

# Conference Agenda

## Session Overview

**Date: Wednesday, 07/Sept/2022**

|  |   |  |  |   |
|--|---|--|--|---|
| <p><b>1:00pm</b><br/>-<br/><b>5:00pm</b></p> | <p><b>Early Registration</b><br/>Location: <a href="#">Reception</a></p>  |  |  |   |
| <p><b>2:00pm</b><br/>-<br/><b>5:00pm</b></p> | <p><b>WORKSHOP 3: Using Nodebox in Academic Design Projects</b><br/>Location: <a href="#">Ada Lovelace</a></p>              | <p><b>WORKSHOP 2: Using Perspective Prompts to Encourage Student Engagement During Peer Design Feedback Sessions</b><br/>Location: <a href="#">Beatrice Shilling</a></p> | <p><b>WORKSHOP 4: “Can You Feel Me?” – a Design Workshop to Explore Atmospheres Through Social Augmentation</b><br/>Location: <a href="#">Dorothee Pullinger</a></p> | <p><b>WORKSHOP 1: How to Develop Organisations Capabilities to Innovate? Test &amp; Learn with The Serious Game l’Année de l’Innovation®.</b><br/>Location: <a href="#">Marianne Brandt</a></p> |
| <p><b>5:00pm</b><br/>-<br/><b>5:30pm</b></p> | <p><b>Tour of London South Bank University Design Workshop Facilities</b><br/>Location: <a href="#">Lecture Theatre</a></p> |  |  |   |
| <p><b>5:30pm</b><br/>-<br/><b>8:00pm</b></p> | <p><b>Welcome Drinks</b><br/>Location: <a href="#">Reception</a></p>  |  |  |   |

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| 8:00am - 9:00am   | <b>Breakfast</b><br>Location: <a href="#">Ida Bould</a>  |   |   |   |   |
| 9:00am - 9:15am   | <b>Welcome</b><br>Location: <a href="#">Lecture Theatre</a>  |   |   |   |   |
| 9:15am - 10:15am  | <b>KEYNOTE 1</b><br>Location: <a href="#">Lecture Theatre</a>  |   |   |   |   |
| 10:15am - 10:45am | <b>BREAK</b><br>Location: <a href="#">Ida Bould</a>  |   |   |   |   |
| 10:45am - 12:45pm | <p><b>1A: Addressing Ethical and Social Issues in Design Education</b><br/>Location: <a href="#">Ada Lovelace</a><br/>Chair: <a href="#">Mithra Zahedi</a>, University of Montreal</p> <p><b>10:45am - 11:10am</b><br/><b>DESIGN WITH A CRITICAL LENS TEACHING STUDENTS HOW TO FIND, RATHER THAN SOLVE, DESIGN CHALLENGES USING INTERDISCIPLINARY WORKSHOPS</b><br/><a href="#">Kristof Romain Victor Vaes</a><sup>1</sup>, <a href="#">Anne Britt Torkildsby</a><sup>2</sup>, <a href="#">Muriel De Boeck</a><sup>1</sup><br/>1: Department of Product Development, Faculty of Design Sciences, University of Antwerp, Belgium; 2: The Norwegian Research Laboratory for Universal Design, NTNU Norwegian University of Science and Technology</p> <p><b>11:10am - 11:35am</b><br/><b>TOOL-BASED ETHICS EDUCATION FOR ENGINEERS; WONDERBERRIES AND WISDOM TILES</b><br/><a href="#">Wouter Eggink</a><sup>1</sup>, <a href="#">Karin van der Heijden</a><sup>2</sup>, <a href="#">Steven Dorrestijn</a><sup>2</sup>, <a href="#">Ilse Ouwens</a><sup>3</sup><br/>1: University of Twente, Netherlands, The; 2: Saxion University of Applied Sciences, Netherlands, The; 3: Cibap, Vocational School for Design, Netherlands, The</p> <p><b>11:35am - 12:00pm</b><br/><b>REFLECTIONS ON ADDRESSING TABOO, SHAME AND SOCIAL STIGMA IN DESIGN PROJECTS</b></p> | <p><b>1B: Research in Design and Engineering Education Practice</b><br/>Location: <a href="#">Agnes Kaposi</a><br/>Chair: <a href="#">Emanuela Tilley</a>, UCL</p> <p><b>10:45am - 11:10am</b><br/><b>TEACHING DESIGN IN A VIRTUAL CLASSROOM – A NEW NORMALITY INITIATED BY THE PANDEMIC CONTEXT</b><br/><a href="#">Harald Skulberg</a><br/>The Oslo School of Architecture and Design, Norway</p> <p><b>11:10am - 11:35am</b><br/><b>REALISING THE POTENTIALS OF VIRTUAL REALITY AND BUILDING INFORMATION MODELS? CIVIL ENGINEERING STUDENTS' UTILISATION OF TECHNOLOGY IN A GROUP PROJECT</b><br/><a href="#">Ingri Strand</a><sup>1</sup>, <a href="#">Ernst Erik Hempel</a><sup>1</sup>, <a href="#">Eilif Hjelseth</a><sup>2</sup><br/>1: Oslo Metropolitan University, Norway; 2: Norwegian University of Science and Technology, Norway</p> <p><b>11:35am - 12:00pm</b><br/><b>NEW COLLABORATIVE WORKFLOWS - IMMERSIVE CO-DESIGN FROM SKETCHING TO 3D CAD AND PRODUCTION</b><br/><a href="#">Mauricio Novoa</a><sup>1</sup>, <a href="#">Bryan Howell</a><sup>2</sup>, <a href="#">Jan Willem Hoftijzer</a><sup>3</sup>, <a href="#">Jose Manuel Rodriguez</a><sup>4</sup>, <a href="#">Wendy</a></p> | <p><b>1C: Industrial Involvement in Design and Engineering Education</b><br/>Location: <a href="#">Beatrice Shilling</a><br/>Chair: <a href="#">Giovanni Jesue Contreras</a>, University of Sussex</p> <p><b>10:45am - 11:10am</b><br/><b>DO AS I DO, NOT JUST AS I TELL YOU: TAKING STUDENTS ON A RESEARCH JOURNEY</b><br/><a href="#">Matthew Alan Watkins</a>, <a href="#">Maryam Bathaei Javarehsk</a><br/>Nottingham Trent University, United Kingdom</p> <p><b>11:10am - 11:35am</b><br/><b>MAPPING DESIGN BRIEFS AND RESULTS OVER A DECADE OF UNIVERSITY-INDUSTRY STUDENT PROJECTS</b><br/><a href="#">Sara Figueiredo</a>, <a href="#">Vikki Eriksson</a>, <a href="#">Tua Björklund</a>, <a href="#">Kalevi Ekman</a><br/>Aalto University, Aalto Design Factory, Finland</p> <p><b>11:35am - 12:00pm</b><br/><b>DIGITAL HEALTH INTERVENTIONS FOR PROMOTING SLEEP WELLBEING: A DESIGN APPROACH USING SELF-DETERMINATION THEORY</b><br/><a href="#">Bahar Şener</a><sup>1</sup>, <a href="#">Sila Umulu</a><sup>1</sup>, <a href="#">Ayhan Ozan Yilmaz</a><sup>2</sup><br/>1: Middle East Technical University, Department of Industrial Design, Turkey; 2: Biyomod, Turkey</p> <p><b>12:00pm - 12:25pm</b><br/><b>DIGITAL KNOWLEDGE TRANSFER FOR ADDITIVE MANUFACTURING USING BLENDED LEARNING</b><br/><a href="#">Sebastian Kuschnitz</a><sup>1</sup>, <a href="#">Lukas Valentin Hoppe</a><sup>2</sup>, <a href="#">Paul Christoph</a></p> | <p><b>1D: Innovation and Creativity in Design and Engineering Education</b><br/>Location: <a href="#">Dorothee Pullinger</a><br/>Chair: <a href="#">Eoin White</a>, University of Limerick</p> <p><b>10:45am - 11:10am</b><br/><b>AGEING COLLABORATIONS: CO-DESIGNING FUTURE TECHNOLOGY OPPORTUNITIES</b><br/><a href="#">Linda Shore</a><sup>1</sup>, <a href="#">Shika Hurrydass</a><sup>1</sup>, <a href="#">Richard Thompson</a><sup>2</sup>, <a href="#">Rachel Salzano</a><sup>1</sup>, <a href="#">James Marsh</a><sup>1</sup>, <a href="#">Zuzanna Marchewka</a><sup>1</sup>, <a href="#">Thelma Babbs</a><sup>1</sup>, <a href="#">Sharon Jackson-Kerr</a><sup>1</sup>, <a href="#">Marta Lis</a><sup>1</sup>, <a href="#">Reece Leslie</a><sup>1</sup>, <a href="#">Michael Ellis</a><sup>3</sup><br/>1: School of Computing, Edinburgh Napier University, United Kingdom; 2: School of Creative Industries, Edinburgh Napier University, United Kingdom; 3: tapintoIT, Edinburgh, United Kingdom</p> <p><b>11:10am - 11:35am</b><br/><b>HOW TO GET STUDENTS – FROM DIFFERENT BACKGROUNDS AND WITH NO EXPERIENCE IN DESIGN – GOING</b><br/><a href="#">Arthur Eger</a><br/>Consultant, writer and lecturer on subjects such as Architecture, Graphic- and Industrial Design</p> <p><b>11:35am - 12:00pm</b><br/><b>EMBEDDING IMMERSIVE TECHNOLOGIES INTO PRODUCT DESIGN EDUCATION: STUDENTS' AWARENESS OF</b></p> | <p><b>1E: Meeting 21st Century Challenges in Further and Higher Education</b><br/>Location: <a href="#">Marianne Brandt</a><br/>Chair: <a href="#">Erik Bohemia</a>, Oslo Metropolitan University</p> <p><b>10:45am - 11:10am</b><br/><b>ARTICULATING MODERN ENGINEERING CHALLENGES USING AN ARTEFACT STUDY THROUGH TIME</b><br/><a href="#">Jeff Barrie</a><br/>University of Bristol, United Kingdom</p> <p><b>11:10am - 11:35am</b><br/><b>THINKING BEYOND THE PRODUCT MOMENT: ADDRESSING ISSUES AROUND "KEEPING"</b><br/><a href="#">Clare Green</a><sup>1,2</sup><br/>1: ISD, Rubika, Valenciennes, France; 2: UNIMES, France</p> <p><b>11:35am - 12:00pm</b><br/><b>COLLABORATIVE LEARNING IN INTERNATIONAL INTERDISCIPLINARY TEAMS</b><br/><a href="#">Miroslava Nadkova Petrova</a><sup>1</sup>, <a href="#">Ricardo Geldres Piumatti</a><sup>2</sup>, <a href="#">Milagros Diez Canseco Castro De Steffen</a><sup>2</sup>, <a href="#">César Rubén Lucho Lingán</a><sup>2</sup><br/>1: Universidad de Monterrey, Mexico; 2: Pontificia Universidad Católica del Perú, Perú</p> <p><b>12:00pm - 12:25pm</b><br/><b>ANTICIPATIVE CO-CREATION METHOD</b><br/><a href="#">Nina Bjørnstad</a><sup>1</sup>, <a href="#">Cheryl Akner Koler</a><sup>2</sup><br/>1: The Oslo School of Architecture and Design, Oslo, Norway; 2: Konstfack University of</p> |

