



Transilvania
University
of Braşov

FACULTY OF CIVIL ENGINEERING



CIBv2026 International Scientific Conference

Civil Engineering and Building Services, Braşov, 29th – 30th October 2026

CONFERENCE PROGRAM



CIBv2026 International Scientific Conference

Civil Engineering and Building Services, Braşov, 29th – 30th October 2026

CONFERENCE PROGRAM – CONCISE

Thursday, 29th of October

08:00	Registration of the participants	JAT
09:00	Opening ceremony	JAT1
09:40	Plenary session 1	JAT1
11:00	Coffee break	
11:20	Plenary session 2	JAT1
13:00	Poster session – remote presentations Posters displayed during both conference days	JAT
13:40	Lunch	
14:40	Parallel session 1 Structural Analysis and Design: Concrete, Masonry, Steel and Composite Structures	JAT1
14:40	Parallel session 2 Roads, Railways, Bridges and Geotechnics	JAT2
19:00	Gala Dinner – Aro Palace Hotel, Horizon Hall (Bd. Eroilor 27, Braşov)	

Friday, 30th of October

09:00	Registration of the participants	JAT
09:30	Plenary session 3	JAT1
10:30	Parallel session 3 Built Heritage, Sustainable Materials and Construction Practice	JAT1
10:30	Parallel session 4 Risk Assessment, Digitalisation and Building Services	JAT2
12:00	Coffee break (parallel sessions 3 and 4 continue at 12:20)	
13:00	Closing ceremony	JAT1
13:30	Lunch	
16:00	Guided tour – Braşov Old City (to be confirmed)	



CONFERENCE PROGRAM – DETAILED

Thursday, 29 th of October		
08:00	Registration of the participants	JAT
09:00	Opening ceremony	JAT1
	Plenary session 1	JAT1
	09:40 - 11:00, Chairman: Prof. Alin Cârsteanu	
	Assoc. Prof. Antonio Formisano, University of Naples Federico II, Italy	
09:40	<i>Conceptual Classification and Design Methodologies for Steel Exoskeletons in the Seismic Retrofit of Existing Buildings</i>	
	Assoc. Prof. Bahman Ghiassi, University of Birmingham, United Kingdom	
10:00	<i>From Pixels to Physics: The Generative AI Revolution in the Nonlinear Analysis and Assessment of Masonry as the Experimental Testbed of Brittle Composites</i>	
	Prof. Chunyi Xu, School of Civil Engineering, Shenyang Jianzhu University, China	
10:20	<i>Development and Seismic Performance of an Innovative AAC Board-Type Masonry Structural System</i>	
	RAP DEVELOPMENT SRL – Claudiu Grusea, Executive Manager	
10:40	<i>From nZEB Target to Built Reality. Case study: "Dumitru Ciumăgeanu" Inclusive Education Centre, Giroc, Romania</i>	
11:00	Coffee break	
	Plenary session 2	JAT1
	11:20 - 13:00, Chairman: Prof. Alina Bărbulescu	
	Prof. Alexandru Şerban, National University of Science and Technology Politehnica Bucharest, Romania	
11:20	<i>Integrated Green Hydrogen Production from a Hybrid Photovoltaic-Wind Plant for Gas-Engine Power Generation and Injection into the Natural Gas Grid</i>	
	Prof. Qinghe Wang, School of Civil Engineering, Shenyang Jianzhu University, China	
11:40	<i>Mechanical Behavior of Concrete-Encased Concrete-Filled Double-Skin Steel Tubular (CECFDST) Composite Members</i>	
12:00	ALLBIM .NET – Dan Moraru	
	<i>Benefits of Digital Twin Integration in BIM and HBIM Processes</i>	
12:20	Prof. Dr. Aleksandar Sedmak, Faculty of Mechanical Engineering, University of Belgrade, Serbia	
	<i>Structural Integrity of Welded Constructions Made of HSLA Steels</i>	
12:40	Prof. Dr. Ashok Vaseashta, International Clean Water Institute, Virginia, USA	
	<i>Augmented Perception in Civil Engineering</i>	
13:00	Poster session – remote presentations	
	24 posters from Shenyang Jianzhu University, Transilvania University of Braşov and partner institutions (see the list of posters)	JAT
13:40	Lunch	
14:40	Parallel session 1 (14:40 - 16:40)	JAT1
	Structural Analysis and Design: Concrete, Masonry, Steel and Composite Structures	
14:40	Parallel session 2 (14:40 - 17:20)	JAT2
	Roads, Railways, Bridges and Geotechnics	
19:00	Gala Dinner – Aro Palace Hotel, Horizon Hall (Bd. Eroilor 27, Braşov)	



