Materials III

Taishi Tarui (Nissan Motor)

- 125 Research on Complete Recycling Technology for Aluminum Recycled Alloys
Ryo Wakabayashi · Yasushi Mashiyama (Honda R&D)
Hiroaki Funada (Honda Trading)
Shinichi Satonaka · Satoshi Kato · Takamitsu Satake (Honda Trading Aluminum)
- 126 The Influence of the Forming Strain in Crash-bead Forming on the Axial Crash Behavior of Aluminum Alloy Extrusion
Shun Takenaka · Taiki Yamakawa · Narikazu Hashimoto (Kobe Steel)
- 127 Elucidation of Wear Mechanisms of Al-Sn-Si Alloys for Sliding Bearings under Lubricating Conditions
Jun Sahashi · Tomomi Honda · Tomohiko Kon (University of Fukui)
- 128 Development of Life Prediction Technology for Lead Wire Solder Joints using an S-N Curve
Shunsuke Sakai · Takashi Furukawa · Rie Aoyagi · Daisuke Kiryu (Yamada Manufacturing)
Takashi Yamazaki (Yamada Auto Parts Research & Development)

Meeting Room 1+2

[9:30~12:10]

113 Safety and Future Engineering
Yasufumi Sekine (Fukuyama University)

129 Development of a Functional Safety Test Environment for Steer-by-Wire Systems Using Vehicle-in-the-Loop Simulation
Seonghun Kim · Seungmin Kwon · Yong-Sub Yi · Hyoungjun Ahn · Giin Jang · Hanjun Cho · Minwoo Han (Hyundai Motor)

130 Active Safety for Farm Tractor based on Nonlinear Dynamics
-Visualization of Tractor Rollover Accident Mechanism using a Tractor Simulator-
Kenshi Sakai
(Tokyo University of Agriculture and Technology)

131 A Study on the Interior Conditions of a Route Bus that Lead to Passenger Injury Accidents Inside the Vehicle
Chiharu Kato · Tetsuya Hirota · Takeshi Sawada · Toshinari Nakai (Tokai Rika)
Yuta Uchimura · Tadashi Kosugi · Takashi Iwata (Kawasaki Tsurumi Rinko Bus)

132 Study on Strength Estimation of Spot Weld and Efficient Data Expansion Method using Gaussian Process
Taisei Akagi (Hiroshima University)
Yuki Okumoto · Akira Naito · Kosuke Kojima (Mazda)
Yoshikazu Tanaka (Hiroshima University)

133 Multi-Step Shape Optimization Method using Isogeometric Analysis
Mizuki Hoshino (University of Yamanashi)
Shin-ichi Arimoto · Kosho Kawahara (Toyota Motor)
Ki-ichi Furuhashi · Kyohei Noguchi · Yuta Yokoyama · Hirofumi Sugiyama · Shigenobu Okazawa (University of Yamanashi)

134 Development of Triboelectric Power Generator Mounted in Tire for Tire Pressure Monitoring System
Hiroshi Tani · Shinji Koganezawa · Shohei Kawada · Renguo Lu (Kansai University)

Meeting Room 3

[9:30~11:10]

114 VOC I
Yoshiichi Ozeki (Asahi Glass)

135 Ventilation Performance of BEV Route Bus
Koichi Tatsu (Isuzu Motors / AIST)
Naohide Shinohara (AIST)
Jyun Sakaguchi (University of Niigata Prefecture)
Hoon Kim (National Institute of Public Health)
Naoki Kagi (Tokyo Institute of Technology)

136 Particle Reduction by using Medium Performance Filters in Public Transportation Vehicles and Identification of Collected Particles
Naohide Shinohara (AIST)
Kazuhiro Hashimoto (FCG Research Institute)
Jun Sakaguchi (University of Niigata Prefecture)
Koichi Tatsu (Isuzu Motors)
Hoon Kim (National Institute of Public Health)
Takashi Nishitani (Japan Vilene)
Kento Takami (TOYOBO MC)

137 Comprehensive Risk Screening for Chemicals in Car Indoor Environment based on qNTA
Masahiro Tokumura · Sota Sakai · Takeshi Enomoto (University of Shizuoka)
Kouichi Tatsu (University of Shizuoka / Isuzu Motors)
Naohide Shinohara (AIST)
Masakazu Makino (University of Shizuoka)

138 Study on Quantitative Analysis of VOCs in the Air of Vehicle Cabin using Passive Sampling (Part2)
-Study on Quantitative Evaluation of 2-Ethyl-1-hexanol-
Kunihiro Hoshino (ENV Sciences Trading)
Koichi Tatsu (Isuzu Motors)
Masahiro Tokumura (University of Shizuoka)

[12:10~13:50]

115 VOC II
Hisashi Aoki (SUBARU)

139 VOC Reduction and Management Activities in the Cabin
Keigo Kii · Masanao Kanaga · Tsukasa Shinohara (J-BUS)
Kouichi Tatsu (Isuzu Motors)
Naohide Shinohara · Aya Iwai (AIST)
Masahiro Tokumura (University of Shizuoka)
Kunihiro Hoshino (ENV Science Trading)
Shinsuke Usui (Kaneka Techno Research)

140 Study of Alternative Carrier Gas for Gas Chromatography Mass Spectrometry
-Method for Analyzing the Cabin Air Chamber Quality by TD-GC/MS with Alternative Carrier Gas (2)-
Koichi Tatsu (Isuzu Motors)
Sadao Nakamura · Takeshi Serino (Agilent Technologies Japan)
Kunihiro Hoshino (ENV Science Trading)

141 Prediction of the Quantity of Vapor Displaced into the Canister during Automobile Refueling
-Prediction Formula for Vapor Displacement during Refueling-
Masanori Sakurai (Nissan Motor / Kanagawa University)
Yuji Yamada (Nissan Motor)
Hiroyuki Ito · Yuji Nakanishi · Toru Yamazaki (Kanagawa University)

142 Fundamental Study of Gas Sensor Evaluation Method for Visualization of Vehicle Cabin Air Quality
Satoru Dohshi · Reiko Yamashita · Hinako Sakai · Yui Horiguchi (Osaka Research Institute of Industrial Science and Technology)
Naohide Shinohara (AIST)
Koichi Tatsu (Isuzu Motors / AIST)

Meeting Room 4

[9:30~11:35]

116 Thermal and Fluid Engineering I
Tomohiko Furuhashi (Gunma University)

- 143 Development of an Efficient Improvement Method for Thermal Boundary Surrogate Models using Fine-Tuning
Tomofumi Shimokawa · Mitsunori Kamimura · Norio Kawaguchi · Masakatsu Takahashi · Takahiro Mochihara (Toyota Motor)
- 144 "Absorption" and "Bouncing" of Oil Mist Droplets Impacting on Oil Film
Hayato Ito · Koichi Nishino · Misa Ishimura (Yokohama National University)
Akira Nakashima · Masato Nishimura · Yusuke Kimura · Kazuhiro Nakamura (Mazda)
- 145 Analysis of the Volumetric Efficiency Improvement Mechanism in the Gear Pump
Takashi Hashiba (SOKEN)
Masaaki Omi · Akira Kamada (Advics)
- 146 Stability Evaluation of R-1132(E) Mixed Refrigerants
Takashi Usui · Tomoyuki Goto · Yasufu Yamada · Takashi Yoshimura · Taichi Ozaki · Tomohito Inoue · Yasutaka Negishi (Daikin Industries)
- 147 Modeling of Arc-Discharge Phenomenon for Refrigerants in Motor-Driven Systems
Kengo Nagai · Yota Omizu · Kensuke Shibuya (Nagoya University)
Takashi Usui · Yasutaka Negishi · Tomoyuki Goto (Daikin Industries)
Koichi Shigematsu · Jun Imaoka · Masayoshi Yamamoto (Nagoya University)

[12:35~14:15]

