

CEW2020 conference program

Dear Colleagues and Friends,

It is our pleasure to welcome you to the 6<sup>th</sup> Chinese-European Workshop (CEW) on Functional Pavement Design hosted by Southeast University, in Nanjing, China, on October 18-21, 2020. Wish you enjoy this online event and have a fruitful exchange!

For more info, please visit: <https://tc.seu.edu.cn/cew2020/main.htm>.

### CEW2020 Meeting information

Date and Time (GMT+8)	Venues	Zoom Meeting ID	Password	Link
Oct. 18, 08:30-12:30	<b>Fellow's Forum</b>	639 242 82209	889311	<a href="https://zoom.com.cn/j/63924282209">https://zoom.com.cn/j/63924282209</a>
Oct. 18, 14:30-15:00	<b>Opening session</b>			
Oct. 18, 15:00-18:30	<b>Invited Keynote Speech</b>			
Oct. 19, 15:00-18:30	<b>CN-NL special session: Innovative Sustainable Pavement Technologies</b>	622 323 01582	384281	<a href="https://zoom.com.cn/j/62232301582">https://zoom.com.cn/j/62232301582</a>
	<b>Parallel session 1: Functional Asphalt/cementitious Materials and Pavement</b>	663 187 11049	579276	<a href="https://zoom.com.cn/j/66318711049">https://zoom.com.cn/j/66318711049</a>
Oct. 20, 15:00-18:30	<b>CN-DE special session: Simulation and Environmental effects of pavements</b>	665 418 78549,	328758	<a href="https://zoom.com.cn/j/66541878549">https://zoom.com.cn/j/66541878549</a>
	<b>Parallel session 2: Simulation and Environmental effects of pavements, Pavement Surface Properties</b>	636 115 43224	910585	<a href="https://zoom.com.cn/j/63611543224">https://zoom.com.cn/j/63611543224</a>
Oct. 21, 15:00-18:30	<b>CN-UK-SA special session: Pavement Acceleration Tests big data and Specification of Mobile Load Simulators</b>	642 425 38210	413726	<a href="https://zoom.com.cn/j/64242538210">https://zoom.com.cn/j/64242538210</a>
Oct. 21, 15:00-18:30	<b>Parallel session 3: Intelligent Pavement construction and maintenance, Innovative binders for flexible pavements</b>	653 552 48489	848956	<a href="https://zoom.com.cn/j/65355248489">https://zoom.com.cn/j/65355248489</a>
Oct. 21, 18:30-19:00	<b>Close session</b>	642 425 38210	413726	<a href="https://zoom.com.cn/j/64242538210">https://zoom.com.cn/j/64242538210</a>

Sunday October 18, 2020 8:30-18:30 Beijing Time

Zoom ID: 639 242 82209, Password: 889311

Meeting Link: <https://zoom.com.cn/j/63924282209>

08:30-12:30	<p>Fellow's Forum</p> <p>Coordinator: <b>Prof. Tao Ma, Southeast University</b></p> <p>Introduction speech by <b>Prof. Pan LIU, the vice Rector of Southeast University</b></p> <p><b>Prof. Susan Tighe, McMaster University, Canada</b> Pavement Risk Assessment for Future Extreme Precipitation Events Under Climate Change (8:40-9:55)</p> <p><b>Prof. Linbing Wang, Virginia Tech, United States</b> Multiscale Simulative Testing of Asphalt Pavements and Materials (9:55-11:10)</p> <p><b>Prof. Wynand Steyn, University of Pretoria, South Africa</b> Digital Twinning of pavement infrastructure for improved modelling and analysis(11:10-12:25)</p> <p>Summary of the forum</p>
Break	
14:30-18:30	<p>Invited Keynote Speech Coordinator: <b>Prof. Xianhua CHEN, Southeast University, Xingyu GU, Prof. Southeast University</b></p> <p>Opening of CEW2020(14:30-14:50) <b>Prof. Jun CHEN, dean of Transportation School, Southeast University</b> <b>Prof. Jun Yang, Southeast University</b> <b>Prof. Bernhard Steinauer, RWTH-AACHEN University</b></p> <p><b>Prof. Airey Gordon, Nottingham University</b> Quantifying Moisture Susceptibility through Adhesion, Cohesion and Diffusion(14:50-15:30)</p> <p><b>Prof. Yiqiu Tan, Harbin Institute of Technology</b> Skid resistance and preservation of the snow/iced pavement, (15:30-16:10)</p> <p><b>Prof. Markus Oeser, RWTH Aachen University</b> Study of Asphalt Compaction and Asphalt Performance based on Numerical Simulation and Intellectual Measurement (16:10-16:50)</p> <p><b>Prof. Michael Kaliske, Technische Universität Dresden</b> Multi-scale and Multi-physical Numerical Modelling of the Tire-Pavement System(16:50-17:40)</p> <p><b>Mr. Laurent Porot, Kraton Corporation</b> Rheology addressing bitumen complexity for functional pavement(17:40-18:30)</p>