CIBv2026 International Scientific Conference

Civil Engineering and Building Services, Braşov, 29th – 30th October 2026

Friday, 30th of October

09:00	Registration of the participants	JAT
	Plenary session 3	JAT1
	09:30 - 10:30, Chairmen: Prof. Ioan Tuns, Assoc. Prof. Radu Muntean	
	Assoc. Prof. Feng Xu, School of Civil Engineering, Shenyang Jianzhu University, China	
09:30	<i>Experimental and Numerical Investigation of Flexural Performance in Castellated Beams with Flanged Elongated Web Openings</i>	
	Lect. Evgheni Cutia, Faculty of Constructions and Geodesy, Technical University of	
09:50	Moldova	
	<i>Seismic Vulnerability of Buildings and Population Exposure: A Case Study in Chişinău</i>	
10:10	KASPER DEVELOPMENT KDC SRL <i>Company presentation</i>	
10:30	Parallel session 3 (10:30 - 13:00) Built Heritage, Sustainable Materials and Construction Practice	JAT1
10:30	Parallel session 4 (10:30 - 13:00) Risk Assessment, Digitalisation and Building Services	JAT2
12:00	Coffee break (parallel sessions 3 and 4 continue at 12:20)	
13:00	Closing ceremony	JAT1
13:30	Lunch	
16:00	Guided tour – Braşov Old City (to be confirmed)	



PARALLEL SESSIONS

Thursday - 29th of October

14:40 - 16:40, JAT1

Parallel session 1

Structural Analysis and Design: Concrete, Masonry, Steel and Composite Structures

Chairmen: Ion Creţu, Dorin Radu

*Each presentation will last a maximum of **8 minutes**, followed by 2-3 minutes for questions and answers. Codes refer to the Book of Abstracts.

SP	<i>Sponsor presentation (20 minutes)</i> Implementation of CFD-Based Wind Load Generation in Consteel's Structural Analysis Environment	Ádám Kis – CONSTEEL SOLUTIONS
CE-01	Seismic Response Analysis of Reinforced Concrete Frame Structures Using the Time-History Method with Simulated and Recorded Earthquake Motions (Part 2)	Mihail Staşcov, Ion Creţu
CE-03	Electro-Mechanical Impedance Monitoring of Concrete Strength Development: A Concise Review	Nicholas Azzopardi, Lino Bianco
CE-16	Confined masonry walls and concrete frames impact on low height dwelling buildings	Sorina Constantinescu
CE-04	Influence of Hybrid Steel and Polypropylene Fiber Dosage on the Cyclic Response of M30 and M40 Beam Column Joints	M. Sreenivasa Rao, P. Sundar Kumar, T. Chandra Sekhar Rao
CE-05	Internal confinement induced by washers welded to the reinforcement of reinforced concrete beams	Y. Bouamra, K. Ait Tahar, H. Saadi, H. Ait Tahar, Y. Mokeddem, B. Glaoui, L. Adjal, D. Laouchedi
CE-17	Importance and behavior of masonry infill walls placed on short and long beams, for high rise reinforced concrete walls structures	Sorina Constantinescu
CE-11	Seismic Performance Assessment of Mid-Rise Modular Steel Buildings: A Bucharest Case Study	Hani A. M. Alkhatib
CE-53	Comparative Assessment of Composite Steel Truss-Concrete Beams for Prefabricated Floor Systems	Ahmed Afia, Francesico Baldi, Viorel Ungureanu
CE-15	Autoclaved Aerated Concrete Masonry in Sustainable Buildings: A State-of-the-Art Review of Life-Cycle Impacts, Performance and Circularity	Mircea Barnaure, Constantin Voinitchi, Fanica Panait
CE-18	Importance of infill autoclaved aerated concrete walls for the behavior of medium height reinforced concrete framed structures	Sorina Constantinescu
CE-66	Study on the material properties of insulation used for timber buildings	Ioana Teodorescu, Daniela Tapusi, Ruxandra Erbasu



Thursday - 29th of October

14:40 - 17:20, JAT2

Parallel session 2

Roads, Railways, Bridges and Geotechnics

Chairmen: Mircea Conţiu, Costel Pleşcan

*Each presentation will last a maximum of **8 minutes**, followed by 2-3 minutes for questions and answers. Codes refer to the Book of Abstracts.

