

ICSA2019 SHORT PROGRAM

Tuesday, July 23, 2019				
15:00 – 19:00	Conference Accreditation – ICSA2019 Desk – Calouste Gulbenkian Foundation / Congress Centre			
Wednesday, July 24, 2019				
08:00 – 19:00	Conference Accreditation – ICSA2019 Desk – Calouste Gulbenkian Foundation / Congress Centre			
09:00 – 09:30	Opening Ceremony (Auditorium 2)			
09:30 – 10:30	Keynote Lectures (Auditorium 2)			
10:30 – 11:00	Coffee Break			
11:00 – 12:30	WeM 1 Mini-symposium Circular Tectonics (1)	WeM 2 General Session Special structures (1)	WeM 3 General Session The history of the relationship between architects and structural engineers	WeM 4 Special Session Wood: Structure and Expression
12:30 – 14:00	Lunch Break			
14:00 – 16:00	WeA 1 Mini-symposium Circular Tectonics (2 & 3)	WeA 2 General Session Innovative architectural and structural design (1)	WeA 3 General Session The use of new materials	
16:00 – 16:30	Coffee Break			
16:30 – 17:30	WeE 1 Mini-symposium Circular Tectonics (4)	WeE 2 Special Session Crafting Spatiality	WeE 3 General Session Glass Structures	
17:30 – 18:00	Presentation of the Associated Event – The Bones of Architecture – An exhibition on design practices (Auditorium 2)			
19:30 – 22:30	Visit to the exhibition “The Bones of Architecture” & Welcome Reception (Centro Cultural de Belém)			
Thursday, July 25, 2019				
08:30 – 19:00	Conference Accreditation – ICSA2019 Desk – Calouste Gulbenkian Foundation / Congress Centre			
09:00 – 10:00	Keynote Lectures (Auditorium 2)			
10:00 – 10:30	Coffee Break			
10:30 – 12:00	ThM 1 General Session Comprehension of complex forms & Concept architectural buildings	ThM 2 General Session Innovative architectural and structural design (2)	ThM 3 General Session Other & Lightweight and membrane structures	
12:30 – 14:00	Lunch Break			
14:00 – 15:30	ThA 1 General Session The tectonic of architectural solutions (1)	ThA 2 General Session The borderline between architecture and structural engineering (1)	ThA 3 General Session Tall buildings	
15:30 – 16:30	ThE 1 General Session The tectonic of architectural solutions (2)	ThE 2 General Session The borderline between architecture and structural engineering (2)	ThE 3 General Session Educating architects and structural engineers (1)	
16:30 – 17:00	Coffee Break			
17:00 – 17:30	General Meeting – International Association of Structures and Architecture (Auditorium 2)			
20:00 – 23:00	Gala Dinner (São Julião da Barra Fort)			
Friday, July 26, 2019				
09:30 – 17:00	Conference Accreditation – ICSA2019 Desk – Calouste Gulbenkian Foundation / Congress Centre			
10:00 – 10:30	Keynote Lecture (Auditorium 2)			
10:30 – 12:30	FrM 1 General Session Timber structures	FrM 2 General Session Concrete and masonry structures	FrM 3 General Session Educating architects and structural engineers (2)	
12:30 – 14:00	Lunch Break			
14:00 – 15:30	FrA 1 General Session Building envelopes (1)	FrA 2 General Session Steel and composite structures & Structural design challenges	FrA 3 General Session Educating architects and structural engineers (3)	
15:30 – 16:00	Coffee Break			
16:00 – 17:30	FrE 1 General Session Building envelopes (2)	FrE 2 General Session Computer and experimental methods	FrE 3 General Session Educating architects and structural engineers (4)	
17:30 – 18:00	Closing Ceremony (Auditorium 2)			

ICSA2019 FULL PROGRAM

Tuesday, July 23, 2019	
15:00 – 19:00	Conference Accreditation – ICSA2019 Desk – Calouste Gulbenkian Foundation / Congress Centre