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|                         | <p><b>Casper Boks</b>, June Trondsen<br/>NTNU Norwegian University of Science and Technology, Norway</p> <p><b>12:00pm - 12:25pm</b><br/><b>DESIGNING FOR PERSONAL-HAPPINESS: AN EMPIRICAL CASE STUDY</b><br/><b>Aija Freimane</b><br/>TU Dublin School of Creative Arts</p> <p><b>12:25pm - 12:45pm</b><br/><b>STUDENTS PERCEPTION OF RISK: TEAM MEMBERS CONTRIBUTION WITHIN COLLABORATIVE PROJECTS</b><br/><b>Charlotte Alexandra Kelland, Ross Brisco, Ian Whitfield</b><br/>University of Strathclyde, United Kingdom</p>  | <p><b>Zhang<sup>5</sup>, Nikolaj Kramer<sup>6</sup></b><br/>1: Western Sydney University, Australia; 2: Brigham Young University, USA; 3: TU Delft, Netherlands; 4: EUIPO Europa, Spain; 5: University of Canterbury, New Zealand; 6: VIA University College, Denmark</p> <p><b>12:00pm - 12:25pm</b><br/><b>TOWARDS RE-IMAGINING INDUSTRIAL DESIGN EDUCATION FOR THE CONTEMPORARY PERIOD</b><br/><b>Wil Dim, Ian de Vere, Jacob Sheahan</b><br/>RMIT, Australia</p> <p><b>12:25pm - 12:45pm</b><br/><b>A SLIGHT RETURN: DEVELOPING AN AUGMENTED DESIGN STUDIO PEDAGOGY</b><br/><b>Jon Spruce, Sarah Moriarty</b><br/>MMU, United Kingdom</p> | <p><b>Gembariski<sup>2</sup>, Roland Lachmayer<sup>2</sup>, Thomas Vietor<sup>1</sup></b><br/>1: Technische Universität Braunschweig, Institute of Engineering Design, Germany; 2: Leibniz Universität Hannover, Institute of Product Development, Germany</p> <p><b>12:25pm - 12:45pm</b><br/><b>STRATEGY TO LINK AND DEVELOP SENIOR DESIGN STUDENT'S PROJECTS WITH LOCAL INDUSTRY</b><br/><b>Mariano Garcia Martinez, Rodrigo Chavez Heres, Alejandro Acuña</b><br/>Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico</p>   | <p><b>VIRTUAL REALITY AS A TOOL TO SUPPORT THE DEVELOPMENT OF DESIGN SOLUTIONS</b><br/><b>Laila AL Jahwari, Vanja Garaj, David Harrison</b><br/>Brunel University London, United Kingdom</p> <p><b>12:00pm - 12:25pm</b><br/><b>'ART EXPERIENCES' AS DISRUPTIVE IMPULSE, AND MENTORING FOR NEW DESIGN ENGINEERING EDUCATION STRATEGIES</b><br/><b>Marina-Elena Wachs</b><br/>Hochschule Niederrhein University of Applied Sciences, Germany</p> <p><b>12:25pm - 12:45pm</b><br/><b>INVENTING AND PATENTING USING HALF-CAUSATION: NEW PHILOSOPHICAL TOOLS FOR ENGINEERING DESIGN EDUCATION</b><br/><b>Mo Abolkheir, Michael Wisnom</b><br/>University of Bristol, United Kingdom</p>           | <p>Arts, Crafts and Design, Stockholm, Sweden</p> <p><b>12:25pm - 12:45pm</b><br/><b>DESIGN FOR PUBLIC ENGAGEMENT AND AWARENESS: EQUIPPING DESIGN STUDENTS WITH EMPATHY AND SOCIAL RESPONSIBILITY SKILLS</b><br/><b>Susana Soares<sup>1</sup>, Alison Alvarez<sup>2</sup></b><br/>1: London South Bank University, United Kingdom; 2: London South Bank University, United Kingdom</p>   |
| <b>12:45pm - 1:30pm</b> | <b>LUNCH</b><br>Location: <b>Ida Bould</b>   |   |   |   |  |
| <b>1:30pm - 3:30pm</b>  | <p><b>2A: Innovation and Creativity in Design and Engineering Education</b><br/>Location: <b>Ada Lovelace</b><br/>Chair: <b>Ben Clarke</b>, London South Bank University</p> <p><b>1:30pm - 1:55pm</b><br/><b>DESIGN AS A TOOL TO REDUCE FOOD WASTE: PRESENTATION OF SALVAGE FOOD IN GROCERY STORES</b><br/><b>Maja Wawrzyniak Soleng</b><br/>Oslo Metropolitan University, Norway</p> <p><b>1:55pm - 2:20pm</b><br/><b>INVERTED CLASSROOM TO ENHANCE ENGAGEMENT AND CRITICAL THINKING</b><br/><b>Mithra Zahedi, Virginie Tessier, Sarah Tannir, Marie-Pier Aubry-Boyer</b><br/>University of Montreal, Canada</p> | <p><b>2B: Innovation and Creativity in Design and Engineering Education</b><br/>Location: <b>Agnes Kaposi</b><br/>Chair: <b>Oscar Tomico</b>, Elisava School of Design and Engineering / Eindhoven University of Technology</p> <p><b>1:30pm - 1:55pm</b><br/><b>GROUP IDEATION WITH BRAINWRITING – A COMPARISON OF CO-LOCATED AND DISTANCE COLLABORATION</b><br/><b>Markus VOß<sup>1</sup>, Hulusi BOZKURT<sup>1</sup>, Thorsten SAUER<sup>2</sup>, Marc NUTZMANN<sup>2</sup></b><br/>1: DHBW Baden-Wuerttemberg Cooperative State University Mannheim, Germany; 2: DHBW Baden-Wuerttemberg Cooperative State University Ravensburg,</p>     | <p><b>2C: Meeting 21st Century Challenges in Further and Higher Education</b><br/>Location: <b>Beatrice Shilling</b><br/>Chair: <b>Jeff Barrie</b>, University of Bristol</p> <p><b>1:30pm - 1:55pm</b><br/><b>MULTIDISCIPLINARY INNOVATION ARMENIA: EXPLORATIONS IN DESIGN-LED MULTIDISCIPLINARY ENTERPRISE EDUCATION</b><br/><b>Mark Bailey<sup>1</sup>, Arman Arakelyan<sup>2</sup>, Nick Spencer<sup>1</sup>, Justine Carrion-Weiss<sup>1</sup></b><br/>1: Northumbria University, United Kingdom; 2: American University of Armenia, Armenia</p> <p><b>1:55pm - 2:20pm</b><br/><b>DESIGNING TO ENABLE AN AGEING WORKFORCE</b><br/><b>Ian de Vere, Wil Dim, Jacob Sheahan</b></p> | <p><b>2D: Meeting 21st Century Challenges in Further and Higher Education</b><br/>Location: <b>Dorothee Pullinger</b><br/>Chair: <b>Liz Newton</b>, London South Bank University</p> <p><b>1:30pm - 1:55pm</b><br/><b>FRAMEWORK FOR CRISIS-RESISTANT ENGINEERING PRODUCT DEVELOPMENT COURSES</b><br/><b>Maximilian Schramek<sup>1</sup>, Patrick Rosenberger<sup>1</sup>, Manfred Grafinger<sup>1</sup>, Niccolò Becattini<sup>2</sup>, Stanko Škec<sup>3</sup>, Nikola Vukašinović<sup>4</sup></b><br/>1: Technical University of Vienna, Austria; 2: Politecnico di Milano, Italy; 3: University of Zagreb, Croatia; 4: University of Ljubljana, Slovenia</p> <p><b>1:55pm - 2:20pm</b></p> | <p><b>2E: Addressing Ethical and Social Issues in Design Education</b><br/>Location: <b>Marianne Brandt</b><br/>Chair: <b>Sara Santos Figueiredo</b>, Aalto University</p> <p><b>1:30pm - 1:55pm</b><br/><b>ECOLOGICAL ETHICS: TOWARDS AN EDUCATION OF TECHNO-DIVERSITY</b><br/><b>Victor Petit<sup>1</sup>, David Santiago Perez<sup>1</sup>, Pauline Picot<sup>1</sup>, Lou Grimal<sup>1</sup>, Nadège Troussier<sup>1</sup>, Noël Fitzpatrick<sup>2</sup>, Claudine Gillot<sup>1</sup></b><br/>1: UTT, France; 2: Technological University Dublin, Ireland</p> <p><b>1:55pm - 2:20pm</b><br/><b>A COLLABORATIVE APPROACH TO DIGITAL STORYTELLING IN HEALTHCARE SETTINGS</b></p> |