SP	<i>Sponsor presentation (20 minutes)</i> Geosynthetic Materials Used in Infrastructure Works and Stabilization Projects	Cristian Niculescu – NOVATEX SOLUTIONS SRL
CE-29	Climate-Resilient Local Road Materials for Zimbabwe: Characterisation, Durability and Remote-Sensing Assessment	Thembelihle Ncube, Carmen Elena Maftei
CE-35	Strength Development of Racoş Tuff-Lime-Stabilized Road Materials with Natural Aggregates and Reclaimed Asphalt Pavement	Valentin-Vasile Ungureanu, Andrei Bogdan, Alexandr Muntean
CE-34	Remaining Service Life Assessment of Historic Steel Railway Bridges Using Engineering Critical Assessment (ECA)	Ciprian Bratu, Raul-Dan Zaharia, Dorin Radu
CE-33	Mitigating effect of steel ring restrainers on the seismic response of simply-supported concrete slab bridges	Zhanfei Wang, Liquan Zhang, Qingze Shi, Weining Sui, Zhijing Zhang
CE-32	Experimental and numerical investigation of interfacial shear resistance at the SFRC pavement-steel bridge deck interface	Zhanfei Wang, Liquan Zhang, Weining Sui, Fan Yang
CE-74	Early-Age Thermal Stress Evolution and Crack Control Strategies for Mass Concrete Bridge Piers in Cold Regions	Wei Sun, Yaxing Wang, Guanshi Li
CE-36	Techno-Economic Impact of Laboratory Testing in Railway Embankment Construction: From Quality Control to Cost and Schedule Risk Management	Madalina Ciotlaus, Andrei Petrisor Dragan, Zsolt Laszlo Orban, Alexandra Denisa Danciu, Vladimir Marusceac
CE-65	Validation of AE Tomography for Geotechnical Investigation	Katsuya Nakamura, Mikika Furukawa, Kenichi Oda, Satoshi Shigemura, Yoshikazu Kobayashi
CE-72	Ground-Related Works under Romania's 2026 Construction Code: Regulatory and Geotechnical Analysis in a European Context	Daniel-Dumitru Toadere, Nicoleta-Maria Ilieş, Ioan Petran
CE-67	Influence of Wire-Mesh Structural Characteristics on the Vertical Deflection of Net Fence Frames under Snow Loads	Kenichi Oda, Risako Tsuruoka, Katsuya Nakamura, Mikika Furukawa, Yoshikazu Kobayashi
CE-68	Study on the Effects of Shrub Collapse on Snow Avalanches	Risako Tsuruoka, Kenichi Oda, Takafumi Katsushima, Takane Matsumoto, Katsuya Nakamura, Mikika Furukawa, Yoshikazu Kobayashi



CIBv2026 International Scientific Conference

Civil Engineering and Building Services, Braşov, 29th – 30th October 2026

Thursday - 29th of October

14:40 - 17:20, JAT2

Parallel session 2

Roads, Railways, Bridges and Geotechnics

Chairmen: Mircea Conţiu, Costel Pleşcan

*Each presentation will last a maximum of **8 minutes**, followed by 2-3 minutes for questions and answers. Codes refer to the Book of Abstracts.

CE-39	TQI-Based Key Performance Indicators for Railway Track Condition Assessment and Maintenance Prioritization	Zsolt László Orban, Marius Gocica, Mădălina Ciotlăuş
CE-38	Toward Robust Truck-Mounted Smartphone Sensing for Heavy-Vehicle Pavement Monitoring	Hikmat Mdawar, Wassim Raphael, Wolfgang Dorner, Farah Homsî
CE-42	Assessment of Human Comfort in a Residential Building Based on a Predictive Model of Cumulative Vibration Dose	Veronika Valašková, Jozef Vlček, Michaela Holešová, František Bahleda



Friday - 30th of October

10:30 - 13:00 (coffee break 12:00 - 12:20), JAT1

Parallel session 3

Built Heritage, Sustainable Materials and Construction Practice

Chairmen: *Ştefania Ursache, Christiana Cazacu*

*Each presentation will last a maximum of **8 minutes**, followed by 2-3 minutes for questions and answers. Codes refer to the Book of Abstracts.

