# Time Table

<table>
<thead>
<tr>
<th>Nov. 29 (Mon)</th>
<th>Nov. 30 (Tue)</th>
<th>Dec. 1 (Wed)</th>
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<tbody>
<tr>
<td><strong>8:40</strong></td>
<td><strong>9:00</strong></td>
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<tr>
<td>(Opening)</td>
<td><strong>Session 5</strong></td>
<td><strong>Session 7</strong></td>
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<td>Address by Dr. Chris McMahon</td>
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<td>(President of the Design Society)</td>
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<td><strong>9:20</strong></td>
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<td><strong>Session 1</strong></td>
<td><strong>Methods and Tools for Design Creativity</strong></td>
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<td>Theories on Design Creativity</td>
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<td><strong>Session 2</strong></td>
<td><strong>Panel Discussion 1</strong></td>
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<td>Design Process and Cognition 1</td>
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<td><strong>Poster Viewing A</strong></td>
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<td><strong>Session 3</strong></td>
<td><strong>Design Process and Cognition 2</strong></td>
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<tr>
<td>Analogical Design Computing</td>
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<td>Coffee break</td>
<td><strong>Panel Discussion 2</strong></td>
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<td><strong>Session 4</strong></td>
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<td>Design Synthesis</td>
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<td><strong>17:20</strong></td>
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<td>Keynote Speech</td>
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<td>Dr. Hiroyuki Yoshikawa (Japan)</td>
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<td>(President of Kobe University)</td>
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<td><strong>18:40</strong></td>
<td><strong>Dinner Cruising</strong></td>
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**Design Image and Inspiration**

**Dr. Amaresh Chakrabarti** (India)
**Dr. Gabriela Goldschmidt** (Israel)
**Dr. Yukari Nagai** (Japan)
**Moderator**
Dr. Toshiharu Taura (Japan)

**Moderator**
Dr. Yukari Nagai (Japan)

**Panelist**
Dr. John S. Gero (USA)
Dr. Mary L. Maher (Australia)
Dr. Steven M. Smith (USA)

**Panelist**
Dr. Amaresh Chakrabarti (India)
Dr. Gabriela Goldschmidt (Israel)
Dr. Yukari Nagai (Japan)

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Dr. Yukari Nagai (Japan)

**Panelist**
Dr. John S. Gero (USA)
Dr. Mary L. Maher (Australia)
Dr. Steven M. Smith (USA)
Registration Desk

Place:
Entrance Hall (3rd Floor)

Opens:
28th Nov. (Sun)  17:30 - 19:30
29th Nov. (Mon)  8:00 - 18:30
30th Nov. (Tue)  8:30 - 18:00
1st Dec. (Wed)   8:30 - 18:30

Rooms

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<td>Keynote Speech</td>
<td>International Conference Room (3rd Floor)</td>
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<td>Panel Discussions</td>
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<td>Podium Sessions</td>
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<tr>
<td>Short Presentations</td>
<td>International Conference Room (3rd Floor)</td>
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<tr>
<td>Poster Viewings</td>
<td>Reception Hall (3rd Floor)</td>
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Invited Papers

Future Directions for Design Creativity Research

_John S. Gero_

Systematic Procedures Supporting Creativity - A Contradiction?

_Udo Lindemann_

Better, Not Catchier: Design Creativity Research in the Service of Value

_Gabriela Goldschmid_

Using Evolved Analogies to Overcome Creative Design Fixation

_Steven M. Smith, Julie S. Linsey and Andrud Kerne_

Design Creativity Research: From the Individual to the Crowd

_Mary L. Maher_

Motivation as a Major Direction for Design Creativity Research

_Amaresh Chakrabarti_

Design Research and Designing: The Synergy and The Team

_Yong Se Kim_

Discussion on Direction of Design Creativity Research (Part 1) - New Definition of Design and Creativity: Beyond the Problem-Solving Paradigm

_Toshiharu Taura and Yukari Nagai_

Discussion on Direction of Design Creativity Research (Part 2) - Research Issues and Methodologies: From the Viewpoint of Deep Feelings and Desirable Figure

_Yukari Nagai and Toshiharu Taura_
Podium Session

DAY 1 Nov. 29 (Mon)

* 9:20-10:20

**Session 1: Theories on Design Creativity**

**Session Chair:** John S. Gero

1-1. Not from Scratch: The DMS Model of Design Creativity  
*Gabriela Goldschmidt (Israel)*