2:20pm - 2:45pm

**EVALUATION OF WORKBOOKS AS AN ACTIVE LEARNING TOOL FOR INDUSTRIAL DESIGN ENGINEERING**

Peter Törlind, Asa Wikberg-Nilsson

Luleå University of Technology, Sweden

2:45pm - 3:10pm

**HOW TO PROFESSIONALISE A SERIOUS GAME? APPLICATION TO "LINO HAS AN IDEA!"**

Robin Enoc<sup>1</sup>, Romain Kerloc'h<sup>1</sup>, Camille Jean<sup>1,2,3</sup>, Nicolas Maranzana<sup>1,2,3</sup>

1: Arts et Metiers Institute of Technology; 2: LCPI; 3: HESAM Université

3:10pm - 3:30pm

**RADICALLY INNOVATING THE AUTOMOTIVE DESIGN PROCESS WITH IMMERSIVE TECHNOLOGIES**

Juan Antonio Islas

Munoz<sup>1</sup>, Ehsan Baha<sup>1,2</sup>, Gjoko Muratovski<sup>3</sup>

1: University of Montreal; 2: Delft University of Technology; 3: Deakin University, Melbourne, Australia

Friedrichshafen, Germany

**1:55pm - 2:20pm DEVELOPMENT OF ASSISTIVE TECHNOLOGIES TO ADDRESS THE NEEDS OF INDIVIDUALS WITH MILD COGNITIVE IMPAIRMENT IN THE PURSUIT OF INDEPENDENT LIVING**

Christina Choi<sup>1</sup>, Wendell Wilson<sup>1</sup>, Brian Jones<sup>2</sup>, Jennifer Dubose<sup>3</sup>, Kayci Vickers<sup>4</sup>

1: Georgia Institute of Technology; School of Industrial Design; 2: Georgia Institute of Technology; AWARE Home Initiative; 3: Georgia Institute of Technology; College of Design; 4: Department of Neurology, Neuropsychology Section; Emory University School of Medicine

**2:20pm - 2:45pm COMPUTATIONAL DESIGN, ADVANCED VISUALISATION, AND THE CHANGING NATURE OF CAD**

Lewis Urquhart, Konstantinos Petrakis, Andrew Wodehouse

University of Strathclyde, United Kingdom

**2:45pm - 3:10pm DESIGN SPRINT METHODOLOGIES TRANSFORMED IN A DIGITAL ENVIRONMENT**

Karen Elizabeth Winfield<sup>1</sup>, Nicolette Dullesco Sizer<sup>2</sup>, Francesco Luke Siena<sup>1</sup>

