Monday, January 28th morning

8:00: Welcome breakfast and registration

8:45: Opening talk by the SIG Chairs

Session: Design theory and complex knowledge structures: advances in industry and science
Chair: Pascal Le Masson

9:00 – 9:45	Design Public Safety Systems- Being Prepared for the Unknown	Gunnar Holmberg (SAAB)
9:45 – 10:30	Knowledge Domain of C-K Design Theory	Sharif Ullah (Kitami Institute of Technology)

🍽 **10:30 – 11:00: Coffee break** 🍽

Session: Design for society
Chair: Yoram Reich

11:00 – 11:45	Design theory and social change: the case of the new French corporate law	Blanche Segrestin (MINES ParisTech – PSL University**)**
11:45 – 12:30	A Civic Vision for Systems Engineering	Guru Madhavan (US National Academy of Sciences)

12:30 – 14:00 Lunch

BON APPETIT

Monday, January 28ᵗʰ afternoon

	Session: Design paradigm in management *Chair: Eswaran Subhramanian*	
14:00 – 14:45	Designing decisions in the unknown: towards a generative decision model for management science	Pascal Le Masson (MINES ParisTech – PSL University)
14:45 – 15:30	Design, building a global interdisciplinary community	Chris McMahon (DTU Mechanical Engineering / University of Bristol)

🍽 15:30 – 16:00: Coffee break 🍽

	Session: Designing invention *Chair: Ehud Kroll*	
16:00 – 16:45	Creativity and the Patent System	Amy Landers (Drexel University)
16:45 – 17:30	Design theory and regimes of invention	Chipten Valibhay (MINES ParisTech – PSL University)

17:30 – 18:30	Open discussion on further development of the Design Theory SIG

Tuesday, January 29th morning

8:30: 🍽 **coffee and breakfast** 🍽

	Parallel session
9:00 -12:30 Room V111	**Design theory and industrial design, art and philosophy** *Chair: Benjamin Cabanes* ● 9:00-9:30. Design processes, wicked problems and reflection in action. **Per Aman, Hans Andersson (Linkoping University)** ● 9:30-10:00. Design as Coordinated Action. **Barbara Tversky (Stanford University**) 10:00-10:30. "Ceci n'est pas du Design Thinking" - When René Magritte is Meeting C-K Practice More Than Meeting the Eye. **Patrick Corsi (IKBM Sprl - CayaK-Innov SAS), Jacques de Gerlache (GreenFacts)** ● 🍽 **10:30 – 11:00 Coffee break** 🍽 ● 11:00-11:30. The impact of language on visual interpretation and the implication of using visual in science and technolgy. **Yvonne Ericksson (Mälardalen University)** ● 11:30-12:00. Using design theories to understand portraiture teaching strategies of Qing dynasty China. **Milena Klasing Chen (SNCF), Mônica Klasing Chen (Universiteit Leiden)** ● 12:00-12:30. Towards an ontology-based framework to store and retrieve memories for creative architectural projects. **Maria Rosaria Stufano Melone (Politecnico di Bari) Stefano Borgo, Claudio, Roberta Ferrario (CNR ISTC-LOA Trento)**

Parallel session

| 9:00-12:30

Room V112-V113-V114 | **Design theory, data science and AI**
Chair: Sharif Ullah

• 9:00-9:30. Can we get "big data" to support design theories? **John Gero (UNCC and GMU)**
• 9:30-10:00. Developing a combinatory design method of collective action instruments. **Adam Baïz (MINES ParisTech – PSL University)**
• 10:00-10:30. Can Machines Design? An Artificial General Intelligence Approach. **Andreas Makoto Hein (CentraleSupélec), Hélène Condat (Initiative for Interstellar Studies)**

🍽 **10:30 – 11:00 Coffee break** 🍽

• 11:00-11:30. Studying conceptual design strategies from the perspective of abduction. **Lauri Koskela (University of Huddersfield), Ehud Kroll (ORT Braude College)**
• 11:30-12:00. Will AI ever support Design Thinking? **Francesca Alessandra Lisi (Università degli Studi di Bari "Aldo Moro")**
• 12:00-12:30. Designing a smarter grid: Compositional approaches to power systems modeling. **Blake Pollard (Carnegie Mellon University)** |

Parallel session
Design theory and innovation management   *Chair: Benoit Weil*   •   9:00-9:30. The redesign process of the timetable for the Dutch railway sector: a theoretical approach. **Femke Bekius (Delft University of Technology).**   •   9:30-10:00. The C-K theory in design for service: modelling the generative power of social interactions. **Nikolina Dragicevic (The Hong Kong Polytechnic University), Eng Chew, WB Lee, Eric Tsui (University of Technology Sydney)**   •   10:00-10:30. Punctuations with prototypes for reflection and reorientations in the fuzzy front end. **Christiansen John (Copenhagen Business School), Marta Gasparin, William Green (University of Leicester)**   🍽 **10:30 – 11:00 Coffee break** 🍽   •   11:00-11:30. Management of Complex Intelligent Systems. **Nicolette Lakemond, Gunnar Holmberg (Linköping University)**   •   11:30-12:00. Designing and representing complex-services value over time: the dynamic analysis referential (ReADy). **Sylvain Lenfle (CNAM), Alexis Nicolaÿ (Ecole Polytechnique)**   •   12:00-12:30. When corporate and entrepreneurial minds meet: Unraveling the cross-influence of cognitive scripts on business model design schemas in corporate entrepreneurship initiatives. **Dirk Schneckenberg (ESC Rennes School of Business), Mirjam Roessler, Vivek K. Velamuri (HHL Leipzig Graduate School of Management), Huff Anne (Dublin City University)**