117 Thermal and Fluid Engineering II
Yoshio Zama (Gunma University)

- 148 Development of Air Curtain System to Improve HVAC Performance and EV Range for Next Generation Mobility
Shunsuke Shigetani · Yoshihisa Shimada · Takayuki Shimauchi (Toyota Motor)
- 149 Development of Thin Air Conditioning Register by Airflow Diffusion Suppression Technology
Jun Yamaoka · Masaharu Sakai · Kaori Seki · Takahisa Fujii (DENSO)
- 150 Development of a Tool to Calculate Ventilation Volume for Minimizing Heating Power Consumption in XEVs and its Quantification
-Considerations for Ventilation Volume Adjustment Methods-
Masato Kurihara · Yuzuru Yoshinami · Koichi Yamagata · Munehiko Oshima · Masayoshi Tajiri · Shunichi Ishikawa (Nissan Motor)
- 151 Development of Seat Heater Performance Prediction using Heat Transfer Model
Yasuhiro Ono · Ibuki Adachi (Toyota Boshoku)

Tachibana Conference Hall

[9:30~11:35]

118 Vibration, Noise, Ride Quality III
Kazuhiro Misaji (Nihon University)

- 152 Component-TPA on the Finished Off-road Vehicle for Modular Design
Norio Nakagawa · Ryota Horie · Soichiro Ikegami · Takuro Okazaki · Tomohiro Abe · Shuichi Nakagawa (Yanmar Holdings)
- 153 Response Improvement of a Structural-Acoustic Coupled System using Operational Sensitivity Analysis
Mineto Hashiba (Nissan Motor)
Takuya Yoshimura (Tokyo Metropolitan University)
- 154 Mass Placement Optimization for Improving Vibration Damping of Automobile Body
Ryo Ageba · Kazuhiko Higai · Tsuyoshi Shiozaki (JFE Steel)
- 155 A Study on Structural Optimization by Varying Plate Thickness to Minimize Vibration Response Energy due to Displacement Excitation using FEM
Katsuhiko Kuroda (Nagasaki Institute of Applied Science)
- 156 Vibration Damping and Weight Reduction Technology for Automotive Doors using Thermoplastic Glass Fiber Composite Materials
Yue Hu (Foster Electric)
Yigen Zuo (TEIJIN)
Manabu Sasajima · Yoshiteru Uchida (Foster Electric)

[12:35~15:15]

119 Vibration, Noise, Ride Quality IV
Hidenori Morita (Toyota Motor)

- 157 Construction of PBN (Pass-By Noise) Model using MBD (1) -Construction of HEV 1D System Model for UN R51-03 PBN Driving Mode-
Hiromu Iwase · Go Endo · Shinta Nakazawa · Go Toshizane · Kenichiro Ogata (Honda Motor)
Junya Matsumoto (RYOMO SYSTEMS)
- 158 Electric Powertrain Noise Simulation Method Considering Contact between Parts
Ryosuke Yamauchi · Yasuyuki Asahara (Nissan Motor)
Takashi Maeda · Shota Fubasami · Kencho Sakamoto (Estech)
- 159 Vibration Isolating Support System with Leaf Springs for Electric Compressor
Kazuhiro Hayashi · Takanori Suzuki · Kazuhide Uchida · Yasumasa Yamazaki (SOKEN)
Motohiko Ueda (DENSO)
- 160 Verification of Cabin Noise Reduction Effect of Acoustic Vehicle Alerting System using Downward-facing Speaker with Duct
Yuji Mivata · Hideki Matsuoka · Hiroki Tagawa (Honda Motor)

161 Study on Optimization of Acoustic Properties of Laminated Soundproofing Material Design Considering Temperature Dependence

Tatsuro Miki (Nichias)
Kazuhito Misaji · Suzaku Kawano · Ayumi Takahashi (Nihon University)
Masatake Onodera (Nichias)

162 Examination of Predictive Control for Ride Comfort using Foundation Models

Ichiji Yamada · Akira Kato · Yohei Nagai · Kenta Miyoshi (AISIN)

Hagi Conference Hall

[9:30~11:10]

120 Dynamics and Control of Tires and Motorcycles
Jun Nakahara (Honda Motor)

163 Study on Continuous Friction Characteristic between Tire and Road

-Measurement and Evaluation of μ -s Characteristics of Ordinary Roads in Snowy Conditions-

Ichiro Kageyama (Consortium on Advanced Road Friction Database / Nihon University)
Atsushi Watanabe · Yukiyo Kuriyagawa (Nihon University)
Tetsunori Haraguchi (Consortium on Advanced Road Friction Database / Nihon University)
Tetsuya Kaneko (Osaka Sangyo University)
Minoru Nishio (Absolute)

164 Study on Continuous Friction Characteristic between Tire and Road

-Relationship between Environmental Data and Road Friction Characteristics-

Atsushi Watanabe · Yukiyo Kuriyagawa (Nihon University)
Ichiro Kageyama · Tetsunori Haraguchi (Nihon University / Consortium on Advanced Road-Friction Database)
Tetsuya Kaneko (Osaka Sangyo University)
Minoru Nishio (Absolute)

165 Analysis of the Influence of Aerodynamic Forces on the Stability of Weave Mode of Motorcycles

-Calculations using Recent Vehicle Specifications-

Takahiko Yoshino · Reiya Haraoka (Kurume Institute of Technology)
Motohito Ueki · Noboru Yabe (Yamaha Motor)
Tsuyoshi Katayama (Kurume Institute of Technology)

166 Motorcycle Position Measurement using Opposing Omnidirectional Cameras

Junji Hirasawa
(National Institute of Technology (KOSEN), Ibaraki College)

[12:10~14:15]

121 Numerical Analysis of Engine
Youhi Morii (Tohoku University)

167 Cycle-to-Cycle Variation Analysis of Gasoline Engine by LES (First Report)

Takayuki Ito · Masahiro Matsuoka (JARI)
Ryo Adachi (SUBARU)
Toru Takabayashi (Honda Motor)

168 Cycle-to-Cycle Variation Analysis of Gasoline Engine by LES (Second Report)

Masahiro Matsuoka · Takayuki Ito (JARI)
Ryo Adachi (SUBARU)
Toru Takabayashi (Honda Motor)

169 Construction of Online Co-simulation Environment (4)
-Study of Model Granularity Migration Process for Thermal Management Control Optimization-

Kenichiro Ogata · Keiji Koide · Shunichi Kubota · Naoaki Takeda · Yusuke Suzuki · Go Toshizane · Seiya Nakasako (Honda Motor)
Ryohei Sugamata · Mitsunobu Saito (Honda R&D)

170 Construction of Online Co-simulation Environment (5)
-Improvement of Thermal Plant Model for Enhancing Prediction Accuracy of Engine Coolant Temperature-

Seiya Nakasako · Keiji Koide · Kenichiro Ogata (Honda Motor)

171 Improvement of Transient Air Volume Estimation Model for High-volume EGR Models

Toshiyuki Nakamura · Akihiro Katsuura · Yujiro Tsutsumi (Honda Motor)

Sakura Hall 1

[9:30~11:35]

122 HMI
Kazumasa Onda (Suzuki Motor)

172 Indoor Evaluation Experiment on Perception of Automated Driving System Marker Lamps

Akihiro Abe · Yoko Kato · Michiaki Sekine · Yoshiro Aoki (NALTEC)

173 Differences between Moving and Static Images in a Vehicle to Communicate Safety Messages to Drivers

-Discussion of Visual Messages Issued by V2X System-

Akira Ohtani · Ryohei Homma · Kotoe Udagawa · Iori Yamaguchi (JARI)
Masaaki Abe (JAMA)

174 Usability Evaluation of a Gaze-Controlled Traffic Flow Monitor under Imperfect V2X Communication Environment

Yudai Tobinaga · Yoshiyuki Tanaka (Nagasaki University)

175 Effect of Metaphor Design of AR-HUD for Route Guidance on Driver Judgement at Intersections

Taiki Kobayashi · Kazushi Nio · Tatsuru Daimon (Keio University)
Nobuyuki Nakano · Fumihito Inukai · Akira Tanaka · Tadashi Shibata (Panasonic Automotive Systems)
Daisuke Nagai (Panasonic ITS)

176 Application of Visual Cue Stimulus Continuously Inducing Gaze Direction on Safety Confirmation of Pedestrian in Turning Left at Signalized Intersection

Takahide I · Masanori Takemoto (Seikei University)

Sakura Hall 2

[9:30~11:10]