1: Product Design Department, School of Architecture Design & The Built Environment, Nottingham Trent University, United Kingdom; 2: Engineering Department, School of Science & Technology, Nottingham Trent University, United Kingdom

RMIT University, Australia

2:20pm - 2:45pm

**EMBEDDING SUSTAINABILITY IN THE ENGINEERING CURRICULUM: A COMPLIMENTARY APPROACH TO PERFORMANCE ENGINEERING AND SUSTAINABLE DESIGN**

Ahmed Tamkin Butt, Edward William Causton, Matthew Alan Watkins

Nottingham Trent University, United Kingdom

2:45pm - 3:10pm

**CRITIQUE: A WORKSHOP TO ESTABLISH SHARED UNDERSTANDING AND CLEAR RESPONSIBILITIES BETWEEN DESIGN STUDENTS AND THEIR LECTURERS**

Lore Brosens<sup>1,3</sup>, Ellen De Vos<sup>1,2,3</sup>, Marina Emmanouil<sup>1,3</sup>

1: Design.Nexus research group Ghent University, Belgium; 2: imec-mict-UGent, Belgium; 3: Department of Industrial Systems Engineering and Product Design, Ghent University, Belgium

3:10pm - 3:30pm

**SYSTEMS THINKING AND INTERDISCIPLINARITY IN DISCIPLINARY DESIGN EDUCATION**

Malene Pilgaard Harsaae, Thomas Østergaard, Anne-Louise Bang

VIA University College, Denmark

**UTILISING MR TECHNOLOGIES FOR ESSENTIAL PROJECT-BASED LEARNING IN DESIGN EDUCATION**

Santosh MAURYA<sup>1</sup>, Yuval Kahlon<sup>2</sup>, Takuya Oki<sup>2</sup>, Jiang Zhu<sup>2</sup>, Momoko Nakatani<sup>2</sup>, Yufei Liu<sup>2</sup>

1: Hitachi Ltd., Japan; 2: Tokyo Institute of Technology

2:20pm - 2:45pm

**INTERVENTIONS REQUIRED TO SUPPORT JAPANESE HIGH SCHOOL TEACHERS TO FACILITATE DESIGN-BASED PROJECTS**

Leon LOH, Noriko TAKANO, Moe SHIMOMURA, Yanfang ZHANG

Kyushu University, Faculty of Design, Japan

2:45pm - 3:10pm

**HOW TO ENABLE ENGINEERING STUDENTS TO APPLY SUSTAINABLE SOLUTIONS IN THE PRODUCT DEVELOPMENT PROCESS**

Sinah Malz, Stefan Zorn, Olaf Kessler, Kilian Gericke

University of Rostock, Germany

3:10pm - 3:30pm

**IMPROVING THE EDUCATION EXPERIENCE IN A DESIGN HISTORY COURSE USING CANVA, INSTAGRAM AND LINKEDIN**

Bryan F. Howell, Asa River Jackson, Addie Payne Morgan

Brigham Young University, United States of America

Sana Behnam Asl<sup>1</sup>, Carolina Gill<sup>1</sup>, Kelly Umstead<sup>1</sup>, Raunak Mahtani<sup>1</sup>, Kristin Tully<sup>2</sup>

1: North Carolina State University, United States of America; 2: Department of Obstetrics and Gynecology, School of Medicine, University of North Carolina, United States of America