Wednesday Morning (WeM), July 24, 2019	
08:00 – 19:00	Conference Accreditation – ICSA2019 Desk – Calouste Gulbenkian Foundation / Congress Centre
09:00 – 09:30	Opening Ceremony (Auditorium 2)
09:30 – 10:30	Keynote Lectures (Auditorium 2) Chair: P. Cruz F. Branco “Design for durability” O. Grossetête “Builders of ephemeral monumental constructions in cardboard” – This lecture will be presented in French. Please pick up your translation device.
10:30 – 11:00	Coffee Break
11:00 – 12:30	Concurrent Technical Sessions: WeM 1 to WeM 4

WeM 1 – Auditorium 2	WeM 2 – Auditorium 3	WeM 3 – Room 1	WeM 4 – Room 2
Mini-Symposium Circular Tectonics: Towards ecological continuity, -means, -relations, strategies and -innovation in architectural practice (1) Introduction and Concepts Chairs: <i>M.F. Hvejsel & A. Beim</i>	General Session Special structures (1) Chair: <i>A. Rønquist</i>	General Session The history of the relationship between architects and structural engineers Chair: <i>H. Rodríguez-Camilloni</i>	Special Session Wood: Structure and Expression Chairs: <i>J.H. Siem & U. Meister</i>
Circular Tectonics? – A critical discussion of how the architectural discipline can drive ecological continuity <i>M.F. Hvejsel & A. Beim</i>	Parametric description of the movement of reciprocal transformable geometry surfaces, for adaptive environment materialization <i>C. Martínez Arias & J. Anaya Díaz</i>	The 1935 Portuguese reinforced concrete code: Background, sources and authors <i>J.P. Delgado, R. J. G. Ramos & P. Tormenta Pinto</i>	A Universe of wood joinery M. Spaan
Connecting Ends with Beginnings – Conceptual framework for a circular art of tectonics J. Holst	Expandable bar structures for emergency situations J. Pérez-Valcárcel, M. Muñoz-Vidal, M. Freire-Tellado, D. Gómez-Magide & A. Casal-Rodríguez	The Engineer Emílio H. Baumgart and the Brazilian Architecture in reinforced concrete of the first half of the twentieth-century J.M.M. Sánchez & R.P.da Fonseca	Connected Knowledge B.O. Braaten, J. Siem & A. Gilberg
The Compatibility of Architecture and Circular Economy <i>H. Ejstrup & P. Munch-Petersen</i>	Scale effect and load-bearing behavior of a reconfigurable hybrid structure M. Matheou, M.C. Phocas & E.G. Christoforou	Walter Gropius & Ove Arup: Collaboration, ‘total design’ & the ‘composite mind’ F. Trubiano	Full-scale wood architecture as educational tool <i>J. Siem, B.O. Braaten & A. Gilberg</i>
Dialectical Tectonics – Ontology and tectonic ecology of form, material and form without material K. Usto	Morphological investigation of a tensegrity helicoid for display during the 2018 Biennale Architecture in Venice <i>K.A. Liapi, A. Papantoniou & A. Ioannidi</i>	Arne Johnson’s material research introducing steel frame building in postwar Sweden F. Rosenberg	Optimization and shaping of indeterminate frame structures <i>P. Mayencourt & C.T. Mueller</i>
Sustainable Building Renovation: Towards a holistic tectonics thinking framework in sustainable transformation of the built environment A. Kamari & P.H. Kirkegaard		The original palaces of Brasília: Architectural composition and structural engineering <i>E.G. da Silva & J.M.M. Sánchez</i>	The Aspect of Craftmanship: Innovation and Expression U. Meister

Wednesday Afternoon (WeA), July 24, 2019

12:30 – 14:00	Lunch Break
14:00 – 16:00	Concurrent Technical Sessions: WeA 1 to WeA 3