- 123 Automated Driving and Advanced Driver Assistance IV
Manabu Omae (Keio University)
- 177 High-precision Registration Technology for LiDAR Point Clouds and Stationary Structure Point Cloud Maps to Improve Object Recognition Performance for Urban Autonomous Driving
Takashi Ikegami · Yuki Shiozawa (Nissan Motor)
- 178 Pedestrian's Trajectory Prediction with Fluid Dynamics for Urban Autonomous Driving
Kazuto Futawatari · Takashi Fukushige (Nissan Motor)
- 179 Drivable Area Boundary Generation Method using Spatio-temporal Risk Map with Integrated Longitudinal and Lateral Control for Urban Autonomous Driving
Yuki Tanaka · Takashi Fukushige (Nissan Motor)
- 180 Stuck State Detection Technology in Remote Monitoring System for Urban Autonomous Driving
Jingze Dai · Masahide Nakamura (Nissan Motor)

Main Hall

[9:30~11:35]

- 124 Mobility as a Social System
Takahiro Suzuki (Reitaku University)
- 181 Research Project Regarding Autonomous Driving in the UK Named ServCity
-Lane Level Route Planning for Smooth Driving Based on Parked Car Detection by Infrastructure Cameras-
Yuka Yoshimatsu · Yuya Niwa · Narihiro Akari (Nissan Motor)
- 182 ODD and Ethics
Masao Ito (NIL)
- 183 Discussion of Operational Design Domain for Implementation of Co-operative Automated Driving in Mixed Traffic Environment on Public Roads
Keisuke Shimono (The University of Tokyo)
Yasuhiro Akagi (Nagoya University)
Makoto Morita · Shuichi Matsumoto · Masaya Segawa (Advanced Smart Mobility)
Mitsuaki Hagino (The University of Tokyo)
Shinji Akatsu · Hiroshi Tanigawa (JARI)
Masahiko Kato (AIST)
Kimihiro Nakano · Yoshihiro Suda (The University of Tokyo)
- 184 Self-signal (Device for Deterring Traffic Jam)
-The Concrete Plan for Deterring Traffic Jam and the Verification Method for it-
Hideaki Oku (O.K. Tech. Lab.)
- 185 Survey on the Regulations Critical for the Simulation of Unified Energy and Fleet Management in the Full-scale Diffusion of Commercial Electric Vehicles
Shota Miyoshi · Ichiro Sakamoto · Tomonori Hasegawa (NALTEC)

Shirakashi Conference Room 1

[9:30~11:35]

- 125 Motor Technology
Osamu Shimizu (The University of Tokyo)
- 186 Directly Detecting $\alpha\beta$ Phase Currents by Utilizing a New Coreless Current Sensing Method, Termed as "Magnetic Clarke Transformation"
Kosuke Kajita · Shotaro Karasuyama (Honda Motor)
- 187 Increasing the Ability to Freely Arrange the $\alpha\beta$ -phase Current Sensors using a New Coreless Current Sensing Method, Termed as "Magnetic Clarke Transformation"
Shotaro Karasuyama · Kosuke Kajita (Honda Motor)
- 188 Development of Nd-reduced Magnet and Beyond NdFeB Magnet for Automotive Motors
Noritsugu Sakuma · Akihito Kinoshita · Hyuga Hosoi · Akira Kato · Tetsuya Shoji · Yusuke Umetani (Toyota Motor)
- 189 A Study on the Application of Ferrite Magnets in EV Drive Motors
Ryosuke Minegishi · Shunji Oki · Tomoaki Kaimori (Nissan Motor)
- 190 Visualization of Oil Behavior to the Coil End of an Oil-cooled Motor using X-ray Computed Tomography
Masataka Tanase · Akinobu Kochi · Masanori Shimizu (Toyota Motor)

[12:35~14:15]

- 126 HEV Technology
Koichiro Muta (Toyota Motor)
- 191 Development and Practical Use of EiL (Engine-in-the-Loop) for Pollutant Emissions Performance Design
Motoki Takahata · Kenichiro Ogata (Honda Motor)
Ryohei Sugamata (Honda R&D)
Masayoshi Nishino · Toru Nakashima · Koji Yoshida (Honda Motor)
- 192 Modeling of Heavy-duty PTO Type Parallel Hybrid Electric Vehicle and Analysis on Fuel Economy Impact (First Report)
Norifumi Mizushima (AIST)
Kyohei Yamaguchi (Kokushikan University)
Toshimichi Takahashi (Meidensha)
- 193 Modeling of Heavy-duty PTO Type Parallel Hybrid Electric Vehicle and Analysis on Fuel Economy Impact (Second Report)
Kyohei Yamaguchi (Kokushikan University)
Norifumi Mizushima (AIST)
Toshimichi Takahashi (Meidensha)

- 194 Control of Internal Combustion Engine in Hybrid System for Small Race Car
-Experimental Consideration on Control Performance of Electronically Controlled Throttle System-
Hayato Yamada · Masamune Kobayashi · Yusuke Ebashi · Ikkei Kobayashi · Jumpei Kuroda (Tokai University)
Taro Kato (Tokyo University of Technology)
Keigo Ikeda (Hokkaido University of Science)
Ayato Endo (Fukuoka Institute of Technology)
Takayoshi Narita · Hideaki Kato (Tokai University)

- 203 Development of Fire-resistant Thermosetting Resin Molding Compound
Kazu Koide · Hideaki Inokuchi · Ryoichi Igawa (Sumitomo Bakelite)
- 204 Evaluation of Filtration Performance Variation in Electret Air Filter
Satoru Kobori · Takashi Nishitani · Kazuho Taniguchi (Japan Vilene)
Kouichi Tatsu (Isuzu Motors)
Naohide Shinohara (AIST)

Shirakashi Conference Room 2

【9:30~11:35】

127 Polymer Materials I

Satoshi Hirawaki (Honda R&D)

- 195 Study on Spatial Distribution of Displacement and Strain in Rubber Friction against a Stainless-steel Sphere
Toshiaki Nishi · Kyouhei Ueno · Tomohiro Nomoto (Tohoku University)
Shinya Sugisawa · Daiki Shin · Ken Yamaguchi · Isao Kuwayama (Bridgestone)
Takeshi Yamaguchi (Tohoku University)
- 196 Prediction Method for Appearance Evaluation of Molded in Color Plastic using Measurement/Simulation Data
Hirovuki Kimoto · Minako Izumi · Hirotaka Sakamoto · Kunihiko Nobuhara (Toyota Motor)
- 197 Exploration of Metal-resin Bonding Mechanism by Simulation
Hiroki Inoue (Tosoh)
- 198 Crack Propagation Analysis for Joint using Damage Model
Hirofumi Sugiyama (University of Yamanashi)
Shigenobu Okazawa (University of Yamanashi / Diver Technology)
- 199 Method of Determining Parameters of Plastic Material for Collision CAE and Accuracy Verification by Impact Test of Interior Parts
Kazuya Suzuki · Toshiro Ohori · Masayuki Ishihara (Suzuki Motor)

【12:35~14:40】

128 Polymer Materials II

Katsuyoshi Koyama (Kansai Paint)

- 200 Development of Plastic Materials for Striker-cap to Reduce Frictional Noise
Mingyun Chung · Daeki Chung (Hyundai Motor)
Sunghyun Myung (Kolon Plastics)
- 201 Study on Thermo-chemical Aging Model and Field Lifetime Prediction of Plastic in Cooling Systems
Hyeongwon Park · Kyunghwan Oh · Jee Young Youn · Soonbeom Kwon (Hyundai Motor)
- 202 A Study of CFRP Application on Vehicle Structural Components
Yuva Mukainakano (SUBARU)

Meeting Room 1+2

[9:30~10:45]

129 Diesel Combustion I
Jun Ishimoto (Tohoku University)

205 Effect of Spray-spray/wall Interaction on Diesel Engine Combustion (1st Report)
Kazuya Miyashita · Shinya Furukawa · Yoshinori Ishii · Hisashi Ozawa (Isuzu Advanced Engineering Center)

206 Effect of Spray-spray/Wall Interaction on Diesel Engine Combustion (2nd Report)
Shinya Furukawa · Kazuya Miyashita · Yoshinori Ishii · Hisashi Ozawa (Isuzu Advanced Engineering Center)

207 Evaluation of the Exhaust Behavior on a Diesel Light Duty Vehicle during a Real Driving by an on-board FT-IR Analyzer
Noritsune Kawaharada · Hisakazu Suzuki (NALTEC)

[12:10~14:15]

