

Monday, January 29th morning

8:00: Welcome breakfast and registration

8:45: Opening talk by the SIG Chairs

Session: Historical perspective Chair: Pascal Le Masson		
9:00 – 9:45	A history of Design Theory at Carnegie Mellon University	Eswaran Subrahmanian (CMU)
9:45 – 10:30	Historical perspective on invention, inventors and invention protection	Gabriel Galvez-Behar (Université de Lille)

☕ 10:30 – 11:00: Coffee break ☕

Session: Chair: Akin Kazakci		
11:00 – 11:45	Developmental Robotics and Creativity	Pierre-Yves Oudeyer (INRA)
11:45 – 12:30	Why laws of fixation guide creation? Insights from CK theory and topos theory	Armand Hatchuel (MINES ParisTech)

12:30 – 14:00 Lunch



Monday, January 29th afternoon

Session: Chair: Eswaran Subrahmanian		
14:00 – 14:45	Theoretical explanation of “y-gaga” through general design theory	Oizumi Kazuya (The University of Tokyo)
14:45 – 15:30	When project management meets design theory: toward a management of exploratory projects"	Sylvain Lenfle (CNAM)

☉ 15:30 – 16:00: Coffee break ☉

Discussion Sessions	
16:00 -18:00	Design Theory & Culture, Philosophy, Art and Creation Chairs: Vincent Bontems, Maria Rosaria Stufano Melone
	Design Theory & Data Science, Chairs: Akin Kazakci, Ehud Kroll
	Design Theory, Psychology and Cognition Chairs: Anaelle Camarda, John Gero
	Design Theory & Management Chairs: Sophie Hooge, Frido Smulders

Tuesday, January 30th morning

8:30: ☉ coffee and breakfast ☉

Parallel session

<p>9:00 -12:30 Room V111</p>	<p>Design theory, design thinking and conceptual models in design: chair Pascal Le Masson</p> <ul style="list-style-type: none"> • A framework for positioning design methods and tools in prospective ergonomics. André Liem (Norwegian University of Science and Technology) • Building design theory: Morphology in the conceptual design phase. Wim Zeiler (University of Technology Eindhoven) • Designing with axioms – a critical study. Christopher Brown (Worcester Polytechnic Institute) • Model-based abduction in design. Lauri Koskela (University of Huddersfield), Ehud Kroll (ORT Braude College) • C-K theory for generating innovative alternatives in public policy making. Irene Pluchinotta (LAMSADE), Akin Kazakci (MINES ParisTech) Raffaele Giordano (Water Research Institute), Alexis Tsoukiàs (LAMSADE) • Analyzing the generative capacity of agronomic theories for both science and practice. Chloé Salembier (INRA), Segrestin Blanche (MINES ParisTech), Berthet Elsa (INRA), Weil Benoît (MINES ParisTech), Meynard Jean-Marc (INRA) • Design and Science: Could the Design approach be better suited for complex problem solving. Konstantinos Kentrotis (Cranfield University)
<p>9:00 -12:30 Room V112-V113-V114</p>	<p>DT and organisations: chair Akin Kazakci</p> <ul style="list-style-type: none"> • Business model design in corporate incubation: new perspectives on the cross-influence of cognitive schemas from established and entrepreneurial firms. Dirk Schnekenberg (ESC Rennes) • Designing to decide: using design theory for fast value potential evaluation of an innovative project prior to resources allocation decision. Antoine Thuillier, Matt Fuller, Albert David (Dauphine University) • Managing a toolbox of innovative design methods: the case of the IDEAS initiative for agri-food systems design. Juliette Brun (Earlybird), Marianne Cerf, Marie-Hélène Jeuffroy, Jean-Marc Meynard (INRA) • Design theory for sustainable communities. Yoram Reich (Tel Aviv University) • The invention of the transistor: revisiting the “magic month” through the prism of C/K design theory. Sylvain Lenfle, Loïc Petitgirard (CNAM) • The Dreamliner’s bumpy road to takeoff. What have design theories to say. Frido Smulders (TU Delft), Eswaran Subrahmanian (CMU)