1-2. Influence of Environmental Information on Expert-perceived Creativity of Ideas  
*Daniel Collado-Ruiz (Spain) and Hesamedin Ostad-Ahmad-Ghorabi (Austria)*

1-3. Towards a New Theory for Design Activity Reasoning  
*Denis Choulier (France)*

* 10:50-11:50

**Session 2: Design Process and Cognition 1**

**Session Chair:** Julie S. Linsey

2-1. An Approach to Measuring Metaphoricity of Creative Design  
*Hung-Hsiang Wang and Jung-Hsuan Chan (Taiwan)*

2-2. Interrelations between Motivation, Creativity and Emotions in Design Thinking – An Empirical Study Based on Regulatory Focus Theory  
*Madeleine Kröper, Doris Fay, Tilmann Lindberg and Christoph Meinel (Germany)*

*Yong Se Kim, JongHo Shin and Yun Kyoung Shin (Korea)*

* 14:30-15:50

**Session 3: Analogical Design Computing**

**Session Chair:** Yan Jin

3-1. DANE: Fostering Creativity in and through Biologically Inspired Design  
*Swaroop Vattam, Bryan Wiltgen, Michael Helms, Ashok K. Goel and Jeannette Yen (USA)*

3-2. Development of a Catalogue of Physical Laws and Effects Using SAPPPhIRE Model  
*Srinivasan V and Amaresh Chakrabarti (India)*

3-3. Measuring Semantic and Emotional Responses to Bio-inspired Design
Jieun Kim (France), Carole Bouchard (France), Nadia Bianchi-Berthouze (UK) and Améziane Aoussat (France)

3-4. Design of Emotional and Creative Motion by Focusing on Rhythmic Features
   Kaori Yamada, Toshiharu Taura and Yukari Nagai (Japan)

- 16:20-17:20
Session 4: Design Synthesis
   Session Chair: Amaresh Chakrabarti
4-1. Create Adaptive Systems through “DNA” Guided Cellular Formation
   George Zouein, Chang Chen and Yan Jin (USA)
4-2. Developing a Coding Scheme to Analyse Creativity in Highly-constrained Design Activities
   Elies A. Dekoninck, Huang Yue, Thomas J. Howard and Christopher A. McMahon (UK)
4-3. Effectiveness of Brainwriting Techniques: Comparing Nominal Groups to Real Teams
   Julie S. Linsey and Blake Becker (USA)

DAY 2 Nov. 30 (Tue)
- 9:00-10:20
Session 5: Methods and Tools for Design Creativity
   Session Chair: Asko Riitahuhta
5-1. Front End Industrial Design (FE-ID) - Developing New Tools and Models for Industrial Designers to Operate at the Front End of New Product Development
   Paul W. Wormald (Singapore)
5-2. Virtuality – Offering Opportunities for Creativity?
   Anthony Williams, Ning Gu and Hedda Haugen Askland (Australia)
5-3. Thinking Inside the Box: Model, Tool, Team and Setting for Building Design
   Wim Zeiler (Netherlands)
5-4. Signs of Collaborative Ideation and the Hybrid Ideation Space
   Tomás Dorta (Canada), Annemarie Lesage (Canada), Edgar Pérez (Canada) and J.M. Christian Bastien (France)

- 13:50-15:10
Session 6: Design Process and Cognition 2
   Session Chair: Toshiharu Taura
6-1. Creativity: Depth and Breadth
   Barbara Tversky and Juliet Y. Chou (USA)
6-2. Research Methodology for Internal Observation of Design Thinking in the Creative Self-formation Process
   Yukari Nagai, Toshiharu Taura and Koutaro Sano (Japan)
6-3. Design as a Perception-in-Action Process
   Katja Tschimmel (Portgal)
6-4. Verbal Stimuli in Design Creativity: A Case-study with Japanese Sound-symbolic Words
   Céline Mougenot and Katsumi Watanabe (Japan)

DAY 3 Dec.1 (Wed)
● 9:00-10:20
Session 7: Visual Representation in Design
   Session Chair: Gabriela Goldschmidt
7-1. Creative Collaborative Strategies of Remote Sketching on Design
   Luz-Maria Jimenez-Narvaez and Arturo Segrera (Canada)
7-2. Creation of New Fashion Illustration Painting Techniques by Use of India-ink Painting Techniques: Research into Line Drawing Techniques of Expression in Fashion Illustrations
   Sachiko Nagasawa, Shin’ya Nagasawa and Kazunari Morimoto (Japan)
7-3. How Uncertainty Helps Sketch Interpretation in a Design Task
   Winger S.W. Tseng (Taiwan) and Linden J. Ball (UK)
7-4. The Complementary Role of Representations in Design Creativity: Sketches and Models
   Alejandro Acuna and Ricardo Sosa (Mexico)