Monday October 19, 2020 15:00-18:30 Beijing time

CN-NL special session (Zoom ID: 622 323 01582, Password: 384281)

Meeting Link: <https://zoom.com.cn/j/62232301582>

15:00-16:25	<p><b>Theme: Innovative Sustainable Pavement Technologies</b>                  Chair: Dineke van der Burg (RWS, NL) &amp; Xueyan Liu (TUD, NL)</p> <p><b><i>Opening speech by Dineke van der Burg (RWS, NL)</i></b></p> <p><b><i>Invited subsession I, Chair: Dineke van der Burg (RWS, NL)</i></b></p> <p><b><i>Inge van Vilsteren (RWS, NL)</i></b>                  Dutch Way to Stimulate Innovations for Sustainability in Asphalt Mixes</p> <p><b><i>Dr. Mingliang Li (RIOH, China)</i></b>                  Contribution for Environmental Noise Reduction of Porous Asphalt Combination</p> <p><b><i>Dr. Xueyan Liu (TUD, NL)</i></b>                  Rejuvenator for High-Quality Recycling of Polymer Modified Asphalt</p>
16:25-17:45	<p><b><i>Invited subsession II, Chair: Dr. Mingliang Li (RIOH, China)</i></b></p> <p><b><i>Bert Jan Lommerts (XiYueFa, China)</i></b>                  Advanced Materials for Sustainable Pavements</p> <p><b><i>Prof. Yue Xiao (Wuhan University of Technology, China)</i></b>                  Fundamental Understanding of Volatile Organic Compounds(VOCs) from Asphalt Materials</p> <p><b><i>Panos Apostolidis (TUD, NL)</i></b>                  Title: Use of epoxy asphalt as aging resistant binder for flexible pavements</p>
17:45-18:00	<p><b><i>Questions and Discussion</i></b></p>

Monday October 19, 2020 15:00-18:30 Beijing time

Parallel session 1 (Zoom ID: 663 187 11049, Password: 579276)

Meeting Link: <https://zoom.com.cn/j/66318711049>

15:00-17:00	<p><b>Theme: Functional Asphalt Materials and Pavement</b>  Chair: <b>Prof. Chao WANG, Beijing University of Technology, Prof. Yue Xiao, Wuhan University of Technology</b></p> <p><b>Invited: Prof. Huining Xu, Harbin Institute of Technology</b>  Thermal-economic modeling and analysis of snow melting system for airfield runway using low temperature heating fluid</p> <p><b>Invited: Dr. Z Leng, The Hong Kong Polytechnic University</b>  Relationship between the Self-healing Behavior of Asphalt Mixture and the Thickness Distribution Characteristics of Asphalt Mortar</p> <p><b>Yong Lu, chief engineer, in Road Research Institute of Traffic Science, JSTI Group</b>  A017. Effect of graphene on synthesized pavement performance of rubber asphalt mixture.</p> <p><b>Pusheng Liu, Central South University</b>  A042.Improving rutting and fatigue performances of phase change asphalt mastic.</p> <p><b>Chenchen Miao, Chongqing Jiaotong University</b>  Study on synergistic cooling mechanism of phase change waterborne polyurethane heat reflective coating</p> <p><b>Ning Xie, PhD candidate, Tongji University</b>  A063. Evaluation and optimization on the reflection and durability of reflective coatings for cool pavement.</p>
Break	
17:00-18:30	<p><b>Theme: Functional Concrete Pavement &amp; Cementious materials</b>  Chair: <b>Prof. Feng LI, Beihang University</b></p> <p><b>Invited: Prof. Hongduo Zhao, Tongji University</b>  Vibration driven mode for precast smart concrete pavement</p> <p><b>Dr. Junfeng Su, Tiangong University</b>  A007.Smart micro-containers for multi-functional asphalt pavement.</p> <p><b>Xuqiu Teng, Lanzhou Jiaotong University</b>  A079. Study on Aggregate Strengthening Performance and Principle of Recycled Concrete Based on Macro and Micro Tests.</p> <p><b>Mingjun Hu, PhD candidate, Tongji University</b>  A056. Interlayer Shear Resistance and Anti-Skidding Durability of Asphalt Wearing Course Overlay on Tunnel Cement Pavement.</p> <p><b>Dr. Ping Jiang, Shaoxing University</b>  A081. Unconfined compressive strength and prediction model of fiber / cement modified slurry.</p>