Parallel session (next)

<p>9:00 -12:30 Room V115</p>	<p>DT and methods : chair Benoit Weil</p> <ul style="list-style-type: none"> ● PSI as KCP method extension: opportunities to improve the design Process. Milena Klasing Chen, Dominique Laousse (SNCF), Yoram Reich (Tel Aviv University), Eswaran Subrahmanian (CMU) ● Designing as playing games of make-believe. Michael Poznic (ITAS), Claudia Eckert (The Open University) ● Composition rules and creativity in architecture. Maria Rosaria Stufano Melone, Stefano Borgo (Technical University of Bari) ● Designing a design community to regenerate an academic society exploration strategy. The case of the innovation thematic group of the French chemical engineering society. Laousse, Dominique (SNCF); Potier, Olivier (LRGP, CNRS, Université de Lorraine, SFGP); Klasing Chen, Milena (SNCF); Brun, Juliette (Mines ParisTech); Camargo, Mauricio (ERPI, Université de Lorraine) Guillou, Florent (IFPEN); Marchal, Philippe (LRGP, CNRS, Université de Lorraine); Uhlemann, Jens (Bayer a.g.) ● A framework for biomimetic design in architecture. Natasha Heil, Camila Freitas Salgueiredo (MAP-MAACC) ● Model-based system engineering for systems of systems projects. Dominique Ernadote (AIRBUS)
<p>9:00 -12:30 Room V116</p>	<p>Design Theory, Cognition and Humanities: chair Eswaran Subrahmanian</p> <ul style="list-style-type: none"> ● Creativity and fixation in children. Anelle Camarda (MINES ParisTech / Sorbonne) ● What is the empirical support for design theories and where can it come from? John Gero (UNCC) ● To catch a moment –photo-elicitation in participatory design. Yvonne Eriksson (Mälardalen University) ● The role of creativity in designing social innovations in transactional economies. Gasparin Marta (University of Leicester) ● Obsessed by perspective: paths and overviews. Barbara Tversky (Columbia/Stanford) ● Design and poetics. Georges Amar (chaire TMCI).

Parallel session (next)

9:00 -12:30 Room V119	Design theory, AI computation: chair Armand Hatchuel <ul style="list-style-type: none">• Designing as computing. Andreas M. Hein, Centrale-Supélec• The idiot proposition, Delfina Fantini van Ditmar (Royal College of Art)• Creativity in Mathematics and Proofs. Olivier Hermant (MINES ParisTech)• Spatial Cognition and AI for Design On Technology Mediated Synthesis of Embodied Cognitive Experiences. Mehul Bhatt (Örebro University)• Non-Standard Genericity: A Philo/Design Theory/Fiction. Ira Monarch (CMU), Muriel Mambrini-Doudet (IHEST), Anne Françoise Schmid (chaire TMCI), Eswaran Subrahmanian (CMU)• Surprise-triggered reformulation of design goals. Mary-Lou Maher (UNCC)
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☉| 10h30: Coffee break |☉

12:30 – 14:00 Lunch



Tuesday, January 30th afternoon

Session: Design theory and new inspirations Chair : Ehud Kroll		
14:00-14:45	A reflexive view on PSI	Yoram Reich (Tel Aviv University), Eswaran Subrahmanian (CMU)
14:45 – 15:30	Deep generative network	Akin Kazakci (MINES ParisTech)

☪ 15:30 – 16:00: Coffee break ☪

Session: Design theory and social sciences Chair : Akin Kazakci		
16:00 – 16:30	Design Theory and biomimetics	Jacquelyn K.S. Nagel (James Madison University)
16:30 – 17:00	Theory driven experiences in creativity	Anaëlle Camarda (MINES ParisTech / Sorbonne)

17:00 Closing and Future Program, chair Eswaran Subrahmanian