WeA 1 – Auditorium 2	WeA 2 – Auditorium 3	WeA 3 – Room 1
<p>Mini-Symposium Circular Tectonics: Towards ecological continuity, -means, - relations, strategies and -innovation in architectural practice (2 & 3) Systems & Economics</p> <p>Chairs: <i>M.F. Hvejsel & A. Beim</i></p>	<p>General Session Innovative architectural and structural design (1)</p> <p>Chair: <i>T. Boake</i></p>	<p>General Session The use of new materials</p> <p>Chair: <i>F. Veer</i></p>
<p>Isolating the Tectonics of Insulation H. Ejstrup</p>	<p>Housing experiments of the 1920s fuelling innovation. The multicellular construction system A. Cel Mare</p>	<p>Mycelium-based materials at the dawn of the Anthropocene <i>E. Elsacker, E. Peeters & L. De Laet</i></p>
<p>A tectonic approach to energy renovation of dwellings – The case of Gellerup S.R. Jensen, P.H. Kirkegaard, G. Postiglione & A. Strange</p>	<p>Modularity in architectural design: lessons from a housing case A.L. Correia, V. Murtinho & L. Simões da Silva</p>	<p>Use and challenges of new concretes in the 21st century <i>G. Rodriguez de Sensale, V. De Lima, J. Borgno & A. Luisi</i></p>
<p>Transformation of architectural heritage through adaptive modular systems <i>J. Buthke, S.O. Pedersen, N.M. Larsen & C. Bundgaard</i></p>	<p>Shape of arch – Is it important? E. Järvenpää, A.H. Niemi & J. Tervaoja</p>	<p>Experimental Design and Building of a Cable Reinforced Plastic Brick Arch <i>M. Schneider, S. Tripod, L.T. Houdmont & J. Belis</i></p>
<p>Building circular economy – Strategies for decoupling in architectural practice <i>L.K. Frederiksen & P. Munch-Petersen</i></p>	<p>Prefabricated Ultracompact Module for steel framed structures <i>F. Suárez-Riestra & J. Estévez-Cimadevila</i></p>	<p>Load capacity testing method for non-conventional nodes joining linear structural paper components N. Kiziltoprak, E. Kanli, J. Schneider, U. Knaack & R. Bach</p>
<p>Invisible Tectonics: Nano Materials, Chemical Synthesis, and Human Health F. Trubiano</p>	<p>Rethinking BIM: Non-cartesian geometry through hybrid workflows Y. Zavoileas</p>	<p>Experimental earth composite shells <i>J. Belis, S. Willaert, K. Martens, B. Van Lancker & M. Achenza</i></p>
<p>Beautiful Tectonics – Corporeal aesthetic in tectonics as sustainable parameter N.B. Andersen</p>	<p>Dynamic shelter structure F. Maden, D. Ölmez, Ş. Gür, M.Y. Uncu & C. Mitropoulou</p>	<p>Vulnerability of earth material to water: A state of the art <i>E. Pauporté & L. Sgambi</i></p>
	<p>Structural innovation in the architecture of Thomas Jefferson H. Rodríguez-Camilloni</p>	<p>Experimental research and evaluation of the application of selected nanosuspensions on in-situ historical material surfaces <i>K. Kroftová, J. Witzany, D. Škoda & I. Kuřitka</i></p>

Wednesday Evening (WeE), July 24, 2019

16:00 – 16:30	Coffee Break
16:30 – 17:30	Concurrent Technical Sessions: WeE 1 to WeE 3