2:20pm - 2:45pm

**TIMES OF CODE RED - LEARNING SUSTAINABILITY BY SYSTEMIC DESIGN**

Kristin Storen Wigum

OsloMet, Norway

2:45pm - 3:10pm

**APPLICATION GAP: UNEVEN GENDER PARTICIPATION IN INDUSTRIAL DESIGN INTERNSHIPS**

Betsy Rebecca Barnhart

University of Kansas, United States of America

3:10pm - 3:30pm

**DESIGN FOR SIBLINGS OF CHILDREN IN NEED OF INTENSIVE CARE**

Fien Huybrechts, Ivo Dewit

University of Antwerp, Belgium



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|                 |   | <p><b>3:10pm - 3:30pm</b></p> <p><b>USING DIGITAL TECHNOLOGIES FOR COLLABORATIVE CONCEPTUAL DESIGN</b></p> <p><b>Joseph Mills, Ross Brisco</b><br/>University of Strathclyde, United Kingdom</p>  |   |  |   |
| 3:30pm - 4:00pm | <p><b>BREAK</b><br/>Location: <b>Ida Bould</b></p>  |   |   |  |   |
| 4:00pm - 6:00pm | <p><b>3A: Engaging the Public</b><br/>Location: <b>Ada Lovelace</b><br/>Chair: <b>Philip Farrugia</b>, University of Malta</p> <p><b>4:00pm - 4:25pm</b><br/><b>HOW GRAPHIC DESIGN CAN INFLUENCE THE PERCEPTION OF SUSTAINABLE FOOD PACKAGING</b><br/><b>Henrik Kongsli Gjerde</b><br/>OsloMet, Norway</p> <p><b>4:25pm - 4:50pm</b><br/><b>NEW FOOTING FOR SERVICE DESIGN: ROOTS OF MEANING</b><br/><b>Emile Cognie, Severine Van Hoecke, Lien De Schepper, Ivo Dewit</b><br/>University of Antwerp, Faculty of Design Sciences, Department of Product Development</p> <p><b>4:50pm - 5:15pm</b><br/><b>AN INTEGRATED APPROACH TO STEM AND SUSTAINABILITY EDUCATION WITHIN THE NEW ZEALAND CONTEXT</b><br/><b>Euan Coutts, Alice Yorke, Teaghan Mower</b><br/>University of Canterbury, New Zealand</p> <p><b>5:15pm - 5:40pm</b><br/><b>REDUCING AIR POLLUTION IN CITIES: EVALUATE THE GAP IN POPULATION ENGAGEMENT AND POLICY STRATEGIES</b><br/><b>Minh Nghiem</b><br/>OsloMet, Norway</p> <p><b>5:40pm - 6:00pm</b><br/><b>SYSTEMS-ORIENTED DESIGN AND DEMOCRACY</b></p> | <p><b>3B: Educating Designers and Engineers for a Sustainable Future in Design and Engineering Education</b><br/>Location: <b>Agnes Kaposi</b><br/>Chair: <b>Anders Berglund</b>, Mälardalen University</p> <p><b>4:00pm - 4:25pm</b><br/><b>SHEDDING LIGHT ON INDUSTRIAL DESIGN. EDUCATING PRODUCT DEVELOPERS FOR A SUSTAINABLE FUTURE IN DESIGN AND ENGINEERING EDUCATION</b><br/><b>Martin Luccarelli</b><br/>Research Center for Interactive Materials, School of Textiles &amp; Design, Reutlingen University, Germany</p> <p><b>4:25pm - 4:50pm</b><br/><b>IS THERE A ZERO WASTE IN A FASHION DESIGN?</b><br/><b>Mara Binde<sup>1</sup>, Dr. Aija Freimane<sup>2</sup></b><br/>1: Art Academy of Latvia, Latvia; 2: TU Dublin School of Creative Art</p> <p><b>4:50pm - 5:10pm</b><br/><b>SWIM OR DROWN: TOSSING 1ST YEAR STUDENTS INTO THE COMPLEXITY POOL</b><br/><b>Isabel Ordóñez Pizarro, Guim Espelt Estopà, Ainoa Abella García, Oscar Tomico Plasencia, Jessica Fernandez Cano</b><br/>ELISAVA Barcelona School of Design and</p> | <p><b>3C: Innovation and Creativity in Design and Engineering Education</b><br/>Location: <b>Beatrice Shilling</b><br/>Chair: <b>Bryan F. Howell</b>, Brigham Young University</p> <p><b>4:00pm - 4:25pm</b><br/><b>INNOVATIONS IN THE DESIGN OF AN ARCHITECTURAL ENGINEERING CURRICULUM</b><br/><b>Shannon Chance<sup>1,2</sup>, Emanuela Tilley<sup>1</sup></b><br/>1: UCL; 2: TU Dublin</p> <p><b>4:25pm - 4:50pm</b><br/><b>SUCCESSES &amp; CHALLENGES OF SUPPORTING PRODUCT DESIGN EDUCATION FOR DEAF &amp; HARD OF HEARING LEARNERS DURING A PANDEMIC: A CASE STUDY</b><br/><b>Francesco Luke Siena<sup>1</sup>, Samuel Russell<sup>2</sup>, Richard Malcolm<sup>1</sup>, Emily Elizabeth Brook<sup>1</sup>, Allan Cutts<sup>1</sup>, Liam Martin<sup>1</sup>, Kevin Naik<sup>1</sup></b><br/>1: Product Design Department, School Of Architecture Design &amp; The Built Environment, Nottingham Trent University, United Kingdom; 2: Product Design Student, School Of Architecture Design &amp; The Built Environment, Nottingham Trent University, United Kingdom</p> <p><b>4:50pm - 5:15pm</b><br/><b>SKILLSLAB - PEER EDUCATION IN A RAPID CHANGING WORLD</b><br/><b>Hilde Van Dyck, Elke Mestdagh, Kristof Vaes, Alexis Jacoby</b><br/>University of Antwerp - Faculty of design sciences, Belgium</p> <p><b>5:15pm - 5:40pm</b></p> | <p><b>3D: Innovation and Creativity in Design and Engineering Education</b><br/>Location: <b>Dorothee Pullinger</b><br/>Chair: <b>Nesrin Elmarakbi</b>, Northumbria University</p> <p><b>4:00pm - 4:25pm</b><br/><b>USE OF DESIGN OF EXPERIMENTS, DESIGN THINKING, AND DATA SCIENCE IN PRECISION AGRICULTURE</b><br/><b>Verónica Saavedra Gastélum, Carlos Alberto González Almaguer, Arturo Gonzalez de Cosio Barrón, Claudia Zubieta Ramírez, Lourdes Jazmín Muciño García, Hugo Kenji Fukumura Perez, Eduardo Caballero</b><br/>Tecnológico de Monterrey, Mexico</p> <p><b>4:25pm - 4:50pm</b><br/><b>RE-EVALUATING LEARNING ENVIRONMENTS TO NURTURE STUDIO CULTURE</b><br/><b>Ceri Almqvist</b><br/>Technological University Dublin, Ireland</p> <p><b>4:50pm - 5:15pm</b><br/><b>THE REDESIGN STUDIO: AN INTENSIVE EVIDENCE-BASED APPROACH FOR IDEATING PRODUCT AND UX/UI IMPROVEMENTS</b><br/><b>Owain Pedgley, Bahar Şener</b><br/>Middle East Technical University, Turkey</p> <p><b>5:15pm - 5:40pm</b><br/><b>INVESTIGATING THE USE OF AUGMENTED</b></p> | <p><b>3E: Research in Design and Engineering Education Practice</b><br/>Location: <b>Marianne Brandt</b><br/>Chair: <b>Ross Brisco</b>, University of Strathclyde</p> <p><b>4:00pm - 4:25pm</b><br/><b>PRODUCTIVE FAILURE IN ACTION</b><br/><b>Stefan Persaud, Bas Flipsen, Erik Thomassen</b><br/>TU Delft, Industrial Design Engineering, The Netherlands</p> <p><b>4:25pm - 4:50pm</b><br/><b>DOES ONLINE DIDACTICS AFFECT THE PERCEIVED QUALITY OF MACHINE DRAWING COURSES?</b><br/><b>Sergio Rizzuti, Luigi De Napoli</b><br/>University of Calabria, Italy</p> <p><b>4:50pm - 5:15pm</b><br/><b>DESIGN FOR SENTIMENT-ANCY: CONCEPTUAL FRAMEWORK TO IMPROVE USER'S WELL-BEING THROUGH FOSTERING EMOTIONAL ATTACHMENT IN THE USER EXPERIENCE WITH THEIR ASSISTIVE DEVICES</b><br/><b>Saiba Quqandi<sup>1</sup>, Paul Lighterness<sup>2</sup>, Leon Williams<sup>2</sup></b><br/>1: Immam Abdulrahman Bin Faisal University, Saudi Arabia; 2: Cranfield University, United Kingdom</p> <p><b>5:15pm - 5:35pm</b><br/><b>A PAN-EUROPEAN TRANSFORMATION TO BRIDGE THE GAP BETWEEN TANGIBLE</b></p> |

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|                                | <p><b>Linda Blaasvaer<sup>1</sup>, Birger Sevaldson<sup>2</sup></b><br/> 1: The Norwegian Labour and Welfare Administration; 2: The Oslo School of Architecture- and Design</p> | <p>Engineering, UVic-UCC, Spain</p> | <p><b>AN INTERACTIVE SPATIAL ABILITY TRAINING APPROACH FOR STEM EDUCATION</b><br/> <b>Chi Hei NG, Leong Ying CHAN, Chun Yu CHIU, Yuen Suet LAI, Yi-Teng Shih</b><br/> The Hong Kong Polytechnic University, Hong Kong S.A.R. (China)</p> <p><b>5:40pm - 6:00pm</b><br/> <b>A DIDACTIC LOOK ON THE INTRODUCTION OF E PORTFOLIOS IN A PRODUCT DESIGN COURSE</b><br/> <b>Maria Tyroller, Michael S. J. Walter, Charlotte Kaetzel, Christian Riess</b><br/> University of Applied Sciences Ansbach, Germany</p> | <p><b>REALITY IN THE DESIGN FOR ADDITIVE MANUFACTURING</b><br/> <b>Gustavo Melo, Rohit Ravi, Lucas Jauer, Johannes Henrich Schleifenbaum</b><br/> Digital Additive Production DAP - RWTH Aachen, Germany</p> <p><b>5:40pm - 6:00pm</b><br/> <b>ONLINE PARTICIPATORY TOOLS IN CLASSROOM AND RESEARCH SETTINGS</b><br/> <b>Raunak Mahtani, Carolina Gill, Kelly Umstead, Sana Behnam Asl, Kristin Tully</b><br/> North Carolina State University, United States of America</p> | <p><b>EXPERIENCE AND VIRTUAL IDEATING SPACES</b><br/> <b>Marina-Elena Wachs<sup>1</sup>, Theresa-Marie Scholl<sup>2</sup>, Giulia D'Aleo<sup>3</sup></b><br/> 1: Hochschule Niederrhein University of Applied Sciences, Germany; 2: Textile Design Engineer, Germany; 3: Politecnico Milano, Departement Design, Italy</p> |
| <p><b>7:00pm - 10:00pm</b></p> | <p><b>Conference Dinner</b><br/> Location: <a href="#">Skylon Restaurant</a></p>  |                                     |   |  |  |