Tuesday, October 20, 2020 15:00-18:30 Beijing time

CN-DE special session (Zoom ID.: 665 418 78549, Password: 328758)

Meeting Link: <https://zoom.com.cn/j/66541878549>

15:00-16:45	<b>Theme: Simulation and Environmental effects of pavements</b>
	Chair: <b>Prof. Dawei Wang, Harbin Institute of Technology, Dr. Pengfei LIU, RWTH Aachen University</b>
	<b>Dr. Ronny Behnke, TU Dresden</b> Multiscale and multiphysical tire-pavement analysis
	<b>Cong Du, M.Sc, RWTH Aachen University</b> Meso-mechanical assessment of composite materials based on the finite element method
	<b>Dr. Stefan Alber; Barbara Schuck, M.Sc., University of Stuttgart</b> Importance of pavement drainage and different approaches of modelling
break	
16:45-18:30	Chair: <b>Dr. Pengfei LIU, RWTH Aachen University</b>
	<b>Prof. Hainian WANG, Chang'an University</b> Characterization of morphology for coarse aggregates and its effect on mixture performances
	<b>Mrinali Rochlani, M.Sc.; Gustavo Adolfo Canon Falla, M.Sc, TU Dresden</b> Influence of the Source on the performance of bitumen using a DSR
	<b>Jan Friederichs, M.Sc., RWTH Aachen University</b> Enhanced prediction of the tire-road-interaction by considering the surface texture

Tuesday, October 20, 2020 15:00-18:30 Beijing time

Parallel session 2 (Zoom ID.: 636 115 43224, Password: 910585)

Link: <https://zoom.com.cn/j/63611543224>

15:00-16:30	<b>Theme: Simulation and Environmental effects of pavements</b>
	Chair: <b>Prof. Yingjun Mei, Chongqing Jiaotong University</b>
	<b>Invited: Prof. Yuqing ZHANG, Aston University</b>
	Trilogy of Binder Fatigue Cracking: Quantification, Initiation and Propagation
	<b>Kairen Shen, PhD candidate, Southeast University</b>
	A082. Creep Analysis of Viscoelastic Beam by Semi-Analytical Finite Element Method.
	<b>Dr. Yaning Qiao, China University of Mining and Technology</b>
A052. Comparing the environmental impacts of conventional and perpetual flexible pavements based on Life Cycle Assessment.	
<b>Xiaoxu ZHU, PhD candidate, The Hong Kong Polytechnic University</b>	
A066. Morphology and size analysis of polymer phase in PMA based on 3D reconstruction	
<b>Junpeng Wang, MSc student, Hohai University</b>	
A058. Investigation into the effect of pavement albedo and environmental factors on urban heat island effect using CFD simulation.	
<b>Xiwen Chang, PhD candidate, Wuhan University of Technology</b>	
A038. A Method for Quantitative Characterization of Bitumen VOCs using Fingerprints Information.	
Break	
16:30-18:30	<b>Theme: Pavement Surface Properties</b>
	Chair: <b>Prof. Ping LI, Changsha University of Science and Technology</b>
	<b>Invited: Prof. Xingyi Zhu, Tongji University</b>
	Effects of surface texture deterioration and wet surface conditions on asphalt runway skid resistance
	<b>Zhifei Tan, PhD candidate, The Hong Kong Polytechnic University</b>
	A080. 3D Numerical Modeling of the Aggregate Contact Effect on the Complex Modulus of Asphalt Concrete
	<b>Dr. Jie Gao, East China Jiaotong University</b>
	A051. Cycling comfort on asphalt pavement: effect of asphalt pavement macro-texture on vibration.
	<b>Ruoyu Zhou, MSc student, Hohai University</b>
A057. 3D reconstruction of pavement texture using single camera close-range photogrammetry.	
<b>Dr. Wanyan Ren, Beijing University of Civil Engineering and Architecture</b>	
A069. Research on the texture orientation characteristics of pavement surface.	
<b>Bailin Shan, PhD candidate, Chongqing Jiaotong University</b>	
A061. Preparation of high luminescent long afterglow luminescent materials and its application in road engineering.	
<b>Xin Wei, Dalian University of Technology.</b>	
Analysis of mechanical behavior of asphalt pavement using a random aggregate generation-based concurrent multiscale method	

Wednesday October 21, 2020 15:00-19:30 Beijing time

CN-UK-SA special session (Zoom ID.: 642 425 38210, Password: 413726)