WeE 1 – Auditorium 2	WeE 2 – Auditorium 3	WeE 3 – Room 1
Mini-Symposium Circular Tectonics: Towards ecological continuity, -means, - relations, strategies and -innovation in architectural practice (4) Learnings Chairs: <i>M.F. Hvejsel & A. Beim</i>	Special Session Crafting Spatiality: Explorations with components and connections for spatial architectural structures Chairs: <i>M. Rinke & O. Popovik Larsen</i>	General Session Glass structures Chair: <i>J. Belis</i>
The presence of timber – Oral history versus architectural theory U. Groba	Bending-active kit-of-parts systems: Uniformity generating complexity <i>S. Brancart, N. De Temmerman, L. De Laet & O. Popovic-Larsen</i>	Performance of the compressed pillar made of solid glass bricks in comparison with other materials J. Fíla, M. Eliášová & Z. Sokol
Circular Tectonics, Users, and Local Culture J. Johansson	Exploration of spatial structures made from reused elements and the design of optimal kits-of-parts J. Brütting, C. Fivet & G. Senatore	Current analytical computational methods of laminated glass panels in comparison to FEM simulation T. Hána, K. V. Machalická, M. Vokáč & M. Eliášová
Tectonic Learning Ecologies: Elements for a circular architecture pedagogy in the work of Fernando Távora M.F. Hvejsel	Rotational stiffness in timber joinery connections: Analytical and experimental characterizations of the Nuki joint <i>D.L. Fang, C.T. Mueller, J. Brütting, C. Fivet & J. Moradei</i>	On configuration and structural design of frameless glass structures P.-S. Chen & M.-T. Tsai
	A Tectonic methodology for timber joints. The excellence of detail in the era of technology throughout an experimental investigation L. Catalá Bustos, P. H. Kirkegaard, P.F. Sonne-Frederiksen & J. Buthke	Performance of glass brick wall exposed to fire <i>Z. Sokol & M. Eliášová</i>

17:30 – 18:00	Presentation of the Associated Event – The Bones of Architecture – An exhibition on design practices (Auditorium 2) – A. Tavares & M. Rinke
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19:30 – 22:30	Visit to the exhibition “The Bones of Architecture” & Welcome Reception (Centro Cultural de Belém)
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Thursday Morning (ThM), July 25, 2019

9:00 – 19:00	Conference Accreditation – ICSA2019 Desk – Calouste Gulbenkian Foundation / Congress Centre
9:00 – 10:00	Keynote Lectures (Auditorium 2) Chair: U. Knaack A. Beim “Tectonic ecologies in architecture – a critical perspective in a time of transition” H. Corres “Architects + Engineers: a very creative and productive collaboration”
10:00 – 10:30	Coffee Break
10:30 – 12:00	Concurrent Technical Sessions: ThM 1 to ThM 3

ThM 1 – Auditorium 2	ThM 2 – Auditorium 3	ThM 3 – Room 1
General Session Comprehension of complex forms & Concept architectural buildings	General Session Innovative architectural and structural design (2)	General Session Other & Lightweight and membrane structures
Chair: <i>B. Figueiredo</i>	Chair: <i>K. Dong</i>	Chair: <i>K. Liapi</i>
Complex Geometries of Environmentally Sensitive Forms M.G. Fineout	Configuration and mechanical characteristics of 1.5-Layer Space Frames P.-S. Chen	The performance standard - NBR 15575 and the architectural and structural designs M.A.S. Hippert & O.C. Longo
Multi-dimensional form finding: structure, construction and sustainability <i>D. Parigi & L. Damkilde</i>	Innovative daylight structures for airport terminal and concourse buildings <i>W. Place, M. Salamati & J. Hu</i>	A case study of structural monitoring as a control tool in the restoration process of heritage structures: The strengthening of the Vistabella Church's Tower R. Señis
Materials science, spanning the divide between architecture and structural engineering <i>F.A. Veer, L. van Ellen & M. Nazari</i>	Deployable structures of reciprocal crossed arches <i>M. Muñoz-Vidal, I. López-César, J. Pérez-Valcárcel & F. Suárez-Riestra</i>	Modular housing for situations of humanitarian catastrophe J. Aragón Fitera, S. Muñiz Gómez, V. Hermo Sanchez, E. Mosquera Rey & A. Casal Rodríguez
Digital Fascinations Versus Constructed Reality: Towards Achieving Excellence in Execution, A Practical Approach T.M. Boake	Innovative bridges over Bega <i>L. Toduți, E. Meteș, E. Petzek, M. Toduți, G. Ispășoiu & B. Zaha</i>	Inflatable structures and digital fabrication O. Iuorio & H.S. Matharou
	Flex Skin: Developing a material system based on interlocking wooden panels <i>F. Fotouhi, M. Hudert, G. Kayo & T. Kotnik</i>	Deployable structures with straight bars: Design, manufacturing and assembly O.F. Avellaneda Lopez