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| 8:00am<br>-  | <b>Breakfast</b><br>Location: <a href="#">Ida Bould</a>   |  |  |  |  |
| 9:00am<br>-  | <b>KEYNOTE 2</b><br>Location: <a href="#">Lecture Theatre</a>   |  |  |  |  |
| 10:00am<br>- | <b>BREAK</b><br>Location: <a href="#">Ida Bould</a>   |  |  |  |  |
| 10:30am<br>- | <b>10:30am - 10:55am</b><br><b>DESIGN EDUCATION DOES NOT EXIST IN A VACUUM</b><br><b>Sinead Quillon, Paul Magee, Andree Woodcock</b><br>Coventry University, United Kingdom   |  |  |  |  |
| 12:30pm      | <b>10:55am - 11:20am</b><br><b>CREATIVE DESIGN ACTIVITIES TO SUPPORT THE COMPLEX LEARNING ENVIROMENT OF THE CLASSROOM FOR CHILDREN WITH AUTISM SPECTRUM DISORDER (ASD)</b><br><b>Nesrin Elmarakbi, Heather Robson, Lucy Currie</b><br>Northumbria University, United Kingdom  |  |  |  |  |
|              | <b>11:20am - 11:45am</b><br><b>A USER STUDY FOR FACILITATING EFFECTIVE REMOTE EDUCATION IN DESIGN STUDIOS: TOWARDS INTEGRATION OF CYBER-PHYSICAL TECHNOLOGIES INTO DESIGN EDUCATION</b><br><b>Yuval Kahlon<sup>1</sup>, Momoko Nakatani<sup>1</sup>, Haruyuki Fujii<sup>1</sup>, Takuya Oki<sup>1</sup>, Jiang Zhu<sup>1</sup>, Santosh Maurya<sup>2</sup></b><br>1: Tokyo Institute of Technology, Japan; 2: Hitachi Ltd., Japan                   |  |  |  |  |
|              | <b>11:45am - 12:10pm</b><br><b>EXPERIENCES FROM TEACHING CIRCULAR ECONOMY CONCEPTS TO ENGINEERING STUDENTS</b><br><b>Reyn O'Born, Anette Heimdall</b><br>University of Agder, Norway  |  |  |  |  |
|              | <b>4A: Innovation and Creativity in Design and Engineering Education</b><br>Location: <a href="#">Ada Lovelace</a><br>Chair: <a href="#">Ingrid Mulder</a> , Delft University of Technology   |  |  |  |  |
|              | <b>4B: Innovation and Creativity in Design and Engineering Education</b><br>Location: <a href="#">Agnes Kaposi Kiernan</a> , University Limerick  |  |  |  |  |
|              | <b>4C: Educating Designers and Engineers for a Sustainable Future in Design and Engineering Education</b><br>Location: <a href="#">Beatrice Shilling</a><br>Chair: <a href="#">Matthew Watkins</a> , Nottingham Trent University  |  |  |  |  |
|              | <b>4D: Industry 4.0 and the Implications for Design and Engineering Education</b><br>Location: <a href="#">Dorothee Pullinger</a><br>Chair: <a href="#">Charlotte Asbjörn Sörensen</a> , Malmö University   |  |  |  |  |
|              | <b>4E: Assessment Methods</b><br>Location: <a href="#">Marianne Brandt</a><br>Chair: <a href="#">Sue Fairburn</a> , Kwantlen Polytechnic Universit  |  |  |  |  |
|              | <b>10:30am - 10:55am</b><br><b>DESIGNING OUT UNWANTED HEALTHCARE FUTURES: A NEW FRAMEWORK FOR HEALTHCARE DESIGN INNOVATION WITH INTENT</b><br><b>Anna Berenika Wojdecka<sup>1</sup>, Ashley Hall<sup>1</sup>, Tibor Balint<sup>2</sup></b><br>1: Royal College of Art, United Kingdom; 2: NASA JPL  |  |  |  |  |
|              | <b>10:30am - 10:55am</b><br><b>BEHAVIOURS, PRACTICES, ACTIVITIES, DOINGS: MAKING THEM SUSTAINABLE THROUGH DESIGN</b><br><b>Wanjun Chu<sup>1</sup>, Renee Wever<sup>2</sup></b><br>1: Division of Human-Centered System, Department of Computer and Information Science, Linköping University, Sweden; 2: Division of Product Realisation, Department of Management and Engineering, Linköping University, Sweden                                    |  |  |  |  |
|              | <b>10:30am - 10:55am</b><br><b>EXPERIENCES WITH EMOTIONAL DESIGN</b><br><b>Jeanette Helleberg Dybvik</b><br>OsloMet — Oslo Metropolitan University  |  |  |  |  |
|              | <b>10:55am - 11:20am</b><br><b>PEDAGOGY OF PROCESS: INTERDISCIPLINARY CASE STUDIES FROM AN IRISH UNIVERSITY</b><br><b>Orfhlaith Mairead Ni Bhriain, Louise Bridget Kiernan, Bernard Hartigan, Eoin White, Hannah Fahey, Kathleen Turner</b><br>University of Limerick, Ireland  |  |  |  |  |
|              | <b>10:55am - 11:20am</b><br><b>ONBOARDING, A LEARNING APPROACH TO OVERCOME ADOPTION THRESHOLDS WITH EXTENDED REALITY</b><br><b>Anders Berglund</b><br>Mälardalen University, Sweden   |  |  |  |  |
|              | <b>11:20am - 11:45am</b><br><b>SOFT SYSTEMS AND AGILE METHODOLOGIES IN THE SUCCESSFUL DEFINITION OF ACTIVITIES FOR DESIGN ACADEMIC PROJECTS IN TECNOLÓGICO DE MONTERREY ABSTRACT</b><br><b>Carlos Alberto Gonzalez Almaguer, Edgar Alejandro Barbosa Saucedo, Claudia Zubieta Ramírez, Carlos Rafael Gómez Valdez, Natalia Frías Reid, Diana Rebeca Lugo Cruz, Rebeca Suárez, Miguel Rocha</b><br>Tecnologico de Monterrey Campus Queretaro, Mexico |  |  |  |  |
|              | <b>11:20am - 11:45am</b><br><b>INTERNATIONAL DESIGN STUDIO PARTICIPATION</b><br><b>Loginova Polina, Klakova Vlada, Erik Bohemia, Tatiana Semichevskaya, Anna Solovyova</b><br>RUDN, Russian Federation  |  |  |  |  |
|              | <b>11:45am - 12:10pm</b><br><b>DESIGN AND ENGINEERING PEDAGOGIES AS AGENTS FOR DISRUPTION, INNOVATION AND TRANSFORMATION AND THE TRANSFER AND APPLICATION OF REVERSE PSYCHOLOGY</b>   |  |  |  |  |
|              | <b>11:20am - 11:45am</b><br><b>STUDENT EXPERIENCE OF ONLINE INTERNATIONAL DESIGN STUDIO PARTICIPATION</b><br><b>Yong Se Kim</b><br>University of Turku, Finland   |  |  |  |  |
|              | <b>11:45am - 12:10pm</b><br><b>TOOLKIT THAT SUPPORTS THE DEVELOPMENT OF A SUSTAINABLE PRODUCT-SERVICE SYSTEM</b><br><b>Eline Albert, Ivo Dewit</b><br>University of Antwerp, Faculty of Design  |  |  |  |  |
|              | <b>11:20am - 11:45am</b><br><b>EVALUATING LEARNING EXPERIENCE AND EMOTIONAL TRIGGERS OF VIRTUAL LEARNING ENVIRONMENTS (VLES) USING PSYCHO GALVANIC REFLEXES AND BEHAVIOURAL ANALYSIS</b><br><b>Abhijeet Kujur, Sadaf H. Khan, Jyoti Kumar</b><br>Indian Institute of Technology, Delhi, India.  |  |  |  |  |
|              | <b>11:20am - 11:45am</b><br><b>PROJECT BASED LEARNING IN THE CONTEXT OF CUTTING-EDGE ROBOTICS COMPETITION</b><br><b>Suk Wai Winnie Leung<sup>1</sup>, Zexiang Li<sup>2</sup></b><br>1: Hong Kong University of Science and Technology, Hong Kong S.A.R. (China); 2: Shenzhen InnoX Academy  |  |  |  |  |
|              | <b>11:45am - 12:10pm</b><br><b>SOCIAL MEDIA: ENABLING INCONSPICUOUS BLENDED LEARNING IN DESIGN</b>  |  |  |  |  |

