

Thursday

9:15 - 10:45

Session 1 | AI, Deep Learning, Data

Chair: Daniel Kohler

Towards an Autonomous Architecture

Tyson Höpfer, Panagiotis Tigas

A Plane of Thrones

Ishaan Varshney, Ben Doherty

Robot Ex Machina

Jose Luis Garcia del Castillo y López

User Directed Meta Parametric Design for Option Exploration

Nazim Ibrahim, Sam Conrad Joyce

Application of an Automatic Shape Clustering Method

Shermeen Yousif, Wei Yan

11:00 - 12:30

Session 2 | Patterns

Chair: Aleksandra Jaeschke

Pattern Mapping

Eliza Pertigkiozoglou

Three-dimensional Translation of Japanese Katagami Patterns

Ghail Bouayad

Waste Ornament

Kristen Forward, Joshua Taron

Bespoke Cast Facade

Mania Aghaei Meibodi, Mairena Kladeftira, Thodoris Kyttas, Benjamin Dillenburger

Tensile Configurations

Kenneth Tracy, Sachin Sean Gupta, Loo Yi Ning Stella, So Jing Wen, Abhipsa Pal

2:30 - 4:00

Session 3 | Pavilions

Chair: Alvin Huang

Bio-Inspired Lamellar Structures

Yasaman YavariBojastani, Simon Schleicher

Robotic Constraints Informed Design Process

Pradeep Devadass, Tobias Heimig, Sven Stumm, Ethan Kerber, Sigrid Brell-Koccan

Buga Fibre Pavilion

Niccolò Dambrosio, Christoph Zechmeister, Serban Bodea, Valentin Kostowski, Marta Gil-Pérez, Bas Rongen,

Jan Knippers, Achim Menges

Simplifying Catenary Wood Structures

Nichol Long Hin Wong, Kristo Crolla

Experimental Biocomposite Pavilion

Hanaa Dahy, Piotr Baszyński, Jan Petř

2:30 - 4:00

Session 4 | Formworks

Chair: Tsz Yan Ng

Unprintable Forms

Yota Akiyodou, Zaeshan Yunus Ahmed, Freek Bos, Marjan Colletti

Dissolvable 3D Printed Formwork

Shelby Elizabeth Doyle, Erin Linsey Hunt

Dissolvable 3DP Formwork

Matthias Leschok, Benjamin Dillenburger

Additive Casting of Mass-Customizable Bricks

Lavender Tassmer, Yijiang Huang, Caitlin Mueller

FLEXI-NODE

Ali Baghi, Aryan Baghi, Saleh Kalantari

4:15 - 5:30

Project Session 1

Chair: Behnaz Farahi

Walking Assembly: Craneless Tilt-Up Construction

Brandon Clifford, Jo Lobdell, Tyler Swingle, Davide Zampini

Lost House

Joel Lamere, Cynthia Gunadi

NECTARY Modular Assembly System

Manuel Jimenez Garcia

MUD Frontiers / Zoquetes Fronterizos

Ronald Rael, Virginia San Fratello

4:15 - 5:30

Project Session 2

Chair: Adam Marcus

Hypersecting Objects

Niccolò Casas, Gabriel Esquivel, Garrett Farmer, Nicholas Houser, Oswald Veliz

Expanded Perceptions

Nancy Diniz, Frank Melendez

Precise Imprecision: Flexible Construction with Robotics

Ester Hong-Fen Lo, Leon YH-Liang Ko

The Arroyo Bridge: Collaborative Robotics for Large Scale Construction

R. Scott Mitchell, Diana Yan, Alex Weisfeld

Friday

9:00 - 10:30

Session 5 | Material Research

Chair: Dana Cukpova

POLYBRICK 2.0

Eda Begum Birgul, Yao Lu, Ege Sekkin, Colby Johnson, David Moy, Yaseen Islam, Jenny Sabin

INFRASONIC

Neil Grewal, Miguel Escallon, Abhinav Chaudhary, Alina Hramyka

PolyBrick H2.0

Vivia Zhang, William Qian, Jenny Sabin

Informing Grounds

Karen Lee Bar-Sinai, Tom Shaked, Aaron Sprecher

Digital Fabrication of Standardless Materials

Katie MacDonald, Kyle Schumann, Jonas Hauptman

10:45 - 12:15

Session 6 | Theory

Chair: Gabriel Esquivel

Digital Suprematism

Galo Canizares

Surrealist Aesthetics in Second-Order Cybernetic Architecture

Jordi Vivaldi

Do Robots Dream of Digital Sheep?