SP	<i>Sponsor presentation (20 minutes)</i> Sustainable Solutions Adopted within the Project Modernization of DN73, Lot 2, km 92+000 – km 128+250	Anca Neagu, Tudor Simion – VIAROM CONSTRUCT SRL
CE-25	Seismic Performance Demands versus Minimum Intervention in Historic Buildings: Towards a Nominal-Life-Based Assessment Approach	Mircea Barnaure, Andrei-Costin Teodorescu, Vlad-Serban Popescu, Dan-Adrian Popescu
CE-22	Compatibility of Modern Hydrophobic Coatings with the Historic Masonry	Natalia Bredikhina, Mikhail Poniklenko
CE-23	Dynamics of Built Heritage and Landscape Protection Legislation. Critical Analysis and Directions for Methodological Standardization	Catalin Maftai, Alina Barbulescu
CE-24	Machine Learning-Assisted Deterioration Mapping of Nubian Pyramid Masonry for Architectural Heritage Conservation	Moutaman M. Abbas, Alina Barbulescu
CE-26	The Parliament Building of Malta: Architecture as a Statement of Arrogance	Lino Bianco
CE-69	Urşi wooden church restoration	Mihai Bodea
CE-28	Towards a Methodical Petrographic Identification of Natural Stone	Lino Bianco
CE-27	Toward Data-Driven Conservation of Historic Buildings through Non-Invasive Monitoring	Ştefania Ursache, Ciprian Bratu, Christiana Cazacu, Dorin Radu
CE-19	Sustainability of Cross-Laminated Timber Walls: A State-of-the-Art Review	Mircea Barnaure, Razvan-Ovidiu Butucescu
CE-45	Evaluation of the Self-Healing Effect on a Mortar Made with a Smart Admixture	F.V. Panait, C.D. Voinitchi, E.F. Alboiu, K. Karetsos
CE-63	Smart addition for Portland cement-based self-healing concrete encapsulated in polystyrene	I.D. Cimpoca, F.V. Panait, C.D. Voinitchi
CE-71	Experimental thermomechanical analysis of reinforced concrete composites for small sustainable building structures	Eliza Chircan, Liviu Costiuc, Iuliana Costiuc, Vasile Gheorghe, Horaţiu Teodorescu Draghicescu
CE-73	Specific Features of Construction Organization in Seismic Hazard Areas	Liliya Pakhomova, Aleksandr Bredikhin
CE-21	The Importance of Practical Knowledge in Drafting, Surveying, Site Execution and FIDIC Red Book for Quantity Surveyors	Sajad Akbar



Friday - 30th of October

10:30 - 13:00 (coffee break 12:00 - 12:20), JAT2

Parallel session 4

Risk Assessment, Digitalisation and Building Services

Chairmen: *Carmen Elena Maftei, Marija Jevrić*

*Each presentation will last a maximum of **8 minutes**, followed by 2-3 minutes for questions and answers. Codes refer to the Book of Abstracts.