Thursday Afternoon (ThA), July 25, 2019

12:30 – 14:00	Lunch Break
14:00 – 15:30	Concurrent Technical Sessions: ThA 1 to ThA 3

ThA 1 – Auditorium 2	ThA 2 – Auditorium 3	ThA 3 – Room 1
General Session The tectonic of architectural solutions (1)	General Session The borderline between architecture and structural engineering (1)	General Session Tall buildings
Chair: <i>P. Trovalusci</i>	Chair: <i>E. Gomes</i>	Chair: <i>D. Oakley</i>
The construction of the Porto School E. Fernandes	Historic timber roof structures: Value and influence on the seismic behaviour of heritage buildings A. Keller & M. Mosoarca	High-rise building modelling: numerical and analytical approaches <i>L. Sgambi & B. Sato</i>
The tectonic structures of Sverre Fehn J. J. Ferrer Forés	From AgwA to Oversize: From design practice to a pedagogic and research project <i>B. Burquel, H. Fallon & B. Vandenbulcke</i>	Towards a design framework for the structural systems of tall buildings that considers embodied greenhouse gas emissions <i>J. Helal, A. Stephan & R.H. Crawford</i>
Temporal Reciprocities of Building and Site: Structural Patterns for Resilient Future-Use Structures M.M. Laboy	Multi-criterial vulnerability assessment for Timisoara city, Romania I. Onescu, E. Onescu & M. Mosoarca	Design-to-live or Design-to-build? The impact of delegated design responsibility in Melbourne's high-rise residential buildings G. Marfella & A. Martel
Low Impact Spans: Toward Emission-Based Structural Optimization M. Mayer & L. Echevarría	Task of reinforced concrete in Central European Sacral Architecture of Roman Catholic Church E. Svintekova (Vertatova)	From form-finding to space-making in high-rise designs C. Bañón

Thursday Evening (ThE), July 25, 2019

15:30 – 16:30	Concurrent Technical Sessions: ThE 1 to ThE 3
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ThE 1 – Auditorium 2	ThE 2 – Auditorium 3	ThE 3 – Room 1
General Session The tectonic of architectural solutions (2)	General Session The borderline between architecture and structural engineering (2)	General Session Educating architects and structural engineers (1)
Chair: <i>E. Fernandes</i>	Chair: <i>F. Suárez Riestra</i>	Chair: <i>G. Mircea</i>
1956. American background in Spanish Experimental Housing N. Cervero Sánchez	Partnering without boundaries: Integrating structures, architecture, practice, and education <i>K. Dong & T. Fowler</i>	It's all structural: Teaching construction logic with parametric modeling A.C. Harfmann
A new approach to the concept of tectonics N.S. Yordanova	From architectural competition to built reality: Predictable failures and serendipitous successes J. Rey-Rey	Draw First, Ask Questions Later: The Value of Manual Sketching in Elementary Architectural Structures Education D.J. Oakley
Fake Structures–Real Architecture? From the Parthenon in Athens, Greece to the Parthenon of Banned Books in Kassel, Germany A.-C. Schultz	Assessing architectural heritage: Identifying and evaluating heritage values for masonry and cast-iron buildings and structures S. Eberhardt & M. Pospíšil	Structures and architecture integration in a best use of wood design competition studio D. Armpriest & C. Manrique
Computational Optimization in Architectural Design and Constructive Issues. A case study: the canopy of a waste collection center <i>P. Trovalusci & R. Panei</i>		SIXXIGames: Serious games to educate young architects and structural engineers <i>T. Iori, I. Giannetti & G. Capurso</i>

16:30 – 17:00	Coffee Break
17:00 – 17:30	General Meeting – International Association of Structures and Architecture (Auditorium 2)

20:00 – 23:00	Gala Dinner (São Julião da Barra Fort)
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Friday Morning (FrM), July 26, 2019

09:30 – 17:00	Conference Accreditation – ICSA2019 Desk – Calouste Gulbenkian Foundation / Congress Centre
10:00 – 10:30	Keynote Lecture (Auditorium 2) Chair: A. Chen L. Ren “Design for future: A new way of storytelling on footbridge”
10:30 – 12:30	Concurrent Technical Sessions: FrM 1 to FrM 3

FrM 1 – Auditorium 2	FrM 2 – Auditorium 3	FrM 3 – Room 1
General Session Timber structures	General Session Concrete and masonry structures	General Session Educating architects and structural engineers (2)
Chair: <i>J. Manoel Sánchez</i>	Chair: <i>J. Pérez Valcárcel</i>	Chair: <i>V. Murtinho</i>
Active bending in timber structures: Case studies in design, development and construction P. Tidwell	Concrete Masonry Units: Innovation design strategies through architecture and building technology integration C. Manrique, D. Armpriest, S. He & G. Florenca	Experience-Based Learning in Construction Education. Testing the Effectiveness of the Product-Oriented Learning Situation <i>I. Vrouwe & L. Luyten</i>
Can timber lower the environmental impact of tall buildings? C. De Wolf & C. Fivet	Rehabilitation of Trumpeters’ Tower of the Saint Margaret Evangelical Church of Medias <i>V. Ungureanu, M. Georgescu & L. Gligor</i>	MERGE: Exploring new paradigms for educating architects, engineers and builders <i>J. Kansler & J. Doerfler</i>
Timber T-section beams: From pre-tensioning to self-tensioning <i>J. Estévez-Cimadevila, D. Otero-Chans, E. Martín-Gutiérrez, F. Suárez-Riestra & J. Vázquez-Rodríguez</i>	A Platform of Design Strategies for the Optimization of Concrete Floor Systems in India <i>M.A. Ismail & C. Mueller</i>	The Structural Depth of the Masonry Antidome and Ambidome <i>L. Luyten & E. Jannasch</i>
Paper and cardboard as a sustainable building materials J.F. Łątko	A prototype for precast covers. An optimal solution by Torroja <i>J. Antuña & B. Orta</i>	From abstract construction to community integration L.H. Hansen
Making-of Pringle: Hybrid structure from equitangential, bending active, wooden frame and minimal surface robe-net G.H. Filz	Research into the response of segmental masonry barrel vaults to dynamic loading effects <i>J. Witzany, R. Zigler, T. Čejka, J. Karas, J. Kubát, M. Pirner & S. Urushadze</i>	Integrating design science and systems thinking for active learning M.M. Laboy
Case studies on spatial timber constructions in modern architecture and public art <i>Y.T. Shi & L.Y. Wu</i>	The Sorolla Institute of Valencia (Spain). A project by J.R. Azpiazu E. Fenollosa, I. Cabrera & B. Serrano	Teaching Reflection: The Unrealized Potential of Log Construction <i>J.X. Zhu, P. Ghelichi & R.S. Diederling</i>
The process of rocking CLT into a HOT cabin <i>L.D. Houck, J. Dodson, S. Melville, W. Pearson & T. Thiis</i>	Masonry tectonics: Craft, labor, & structural innovation in architectural education <i>F. Trubiano, J. Dessi-Olive & R. Gentry</i>	Education on Structural Glass Design: Redefining glass through the design of innovative, full-glass structures <i>F. Oikonomopoulou, T. Bristogianni, C. Louter, F.A. Veer & R. Nijse</i>

Friday Afternoon (FrA), July 26, 2019

12:30 – 14:00	Lunch Break
14:00 – 15:30	Concurrent Technical Sessions: FrA 1 to FrA 3

FrA 1 – Auditorium 2	FrA 2 – Auditorium 3	FrA 3 – Room 1
General Session Building envelopes (1)	General Session Steel and composite structures & Structural design challenges	General Session Educating architects and structural engineers (3)
Chair: <i>G.H. Filz</i>	Chair: <i>R. Póvoas</i>	Chair: <i>O. Iuorio</i>
Strategies for the refurbishment of heritage-listed post-war facades <i>I. Sørensen & F. Mähl</i>	Symbol and technique of steel domes in Italy <i>R. Morganti, A. Tosone, M. Abita & D. Di Donato</i>	Parametric design and analysis of building structures in the Architecture School of A Coruña <i>J. Vázquez-Rodríguez, D. Otero-Chans, J. Estévez-Cimadevila, E. Martín-Gutiérrez & F. Suarez-Riestra</i>
Wrapping up and weaving buildings: handcrafted techniques in contemporary architecture <i>I. Curiel Peraza</i>	Structural aluminium in architecture – The history and future of aluminium as a structural material <i>S.H. Dyvik, B. Manum, J. H. Mork & M. Luczkowski</i>	Structural integrity and functionality of form; exploring relations of load-bearing elements and architectural form in the education of engineers <i>A. Rønquist, B. Manum & N. Labonnote</i>
A Hybrid Adaptive Composite Based Auxiliary Envelope <i>I.W. Foged, A. Pasold & T. Pelosini</i>	The ephemeral robustness: Structure for temporary constructions <i>A. Bernabeu-Larena, J. Gómez-Mateo & J. Bernabeu-Larena</i>	Transforming structure: The metaphorical construction process and structural design <i>E.V. Ellis & D.A. Kratzer</i>
Structural adhesive connections for building façade applications <i>K.V. Machalická, M. Vokáč, M. Zikmundová & M. Eliášová</i>	From Repetition to Chaos: Complex Fabrications in Contemporary Steel Structures <i>T. M. Boake</i>	Teaching Construction Thinking in Architecture through Materiality and Craftsmanship <i>M. Rinke</i>
	Structural Comparison of Scissor-hinge Linkages <i>F. Maden, Y. Akgün, K. Yüçetürk, E. Aktaş, M.Y. Uncu & C. Mitropoulou</i>	Adaptation of a monument building for accessibility of disabled persons, a case study <i>C. Bocan, D. Bocan & A. Keller</i>

Friday Evening (FrE), July 26, 2019

15:30 – 16:00	Coffee Break
16:00 – 17:30	Concurrent Technical Sessions: FrE 1 to FrE 3

FrE 1 – Auditorium 2	FrE 2 – Auditorium 3	FrE 3 – Room 1
General Session Building envelopes (2)	General Session Computer and experimental methods	General Session Educating architects and structural engineers (4)
Chair: <i>M. Eliášová</i>	Chair: <i>D. Parigi</i>	Chair: <i>J.F. Łątko</i>
Good looking and safe: “heavy” Façades in Seismic Zones M. Roik	Conceptual design in the years of the numerical revolution: risks and perspectives <i>L. Kubiak & L. Sgambi</i>	Timber tectonics in the digital age: Interdisciplinary learning for data-driven wood architecture M. Riggio & N.Y. Cheng
Energy efficiency study applied on a monument building D. Bocan, C. Bocan & A. Keller	Self-supporting ceramic wall system: Challenges of additive manufacturing of architectural ceramic components <i>J. Moreira, L. Ferreira, B. Figueiredo, P.J.S. Cruz, A.M. Sampaio, R. Gonçalves & A.J. Pontes</i>	Research Initiatives: Structural Application into Design Process M. Callahan, S. Shadravan & Y. Obasade
Fastening technology as an interface and integration element of architectural, structural, and building engineering P. Spyridis	Design exploration of architectural geometries and structural performance for sports arenas based on SOM-clustering and structural performance simulation W. Pan, Y. Sun, M. Turrin, C. Louter & I. S. Sariyildiz	Aspects of the integral teaching of Structures and Architectural Design <i>M. Blenkuš & T. Krušec</i>
	Experimental dynamic behavior of an of an historical thin shell structure in concrete: the Paraboloide of Casale Monferrato <i>E. Lenticchia, R. Ceravolo & S. Invernizzi</i>	Advanced structural integration collaboratory model for architecture students <i>T. Fowler & S. Rihal</i>
		Exploring experimental methods on teaching structures for architects: first results of a new course at FAUP <i>E. Brito & R.F. Póvoas</i>

17:30 – 18:00	Closing Ceremony (Auditorium 2)
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