130 Diesel Combustion II
Akihiro Kido (Tohoku Gakuin University)

208 An Analysis of Diesel Fuel Spray Characteristics with Higher Injection Pressure
Akihiro Kita · Ryotaro Seto · Tokuji Kuronita · Yoshiaki Nishijima (Aichi Institute of Technology)

209 A Study of Exhaust Performance Improvement with Higher Injection Pressure
Ryotaro Seto · Akihiro Kita · Takaya Goto · Tokuji Kuronita · Yoshiaki Nishijima (Aichi Institute of Technology)

210 Evaluation of High Compression Ratio Achieved by Extending the Stroke Length on Heavy Duty Diesel Engine
Hiroaki Saito · Munemasa Hashimoto · Yoshinori Ishii · Hisashi Ozawa (Isuzu Advanced Engineering Center)

211 Study of Combustion Improvement by Ridge Shape for Spray Splitting
Kazunori Yoshitomi · Mori Ishii (Hino Motors)

212 Effect of Operating Conditions and Fuel Properties on Nanostructure of Soot Particles from Diesel Engine
Yu Kuroshima · Mizuki Obara · Kazuki Inaba · Kazuhiro Hayashida (Kitami Institute of Technology)

Meeting Room 3

[9:30~12:35]

131 Efficiency Evaluation
Atsushi Teraji (Nissan Motor)

213 Study on Real Road Eco-driving Methods for BEV -Effect of One-pedal Driving on Electric Energy Consumption-
Akira Kato · Kai Kato · Sena Fujisaka · Yihong Zhong (Teikyo University)

214 Evaluation Review of a Chassis Dynamometer System for xEV Testing

Toshinobu Furuta (Meidensha)
Hisakazu Suzuki (NALTEC)
Isamu Inoue (Ono Sokki)
Yasuhiro Ogawa (HORIBA)
Hideyuki Kuba (Mazda)
Kenji Sato (Toyota Motor)
Yasuhito Takemura (Daihatsu Motor)
Masato Taniwaki (Suzuki Motor)
Shohei Nakagawa (Honda Motor)
Noriaki Nakate (Japan Automobile Transport Technology Association)
Masaki Naruke (JARI)
Kosuke Tashiro (Mitsubishi Motors)
Takeo Horikawa (SUBARU)
Keiichi Masutani (Nissan Motor)
Akira Noda (Former Japan Automobile Transport Technology Association)

215 Optimization of Speed Change Pattern for Improving Electricity Consumption of Electric Heavy-duty Vehicles and Verification through Actual Vehicle Chassis Dynamometer Testing (Second Report)
-Derivation of Battery Internal Resistance and Cable Resistance Based on Actual Measurements and Additional Consideration of Those Losses-

Yiyuan Fang · Youta Morohashi · Wei-Hsiang Yang · Yushi Kamiya (Waseda University)

216 Research on Hydrogen Flow Rate Measurement for Fuel Consumption Measurement of Heavy-duty FCV
-2nd Report: Experimental Study to Improve Measurement Accuracy in Transient Test Cycles-

Hisakazu Suzuki (NALTEC)
Yukiji Ohkura (JAMA)

217 Domestic Trends of Environmental Regulations on Vehicle toward Decarbonization

Takahito Nishimoto (MLIT)

218 Verify and Replicate of Real Driving Wind Flows in Chassis Dynamometer

Nobunori Okui (NALTEC)
Toshimichi Takahashi (Meidensha)

219 Impact of Vibration Applied to the Vehicle by the Hub Nut Clamp Type Vehicle Restraint Device

Toshimichi Takahashi · Morio Onai · Toshinari Kozeki · Nobuo Okazaki (Meidensha)
Masao Furusawa (F-MA Consulting)

[13:35~14:50]

132 Provide Information and Cyclist Response when Undetected/False Detection Occurs
Hiroyuki Sakai (Toyota Central R&D Labs.)

220 The Influence of Timing and Positional Relationship in Interaction with Autonomous Car on Decisions of Bicycle Drivers to Passing Through Intersection
Soushi Akanuma · Masanori Takemoto (Seikei University)

221 Examination of Visual Information during Partial Take-over Regarding Safety Confirmation
Junya Ito · Masanori Takemoto (Seikei University)

- 222 Information Acceptance Characteristics of Cyclists According to Traffic Environment
Noritaka Kobayashi · Hiroshi Yoshitake · Motoki Shino (Institute of Science Tokyo)

[15:30~18:10]

133 Traffic Safety Support and Traffic Safety Education
 Nobuaki Takubo
 (Institute for Traffic Accident Research and Data Analysis)

- 223 Raising Awareness of Road Safety for Children by Experiencing Danger in Virtual Spaces
 -Evaluation Index for Behavior on Road-
Chieko Nishizawa · Kazunori Ban · Shinichi Sakaguchi · Akira Kawaguchi (Toyota Technical Development)
 Masae Kojima · Hirofumi Aoki (Nagoya University)
- 224 Development of a Driving Simulator for Rear-end Collision Prevention Education using the PLATEAU 3D City Model
Koshi Miyazaki · Mana Haruyama · Seina Maeno · Kaisei Shimizu · Toya Kumagai · Kazuaki Goshi · Masaki Hayashi · Yasuaki Sumida (Kyushu Sangyo University)
 Katsuya Matsunaga (Kyushu University)
- 225 Effect of Reflective Information on Correcting Older Drivers' Overestimation of Their Driving Abilities
Mayu Yoshikawa · Akio Nishimoto (The University of Tokyo)
 Hiroshi Yoshitake (Tokyo Institute of Technology)
 Ryota Fujita (Mitsubishi Precision)
 Motoki Shino (Tokyo Institute of Technology)
- 226 Data Collection and Video Analysis of Elderly Driving Behavior using Dashcams
Yuji Ikeda · Masaru Kimura · Kaname Kimura · Hiroshi Shishido (Alps Alpine)
 Yoshimi Sato · Miyuki Hirasawa (C's Lab)
 Yasuko Inomata · Tsubasa Otsuki · Makoto Takahashi (Tohoku University)
- 227 Responses and Visual Behaviors of Drivers in Car-to-Cyclist Collisions using a Driving Simulator
Yuqing Zhao · Yuki Nitta · Koji Mizuno (Nagoya University)
- 228 Evaluation Method for Acceleration Control for Pedal Error
Yuki Manabe · Toru Kojima · Kouichi Kitada · Kenji Morizaki (NALTEC)

Meeting Room 4

[9:30~11:35]

134 Communication and Electronics I
 -Evaluation Technology-
 Yuichiro Toda (Okayama University)

- 229 Proposal of Moisture Resistance Evaluation Method for Conformal Coating of Automotive Electronic Components
Jun Muto · Satoshi Kashiwabara · Hisao Nishimori · Yusuke Okano (Toyota Motor)
 Seiji Sakata · Tai Horikawa · Norimitsu Sakai · Natsuki Kumagai (Nissan Motor)

- 230 Moisture-proof Evaluation and Examination of Conformal Coating for Automotive Electronic Components
Seiji Sakata · Tai Horikawa · Norimitsu Sakai · Natsuki Kumagai (Nissan Motor)
 Jun Muto · Satoshi Kashiwabara · Hisao Nishimori · Yusuke Okano (Toyota Motor)

- 231 Evaluation of Autonomous Development using a Flat Type Dynamometer that can be Installed in the Tyre House of a Vehicle -First Report-
Yoshihisa Hojo · Yuichi Takasaki · Kohei Yasumoto · Kenji Terada · Rentaro Kondo (Toyo Denki Seizo)

- 232 Consistency Verification of Signal Processing for Millimeter-wave Radar using Physical Sensor Model and DIVP Simulation Platform (2nd Report)
Tadashi Naito · Miyo Okamoto · Kenichi Nukihara (Continental Autonomous Mobility Japan)
 Yadhu Krishnan M K (Continental Automotive Components (India) Pvt.)

- 233 SIL-HIL Hybrid Simulation Environment for Automotive Software Validation (Second Report)
Katsuya Tsuzuki (dSPACE Japan)
 Andre Hildebrandt (dSPACE)
 Rafael Yunis (dSPACE Engineering d.o.o.)
 Fabian Bronner · Martin Ruehl (dSPACE)

[12:35~13:50]

135 Communication and Electronics II
 -Communication and SDV-
 Hiroaki Morino (Shibaura Institute of Technology)

- 234 Research on UWB Communication Interference Suppression for In-vehicle Wiring Harness-less
Makoto Okuhara (Denso Ten / Kobe University)
 Hiroaki Yoshitake · Yuri Nishigaki · Tetsuya Nomura · Shigeki Mitoh · Kenshi Morikawa (Denso Ten)
- 235 Implementation and Evaluation of Real-time and Dynamically Reconfigurable Network Middleware to Realize Multiple Use-cases of SDV
Yuji Oishi (Hitachi)
 Hafiz Hilman (Hitachi Astemo)
 Goichi Ono (Hitachi)
 Yasuo Sugure (Hitachi Astemo)
- 236 Proposal of Vulnerability Analysis Method in Accordance with ISO/SAE 21434
Keisuke Honda (Hitachi Astemo)
 Yukiko Matsubara · Mutsumi Shimoda · Nobuyoshi Morita (Hitachi)
 Yasuhiro Fujii · Makoto Kayashima (Hitachi Astemo)

[14:30~16:35]

136 Communication and Electronics III
 -Design, Development and Sensors-
 Toshiya Arakawa (Nippon Institute of Technology)

- 237 Application for a LiDER System by using a Liquid Crystal Lens with Multiply-divided Ring Electrodes
Koji Kobayashi · Ryoya Takewaki · Shiryu Seki · Mikita Tsukui · Yuki Imai · Marenori Kawamura (Akita University)

- 238 Liquid Crystal Lens Systems with Multiply-Divided Circularly-Hole-Patterned-Electrodes and Four-Divided Circular-Electrodes
Ryoya Takewaki · Shiryu Seki · Kandai Tsukui · Koji Kobayashi · Yuki Imai · Marenori Kawamura (Akita University)
- 239 Development of Ceramic Electret and Application to Vibration Power Generation Device
Kazuhiko Kano · Takuya Igashira · Noriyuki Matsushita (DENSO)
 Suguru Iwasaki · Yumi Tanaka (Tokyo University of Science)
- 240 Early Software Maturity Approach in Dual Clutch Transmission Software Updated
Taiji Inoue · Nobuyuki Nishimura · Junpei Matsuda (Isuzu Motors)
- 241 Development of Resistant Design Method of Resin Case against Printed Circuit Board Overheating (Second Report)
Miwa Kawasaki · Tai Horikawa (Nissan Motor)
 Hiroki Miyachi · Shintaro Yagi · Koki Koyama (F.C.C.)

Tachibana Conference Hall

[9:30~12:35]

137 Crash Safety

Daisuke Ito (Kansai University)

- 242 Improvement of Rotational Range of Trunk in THUMS, for Application to Crash Safety Evaluations in Diverse Occupant Posture
Yoshiki Takahira · Yojiro Iizuka · Hiroshi Miyazaki · Shigeki Hayashi · Hiroaki Imai · Yuji Nakane (Toyota Motor)
- 243 Improving Human Body Model Kinematic Fidelity in Far Side Impact using THUMS
Yojiro Iizuka · Hiroshi Miyazaki · Yoshiki Takahira · Shigeki Hayashi · Hiroaki Imai · Yuji Nakane (Toyota Motor)
- 244 Pelvic Rotation of THOR and Hybrid III Dummies in Frontal Impact
Toshiharu Azuma · Yuqing Zhao · Koji Mizuno (Nagoya University)
 Kei Nagasaka · Takahiro Suzuki · Idemitsu Masuda (Suzuki Motor)
- 245 Two-dimensional Degenerated Model of Rider on Motorcycle Crash
Kazunori Maehara · Masashi Saito · Yoshiharu Wada · Takashi Sato · Takashi Saso · Masayoshi Okamoto (Honda R&D)
 Terumasa Narukawa (Saitama University)
- 246 Improvement Accuracy of Chest Injury Prediction for Accommodate a Variety of Occupants
Ikufumi Matsuba · Toshimitsu Negishi · Shigeki Hayashi · Hiroaki Imai · Yuji Nakane (Toyota Motor)

- 247 Static Anthropometric Measurements and Dynamic Changes during Driving in Pelvic Angles of Seated Motor Vehicle Occupants
Yoshihiko Tanaka · Yuqing Zhao · Koji Mizuno (Nagoya University)
 Masahito Hitosugi · Misa Tojo (Shiga University of Medical Science)
 Yutaka Nakajima (Autoliv)
 Kentaro Ogawa · Ryota Ishigaki · Hiroki Matsuoka (Autoliv Japan)
 Masatoshi Usui (NALTEC)
- 248 Development of CAE Methodology for Improving Accuracy of Reaction Force under Multiple Conditions of Driver Airbag Model
Hiroshi Morikawa · Yuki Uchiyama · Shoko Kobori · Michihiro Yamagishi (Nissan Motor)

【13:35~15:40】

138 Weak and Small Mobility (Wheelchairs, Electric Kick Scooters, Bicycles)

Hiroshi Kuniyuki (Suwa University of Science)

- 249 Study on Traffic Accident Injuries for Manual Wheelchair Users based on Pedestrian Traffic Accident Statistics
Ryo Oga (National Research Institute of Police Science)
- 250 A Scoping Review on Electric Scooter Collisions, Falls and Injuries
Akihiro Kido · Ryo Oga (National Research Institute of Police Science)
- 251 A Study of the Mutual Safety for Vehicles and Bicycles on Road Traffic using Accident Statistics Data Analysis -A Study of Cyclist Injuries in Collisions with Passenger Vehicles and Large Size Trucks-
Yasufumi Sekine (Fukuyama University)
- 252 Evaluation of the Effectiveness of an Approaching Bicycle Notification System using Smartphones
Yasunobu Yokoi (Toyota Motor)
 Takeshi Kitahara (KDDI)
 Tomoko Yasuni (Toyota Motor)
 Kengo Kurosawa (KDDI)
- 253 Study on Advanced Emergency Braking System for Electric Scooter
Hitoshi Toda · Hiroki Kato · Ryuta Sawaki · Takao Ogura (Mie Prefectural Police H.Q.)

Hagi Conference Hall

[9:30~11:35]

139 Intelligent Vehicle

Hiroki Nakamura (Japan Automobile Research Institute)

- 254 Effect of Cooperative Systems Utilizing Roadside Sensors on Automated Driving at Intersections
Hiroshi Yoshitake (Tokyo Institute of Technology)
 Wataru Kugimiya (The University of Tokyo)
 Motoki Shino (Tokyo Institute of Technology)

- 255 Calculation Method of Safe Speed for Automated Buses on Straight Roads Considering Sensing Characteristics
Taichi Sawanobori (Tokyo Institute of Technology)
 Takaki Yoshikawa (The University of Tokyo)
 Hiroshi Yoshitake (Tokyo Institute of Technology)
 Yoshio Matsuura · Masaya Segawa
 (Advanced Smart Mobility)
 Motoki Shino (Tokyo Institute of Technology)

- 256 Visualization of the Basis for Judgment of Object Recognition Models by Sensor Fusion of LiDAR and Cameras
Yuusuke Nishio · Tsubasa Hirakawa · Takayoshi Yamashita · Hironobu Fujiyoshi (Chubu University)

- 257 Camera-based Tightly-coupled Fusion for 3D Object Detection
Xiaoyu Wang · Yoshitaka Okuyama · Kota Irie (Hitachi Astemo)

- 258 Evaluating the Accuracy of Object Detection Models in Scenes where Pedestrians are Present at Intersections
Yotaro Suzuki · Hidenori Itaya · Tsubasa Hirakawa · Takayoshi Yamashita · Hironobu Fujiyoshi (Chubu University)

【12:35~14:40】

- 140 Injury Prediction and Damage Reduction
 Tetsuya Nishimoto (Nihon University)

- 259 Machine Learning to Determine Vehicle Load Characteristics for Pedestrian Protection
Naoto Yamamoto · Ryo Ando (Mazda)

- 260 Deep Learning Method for Pedestrian Injury Severity Prediction using Dashcam Videos
Shouhei Kunitomi · Takashi Tagawa · Yuji Arai (JARI)

- 261 A Study of a Head and Leg Injury Prediction Method in Car-to-pedestrian Collisions using Machine Learning
Daisuke Ito · Yuko Shimaoka · Ryoga Doe (Kansai University)

- 262 Advanced Safety Technology Evolution its Traffic Accident Reduction Analysis (Second Report)
Takashi Hasegawa (Toyota Motor)
 Junya Suzuki · Yasunari Matsuzaki (Tokio Marine & Nichido Fire Insurance)

- 263 Study on D-Call Net Effectiveness by using ITARDA Macro Database with the Emergency Transport Database (The 3rd Report)
Toru Kiuchi (ITARDA)
 Nobuo Saito (Japan Mayday Service)
 Eiko Kagesawa · Hiroyuki Shirakawa (ITARDA)

【15:20~17:00】

- 141 Accident Analysis
 Tetsuo Maki (Tokyo City University)

- 264 Analyzing Parking Lot Accidents and Evaluating Collision Avoidance Performance of AEB using the RCAR Test Procedure
Naoki Bessho · Yoshimasa Uchida · Hisashi Kusano (The Jiken Center)

- 265 Characteristics of Japanese Traffic Accidents in Frontal Collision and Side Collision
Yoshinori Tanaka · Naruyuki Hosokawa · Yasuhiro Matsui · Masatoshi Usui (NALTEC)

- 266 Characteristics of Collisions between Cars and Bicycles at Intersections in Recent Years and Analysis of the Effectiveness of AEB for Cyclists
Kenji Kawaguchi
 (Institute for Traffic Accident Research and Data Analysis)

- 267 A Research on the Cause of Rear Left Tire Drop-off Accidents of the Trucks
Yasumasa Shoji (YS Corporation)

Sakura Hall 1

【9:30~11:10】

- 142 Driver Behavior
 Masanori Takemoto (Seikei University)

- 268 The Effect of Front Pillar Blind Spots on Visual Behavior at Intersections in an Immersive Driving Simulator
Yuto Takei · Shinya Okamoto · Hisato Fukuda (Gunma University)
 Toshihiko Kozai · Tsutomu Iwase (Gunma University / SUBARU)
 Masanori Yoshida · Kenichi Sato · Noriyoshi Matsuo (SUBARU)

- 269 Evaluation of Driver Safety Checking Behavior when Turning Right
Shinya Kitayama · Manabu Otsuka · Koji Hamada (DENSO)
 Wentong Yang · Shota Matsubayashi · Kazuhisa Miwa (Nagoya University)

- 270 A Study for an Evaluation Index of Driver Preparing Behavior toward Potential Risks
Takahiro Tanaka · Hitoshi Kanamori · Asuka Harada (Nagoya University)
 Saori Noda · Taiji Kawachi · Koji Hamada (DENSO)

- 271 Modelling of Drivers' Internal States and Transition Mechanism using Vehicle Driving Data
Maki Kishimoto · Toshihiro Osaragi · Shoichi Mihara (Institute of Science Tokyo)
 Akira Funakubo · Yusaku Takeda · Masashi Yamamoto · Chikara Tanaka (Mazda)

【12:10~14:15】

143 Driving Assistance

Toshihiro Hiraoka (Japan Automobile Research Institute)

- 272 Basic Study on Driving Support System using Visual Information to Predict Potential Risk
Yuki Sakuma · Masanori Takemoto (Seikei University)
- 273 Development of Haptic Interaction-Based Driver Guidance System
Shusaku Sugamoto · Satoshi Inoue · Takeshi Hamaguchi · Shintaro Saigo · Satoshi Handa (Toyota Motor)
- 274 Visibility Evaluation during Curve Driving in Headlamp Beam Control Technology using Map Information
Shuheji Ota · Shusaku Takamoto · Takahiro Seki (Mitsubishi Electric)
- 275 Analysis of Discomfort Glare Caused to Oncoming Vehicles by Changes in the Pitch Angle of Passing Beam due to Road Undulations
Yoshiro Aoki · Yoko Kato · Michiaki Sekine (NALTEC)
- 276 Consideration of an Alerting Method using Positional Correspondence Between Seat Vibration and Attention Targets
Yosuke Uemura (Kyoto Institute of Technology)
 Tetsuya Kitagawa · Ryuji Furumai (Fuji Seat)
 Yukiko Nishizaki (Kyoto Institute of Technology)

【14:55~17:00】

144 Driver Model/Sensing

Ryuzo Hayashi (Tokyo University of Science)

- 277 Development of a Cochlear-Mimicking MEMS Sensor to Measure Auditory Stimulation in a Car
Riku Ito (Gunma University)
 Kou Sasaki · Hiroyoshi Inaba (SUBARU)
 Tetsuji Koyama (Gunma University)
 Toshihiko Kozai (SUBARU / Gunma University)
 Sinyoung Lee (University of Yamanashi)
 Takuji Koike (The University of Electro-Communications)
 Yuya Tanaka (Gunma University)
 Tsutomu Iwase (SUBARU / Gunma University)
 Takaaki Suzuki (Gunma University)
- 278 Driver State Estimation from Automotive Operation Signals based on Pre-training using Vector Quantized Variational Autoencoders
Kenshiro Hanai · Yoshihiko Nankaku (Nagoya Institute of Technology)
 Atsunobu Kaminuma (International Professional University of Technology in Tokyo / Nissan Motor)
- 279 Analysis, Modeling, and Control of Merging Behavior at Low Speeds
Tatsuya Ishiguro · Hiroyuki Okuda (Nagoya University)
 Kenta Tominaga (Mitsubishi Electric)
 Tatsuya Suzuki (Nagoya University)
- 280 Dynamic Estimation of Driver Model Parameters for Precise Reproduction of Driving Behavior
Ryuya Seki · Hironori Suzuki (Toyo University)

- 281 Research on Low Arousal Detection Systems with LSTM Models
Xupeng Zhou · Shuncong Shen · Toshiya Hirose (Shibaura Institute of Technology)

Sakura Hall 2

【9:30~11:35】

145 Engine Components, Lubricants, Tribology

Takeshi Yamaguchi (Tohoku University)

- 282 Effect of Oil Film Distribution in the Concave Created by Piston Skirt Profile or Pattern Coating on Skirt Friction Loss
Takuro Nakagawa · Kenta Sato · Hisanobu Kawashima · Hidekazu Suzuki · Tsuneaki Ishima (Gunma University)
- 283 MBD Tool Development for Piston Ring Performance Prediction
 -1D-CAE Model for Lubricating Oil Consumption-
Hikaru Chiba · Kazuya Mochizuki · Itsuro Suzuki · Masaru Yazawa · Naoki Iijima (RIKEN/NPR-RIKEN)
- 284 Effect of Engine Oil Containing Nanobubbles by Ultrafine Pore Method on Reduction of Friction Loss in Piston System
 -Correlation between the Generation Density of Nanobubbles and Friction Reduction Effect-
Kai Horiba · Masaya Fukuda · Shusuke Hoshino · Takumi Iwata · Masakuni Oikawa · Yuji Mihara (Tokyo City University)
- 285 Development of an Evaluation Method that can Quantify the Effect of Fuels and Lubricants on Gasoline Engines
Shouta Tobe · Masami Shiki · Akihiro Suzuki · Naoki Eguchi · Kohei Hashimoto (SUBARU)
- 286 Strategies for Application-Specific Fuel Economy Engine Oil Solutions
 Field Sam · Anderson William B. · Engelman Kristi · Bell Ian · Hidetaka Hoshino (Afton Chemical)
- 【12:35~14:40】
- 146 Exhaust Gas Emission I**
 Tomohiro Nakayama (SUBARU)
- 287 Estimating Exhaust Gas Emissions and Greenhouse Gas Emissions for the Medium and Long-term to Enhance Exhaust Gas Emission Regulations
Shuichi Kanari · Hiroshi Hirai · Akiyoshi Ito · Tetsuya Suzuki (JARI)
- 288** A Framework for Determining Characteristic and Difficult Sub-Samples of Real Driving Data for Model-Based Engine Emissions Optimisation
Jack Prior (Loughborough University)
 Luke Bates (HORIBA Mira)
 Byron Mason (RMIT University)
 James Knowles (Loughborough University)

289 Closed-coupled SCR System Design using MBD (Model Based Development)

Hiroshi Anoda (Isuzu Motors)
Kasumi Yoneyama · Kenji Fujii · Chihiro Ohtsuka
(Isuzu Advanced Engineering Center)
Takuro Iwashita · Tomotaka Kariya · Tatsuyuki Mochizuki
(Isuzu Motors)

290 Research on On-board CO₂ Capture Technology (1st Report)

-Measurement and Modeling of CO₂ Adsorption Characteristics-
Toshiaki Sakima · Hirotsugu Matsuda · Masahiro Horikoshi · Yasuhiro Matsumura · Junya Murata · Kenji Uchida · Yuji Harada (Mazda)

291 Research on On-board CO₂ Capture Technology (2nd Report)

-Model-based System Design and its Verification-
Hirotsugu Matsuda · Ryo Yamamoto · Masahiro Horikoshi · Yoshihisa Nou · Toshiaki Sakima · Kenji Uchida · Yuji Harada (Mazda)

【15:20~18:00】

147 Exhaust Gas Emission II

Koichiro Harada (Mazda)

292 A Study on the Mechanism of Transient Reaction and Purification Performance Improvement of Three-way Catalysts with High Frequency Perturbation

Masato Terasawa · Yuta Sugaya · Koki Umemoto · Jin Kusaka (Waseda University)

293 Gasoline Particulate Filter for Tier4 Regulation

Ryuta Takai · Takashi Aoki · Tasuku Matsumoto · Yuji Sasaki · Kiwamu Sugiura · Yuichi Hamazaki · Masaki Ito (NGK Insulators)

294 Leveraging DOConFilter to Improve Exhaust System Packaging

Shiori Shiraki · Takashi Kinoshita · Yohei Mitsui · Tsuyoshi Asako · Katsunori Tanaka · Tasuku Matsumoto · Takashi Aoki (NGK Insulators)

295 Development of a Method for Measuring CO₂ Concentration in Amine-based Solvents using Fluorescent Dyes

Shohei Tomita · Michihiko Yamamoto · Masaki Nishikawa (Aisin)
Yasuhiro Egami · Yui Kiyota (Aichi Institute of Technology)

296 Consideration on Understanding the NO_x Purification Performance of Urea SCR Catalyst Installed in Heavy-duty Vehicles during the Use Process

Toshiro Yamamoto (NALTEC)

297 A State-of-the-art Soot Filtration Model of a Particulate Filter: Application to an Estimation of a Particle Emission Downstream of the Filter

Kazuki Nakamura (Waseda University)
Anton Nahtigal (AVL-AST d.o.o. Slovenia)
Kyohei Yamaguchi (Kokushikan University)
Jin Kusaka (Waseda University)

【9:30~11:10】

148 Road Traffic Environment

Pongsathorn Raksincharoensak
(Tokyo University of Agriculture and Technology)

298 Investigation of Self-localization using Side Camera

Yoshiki Sakadani · Toshihiko Hashiba · Masaya Endo (Mitsubishi Electric)

299 Technological Development and Establishment of Simulation Environment for Lane Merging Support

Nobuhiro Araki · Kenta Shintoku (Kozo Keikaku Engineering)
Koichi Miyashita · Satomi Aiko (Mitsubishi Research Institute)

300 Analysis of the Effect of Road Alignment on Visibility Delay for Curved Roads

Hiroshi Kuniyuki · Seiya Tanaka · Fumitaka Fukuzawa (Suwa University of Science)
Masashi Makita (Teikyo University)

301 Proposal of Virtual Platform by Utilizing Multi-agent Traffic Simulation for Sophisticated Automated Driving System Development

Sou Kitajima · Nobuyuki Uchida (JARI)
Naoki Suganuma (Kanazawa University)
Tadashi Okuno (OS Planning)
Jun Tajima (Misaki Design)

【12:10~13:50】

149 Three Way Catalyst

Takamitsu Asanuma (Toyota Motor)

302 Effect of Difference in Oxygen Storage State of Pd/CeO₂-ZrO₂ Three-Way Catalyst on Oxygen Storage Distribution

Yuki Watanabe · Yuma Hayashi · Tsuyoshi Nagasawa · Susumu Sato · Hidenori Kosaka (Institute of Science Tokyo)
Hiroyuki Itoyama · Chengwei Huang (Nissan Motor)

303 The Effect of Stored Oxygen on Purification Performance of Three-way Catalysts under Perturbation Condition

Sota Aoyama · Jin Kusaka (Waseda University)

304 Verification of Temporary Poisoning Mechanism in Automotive Catalysts by HC Components

Hiroyuki Minokoshi · Daichi Tabuchi · Ryo Nagai (SUBARU)
Masaaki Haneda (Nagoya Institute of Technology)

305 Study of an Exhaust System for 100% Electric Drive Hybrid Vehicles that Achieves Well-to-wheel Exhaust Emissions Comparable to Electric Vehicles

-The Challenge Towards Zero Emissions-
Akira Inoue · Hiroyuki Itoyama · Atsushi Morohoshi · Jin Yokoyama (Nissan Motor)

【14:30~16:35】

150 Alternative Fuel
Kyohei Yamaguchi (Kokushikan University)

- 306 Effect of Supercharging on Ammonia/Gasoline Co-combustion Characteristics in a High Compression Ratio Engine with Sub-chamber
Takanobu Okada · Hikaru Yamamoto · Hikaru Shiraishi · Emir Yilmaz · Mitsuhisa Ichiyanagi · Takashi Suzuki (Sophia University)
- 307 Evaluation of Combustion Performance of Emulsion Fuel using Time-series Analysis of Cylinder Pressure
Keisuke Yagi · Iman Kasih Telaumbanua · Yoshihiko Oishi · Hideki Kawai (Muroran Institute of Technology) · Himsar Ambarita (Universitas Sumatera Utara)
- 308 A Study on Combustion Characteristics of Ammonia-diesel Dual Fuel Engine
Yuma Hozen (Waseda University) · Ryosuke Kogure · Takafumi Tanaka (Mitsubishi Heavy Industries Engine & Turbocharger) · Tomohiro Koga (Mitsubishi Heavy Industries) · Toma Erikawa · Jin Kusaka (Waseda University)
- 309 Study on Compliance with Fuel Standards for FT Synthetic Gasoline and FT Synthetic Diesel Oil
Kenichi Okamoto · Noriaki Ohmori · Hiroshi Kisai · Mitsunori Tabata (Japan Petroleum and Carbon Neutral Fuels Energy Center) · Takeru Ohtsuka · Natsuki Hamada · Kazuhito Sato (Cosmo Oil)
- 310 The Impact on Rubber Components of Oxygenated Synthetic Fuels and Prototype FT Synthetic Fuels
Noriaki Ohmori · Kenichi Okamoto · Hiroshi Kisai · Mitsunori Tabata (Japan Petroleum and Carbon Neutral Fuels Energy Center) · Takeru Ohtsuka (Cosmo Oil)

Shirakashi Conference Room 1

【9:30~11:35】

151 Power Transmission I
Teruhiko Nakazawa (Toyota Central R&D Labs.)

- 311 Analysis of Transmission Efficiency and Transient Dynamics in Rubber V-belt Continuously Variable Transmission
Ryota Yamori · Tatsuhito Aihara (Hosei University) · Yutaka Kimoto (Exedy)
- 312 Development of Light-weight Final Drive for New Full-size SUV
Shiro Kono · Shin Hashimoto · Hiroaki Katase · Takayuki Asai · Masakatsu Koide · Kanta Fukumoto (Nissan Motor)
- 313 Flow Analysis of Lubricating Oil in a Rotating Environment
Hiroto Hayashi · Takuma Kato (Chiba Institute of Technology)
- 314 Flow-rate Characteristics of Lubricating Oil Flow around Discharge Hole in Rotating Shaft
Takuma Kato (Chiba Institute of Technology)

- 315 The Influence of Lubricant Friction Properties on the Efficiency of Electric Transaxle
Hirovuki Tatsumi · Takashi Yanagihara · Yuki Okada · Keiichi Narita (Idemitsu Kosan)