SP	Sponsor presentation (20 minutes)	XELLA
CE-50	Seismic Risk Assessment of School Buildings in the Greece-Türkiye Cross-Border Area: The Pilot Sites of Alexandroupolis and Samos	Georgios Panagopoulos, Emmanouil Kirtas, Christos Karakostas, Konstantinos Morfidis, Nikolaos Theodoulidis, Christos Panagiotopoulos, Konstantinos Papatheodorou
CE-48	Quantifying epistemic uncertainty in flood damage assessment: a comparative analysis of depth-damage curves	Ivana Ćipranić, Marija Jevrić, Milena Ostojić, Olga Čalasan
CE-47	Comparative Evaluation of Convolutional Neural Networks for Building Footprint Extraction from Orthophotos: Application to GIS-Based Flood Exposure Assessment	Dimitris Botsis, Alexandros Konstantinidis, Angela Malai, Eleni Tzanou, Konstantinos Ntoursos
CE-64	From Patches to Buildings: Building-Level GeoAI Framework Based on xBD-S12 for Multi-Hazard Damage Assessment	Konstantinos Ntoursos, Panagiotis Kazakis, Konstantinos Papatheodorou, Emmanouil Kirtas, Georgios Panagopoulos, Alexandros Konstantinidis
CE-70	Multi-hazard risk analysis	Sergiu Şiclovan, Gigliola D'Angelo, Antonio Formisano, Marius Moşoarcă, Carmen Maftei
CE-49	Risk Management in the Design, Execution and Operation of Non-Hazardous Waste Landfills: A Case Study from Romania	Andreea Grecu, Marian Valentin Popescu, Gabriel Neda
CE-20	Integrated External Drawings for Sustainable Infrastructure: Standard-Based Multidisciplinary Utility Crossing and Level Clash Prevention	Sajad Akbar
BS-01	Artificial intelligence applications in predictive maintenance for building installations	Beatrice-Georgiana Vuţoiu, Maria-Bianca Tăbăcaru, Mihaela Pavel, Codruţa-Maria Lodor, Gabriel Năstase, George-Andrei Beşchea, Ştefan-Ioan Câmpean, Alexandru-Mihai Bulmez
BS-02	Case Study on Digital Twins for Smart Use during Lifecycle of University Buildings	Raluca-Ioana Grasu, Mădălina Stoian, Valentina Manea, Ramona-Camelia Silvestru, Valentin-Marian Popescu, Alexandru-Ionel Ioniţă
BS-03	District-Scale Photovoltaic Suitability Mapping from Open Data in a Cold-Climate City: Evidence of a Heating-Season-Weighted Solar Resource in Ulaanbaatar	Nemuutsetseg Batjargal, Carmen Elena Maftei



CIBv2026 International Scientific Conference

Civil Engineering and Building Services, Braşov, 29th – 30th October 2026

Friday - 30th of October

10:30 - 13:00 (coffee break 12:00 - 12:20), JAT2

Parallel session 4

Risk Assessment, Digitalisation and Building Services

Chairmen: *Carmen Elena Maftעי, Marija Jevrić*

*Each presentation will last a maximum of **8 minutes**, followed by 2-3 minutes for questions and answers. Codes refer to the Book of Abstracts.

BS-05	Comparative Analysis of Flashover and Backdraft Phenomena in Compartment Fires	Bogdan Costel Agheorghesei Keresztes, Gabriel Năstase, George Dragomir, Alin Ionuț Brezeanu, Alexandru Mihai Bulmez, Raluca Dinescu
BS-09	Vacuum-Retention Performance of FDM-Printed Enclosures for Adaptive Façade Applications	Dan-Radu Baraboi, Mihaela Pavel, Gabriel Năstase



POSTER SESSION

Thursday - 29th of October

13:00 - 13:40, JAT (posters displayed during both conference days)

Poster session – remote presentations

24 posters

Posters P-01 to P-21 follow the order of the posters in the collected PDF (alphabetical by first author); P-22 to P-24 were added on 21 October 2026.