Link: <https://zoom.com.cn/j/64242538210>

15:00-18:30	<p><b>Theme: Accelerated Pavement Testing Big Data and Specifications of Mobile Load Simulators(MLS)</b></p> <p>Chair: <b>Yuchen WANG, South Africa-China Transport Co-operation Center (SACTCC), Pretoria, South Africa</b></p> <p>Co-Chair: <b>Prof. Jiangmiao YU, South China University of Technology (SCUT), China</b></p> <p><b>Prof. Fred Hugo/Prof. Wynand Steyn, SA</b> Accelerated Pavement Testing(APT) and Global Mobile Load Simulators</p> <p><b>Fabio Antoine, International Department Director, PaveTesting, UK</b> I01.Evolution of the Mobile Load Simulators and Site Big Data Collections(tbd)</p> <p><b>Prof. Nanxiang Zheng, Chang'an University</b> I02.Small Mobile Load Simulator (MLS11) Testing and ALF Site Loading</p> <p><b>Prof. Lin CONG, Tongji University</b> I03.Big Data of both Small Mobile Load Simulators(MLS11) and Full Scale MLS66</p> <p><b>Chuanhai Wu, Guangdong Hualu Research Group</b> I04.Skidding Experiment by the Small MLS11 in Guangdong Province</p> <p><b>Prof. James Maina/Yuchen Wang, SA</b> Measurement on Sites and Testing Specifications/Standards</p> <p><b>Dr. Chunying WU, Jingsu Transport Institute</b> I05.Testing Data of the Small MLS11 and the Full Scale MLS66 in Jiangsu and Guangxi</p> <p><b>Prof. Duanyi Wang, South China University of Technology</b> I06. Indoor Small Accelerated Pavement Testing in Guangzhou</p> <p><b>Prof. Zhigang Zhou, Changsha University of Science and Technology</b> I07. Data of Three Site Tests Were Implemented by Small MLS11</p> <p><b>Wayne Zhang, Technical Manage Director, PaveTesting, UK</b> I08. MLS Testing Specifications/Standards and Users Group(tbd)</p> <p><b>Questions and Discussion</b></p>
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Wednesday October 21, 2020 15:00-19:30 Beijing time

Parallel session 3 (Zoom ID.: 653 552 48489, Password: 848956)

Link: <https://zoom.com.cn/j/65355248489>

15:00-16:30	<b>Theme: Intelligent Pavement construction and maintenance</b> Chair: <b>Prof. Yuhong WANG, The Hong Kong Polytechnic University</b>
	<b>Invited: Prof. Xudong Wang, RIOH</b> RIOHTrack in China
	<b>Moxuan Duan, Beijing University of Civil Engineering and Architecture</b> A059. Study of the optimum compaction time for PU mixture based on impact penetration equipment.
	<b>Prof. Bo Li, Lanzhou Jiaotong University</b> A077. Study on PAC clogging and cleaning mechanism based on numerical simulation.
	<b>Prof. Lei Zhang, Southeast University</b> A076. Study on the Long-life Pavement Scheme of the Reconstruction and Extension Project of Highway.
	<b>Dr. Song Liu, Nanjing Forestry University</b> A055. Opportunities and challenges for the application of asphalt supporting layer in the slab track system
Break	
16:30-18:30	<b>Theme: Innovative binders for flexible pavements</b> Chair: <b>Prof. Zhen Leng, The Hong Kong Polytechnic University</b>
	<b>Invited: Prof. Shifeng WANG, Shanghai Jiaotong University</b> Light pyrolysis tire rubber towards to durable porous pavement
	<b>Shisong Ren, PhD candidate, Delft University of Technology</b> A003. Use of waste oil/styrene-butadiene-rubber blends as rejuvenators for aged bitumen.
	<b>WU Bangwei, Yangzhou University</b> A048. Evaluation of the effects of different modifiers on the rheological properties of bitumen
	<b>Yi Zhang, PhD candidate, Delft University of Technology; Chang'an University</b> A023. Effect of Bio-oil on Low-Intermediate Temperature Properties of Organosolv Lignin-Bitumen.
	<b>Tong Lu, Tongji University</b> A024. Evaluation on Aging Characteristic of Bio-asphalt Containing High Percentage of Waste Cooking Oil Residues with Various Aging Methods.
	<b>Xiaoshan Zhang, PhD candidate, Wuhan University of Science and Technology</b> A044. Morphology characteristics of SBS modifier in the asphalt mixture
	<b>Ruiqie Jiang, Wuhan University of Science and Technology</b> A031. Application of Infrared Spectroscopy in Prediction of Asphalt Aging Time and Fatigue Life.

Close session(18:30-19:00) (Zoom ID.: 642 425 38210, Password: 413726)