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|                                | <p><b>12:10pm - 12:30pm</b><br/> <b>DIGITAL LEARNING ENVIRONMENTS TO SUPPORT DESIGN EDUCATION</b><br/> <u>Lukas Valentin Hoppe</u><sup>1</sup>, <u>Sebastian Kuschnitz</u><sup>2</sup>, <u>Paul Christoph Gembarski</u><sup>1</sup>, <u>Thomas Vietor</u><sup>2</sup>, <u>Roland Lachmayer</u><sup>1</sup><br/> 1: Leibniz Universität Hannover, Germany; 2: Technische Universität Braunschweig, Germany</p>   | <p><b>ACROSS DISCIPLINES</b><br/> <u>Deborah Andrews</u>, <u>Elizabeth J. Newton</u>, <u>Ben Lishman</u><br/> London South Bank University, United Kingdom</p> <p><b>12:10pm - 12:30pm</b><br/> <b>MYRUBRIC, A CO-CREATIVE JOURNEY TO ACTIVATE RESILIENT LEARNING COMMUNITIES</b><br/> <u>Paula Hueso Espinosa</u>, <u>Stefan Persaud</u>, <u>Elisa Giaccardi</u><br/> Delft University of Technology</p>   | <p>Sciences, Department of Product Development</p> <p><b>11:45am - 12:10pm</b><br/> <b>EXPLORING SENSUOUS QUALITIES OF TEXTILES</b><br/> <u>Monica Louise Hartvigsen</u><sup>1</sup>, <u>Karen Marie Hasling</u><sup>2</sup><br/> 1: Design School Kolding; 2: Design School Kolding</p> <p><b>12:10pm - 12:30pm</b><br/> <b>PERFECTION VS IMPERFECTION - EVOLVING PERCEPTUAL QUALITIES OF CONCRETE</b><br/> <u>Tara Harb</u>, <u>Tatjana Leblanc</u><br/> University of Montreal, Canada</p>  | <p><b>NEO-CRAFT AS A TREND TO DESIGN A NEW TYPOLOGY OF 3D PRINTED PRODUCTS</b><br/> <u>Luis Miguel Gutierrez Contreras</u>, <u>Luis Alberto Cordoba</u>, <u>Alejandro Acuña</u><br/> Tecnológico de Monterrey, Mexico</p> <p><b>12:10pm - 12:30pm</b><br/> <b>PRODUCTS WITH PROVENANCE: DEVELOPING A SENSE OF PLACE IN PRODUCT DESIGN EDUCATION</b><br/> <u>Lyndon Buck</u><br/> Aston University, United Kingdom</p>   | <p><b>EDUCATION IN INDIA</b><br/> <u>Christy Vivek Gogu</u>, <u>Jyoti Kumar</u><br/> Indian Institute of Technology Delhi, India</p> <p><b>12:10pm - 12:30pm</b><br/> <b>THE BEST OF TIMES, THE WORST OF TIMES; STUDENT DESIGN TEAM FORMATION</b><br/> <u>Juan Felipe Ruiz</u>, <u>Renee Wever</u><br/> Linköping University, Sweden</p>   |
| <p><b>12:30pm - 1:30pm</b></p> | <p><b>LUNCH</b><br/> Location: <u>Ida Bould</u></p>   |   |  |   |  |
| <p><b>1:30pm - 3:30pm</b></p>  | <p><b>5A: Innovation and Creativity in Design and Engineering Education</b><br/> Location: <u>Ada Lovelace</u><br/> Chair: <u>Linda Shore</u>, Edinburgh Napier University</p> <p><b>1:30pm - 1:55pm</b><br/> <b>LESSONS LEARNED FROM A DESIGN-DRIVEN ENTREPRENEURSHIP PROCESS THAT BRIDGES ACADEMIC RESEARCH AND DESIGN EDUCATION</b><br/> <u>Louise brigid Kiernan</u><sup>1,2</sup>, <u>Eoin White</u><sup>1,2</sup>, <u>Orfhlaith Ni Bhriain</u><sup>1,3</sup>, <u>Bernard Hartigan</u><sup>1,2</sup>, <u>Megan O'Mahony</u><sup>1</sup><br/> 1: School of Design, University Limerick, Ireland; 2: Health Research Institute; 3: Irish World Academy of Music and Dance</p> <p><b>1:55pm - 2:20pm</b><br/> <b>INDUSTRIAL DESIGN EDU CENSUS</b><br/> <u>Carly Hagins</u><sup>1</sup>, <u>Benjamin Bush</u><sup>2</sup>, <u>Verena Paepcke-Hjeltness</u><sup>3</sup><br/> 1: Western Michigan University, United States of America; 2: Auburn University, United States of America; 3: Iowa State University, United States of America</p> <p><b>2:20pm - 2:45pm</b><br/> <b>PROBLEM SOLVING RACE: GAMIFICATION TO</b></p> | <p><b>5B: Addressing Ethical and Social Issues in Design Education</b><br/> Location: <u>Agnes Kaposi</u><br/> Chair: <u>Markus VOB</u>, DHBW Baden-Wuerttemberg Cooperative State University Mannheim</p> <p><b>1:30pm - 1:55pm</b><br/> <b>MULTI-GENERATIONAL LEARNING IN THE CONTEXT OF TOY DESIGN</b><br/> <u>Tse-yen Yeh</u>, <u>Yi-Teng Shih</u><br/> The Hong Kong Polytechnic University, Hong Kong S.A.R. (China)</p> <p><b>1:55pm - 2:20pm</b><br/> <b>A STUDY OF CONSIDERATIONS TO THE DESIGN CRITERIA FOR PARKINSON'S DISEASE TOYS</b><br/> <u>Douglas Man</u>, <u>Yi-Teng Shih</u><br/> The Hong Kong Polytechnic University, Hong Kong S.A.R. (China)</p> <p><b>2:20pm - 2:45pm</b><br/> <b>TOY DESIGN: IMPROVING LEARNING EFFECTIVENESS FOR ADHD STUDENTS</b><br/> <u>Mei Yee Lui</u>, <u>Lok Yiu Wong</u>, <u>Ho Yin Mak</u>, <u>Yi-Teng Shih</u></p> | <p><b>5C: Innovation and Creativity in Design and Engineering Education</b><br/> Location: <u>Beatrice Shilling</u><br/> Chair: <u>Anna Berenika Wojdecka</u>, Royal College of Art</p> <p><b>1:30pm - 1:55pm</b><br/> <b>EXPLORE, RESPOND, ADAPT: THE ROLE OF RISK AND EXPERTISE IN HYBRID (SOFT/HARD) PRODUCT EDUCATION</b><br/> <u>Sue Fairburn</u>, <u>Stephanie Phillips</u><br/> Wilson School of Design, Kwantlen Polytechnic University, Vancouver, Canada</p> <p><b>1:55pm - 2:20pm</b><br/> <b>EXPLORING &amp; DESIGNING IN THE CONTEXT OF SEARCH AND RESCUE</b><br/> <u>Susan Christianen</u><sup>1</sup>, <u>Sue Fairburn</u><sup>2</sup><br/> 1: Technology Transfer Office Iceland + Extreme Design Lab; 2: Wilson School of Design, Kwantlen Polytechnic University, Canada</p> <p><b>2:20pm - 2:45pm</b><br/> <b>THE SUSTAINABLE</b></p> | <p><b>5D: Research in Design and Engineering Education Practice</b><br/> Location: <u>Dorothee Pullinger</u><br/> Chair: <u>Anne Louise Bang</u>, VIA Design</p> <p><b>1:30pm - 1:55pm</b><br/> <b>EXPANSION OF SERVICE DESIGN ACADEMICS IN BELGIUM: THE GROUNDWORK FOR A CURRICULUM BASED ON CONTEMPORARY INDUSTRY NEEDS</b><br/> <u>Domien LOOSEN</u>, <u>Ivo DEWIT</u>, <u>Thomas MARQUENIE</u>, <u>Lotte VERBOVEN</u><br/> University of Antwerp, Faculty of Design Sciences, Department of Product Development</p> <p><b>1:55pm - 2:20pm</b><br/> <b>AGILE: WHERE VUCA AND AFFECTIVE FACTORS MEET</b><br/> <u>Stephen Green</u><sup>1</sup>, <u>Suzan Orwell</u><sup>1</sup>, <u>Freddie Page</u><sup>1</sup>, <u>Tiffany Chiu</u><sup>1</sup>, <u>Ahmed Patel</u><sup>2</sup><br/> 1: Imperial College, United Kingdom; 2: Middlesex University and Imperial College London</p> <p><b>2:20pm - 2:45pm</b></p> | <p><b>5E: Meeting 21st Century Challenges in Further and Higher Education</b><br/> Location: <u>Marianne Brandt</u><br/> Chair: <u>Juan Antonio Islas Munoz</u>, University of Montreal</p> <p><b>1:30pm - 1:55pm</b><br/> <b>AI IN THE DESIGN PROCESS: TRAINING THE HUMAN-AI COLLABORATION</b><br/> <u>Fabio Antonio Figoli</u>, <u>Lucia Rampino</u>, <u>Francesca Mattioli</u><br/> Politecnico di Milano, Italy</p> <p><b>1:55pm - 2:20pm</b><br/> <b>OPTIMISING THE PRODUCT-SERVICE SYSTEM FOR SCOOTER-SHARING IN CITIES</b><br/> <u>Sam Vervoort</u>, <u>Ivo Dewit</u><br/> University of Antwerp, Belgium</p> <p><b>2:20pm - 2:45pm</b><br/> <b>TOWARDS A NEW STANDARD FOR FEA METHODOLOGY AND PRESENTATION IN PRODUCT DESIGN PORTFOLIOS</b><br/> <u>Ross John Robert MacLachlan</u><br/> University of Strathclyde, United Kingdom</p> |