● 15:10-16:30
Session 8: Design Education
   Session Chair: Christopher A. McMahon
8-1. A Creativity Environment for Educational Engineering Projects when Developing an Innovative Product: A Case Study
   Karl Hain, Christoph Rappl and Markus Fraundorfer (Germany)
8-2. The Metaphor of an Ensemble: Design Creativity as Skill Integration
   Newton S. D’soouza (USA)
8-3. Coaching the Cognitive Processes of Inventive Problem Solving with a Computer
   Niccolò Becattini, Yuri Borgianni, Gaetano Cascini and Federico Rotini (Italy)
8-4. Creative Engineering Design Aspects given in a Creativity Training Course
   Joaquim Lloveras, Miguel-Angel Saiz, Carlos Garcia-Delgado, Jairo Chaur, Lluis Claudi, Anna Barlocchi and Laura Carnicero (Spain)
16:50-17:50

Session 9: Design Image and Inspiration

Session Chair: Barbara Tversky

9-1. Differential Approach of Design Image and Similarity Cognition

YiTing Huang and Hung-Hsiang Wang (Taiwan)

9-2. Poetry and Design: Disparate Domains but Similar Processes

Erin L. Beatty and Linden J. Ball (UK)

9-3. Design by Customer: a Management of Flexibilities

Risdiyono (Indonesia) and Pisut Koomsap (Thailand)
Short Presentation

DAY 1 Nov. 29 (Mon)

- 11:50 - 12:50

Short Presentation A

Session Chair: Céline Mougenot

A-1. A Study on the Convergence of Meaning and Creativity of the Generated Concepts in Design
   Georgi V. Georgiev, Yukari Nagai and Toshiharu Taura (Japan)

A-2. Thinking Outside the Box: Integral Design and C-K Concept Creation
   Wim Zeiler (Netherlands)

A-3. New Approaching Method of Trend Promotion
   Hyang Eun Lee and Soon Jong Lee (Korea)

A-4. Implementation of Design Project to Foster Creative Nurses
   Norio Ishii, Hiroyasu Ito and Mie Anai (Japan)

A-5. Creativity is the Naturalized Self Experienced in Ontogenic Drift
   Julia Brewis (South Africa)

A-6. A Collaborative Process to Maximize Design Creativity for Pediatric Care
   Hyojin Nam, Fiammetta Costa, Giuseppe Andreoni and Maximiliano Romero (Italy)

A-7. MOHE: Mobile Health for Moms, Kids, Adults and Elderly
   Pelin Arslan, Hyojin Nam, Maximiliano Romero, Paolo Perego, Fiammetta Costa, Giuseppe Andreoni and Sabrina Muschiato (Italy)

   Amic G. Ho (Hong Kong)

A-9. “Mind the Oddness Trap!” - Theory and Practice in Design Thinking
   Christine Noweski and Christoph Meinel (Germany)

A-10. Artistic Versus Generic Design Creativity
   Anders Brix (Denmark)

A-11. From Ambiguity to Complexity: Conceptualising Creativity in the Context of Formal Design Education
   Hedda Haugen Askland, Anthony Williams and Michael Ostwald (Australia)

A-12. Meta-cognition as a Tool for Finding, Framing, Externalizing and Storytelling
   Masaki Sawa (Japan)

   Leena Ryynänen and Asko Riitahuhta (Finland)
A-14. An Ethnographic Study of Collaborative Design: Multi-modal Generation and (Re)-attribution of Design Ideas  
Anne-Marie Hébert, Françoise Détienne and Christian Licoppe (France)

Yoshiaki Mima (Japan)

A-16. Brainstorming is a Bowl of Spaghetti: An In Depth Study of Collaborative Design Process and Creativity Methods with Experienced Design Practitioners  
Layda Gongora and Alan Dix (UK)

**DAY 3 Dec.1 (Wed)**  

**10:50- 11:50**  

**Short Presentation B**  

*Session Chair: Newton S. D'souza*

B-1. Design Thinking: An Educational Model towards Creative Confidence  
Ingo Rauth, Eva Köppen, Birgit Jobst and Christoph Meinel (Germany)