9:00 -12:30

Room V115

Parallel session
Design theory and the design of collective action *Chair: Gaetano Cascini* • 9:00-9:30. Highlighting the generativity of scientific concepts to enhance the contribution of science to designing sustainable agroecosystems. **Elsa Berthet (INRA).** • 9:30-10:00. Turning managers into management designers: experimenting design theory to generate managerial concepts. **Albert David, Sébastien Damart (Université Paris-Dauphine), Milena Klasing Chen, Dominique Laousse (SNCF)** • 10:00-10:30. How Not to Design a Business School. **Kenneth Starkey (Nottingham University Business School)** 🍽 **10:30 – 11:00 Coffee break** 🍽 • 11:00-11:30. Policy design. **Irene Pluchinotta (King's Business School)** • 11:30-12:00. Generic Scaffolding for a Non-Standard Engineering Design Ethic. **Ira Monarch (Carnegie Mellon University), Muriel Mambrini Doudet (INRA), Anne-Françoise Schmid (Chaire TMCI), Eswaran Subrahmanian (Carnegie Mellon University)** • 12:00-12:30. Design turn in policy-making: can design theory create better policies? **Marta Gasparin, Martin Quinn (University of Leicester)**

9:00 -12:30

Room V116

	Parallel session
9:00 -12:30 Room V119	**Design theory and design methods** *Chair: Chris Mc Mahon* • 9:00-9:30. A review of design theory applications in civil and geotechnical engineering. **Denis Leboeuf (Université Laval**) • 9:30-10:00. Balancing intuition and evidence in teaching design thinking. **Andre Liem, Martina Keitsch (Norwegian University of Science and Technology)** • 10:00-10:30. Basics of Integrated Design Engineering (IDE). **Sandor Vajna (Otto-von-Guericke-Universität Magdeburg)** 🍽 **10:30 – 11:00 Coffee break** 🍽 • 11:00-11:30. Design (Thinking) in Massive Open Online Courses. **Karen Von Schmieden (Hasso Plattner Institute)** • 11:30-12:00. From Methodical Design towards integral design: A design process framework. **Wim Zeiler (Faculty of the Built Environment)** • 12:00-12:30. Design education: Understanding Complexity and its antecedents. **Eugene Mangia (Pontifical Catholic University of Ecuador)**

	Parallel session
9:00 -12:30 Room Chevalier	### Design theory and cognition *Chair: Louis-Etienne Dubois* - 9:00-9:30. Uncertainties and Games of Make Believe. **Rafaela Hillerbrand, Michael Poznic (Karlsruher Institut für Technologie), Claudia Eckert (The Open University), Martin Stacey (De Montfort University)** - 9:30-10:00. Evaluation of design methods: application to the new idea-configuration-evaluation (ICE) model. **Ehud Kroll (ORT Braude College)** - 10:00-10:30. Theory-Based Design Team Behaviour Simulation Using the FBS Ontology. **Marija Majda Perisic (University of Zagreb) Mario Štorga (University of Zagreb & Luleå University of Technology), John Gero (UNCC & GMU)** 🍽 **10:30 – 11:00 Coffee break** 🍽 - 11:00-11:30. Design theory, technology of foolishness and out-of-the-box ideas. **Frido Smulders (Delft University of Technology)** - 11:30-12:00. Domain-related Differences in Design: an EEG Study. **Sonia Vieira (Institute of Science and Innovation in Mechanical and Industrial Engineering, FEUP), John Gero (UNCC)** - 12:00-12:30. Designing Digital Applications to Beat Back the Waves of Technostress. **Leona Chandra Kruse (University of Liechtenstein)**

12:30 – 14:00 Lunch

BON APPETIT

Tuesday, January 29th afternoon

	Session: Co-design and generative proof-of-concept – the experience of Lille Metropole World Design Capital 2020 Chair: Sandor Vajna	
14:00-14:45	Lille métropole, World Design Capital 2020, the greatest design experiment	Caroline Naphegyi (Lille Metropole 2020 WDC)
14:45 – 15:30	A model of 'reactive expansion' in co-design	Louis-Etienne Dubois (Ryerson University)

🍽 15:30 – 16:00: Coffee break 🍽

	Session: Impact of Design Theory on institutions and education *Chair : Armand Hatchuel*	
16:00 – 16:45	New advancements in the PSI framework	Yoram Reich (Tel Aviv University), Eswaran Subrahmanian (Carnegie Mellon University)
16:45 – 17:30	The Alta Scuola Politecnica experience on teaching design, innovation and design theory	Gaetano,Cascini (Politecnico Di Milano)

17:30 Closing and Future Program, chair Eswaran Subrahmanian