**SOLVE INDUSTRIAL ENGINEERING PROBLEMS IN THE DISTANCE AND CLASSROOM LEARNING**

**Carlos Alberto Gonzalez Almaguer**, Angeles Aguirre Acosta, Claudia Zubieta Ramirez, Claudia Lizbeth Salas Rivas, Elvia Itzamná Rosas Herrera, María Lule  
Tecnologico de Monterrey, Mexico

2:45pm - 3:10pm

**TOWARDS VALUE-DRIVEN EXPERIENCE DESIGN BY MINDING THE GAP BETWEEN VISUAL-OLFACTORY PERCEPTION**

**SuKyoung Kim**  
Sapporo City University, Japan

3:10pm - 3:30pm

**ENDING UP AT THE BEGINNING – TEACHING MATERIAL DRIVEN DESIGN TO ENGINEERING STUDENTS**

**Fredrik Henriksson**  
Linköping University, Sweden

The Hong Kong Polytechnic University, Hong Kong S.A.R. (China)

2:45pm - 3:05pm

**IDENTIFYING ISSUES IN TEACHING THE PROBLEM-FINDING STAGE FACED BY INSTRUCTORS - A CASE STUDY ON SDGS CHALLENGE PROJECT IN HIGH SCHOOL**

**Yanfang ZHANG<sup>1</sup>, Leon LOH<sup>1</sup>, Noriko TAKANO<sup>1</sup>, Moe SHIMOMURA<sup>1</sup>, Christian CRUZ<sup>2</sup>**  
1: Kyushu University, Faculty of Design, Japan;  
2: Yamaguchi University, Faculty of Global and Science Studies, Japan

**DEVELOPMENT GOALS APPLIED TO THE FUTURE OF DESIGN EDUCATION**

**Beatriz Martínez-Villagrasa**, José-Luis Menéndez-Varela  
Universitat Pompeu Fabra (UPF)

2:45pm - 3:10pm

**INNOVATIVE BOARD GAME DESIGN IN AN ACADEMIC ENVIRONMENT DURING THE COVID-19 PANDEMIC**

**João Martins<sup>1,2</sup>, Luis Mota<sup>1,2</sup>**  
1: Instituto Politécnico de Viana do Castelo, Portugal; 2: CIAUD, Research Centre for Architecture, Urbanism and Design, Lisbon School of Architecture, Universidade de Lisboa

3:10pm - 3:30pm

**THE APPLICATION OF A PROTOTYPING SUPPORT TOOL IN A STUDENT DESIGN PROJECT**

**Konstantinos Petrakis<sup>1</sup>, Andrew Wodehouse<sup>1</sup>, Hilary Grierson<sup>1</sup>, Euan Coutts<sup>2</sup>, Jussi Liikkanen<sup>3</sup>, Hannu Parkkamäki<sup>3</sup>**  
1: University of Strathclyde, United Kingdom; 2: University of Canterbury, New Zealand; 3: Turku University of Applied Sciences, Finland

**TESTS IN MOODLE IN ENGINEERING EDUCATION - A PRE-STUDY IN THE FIELD OF LEARNING ANALYTICS**

**Joachim Günther**  
Munich University of Applied Sciences, Germany

2:45pm - 3:05pm

**DEMOCRATIC MANUFACTURING: A STUDENT MANUFACTURED & OPERATED 3D PRINTER FARM**

**Francesco Luke Siena<sup>1</sup>, Christopher Forbes<sup>2</sup>, Kerry Truman<sup>2</sup>**  
1: Product Design Department, School of Architecture Design & The Built Environment, Nottingham Trent University; 2: Technical Team, School of Architecture Design & The Built Environment, Nottingham Trent University

2:45pm - 3:10pm

**DESIGN AND ENGINEERING AS AGENTS OF CHANGE: A CAPABILITIES FRAMEWORK**

**Ingrid Mulder, Alberto Magni**  
Delft University of Technology, Netherlands, The

3:10pm - 3:30pm

**VIRTUAL LEARNING ENVIRONMENT FOR IMMERSIVE TEACHING OF THE OPERATION OF HIGH-RISK EQUIPMENT IN ARCHITECTURE AND INDUSTRIAL DESIGN WORKSHOPS**

**Alejandro Acuña, María Melón**  
ITESM Campus Queretaro, Mexico

3:30pm  
-  
5:00pm

**Closing Ceremony**  
Location: **Ida Bould**