B-2. Experimental Investigation on Effects of Explanation Activities on Improvement of Creative Ideas  
Nana Kanzaki and Kazuhisa Miwa (Japan)

B-3. Visualization – a Catalyst for Creativity in New Product Development (NPD)  
Anders Wikström (Sweden)

B-4. Social Relations as the Key for Design Team Effectiveness  
Janayna Velozo and Jiro Sagara (Japan)

B-5. The Cultural Dimensions of an Interdisciplinary Design Approach  
Napapong Naparat (Canada)

B-6. Gaining Insights from Poetic Collaboration as a Way to Inform Teamwork in Technological Design  
Erin L. Beatty and Linden J. Ball (UK)

B-7. Fabrications of Natural and Artificial: A Case Study of Enhancing Users’ Impressions  
Ian Gwilt (Australia), Georgi V. Georgiev (Japan) and Yukari Nagai (Japan)

B-8. Recode, Name and Displace  
Arnaud Hendrickx (Belgium)

B-9. Shared Insights in Design Processes – A Discussion of In-vivo Evidence in and beyond Existing Creativity Frameworks  
Stefan Wiltschnig, Balder Onarheim and Bo T. Christensen (Denmark)

B-10. Creative Customers and How We Can Meet their Expectations  
Shuichi Fukuda (USA)

B-11. Creating Customer Experience by Emotional Design  
Yusuke Irisawa and Shin'ya Nagasawa (Japan)
B-12. Ma: The Realm of Mystery in Sugiura Kohei’s ‘Asian Grammar of Design’

Hung Ky Nguyen (Australia)

B-13. Toying With Creative Design: Starting to Design Instruments of Play

Katriina Irja Heliokka (Finland)

B-14. Art-ethnography to Analyze the Role of Sketches in Car Designing

Michiro Eguchi and Takeshi Okada (Japan)

B-15. The Imaginative Process of Thinking

Jo Van Den Berghe (Belgium)

B-16. An Analysis on Similarity of Product Images

Hung-Hsiang Wang and Jung-Hsuan Chan (Taiwan)

● 13:30- 14:30

**Short Presentation C**

**Session Chair: Georgi V. Georgiev**

C-1. Enabling Creativity. Imagination in Design Processes

Mads Nygaard Folkmann (Denmark)

C-2. Changing Personal Memories to Group Memories: Study of a Workshop on the Expression of Personal Memories

Yumiko Nagai, Hisao Nojima and Takeshi Sunaga (Japan)

C-3. Creativity in Spatial Design Processes: Establishing a Non-Routine Design Approach

Heike Rahmann and Marieluise Jonas (Australia)

C-4. Pressure toward Creativity: Individual/Group Work in Student Design Competition

Jesenka Pibernik, Diana Milcic and Josip Bota (Croatia)

C-5. Method for Analyzing Individual Differences in Idea Evaluation and Interpretation

Masakazu Kobayashi and Masatake Higashi (Japan)

C-6. Investigating the Nature of Creativity as it is Understood in Graphic Design Industries

Salman Amur Alhajri (UK)

C-7. DoDesign: A Tool for Creativity-based Innovation

Karen Wuytens and Bert Willems (Belgium)

C-8. The Creation Model in Image Design

Tetsuo Takada (Japan)

C-9. Procedure to Obtain and Organise Creative Solutions. Water Shortage Case

Joaquim Lloveras (Spain)

C-10. A Model of Creativity from the Paradigm of Complexity

Renzo Boccardo (Venezuela) and Joaquim Lloveras (Spain)

C-11. Kaikaku – A Complement to Emergence based Development
Tomas Backstrom and Bengt Olof Koping Olsson (Sweden)

C-12. A Cognitive Approach to Designing Manuals
   Takugo Y. Fukaya, Susumu Ono, Minoru Minakuchi, Gaku Sumino, Koji Yoshida, Seiya
   Nakashima, Masako Hayashi and Hiroshi Ando (Japan)

C-13. Creative Design Thinking based on Understanding Human Imagination
   Feng Zhou, Georgi V. Georgiev, Yukari Nagai and Nami Morishita (Japan)

C-14. A Tool Set to Measure Creativity: Analyzing the Fitness of ABACUS as being the Complementary
   Tool for Linkography
   Duwarahan Rajendra (USA)

C-15. The ‘X’ Factor: A Hypothesis to Find the Roots of Creativity
   Duwarahan Rajendra (USA)

C-16. What If Creativity Were 60 Things Not One, Towards a Grammar of Design
   Richard Tabor Greene (Japan)