P-01	Analysis on Axial-Compression Stability of L-Shaped Laced Lattice Columns about the Non-Symmetric Axis	Gaomin Chen, Yueguo Zhang, Xingru Liu
P-02	Prediction of PVA-ECC Bridging Energy Dissipation and Optimization of Interface Parameters	Fan Gu, Yuxuan Cao, Wenhan Zuo, Ao Ying, Xingran Meng
P-03	A Fire Spread Critical Path Identification Method for Timber Building Villages Based on Weighted Network Theory	Fan Gu, Hongchang Zhang, Jie Li, Ruijie Hou, Wenchao Du
P-04	The Effect of Fiber Placement Area on the Flexural Performance of PVA-ECC Superposed Beams	Fan Gu, Wenhan Zuo, Yuxuan Cao
P-05	Degradation Mechanism and Strength Prediction of Dynamic Mechanical Properties of GO-RC under Low Temperature	Kai Guo, Feng Gao
P-06	Grouting Defect Identification in Rebar Sleeves Using Circumferential Multi-Point Excitation-Reception	Kai Guo, Chenguang Sun
P-07	Seismic Performance Enhancement of Existing RC Frames through an Integrated Exoskeleton-External Elevator Structural System	Qiao Jin, Penghao Wang
P-08	Failure Modes and Damage Evolution Mechanisms of Steel-UHPC Sandwich Panels under Contact Explosions	Baoxin Qi, Anquan Hui
P-09	Study on Influence of Layout on Hysteretic Performance of Flat-Corrugated Steel Plate Shear Walls	Yansheng Song, Wenhao Zhang, Jiacheng Sun
P-10	Study on the Influence of Window-Opening Number on Hysteretic Behavior of Orthogonally Corrugated Steel-Plate Composite Shear Walls	Yansheng Song, Jiacheng Sun, Wenhao Zhang
P-11	Study on the Barrier Effect of SGS Wallboard on Fire Spread of Wooden-Structure Buildings	Lingzi Su, Qiaosheng Guo, Wenchao Du, Ruijie Hou, Hongchang Zhang
P-12	Study on the Rotational Mechanical Behavior of Novel Prefabricated SMT Joints and Component Connections	Wei Sun, Fan Liang, Yongqi Zhang
P-13	Seismic Dynamic Characteristic Analysis of a Super-Large Steel Cantilever Canopy Structure	Wei Sun, Zongyuan Wang, Bihan Liu
P-14	A Load-Guided Local Manifold Alignment Loss for Cross-Load Rolling Bearing Fault Diagnosis	Yanling Sun, Yushuo Zhang, Maozhong He
P-15	Rolling Bearing Life Prediction Using CNN and LSTM	Yanling Sun, XinMiao Feng



Thursday - 29th of October

13:00 - 13:40, JAT (posters displayed during both conference days)

Poster session – remote presentations

24 posters

Posters P-01 to P-21 follow the order of the posters in the collected PDF (alphabetical by first author); P-22 to P-24 were added on 21 October 2026.

P-16	Influence of Multiphase Chemical Solutions on Electrokinetic Stabilization Effect of Marine Soft Clay	Yongqiang Tang, Junhao Chen, Jindian Li, Boshi Gong, Zihao Zhao, Feng Xu
P-17	Electrochemical Dealkalization of Red Mud Enhanced by Chemical Amendments	Yongqiang Tang, Shuolei Guo, Boshi Gong, Jindian Li, Jixu Li, Hao Liu, Meng Han
P-18	Numerical Simulation Study on External Wall Fire Spread Characteristics of L-Shaped High-Rise Buildings	Yu Wang, Bohao Li, Na Zhang
P-19	Study on Seismic Performance of Beam-Column Joints with Novel Dry-Type Tongue-and-Groove Connection	Y. Wang, L. Wei, Y.X. Liu
P-20	Prediction of Axial Compressive Bearing Capacity of Circular Composite Concrete-Filled Double Steel Tubular Columns Based on BP Neural Network	Wei Xu, Binbin Yang
P-21	Axial Behaviour and Capacity Prediction of Circular UHPC-Filled Double-Skin High-Strength Steel Tubular Stub Columns	Wei Xu, Xiandong Jin
P-22	Compaction and Reported Compressive Strength Development of Two Cohesive Soils Treated with Fly Ash and Lime or Cement for Potential Use in Road Structures	Costel Pleşcan, Diana-Nicoleta Dima, Violeta Ţurcanu, Elena-Loredana Pleşcan, Valentin-Vasile Ungureanu
P-23	Compression and Partial Water Exposure of a Silty Clay Treated with Nontraditional Additives for Road Soil Treatment	Valentin-Vasile Ungureanu, Ionuţ-Adrian Stanciu, Costel Pleşcan, Elena-Loredana Pleşcan
P-24	Time-Dependent Reliability of Eccentric-Compression Resistance in Underwater Bridge Piers under Chloride-Freeze-Thaw Exposure	Liqi Jia, Bing Wang, Yupeng Li, Honghao Li



Transilvania
University
of Braşov

FACULTY OF CIVIL ENGINEERING



CIBv2026 International Scientific Conference

Civil Engineering and Building Services, Braşov, 29th – 30th October 2026

SPONSORS:



SEGAD PROIECT SRL



SUNTEM
CE CONSTRUIM



**METEORA
SERV**
METEORA SERV SRL



DREI KONSTRUKT SRL



TECNOService Equipment

Dedicated to Quality