Neil Leach

Bursting the Bubble

Maxime Leblanc, Theodora Vardouli

The Oxymoron of 'Jectivity'

Gonzalo Vallo

10:45 - 12:15

Session 7 | Environments

Chair: Ersela Kripa

Thermochromic Articulations

Andreas Kosmer

Thermal Reality Capture

Dorit Aviv, Nicholas Houchois, Forrest Meggers

Sound Space

Luke Gehron, Adam Chernick, Christopher Morse, Sabrina Naumovski, Zeyu Ren

Robotically Augmented Imaging (RAI Alpha)

Ebrahim Poustinchi

Cyber-physical UAV Navigation and Operation

Aldo Sollazzo, Keith Kaseman, Soroush Garivani, Andrzej Foltman, Jean-Nicolas Alois Dackiw

2:30 - 4:00

Session 8 | GAN

Chair: Ian Bogost

Hybrid Elevations using GAN Networks

Ali Mohammad, Christopher Beorkrem, Jefferson Ellinger

Interdisciplinary AI

Güvenç Özel, Benjamin Ernmoser

GAN Lock

Kyle Steinfeld

AN ANONYMOUS COMPOSITION

Henan Liu, Longtai Liao, Akshay Srivastava

Imaginary Plans

Matias del Campo, Sandra Manning, Alexandra Carlson

2:30 - 4:00

Session 9 | AR + Fabrication

Chair: Güvenç Özel

Interactive Facade Detail Design Reviews with the VR Scope Box

Christopher Morse, Foteros Soulos

Augmented Construction

Garvin Goepel

[BENT]

Gwyllim Jahn, Andrew John Wit, James Pazzi

Augmented Craftsmanship

Soomeen Halm

Experimental Applications of Virtual Reality in Design Education

Amber Bartosh, Phillip Anzalone

4:15 - 5:45

Session 10 | Robotic Timber

Chair: Uli Dangel

Stressed Skin Wood Surface Structures

AnnaLisa Meyboom, David Correa, Oliver David Krieg

Autonomous Architectural Operations

Emmanuel Vercrusse

The Buga Wood Pavilion

Martin Alvarez, Hans Jakob Wagner, Abel Groenewolt, Oliver David Krieg, Achim Menges, Daniel Sonntag,

Simon Becher, Lotte Aldinger, Jan Knippers

Exploring Natural Wood

Niels Martin Larsen, Anders Kruse Aagaard

Distributed Robotic Timber Construction

Samuel Leder, Ramon Weber, Dylan Wood, Oliver Bucklin, Achim Menges

4:15 - 5:45

Session 11 | Parts

Chair: Matias del Campo

Blockerties

Anna Galika, Qiuru Pu, Junyi Bai, Daniel Kohler

Toward Discrete Architecture: Automation takes Command

Gilles Retsin

Discrete vs. Discretized Growth

Christoph Kemmt, Igor Pantic, Andrei Gheorghe, Adam Sebestyen

Mathematical Modelling of Cities as Complex Systems

Ali Farzaneh, Michael Weinstock

Design for Mass-Customization

Hua Chai, Dario Marino, ChunPong So, Phillip F. Yuan

Saturday

9:00 - 10:30

Session 12 | Alternative Printing + Casting

Chair: Virginia San Fratello

Janus Printing

Zach Seibold, Saurabh Mhatre, Suleiman Alhadidi, Jose Luis Garcia del Castillo y López, