

SURF2026

The 10th Symposium on Pavement
Surface Characteristics

Tokyo, Japan - November 9-11, 2026

*"Driving Innovation of
Road Surface Characteristics and Social Interaction"*

Program

Ver. 1.1



JAPAN ROAD ASSOC.



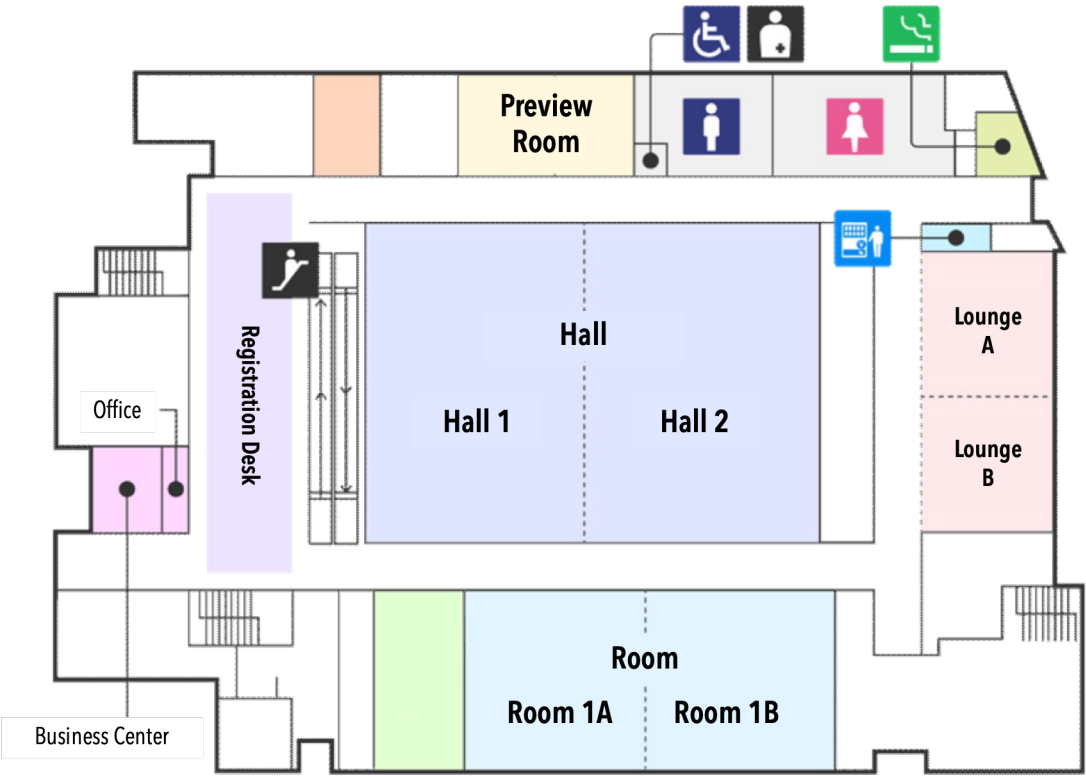
SURF2026

November 9-11, 2026 | Tokyo, Japan

Driving Innovation of
Road Surface Characteristics and Social Interaction

2/24

Floor Plan



Timetable DAY 1 | Monday, November 9, 2026

Time	Hall 1	Hall 2	Room 1A	Room 1B
12:00 p.m.	Preliminary Session (JRCA Symposium) 12:45 p.m. – 04:30 p.m.			
01:00 p.m.				
02:00 p.m.				
03:00 p.m.				
04:00 p.m.				
Break				
05:00 p.m.	Welcome Reception 05:00 p.m. – 06:30 p.m.			
06:00 p.m.				

SURF2026

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*Driving Innovation of
Road Surface Characteristics and Social Interaction*

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Timetable DAY 2 | Tuesday, November 10, 2026

Time	Hall 1	Hall 2	Room 1A	Room 1B
09:00 a.m.	Opening Ceremony 09:00 a.m. – 10:30 a.m.			
10:00 a.m.				
	Break			
11:00 a.m.	Surface Monitoring and Data Collection 1 11:00 a.m. – 12:40 p.m.	Surface Monitoring and Data Collection 2 11:00 a.m. – 12:40 p.m.	Eco-Friendly Surfaces and Recycling Technologies 1 11:00 a.m. – 12:40 p.m.	Cycle Path and Walkway Safety and Comfort 1 11:00 a.m. – 12:40 p.m.
12:00 p.m.				
01:00 p.m.	Poster Session #1 12:40 p.m. – 02:00 p.m.	Poster Session #2 & #3 12:40 p.m. – 02:00 p.m.	Break	Break
02:00 p.m.	Surface Monitoring and Data Collection 3 02:00 p.m. – 03:40 p.m.	Surface Monitoring and Data Collection 4 02:00 p.m. – 03:40 p.m.	Eco-Friendly Surfaces and Recycling Technologies 2 02:00 p.m. – 03:40 p.m.	Cycle Path and Walkway Safety and Comfort 2 02:00 p.m. – 03:40 p.m.
03:00 p.m.			Break	
04:00 p.m.			AI-enabled Data-driven Decision Support 1 04:10 p.m. – 05:30 p.m.	Next-Generation Vehicles and Social Needs for Pavement Surface/History and Cultural Roles of Pavement Surface 04:10 p.m. – 05:30 p.m.
05:00 p.m.			Break	
06:00 p.m.	Gala Dinner (Open) 06:00 p.m. (Start) 06:30 p.m. – 09:30 p.m.			

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*Driving Innovation of
Road Surface Characteristics and Social Interaction*

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Timetable DAY 3 | Wednesday, November 11, 2026

Time	Hall 1	Hall 2	Room 1A	Room 1B
09:00 a.m.	Surface Monitoring and Data Collection 5 09:00 a.m. – 10:40 a.m.	Relationship between Functional and Structural Performance 1 09:00 a.m. – 10:40 a.m.	Eco-Friendly Surfaces and Recycling Technologies 3 09:00 a.m. – 10:40 a.m.	Surface Improvement with Innovative Materials 1 09:00 a.m. – 10:40 a.m.
10:00 a.m.	Break			
11:00 a.m.	Surface Monitoring and Data Collection 6 11:10 a.m. – 12:30 a.m.	Surface Monitoring and Data Collection 7 11:10 a.m. – 12:30 a.m.	AI-enabled Data-driven Decision Support 2 11:10 a.m. – 12:30 a.m.	Surface Improvement with Innovative Materials 2 11:10 a.m. – 12:30 a.m.
12:00 p.m.	Poster Session #4 & #5 12:30 p.m. – 01:30 p.m.	Poster Session #6 & #7 12:30 p.m. – 01:30 p.m.	Break	Break
01:00 p.m.	Surface Monitoring and Data Collection 8 01:30 p.m. – 02:50 p.m.	Relationship between Functional and Structural Performance 2 01:30 p.m. – 02:50 p.m.	AI-enabled Data-driven Decision Support 3 01:30 p.m. – 02:50 p.m.	Eco-Friendly Surfaces and Recycling Technologies 4 01:30 p.m. – 02:50 p.m.
02:00 p.m.	Break			
03:00 p.m.	Surface Monitoring and Data Collection 9 03:20 p.m. – 04:20 p.m.	Relationship between Functional and Structural Performance 3 03:20 p.m. – 04:20 p.m.	Eco-Friendly Surfaces and Recycling Technologies 5 03:20 p.m. – 04:20 p.m.	Eco-Friendly Surfaces and Recycling Technologies 6 03:20 p.m. – 04:20 p.m.
04:00 p.m.	Break			
05:00 p.m.	Closing Ceremony 04:40 p.m. – 05:20 p.m.			

Lectern Session

DAY 2 | November 10, 2026

Surface Monitoring and Data Collection 1

Room: Hall 1 | 11:00 a.m. – 12:40 p.m. | Chair: TBD

- | No. | Title |
|---------|--|
| C000017 | Performance Verification System for Road Surface Measurement Vehicles Implemented in Japan
Keizo Kamiya, Masaru Terada, Tomoaki Kuramochi |
| C000085 | Study on Improving Measurement Efficiency Using Road Surface Condition Measurement Vehicle
Koichiro Yoshino, Tadashi Tsunematsu, Takayuki Mima |
| C000102 | Deep Learning-Based Photometric Stereo for Reliable Pavement Roughness Assessment
Benjamin Bringier, Majdi Khoudeir, Minh-Tan Do, Véronique Cerezo, Damien Pilet |
| C000139 | Road Surface Roughness Evaluation by Simplified IRI Measurement Device
Shuhei Tanabe, Kazuhiko Kumada, Masayuki Eguchi, Yuta Takahashi |
| C000197 | Deep Learning-Based Assessment of Unpaved Road Surface Condition from Smartphone Imagery
Gerald Obalim, Mitsuharu Tokunaga |

Surface Monitoring and Data Collection 2

Room: Hall 2 | 11:00 a.m. – 12:40 p.m. | Chair: TBD

- | No. | Title |
|---------|--|
| C000054 | Combining Pavement Surface Imaging and TSD measurement for Complementary Surface and Structural Diagnostic
David Malmgren-Hansen, Magnus Joergensen |
| C000056 | Development of Pavement Inspection and Diagnostic Technology for Network-Level Structural Evaluation
Takafumi Nezu, Takayuki Ayabe, Kazuhiro Watanabe |
| C000076 | Development of Composite Traffic Speed Deflectometer Index for Network-Level Structural Assessment of Pavements
Sadiya Shaikh, Pahirangan Sivapatham, Barbara Esser, Panujan Naguleswaran, Ankit Gupta |
| C000150 | Research and Development of Highway-Speed Deflectometer Using Light Section Method
Yoshinari Sano, Yuki Mera, Koichi Kawanishi |
| C000220 | Formation of homogeneous sections based on bearing capacity measurements for maintenance planning
Tim Schrödter |

Lectern Session

DAY 2 | November 10, 2026

Eco-Friendly Surfaces and Recycling Technologies 1

Room: Room 1A | 11:00 a.m. – 12:40 p.m. | Chair: TBD

- | No. | Title |
|---------|--|
| C000009 | Eco-Design Insights into High-RAP Asphalt: Assessing Rejuvenation Efficiency and Low-Temperature Resistance
Yuxuan Sun, Fan Zhang, Di Wang, Augusto Cannone Falchetto |
| C000049 | Effect of Rejuvenator Composition on Surface Microstructure and Performance of Recycled Asphalt Binder
Hideyuki Ando, Tsuyoshi Hyakutake, Iwao Sasaki, Hiroyuki Nitta |
| C000051 | Crack Initiation and Resistance in PET-Fibre-Reinforced High-Performance Asphalt: Insights from Thermal and Mechanical Testing
Mohamed Saleh, Leila Hashemian |
| C000207 | Quality Evaluation of Asphalt Mixtures Mixed with Agricultural Plastic Waste
Riku Yotsumoto, Kenichi Sato, Takuro Fujikawa, Chikashi Koga, Shigeru Yao, Shinichi Yoshitomi, Shinsei Yoshitomi |
| C000212 | Study on the Performance Recovery Characteristics of Aged Asphalt Pavements Treated with Sepiolite-SBR / Epoxidized Soybean Oil Rejuvenating Fog Seal
Tianhao Qi, Zhiqiang Shu, Jialin Tu, Tingyu Li, Yu Yan |

Cycle Path and Walkway Safety and Comfort 1

Room: Room 1B | 11:00 a.m. – 12:40 p.m. | Chair: TBD

- | No. | Title |
|---------|---|
| C000048 | Towards Safe and Comfortable Cycle Paths: Measurement Methods for Assessing Surface Quality
Anneleen Bergiers, Luc Goubert, Tim Massart, Van Geem Carl, Ali Yeganeh |
| C000052 | Finite Element Analysis of Bicycle-Pavement Interaction for Cycle Path Skid Resistance and Braking Performance
Ali Yeganeh, Linh Thuy Nguyen, Ali Pirdavani, Luc Goubert, Anneleen Bergiers, Tim Massart, Carl Van Geem |
| C000057 | Cycle Path Evenness Evaluation in 3D
Roland Spielhofer, Torsten Merken, Ulrike Stöckert |
| C000090 | The Skid Resistance of Cycle Infrastructure: An Empirical Study
Luc Goubert, Tim Massart, Carl Van Geem, Anneleen Bergiers, Ali Yeganeh |
| C000147 | Application of a Motion Base Driving Simulator in the Ride Quality Evaluation of Cycle Paths
Kazutoki Kagawa, Takuma Sanada, Yasuo Endo, Kimio Maruyama, Kazuya Tomiyama |

Lectern Session

DAY 2 | November 10, 2026

Surface Monitoring and Data Collection 3

Room: Hall 1 | 02:00 p.m. – 03:40 p.m. | Chair: TBD

No. Title

- C000018 **A Study on Road Surface Usability Characteristics Such as Skid Resistance and Surface Texture After Surface Grinding Using Diamond Cutters and Their Effect on Reducing Traffic Accidents**
Takahiro Sato, Kimio Maruyama
- C000022 **Efficient Prediction of Highway Friction from High-Speed Texture Profiles**
Can Chen, Christian Andres Sabillon-Orellana, Danilo Inoue, Jorge A. Prozzi
- C000011 **Optimal Sampling Frequency for Network-Level Pavement Texture Parameter**
Christian Andres Sabillon-Orellana, Danilo K.N. Inoue, Jorge Prozzi
- C000046 **Harmonizing Pavement Skid-Resistance Measurements: Review from four editions of the European Pavement Friction Workshops**
Veronique Cerezo, Sylvie Dauvergne, Malal Kane, Minh-Tan Do
- C000066 **Effect of aggregates' hardness on tire-road wear particle emissions**
Manuela Lopes Genesseeaux, Minh-Tan Do, Stepan Bobrovnikov, Xuan-Trinh Truong, Bilel Jebali

Surface Monitoring and Data Collection 4

Room: Hall 2 | 02:00 p.m. – 03:40 p.m. | Chair: TBD

No. Title

- C000059 **Data-Centric Pavement Crack Segmentation with In-Vehicle Smartphones and Human-in-the-Loop Annotation**
Chunliang Xue, Kai Xue, Naoto Yokozawa, Boyu Zhao, Tomonori Nagayama
- C000061 **Preventive Pavement Maintenance Management Using Predicted Crack Progression**
Mikako Sano, Shuichi Kameyama, Susumu Matsui, Akira Sakuraba, Toru Morioka, Kou Onodera
- C000080 **Development of a Crack Evaluation Method for Expressways Using Deep Learning and Comparative Verification with Conventional Methods**
Keizo Endo, Shigeru Shimeno, Tetsuya Konno, Shinpei Chiba, Hayato Nakajo
- C000131 **Pavement Repair Planning Using a Crack Depth Estimation Method**
Kunikazu Saito, Hitoshi Ishii, Masasi Kon, Manabu Kohei, Sadao Sato, Masayuki Minegishi, Yuji Takasago, Ain Yamazaki, Kazuma Ando, Ryosuke Ebina, Keigo Mikami
- C000186 **Investigation on the Relationships between Cracking Conditions and Functional Performance of Road Pavements**
Valeria Farruggia, Orazio Baglieri, Enea Sogno, Ezio Santagata

Lectern Session

DAY 2 | November 10, 2026

Eco-Friendly Surfaces and Recycling Technologies 2

Room: Room 1A | 02:00 p.m. – 03:40 p.m. | Chair: TBD

- | No. | Title |
|---------|--|
| C000037 | Study on CO₂ Fixation in Asphalt Mixtures by Chemisorption Method
Naotoshi Watanabe, Shingo Kitazoe, Yoshihide Tanaka, Yasuhiro Sakamoto |
| C000055 | Investigation of CO₂-Fixing Pervious Concrete for Pavement Decarbonization
Hiroshi Fujii, Kazuhiro Yamauchi, Takafumi Noguchi |
| C000082 | Development of Environmentally Friendly Asphalt Mixtures Utilizing Carbon-Negative Materials
Norihiro Tachibana, Taimin Hiramatsu, Tadashi Tsunematsu |
| C000087 | Evaluation of the Practicality of Mixture Using Natural / Plant-Based Binder for CO₂ Emission Reduction
Keisuke Aoyagi, Hiroshi Fujii, Tsuyoshi Hyakutake |
| C000124 | Study on CO₂ Reduction Methods in the Aggregate Heating Process of Asphalt Mixture Manufacturing
Junji Kubota, Shinichi Tsuchikawa |

Cycle Path and Walkway Safety and Comfort 2

Room: Room 1B | 02:00 p.m. – 03:40 p.m. | Chair: TBD

- | No. | Title |
|---------|---|
| C000094 | Road Safety (DX) from the User Viewpoint: Streamlining School Route Management in Mountainous Regions
Thae Su Nyein, Keiji Mikoshiba, Etsuko Kusuda, Noriyoshi Kitahara |
| C000123 | Performance Evaluation of Environmentally Friendly Geothermal Snow Melting System at an Expressway Rest Area in a Severe Cold Region
Rina Kitamura, Tadashi Maruyama, Hirokazu Koizumi, Taichi Saito, Satoki Wada, Kento Suzuki |
| C000136 | Research on Hazard Inspection in Pedestrian Spaces Using a Mobile Robot Vehicle
Yoshiki Kawano, Ikuo Yamamoto, Akihiro Morinaga, Takeki Haraguchi, Ikkei Nishitake, Kazunari Hirakawa, Quoc Thuyet Dang |
| C000146 | Evaluation of Road Surface in Pedestrian Spaces Considering Walkability Based on Pedestrian Body Core Acceleration
Subaru Yoshida, Kazuya Tomiyama, Takuma Sanada, Shohei Sakan, Kazushi Moriishi |
| C000164 | Direction of Case Examples for Freeze-restraint Musial Road
Reina Yaginuma, Hiroyasu Katou, Kunihiro Adachi |

Lectern Session

DAY 2 | November 10, 2026

AI-enabled Data-driven Decision Support 1

Room: Room 1A | 04:10 p.m. – 05:30 p.m. | Chair: TBD

- | No. | Title |
|---------|--|
| C000020 | Machine Learning Based Forecasting of Winter Road Surface Grip
Hao Wang |
| C000079 | Impact of Frozen Road Surfaces on Vehicle Safety: An Approach Using CARSIM and Machine Learning
Thuyet Quoc Dang, Ha Vinh Tran, Akihiro Kuno, Shuichi Kameyama |
| C000097 | Network-Level Evaluation of Pothole Risk Using a Simple In-Vehicle Camera and U-Net-Based Crack-Shape Analysis
Rau Tomidokoro, Takumi Asada |
| C000224 | International Friction Index (IFI) Prediction with Machine Learning for Pavement Management System
Ponlathep Lertworawanich, Songyasin Chonpatathip |

Next-Generation Vehicles and Social Needs for Pavement Surface / History and Cultural Roles of Pavement Surface

Room: Room 1B | 04:10 p.m. – 05:30 p.m. | Chair: TBD

- | No. | Title |
|---------|--|
| C000086 | Urban Pavement Condition Monitoring Using LiDAR-Instrumented Vehicles: Preliminary Experimental Evidence
Monica Meocci, Misagh Ketabdari, Valentina Bonora, Emanuele Toraldo |
| C000113 | Study on Pavement Sensing Using Optical Fibers for Pedestrian Position Detection
Tetsuri Kaji, Tomoya Monden, Masahiro Higuchi, Shozo Takaba, Kotaro Fujiwara, Yuichi Yoshimura, Michio Imai, Kenichi Soga, Hidehiko Sekiya, Ikumasa Yoshida |
| C000143 | Development and Field Application of Remote Operation and Automatic Steering Technology for an Asphalt Paver
Kaiho Takeuchi, Tomohiro Koshiba, Yoshihiro Bandou |
| C000095 | Empirically Accelerated Pavement Testing Track for Evaluating the Long Term Pavement Durability
Kazunari Hirakawa, Akihiro Kuno, Yin Lei Leo Swe |

Lectern Session

DAY 3 | November 11, 2026

Surface Monitoring and Data Collection 5

Room: Hall 1 | 09:00 a.m. – 10:40 a.m. | Chair: TBD

- | No. | Title |
|---------|---|
| C000058 | Introducing the Weighted Longitudinal Profile (WLP) as Acceptance Test Method in Austria and Germany
Roland Spielhofer, Andreas Großmann, Reinhard Lohmann-Pichler, Tobias Riedl |
| C000064 | Application of Synthetically Trained Deep Learning Models in Chronological Pavement Surface Monitoring
Krishna Modak, Di Su, Kai Xue, Naoto Yokozawa, Tomonori Nagayama |
| C000115 | E-NEXCO INDIA's Initiatives for Pavement Condition Survey in India
Kentaro Oba, Tatsuo Takano, Kazuhiko Kumada, Michiya Kitayama, Kazuhiro Okajima, Keizo Endo, Takehiro Yamamoto |
| C000184 | Surface Characteristics Assessment with Traditional and Remote Monitoring Techniques
Simona Fontul, Dora Roque |
| C000211 | Image-Based Monitoring and Analysis of Pavement Condition in Weigh-In-Motion Systems
Chun-Yu Liu, Jyun-Ping Jhan |

Relationship between Functional and Structural Performance 1

Room: Hall 2 | 09:00 a.m. – 10:40 a.m. | Chair: TBD

- | No. | Title |
|---------|--|
| C000039 | German Guidelines M OB – Methods for Creating Surface Textures on Cement Concrete Pavements
Tim Alte-Teigeler |
| C000047 | Revision of Technical Standards for Pavement in Japan
Masashi Masuda |
| C000108 | Study on a Formula for Estimating the Average Temperature of Asphalt Mixture Layers Considering Application to MWD
Daisuke Matsumoto, Yasushi Takeuchi, Yuya Wakabayasahi, Syunsuke Tanaka, Chigusa Ueno, Kimio Maruyama |
| C000198 | Towards Full Deflection Bowl Characterization Beyond D0 Using a Moving Wheel Deflectometer: Integration of Viscoelastic FE Analysis and Practical Sensor Methods
Jun Umeda, Takuto Suzuki, Marei Inagi |
| C000205 | Evaluating Lane-Wise Loading Effects on Pavement Condition and Rehabilitation Strategies: A Practical Framework Using WIM and Network-Level Condition Data
Asyraf Naim bin Jamal Shahid Gurdial, Md Yunus bin Ab Wahab |

Lectern Session

DAY 3 | November 11, 2026

Eco-Friendly Surfaces and Recycling Technologies 3

Room: Room 1A | 09:00 a.m. – 10:40 a.m. | Chair: TBD

No. Title

- C000042 **Utilization Technology of Hot Mix Asphalt Using 100% Recycled Aggregates in Japan**
Ryota Sasaki, Satoshi Sagawa
- C000078 **Evaluation of Cracking Resistance Across a Wide Temperature Range for Repeatedly Recycled Asphalt Binders and Asphalt Mixtures**
Thanh Nhat Tran, Hideyuki Ando, Tsuyoshi Hyakutake, Iwao Sasaki, Hiroyuki Nitta
- C000130 **Evaluation of Carbonation Curing Conditions and Field Applicability of CO₂-Capture Concrete Pavements**
Akane Muto, Kengo Seki, Ryuzo Kamishita, Shota Taguchi, Satoru Iwata
- C000168 **Multiple Recycling of Asphalt Pavements with High Contents of Recycled Asphalt Aggregates**
Joralf Aurstad, Roar Telle, Kjartan Eggebø
- C000191 **Investigation of Damage Mechanisms in New and Recycled Asphalt Mixtures Using X-ray CT at the Large-Scale Synchrotron Radiation Facility SPring-8**
Akira Seo, Yosuke Higo, Hirofumi Ito, Kiyoshi Kobayashi

Surface Improvement with Innovative Materials 1

Room: Room 1B | 09:00 a.m. – 10:40 a.m. | Chair: TBD

No. Title

- C000044 **AFM Elastic Modulus Mapping-Based Fundamental Study of Structure-Physical Property Correlations in Asphalt**
Miyu Fukaya, Ryotaro Shimizu, Toshiaki Hirato
- C000063 **Development of New Slurry Material for Airport Pavement Surfaces**
Binhui Wang, Yuji Seshita, Tomio Hiraoka
- C000077 **Evaluation of The Effect of Aggregate Gradation on Non-exhaust Particulate Matter (PM) Emissions in SMA**
Kyungnam Kim, Jong-Sub Lee, Soonmin Kwon
- C000161 **Construction Case Studies and Effectiveness Verification of Anti-Icing Pavement Using Surface Treatment Methods According to Application Location**
Satoshi Yanaka
- C000167 **A Study on Structural Investigation of Asphalt Pavement in Cambodia**
Otdom Penh, Takuya Maeshima, Jinxian Chou

Lectern Session

DAY 3 | November 11, 2026

Surface Monitoring and Data Collection 6

Room: Hall 1 | 11:10 a.m. – 12:30 p.m. | Chair: TBD

No. **Title**

- C000126 **Improving The Efficiency of Sidewalk Maintenance Using 3D Data**
Namrata Bista, Kazushi Moriishi, Kazuya Tomiyama, Takuma Sanada
- C000140 **Development of a 3D Camera and IoT-Based System for Identifying Defective Ground**
Youhei Tachibana, Tsubasa Komasa, Hisashi Aita
- C000148 **Integrated Use of Terrestrial Laser Scanner and Photogrammetry for Monitoring and Predicting Road Deformation**
Rogelio, Jr. Ontiveros Agron, Kazuya Tomiyama
- C000174 **Improvement of Three-dimensional Surface Inspection in Sidewalks by a Local Difference Filter Applied to Point Clouds**
Shohei Sakan, Kazuya Tomiyama, Takuma Sanada, Subaru Yoshida, Kazushi Moriishi

Surface Monitoring and Data Collection 7

Room: Hall 2 | 11:10 a.m. – 12:30 p.m. | Chair: TBD

No. **Title**

- C000069 **Surface Characteristics of Porous Concrete for Removable Urban Pavement (RUP): Optimisation and Monitoring Under Real Traffic Conditions**
Eric Genesseeux, Christophe Ropert, Minh-Tan Do, Thierry Sedran, Véronique Cerezo, Julien Waligora, Laurent Monnier
- C000071 **Optimizing Hot Mix Asphalt Macrotexture at the Mix Design Stage**
Stephen Goodman
- C000099 **Effect of Differences in the Relative Permittivity of Pavement Layers on the Electromagnetic Characteristics of Cement Concrete Pavements with Subsurface Voids**
Kohko Inaba, Ryoki Matsuta, Shinichi Watanabe, Hideki Naito, Takuya Maeshima
- C000170 **Quantitative Texture Characterization and Functional Evolution of Grooved Airport Cement Concrete Pavements under Rubber Deposits**
Ziye Ma, Huyang Cao, Tian Yuan, Yandi Zhang, Hainian Wang

Lectern Session

DAY 3 | November 11, 2026

AI-enabled Data-driven Decision Support 2

Room: Room 1A | 11:10 a.m. – 12:30 p.m. | Chair: TBD

No. Title

- C000031 **Enhancing Multi-Distress Pavement Detection Accuracy of Deep Learning Models Through Dataset Optimization**
Ha Vinh Tran, Thuyet Quoc Dang, Kensuke Kimura, Akihiro Kuno, Kazuya Tomiyama
- C000103 **Long Short-Term Memory-Based Prediction of Flexible Pavement Surface Layer Performance Using Inspection Time-Series Data**
Bernardo Mota Lontra, Leo Franoso Dal Piccol Sotto, Jan-Hinrik Borchers, Gina Torres-Alves, Artem Yushchenko
- C000117 **Development and Technical Verification of A Temperature-inference Type Compaction Management System**
Satoru Kajiwara
- C000133 **Exploratory Analysis of Road Surface Vibration Effects on Occupant Heart Rate Variability Using a Driving Simulator**
Mengqi Zheng, Sota Hokiya, Takuma Sanada, Tomoya Kitani, Kazuya Tomiyama

Surface Improvement with Innovative Materials 2

Room: Room 1B | 11:10 a.m. – 12:30 p.m. | Chair: TBD

No. Title

- C000128 **Development of Paving Materials to Replace Asphalt**
Takeru Tsutsumi, Hiromi Murai, Tsuyoshi Hyakutake
- C000153 **Evaluation of Rutting Resistance under Severe Conditions with Warm Mixed and High Rutting Resistance Polymer-Modified Asphalt**
Ryota Fujikawa, Takehiro Takamoto, Shinsuke Tanaka
- C000172 **Efforts to Extend the Life of Pavement by High-Durability Asphalt Pavement Using Modified Asphalt with Excellent Crack and Rutting Resistance**
Shu Aikawa, Marin Toyama, Nobuyuki Nakao, Tran Thanh Nhat, Masashige Aoki
- C000178 **Study on Geopolymer Concrete for Paving Using Recycled Plastics**
Phaipakone Soulathathone, Daishin Hanaoka

Lectern Session

DAY 3 | November 11, 2026

Surface Monitoring and Data Collection 8

Room: Hall 1 | 01:30 p.m. – 02:50 p.m. | Chair: TBD

No. Title

- C000074 **From Empirical to Intelligent: Optimization of Grading Standards for Pavement Distress in Automated Inspection**
Hui Wang, Wenruo Fan, Shengchuan Jiang, Zhoucong Xu
- C000083 **Development of a Pothole and Pavement Distress Detection Model Using Vehicle Big Data**
Yuki Ito, Kyeonghwan Kaku, Shinpei Nomoto
- C000110 **Pothole Risk Assessment for Preventive Maintenance in Cold and Snowy Regions**
Mayu Hazama
- C000192 **Development of a Frequency-based Metric for Characterizing Transverse Profiles**
Aditya Kumar, Aditya Medury, Animesh Das

Relationship between Functional and Structural Performance 2

Room: Hall 2 | 01:30 p.m. – 02:50 p.m. | Chair: TBD

No. Title

- C000109 **The Relationship Between Asphalt Pavement Damage and Vertical Compressive Strain in the Granular Base Layer**
Naoki Yamamoto, Yasushi Takeuchi, Yuya Wakabayashi, Masaaki Kuwabara
- C000119 **Evaluation of the Adhesion Performance of an Epoxy-Based Corrosion Inhibitor for Steel Decks bridge Incorporating Thermally Expandable Microcapsules**
Akitaka Kiuchi, Yatuhiro Ichinose, Shinya Yokota, Kazuhiko Minakuchi, Hiroyuki Noguchi
- C000173 **Development of Poured Waterproof Asphalt with Low-Molecular Weight Modifier Additives**
Jang Daeseong, Han Kyungho, Cho Jeonghwan, Son Changmin, Lee Jaejun
- C000218 **Influence of Pavement Surface Characteristics on Fine Particle Generation: A Controlled Rolling Experimental Study**
Antoine-Victor Chavas, Mohamed Bouteldja, Nicolas Grignard, Younes Rizoug-Zeghlache

Lectern Session

DAY 3 | November 11, 2026

AI-enabled Data-driven Decision Support 3

Room: Room 1A | 01:30 p.m. – 02:50 p.m. | Chair: TBD

No. Title

- C000098 **Traffic Impact Assessment of Earthquake-Induced Pavement Damage Using Connected Car Data and Machine Learning: The Case of the 2024 Noto Peninsula Earthquake**
Saki Tabata, Takumi Asada
- C000106 **Graph Convolutional Networks for Network-Level Forecasting of Pavement Surface Condition Indicators**
Artem Yushchenko, Jan-Hinrik Borchers, Bernardo Mota Lontra, Léo Francoso Dal Piccol Sotto, Gina Torres-Alves
- C000142 **Development of a Machine Learning-based Prediction Model for Forecasting the Pavement Surface Deterioration of Ghanaian Trunk Roads**
Belinda Mamphey, Kazuya Tomiyama
- C000175 **A Dual-Model Machine Learning Framework for Pavement Rutting and Condition Classification**
Aaditya Ojha, Jialu Yu, Shadi Saadeh

Eco-Friendly Surfaces and Recycling Technologies 4

Room: Room 1B | 01:30 p.m. – 02:50 p.m. | Chair: TBD

No. Title

- C000060 **Pushing the Boundaries For Asphalt Recycling in Surface Layers**
Alexandros Margaritis, Tine Tanghe, João Crucho, Stefan Vansteenkiste
- C000089 **Next Generation Concrete Surface (NGCS): a Status Quo**
Luc Goubert
- C000121 **Fundamental Study on the Application of Recycling Methods for Pavement Milling Material to Frost Heave Mitigation Layers**
Fuminori Sakata, Junnosuke Tsukahara, Seiji Aoyama, Hiroyuki Sakagami, Daisuke Matsumoto
- C000159 **Climate-Resilient Pavement with a Lateral Inflow System: Experimental Study on Inflow Characteristics via Ditch Openings**
Shuntaro Inagaki, Shinichiro Nakashima

Lectern Session

DAY 3 | November 11, 2026

Surface Monitoring and Data Collection 9

Room: Hall 1 | 03:20 p.m. – 04:20 p.m. | Chair: TBD

No. Title

- C000107 **A Syudy on the Measurement Accuracy and Usefulness of Mobile Asphalt Pavement Density Measuring Device**
Hiroyasu Nakamura, Xingcheng Chen, Akira Sakuraba, Akira Sasaya, Shuuichi Kameyama
- C000204 **Research on the Detection of Moisture within Pavement Using Neutron Beams**
Hiromu Furuhashi, Shigeki Takahashi, Souhei Imajou, Maki Mizuta, Tomonori Fukuchi
- C000165 **Optimization of Surface Characteristics Considering Personal Mobilities with Vulnerable Road Users**
Kazuya Tomiyama, Massimiliano Gastaldi, Riccardo Rossi

Relationship between Functional and Structural Performance 3

Room: Hall 2 | 03:20 p.m. – 04:20 p.m. | Chair: TBD

No. Title

- C000127 **Machine Learning Approaches for Predicting Asphalt Pavement Structural Integrity Using PMS Data**
Kazutaka Suzuki, Kiyoyuki Kaito, Kotaro Sasai
- C000188 **Relationship between Differential Settlement of the Pavement Surface and Stiffness Distribution of Pavement and Ground Estimated by Surface Wave Exploration**
Kyosuke Onishi, Atsushi Kajiyama, Ryosuke Hosokawa, Eri Fukada, Yoshinori Yajima, Masahiko Yamaki
- C000190 **Curling Effects of Cement Concrete Slabs on Runway Roughness Indices**
Qiang Wang, Lin Qi, Xuefang Chen, Yixia Gao

Lectern Session

DAY 3 | November 11, 2026

Eco-Friendly Surfaces and Recycling Technologies 5

Room: Room 1A | 03:20 p.m. – 04:20 p.m. | Chair: TBD

- | No. | Title |
|---------|---|
| C000010 | Rubber Asphalt Chip Seals for Sustainable Pavement Preservation: an Eco-Friendly Surfaces and Recycling Technology
Zhanping You |
| C000030 | Theoretical and Empirical Approaches to Construction Time Reduction Using Warm-Mix Asphalt
Hiroshi Iwabuki, Haruki Aoyama, Mitsuru Yoshida, Yasuhide Takahama |
| C000134 | Study on the Expansion of Application of Foamed Asphalt
Yoshihisa Komori, Hiromi Murai, Yoshitaka Suzuki, Toshihiro Yoshino |

Eco-Friendly Surfaces and Recycling Technologies 6

Room: Room 1B | 03:20 p.m. – 04:20 p.m. | Chair: TBD

- | No. | Title |
|---------|--|
| C000041 | An Experimental Study on Recycling Method of Polymer Modified Asphalt Mixture by Using Recycled Aggregate from Asphalt Plants
Naoto Yokozawa, Shoto Kobayashi, Atsushi Kawakami, Kazuhiro Watanabe, Satoshi Sagawa |
| C000122 | Laboratory experiments to Characterize Mixture Properties for Establishing a Mix Design Method for Recycled Polymer Modified Asphalt Mixtures
Shota Kobayashi, Naoto Yokozawa, Atsushi Kawakami, Kazuhiro Watanabe, Satoshi Sagawa |
| C000145 | Curling Effects of Cement Concrete Slabs on Runway Roughness Indices
Konatsu Masuda, Mayo Shimodate, Takuya Maeshima, Ryotaro Takahashi, Tsukasa Ichikawa, Shinji Okuda, Tsuyoshi Hyakutake |

Poster Session #1

DAY 2 | November 10, 2026

Surface Monitoring and Data Collection

Room: Hall 1 | 12:40 p.m. – 02:00 p.m. (Core Time: 01:15 p.m. – 01:45 p.m.) | Chair: TBD

- | No. | Title |
|---------|--|
| C000112 | Development of an Algorithm Based on Residual Deicing Salt on Road Surfaces
Jang Daeseong, Lim Chisu, Kwon Ohsun, Lee Jongsub, Lee Jaejun |
| C000154 | Riding Quality Evaluation for Large Vehicles by Simplified IRI Measurement Device
Yuta Takahashi, Masayuki Eguchi, Syuhei Tanabe, Kazuhiko Kumada |
| C000162 | Utilization of Laser Measurement Data for CO Pavement Assessment and Suppression of Imaging Environment Variability
Nobuyuki Oe, Hisashi Takagi, Junichi Morohashi, Koichi Inoue, Tomoaki Sakai, Tomonori Aihara |
| C000179 | Compaction of the asphalt layers
Nina Kepic, Damjan Zore |
| C000187 | Pilot study for the verification of pavement surveying equipment in Mexico
Ricardo Solorio, Agustin Sanchez, Horacio Delgado, Noe Hernandez |
| C000035 | Citywide Pavement Surface and Grip Monitoring in Madrid Using Connected Vehicle Data
Jose Valdecantos, Jose Miguel Baena, Asunción Otero |
| C000040 | Surface State Deterioration of the Cement Concrete Pavement of Airport Movement Areas Due to Introduction of E Code Aircraft
Zsolt Boros, Filip Buček |
| C000070 | Friction and Reflectance of Various Crosswalk Marking Materials and Colours in Urban Setting subjected to Winter Maintenance
Stephen Goodman |
| C000072 | Machine Learning-based Modeling of Pavement-Induced Rolling Resistance in a Battery Electric Vehicle
Gerardo Gravante, Joao Santos, Veronique Cerezo |
| C000073 | A New EU Technical Specification on the Characterization of Acoustic Properties of Road Surfaces
Fabienne Anfosso Ledee |

Poster Session #2

DAY 2 | November 10, 2026

Eco-Friendly Surfaces and Recycling Technologies

Room: Hall 2 | 12:40 p.m. – 02:00 p.m. (Core Time: 01:15 p.m. – 01:45 p.m.) |

Chair: TBD

- | No. | Title |
|---------|--|
| C000084 | Investigation of Load-Bearing Characteristics of Layered Soilbag Roadbed Using Pressure Measurement Film
Airu Sato, Shigeru Maruo, Shuuhei Mitsutani, Ryunosuke Kido |
| C000088 | Optimisation In Texture Grinding: Increased Quality of Grinding Surfaces Through an Automated Parallel Guidance
Tim Alte-Teigeler |
| C000100 | Solutions for Reduced Microplastic Emissions of Asphalt Pavements
Tim Alte-Teigeler |
| C000062 | Development of Asphalt Pavement Additives Made from Recycled Waste Plastics
Yuhei Kuroda, Masakazu Iwanaga, Junichi Haga |
| C000114 | Warm Mix High Modulus Asphalt for Road Replacement on the E17 KAN-ETSU Expressway
Tsutomu Ishigaki, Noriaki Sugawara, Jun Takeuchi, Junichi Asaka, Haruto Tsuneki |
| C000141 | Effect of Binder Properties of RAP Asphalt on the Physical Performance of Recycled Asphalt Mixtures
Haruhiko Yoneta, Yasuaki Kobayashi, Osamu Takahashi |
| C000151 | "Bio-ascon" With Plant Lignin for Low Carbon Pavements
Nobuyuki Nakao, Shu Aikawa, Tran Thanh Nhat, Masashige Aoki |

Poster Session #3

DAY 2 | November 10, 2026

Relationship between Functional and Structural Performance

Room: Hall 2 | 12:40 p.m. – 02:00 p.m. (Core Time: 01:15 p.m. – 01:45 p.m.) |

Chair: TBD

- | No. | Title |
|---------|--|
| C000008 | Asphalt Pavement Structural Condition Criteria Based on Deflection Measurement and Its Relationship with Functional Performance
Auckpath Sawangsuriya |
| C000065 | Rutting Performance of Asphalt Pavements: A Combined Study on Mixture Performance and Bitumen Rheological Behaviour
Luca Colombo, Michel Di Tommaso, Vito Giovanni Gallo, Giuseppe Macaluso, Carmine Rizzato, Misagh Ketabdari, Emanuele Toraldo |
| C000091 | Correlations Between Surface Condition Parameters and Bearing Capacity Measurements Obtained With the TSD in a Municipal Context in Germany
Barbara Kristine Esser, Tim Robert Braun, Pahirangan Sivapatham, Panujan Naguleswaran |
| C000116 | Evaluation of Void Geometry in Asphalt Concrete Using Persistent Homology
Kosei Shibahara, Yuta Ogata, Kotaro Sasai, Kiyoyuki Kaito |
| C000166 | Reframing Pavement Maintenance Prioritization: Linking Surface Characteristics with Economic Efficiency in Urban Transport Systems
Rakesh Bhattarai |
| C000125 | Durability of a Rapid Repair Method for Preventing Fragment Scatter and Crack Propagation in Concrete Pavements
Zenan Wu, Tsuyoshi Hara |
| C000137 | Mechanisms of Pumping Erosion in Granular Base Layer: An Experimental Visualization Study Using Crushed Stone
Kazuki Shigehiro, Shunsuke Tanaka, Kazuhiro Watanabe, Shinichiro Nakashima |

Poster Session #4

DAY 3 | November 11, 2026

Eco-Friendly Surfaces and Recycling Technologies

Room: Hall 1 | 12:30 p.m. – 01:30 p.m. (Core Time: 12:45 p.m. – 01:15 p.m.) |

Chair: TBD

- | No. | Title |
|---------|---|
| C000026 | Explainable AI-Assisted Experimental Study on Anti-Aging Mechanisms of Lignin-Modified Asphalt
Houzhi Wang, Jiayue Yun, Xinyu Xie, Shinan Liu, Jun Yang |
| C000029 | Evaluation of Technologies for Reducing CO₂ Emissions in Exhaust Gases during Asphalt Mixture Production
Yuki Nakagawa, Nami Fukuyama |
| C000036 | Study on the Practical Use of Cold Mix Asphalt in Japan
Hui Qu, Atsushi Nagahara |
| C000135 | Development of Asphalt Mixtures that can be Handled at Ambient Temperatures and Exhibit High Durability
Fuka Osaki, Hajime Godenki, Shinya Hayashi, Akitaka Kiuchi |
| C000155 | Development of Low Carbon Semi-flexible Pavement using CO₂-based Recycled Material
Muhamad Afif Bin Osman, Masahiko Iwama, Kenichi Yasuhisa, Sachiko Hayashiguchi, Yuta Itoh |
| C000156 | Development of a Warm-Mix Polymer-Modified Asphalt for Recycling with up to 50% Reclaimed Asphalt Pavement
Takehiro Takamoto, Reon Shirasu, Sadaharu Ueno, Sinsuke Tanaka |

Poster Session #5

DAY 3 | November 11, 2026

AI-enabled Data-driven Decision Support

Room: Hall 1 | 12:30 p.m. – 01:30 p.m. (Core Time: 12:45 p.m. – 01:15 p.m.) |

Chair: TBD

- | No. | Title |
|---------|---|
| C000096 | Multimodal AI-Based Pavement Inspection with an Action Camera: Wide-Area Deployment Impact Assessment in Hokkaido, Japan
Yuri Konno, Takumi Asada, Hiroyuki Oikawa, Shuichi Kameyama |
| C000093 | Will AI-enhanced Solid State LiDAR Technology Disrupt the Pavement Management Efficiency?
Kris FMD De Meester |
| C000157 | Study on Aggregate Gradation Estimation Using Image Recognition AI and Accuracy Enhancement
Mika Serita, Maiko Hirano, Saki Endo |
| C000163 | Proposal of Quantitative Deterioration Assessment Method for Pavement Markings using Semantic Segmentation
Nobuyuki Oe, Hisashi Takagi, Tomoki Tajima, Tomoaki Sakai, Tomonori Aihara |
| C000067 | IRI Prediction Modelling for Brun-Way: Statistical and Machine Learning Approaches for Forecasting Pavement Roughness
Jean-Sébastien Lacombe, Hunter Song |
| C000225 | AI-Based Enhancement of Traditional Condition Index Frameworks for Road Management in Argentina
Gustavo Mezzelani |

Poster Session #6

DAY 3 | November 10, 2026

Surface Monitoring and Data Collection

Room: Hall 2 | 12:30 p.m. – 01:30 p.m. (Core Time: 12:45 p.m. – 01:15 p.m.) |

- | No. | Title |
|---------|--|
| C000032 | An On-road Methodology for the Assessment of the Performance of Friction Test Devices
Peter Sanders, Johan Kälvesten, Matteo Pettinari, Håkan Frank, Albert Navarro |
| C000033 | Vehicles Can Talk Road Safety; We Should Be Listening
Björn Zachrisson, Peter Sanders, Johan Petersson, Håkan Frank |
| C000043 | Surface Texture Indices for Evaluating the Skid Resistance of Rigid Pavements Worn and Polished by Vehicle Tire
Hidefumi Izuo, Taiju Endo, Atushi Ueno, Chigusa Ueno |
| C000199 | Integrating Vehicle Sensor Data into Safety and Maintenance Management on a Municipal Road Network
João Lourenço Cardoso, Carlos Roque, Fontul Simona, Reinier Jansen, Isabela Erdelean, Katia Pagle, Dario Babić, Steve Lawson, Nathan Arphan |
| C000120 | Considerations on the Overseas Deployment of Japan's Pavement Condition Survey Technologies
Kohei Sakai, Tetsuo Uno, Ryusuke Kaneko |
| C000132 | Development of a Multi-Point Local Vibration Method for Non-Destructive Evaluation of RC Bridge Decks
Shinichi Watanabe, Hideki Naito, Takuya Maeshima, Kohko Inaba, Muhamad Afif Bin Osman |
| C000149 | Potential Application of Physiopsychological Response to the Human-Centered Surface Evaluation in Indonesia
Arthika Putri Syahfani, Kazuya Tomiyama |

SURF2026

November 9-11, 2026 | Tokyo, Japan

*Driving Innovation of
Road Surface Characteristics and Social Interaction*

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Poster Session #7

DAY 3 | November 10, 2026

Surface Improvement with Innovative Materials 3

Room: Hall 2 | 12:30 p.m. – 01:30 p.m. (Core Time: 12:45 p.m. – 01:15 p.m.) |

No. **Title**

C000053 **The BAST Test Facility (duraBAST)-From Idea to Successful Operation**

Stefan Hoeller

C000129 **Development of an All-weather, Highly Durable Cold Asphalt Mixture for Pavement Repair**

Yuuta Okuzawa, Takeru Tsutsumi, Hiromi Murai

C000138 **The New Pavement Surface Treatment Material Worked by Neighbors for Small Roads**

Yoshifumi Misawa, Ryota Maekawa, Tomio Hiraoka

C000152 **Performance Evaluation of SBS-Modified Asphalt for Rutting Resistance Considering Traffic and Weather Conditions in Ethiopia**

Mastewal Shumet Messele, Naorari Shitara, Toshiaki Hirato, Kazuya Tomiyama

C000185 **Friction Performance of Hot Mix Asphalt with Limestone and Silicious Aggregates after 1-Million Laboratory Polishing Cycles**

Phillip B Blankenship, Stephen Goodman