【12:35~14:40】

152 Power Transmission II
Tatsuhito Aihara (Hosei University)

- 316 Auxiliary Brake Apparatus by Air Compression and Release for Stop of Heavy FCV Regenerative Brake (4th Report)
-Side Clearance Seal and Exhaust Air Reuse System for Supercharged Intake Air Adoption-
Chinatsu Sano · Daisuke Maeyama · Toshinori Fujita · Takashi Shibayama (Tokyo Denki University)
- 317 Study of Abnormality Detection Method using Dual Motor System for EV
-Detection of Motor Torque Decrease by Planetary Gears-
Makoto Kusakabe · Teruhiko Nakazawa · Yasumitsu Osada · Haruhiro Hattori (Toyota Central R&D Labs.)
- 318 Effect of Power Source and Transmission Mechanism on WLTC Electric Consumption of BEV
Yasuo Moriyoshi (Sustainable Engine Research Center / Chiba University) · Minoru Ohno · Mutsumi Mizushima · Tatsuya Kuboyama (Chiba University)
- 319 Realizing Shift Control Adaptation through Transmission-iLS
Daiki Sato · Kohei Dodo · Kenichiro Tsukamoto · Daisuke Kogure · Kazuya Arakawa (Toyota Motor)
- 320 Mechanism Analysis of Vehicle Dynamics using Front Wheel Speed-up System for AWD
Akira Ono · Tomohiro Shimizu · Susumu Ito · Yusuke Kakihara · Masami Oguri · Yoshinobu Yamazaki · Yusuke Yabusaki · Hirofumi Kawarazaki · Ryouji Aoki (SUBARU)

【15:20~16:35】

153 Cognition/Workload
Shiho Matsushita (Nissan Motor)

- 321 The Effect of Video Viewing before Driving on Driving Behavior: Analysis of Drivers with Different Levels of Trait Anxiety
Chihiro Shumiya · Yukiko Nishizaki (Kyoto Institute of Technology)
- 322 Evaluation of Driver Trust in in-Vehicle Driving Assistance Information Across Various Situations using Physiological Data
Jongseong Gwak (Takushoku University) · Hiroshi Yoshitake · Motoki Shino (Tokyo Institute of Technology)
- 323 Evaluation of Effect of the Roll Component of Shaking on the Operability of Information Terminals
Yusuke Yasuki (SOKEN) · Shunitsu Kubo (DENSO)

Shirakashi Conference Room 2

[9:30~11:35]

154 Production and Manufacturing
Norikazu Suzuki (Chuo University)

- 324 The Development of a Integration Method for Hollow Rotor Shafts by Warm Flow Forming
Naoto Taguchi · Tomoyoshi Naganawa (Nissan Motor)
Koji Higaki · Takuya Yamazaki (Nihon Spindle Manufacturing)
- 325 Research on Cutting Conditions via Simulation by Bayesian Optimization
Hisao Eto · Yoshihiro Ohnishi · Takeo Miyaguchi (ITOCHU Techno-Solutions)
- 326 Development of High-speed Prediction System using Surrogate Models for Magnet Wire Forming
Shintaro Nakano · Toshiki Terabe · Le Dinh Thanh (Toyota Motor)
- 327 A Study on the Influence of Initial Tightening Force Variation in Calibrated Wrench Method
Soichi Hareyama · Ken-ichi Manabe · Satoshi Kobayashi (Tokyo Metropolitan University)
- 328 Effect of Panel Curvature and Thickness on Outer Panel Sink Mark by Mastic Adhesive
Takashi Iwama · Kentaro Sato · Yoichiro Ohnishi · Tsuyoshi Shiozaki (JFE Steel)
Keigo Unoki · Hiroki Toriyama · Takafumi Watanabe · Kenichi Matsunaga (Toyota Motor Kyushu)

[12:35~14:15]

155 Accident Avoidance
Takayuki Toyoshima (Honda Racing)

- 329 Analysis on Influence of Deceleration Generated by Adaptive Cruise Control on Driver Forward Collision Accident-avoidance Behavior
Norika Arai · Shounosuke Tsujiide · Yohei Fujinami · Raksincharoensak Pongsathorn (Tokyo University of Agriculture and Technology)
Fumio Sugaya · Toshinori Okita · Shintaro Inoue · Masaaki Uechi (Toyota Motor)
- 330 Experimental Study about Avoidance Behavior of the Driver who Meets with the Dangerous Scenes during City Driving (The 2nd Report)
Toru Kojima · Yuki Manabe · Koichi Kitada · Kenji Morizaki (NALTEC)
Seitaro Fukuda · Tadahumi Shima (MLIT)
Yukihiro Ikeda (Toyota Motor)
- 331 Investigation on Prediction Method of Traffic Participant Darting-out Velocity from Blind Spot Considering Traffic Environment Context
Ryuki Ota · Aki Tanikawa · Pongsathorn Raksincharoensak · Masao Nagai · Yohei Fujinami (Tokyo University of Agriculture and Technology)
Takaya Yamazaki · Minoru Higuchi (Honda R&D)

- 332 An Analysis of Lateral Distance between Four Wheeled Vehicles and Overtaking Motorcycles in ASEAN Region
Hisashi Imanaga · Hiroki Kawashima (JARI)
Takashi Hasegawa · Hiroyuki Mae (JAMA)

[14:55~16:10]

156 Recycling/Circular Economy
Takashi Furuyama (Koeki University)

- 333 Development of End-of-Life Vehicle Chassis Number Reading Software using AI-OCR
Masayoshi Nakamura (Fukuyama University)
Shigeya Ikebo (Nagoya Bunri University)
Satoru Yaseda · Hitoshi Yamasaki (Aratani Shoukai)
- 334 Recyclability of Lithium Recovered from Used Lithium-ion Batteries
Hikari Kuroda (MITSUBISHI MOTORS)
Shohei Yoshida (DOWA ECO-SYSTEM)
Mikihiro Takahashi (Central Glass)
Noriaki Masuda (GS Yuasa International)
- 335 A Circular Economy Indicator for Vehicles
-Evaluation of Vehicles for Sustainable Society-
Takamichi Iwata (Toyota Central R&D Labs.)
Takamichi Ueda · Yoshiro Masuda (Toyota Motor)
Kiyotaka Tahara · Mitsutaka Matsumoto (AIST)
Masashi Hara · Tetsuro Kobayashi · Daisuke Yamada · Hisaaki Takao (Toyota Central R&D Labs.)
Eiji Ishida · Mitsuru Ogasawara · Takayuki Nagai (Toyota Motor)

MEMO

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MEMO

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— Notice —



From 2025 Annual Congress (Spring),
Technical Sessions will be held
**on-site + Video streaming after congress
(limited time only).**

<Detail>

- ① During the period, sessions will only be held on-site.
Online live streaming will be discontinued.
- ② Each session will be recorded and streamed
on-demand at a later date.
- ③ The presentations for which the speaker does not permit
recording will not be streamed.
- ④ The on-demand streaming will be available for one month.
Registration will remain open during this period.

2024年度

自動車技術会 シンポジウム・講習会

JSAA Symposium, Seminar 2024



24年度はシンポジウム・講習会が11件、開催予定です！

—近日の開催予定—

【2024年10月】

・10月29日(火)No.01-24 講習会

「自動車開発における人間工学の理論と実践」

【2024年11月】

・11月6日(水)No.02-24 シンポジウム

「駆動系の最新技術」

・11月11日(月)No.03-24 シンポジウム

「Vehicle Dynamics再考」

・11月26日(火)No.04-24 シンポジウム

「みんなで考える！自動運転／ADASの課題と安全技術・安全性評価の深化と進化」

詳細はこちら→





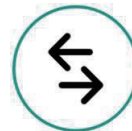
UNLOCKING
YOUR
ENGINEERING
PUZZLES

我々“エキヨ”は、お客様のプロジェクトで特別な解決策が必要な時、**フッ素樹脂技術・バネ技術**を活用した独創的でユニークな製品で、お客様の課題克服をサポートします。

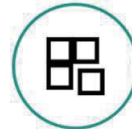


リニアスライダーの常識をくつがえす スティックの無い、滑らかな操作フィーリングを実現

※展示会場で実際に体感できます



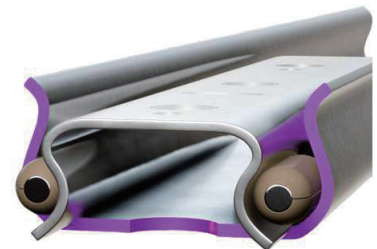
スティック・ガタツキのないスムーズな摺動



厚いPTFE層やバネ技術による隙間ゼロ



長期間安定したパフォーマンス



- 取扱製品 -



ラジアル軸受



リニア軸受



スラスト軸受



締結リング



プッシュナット



トルクリミッタ



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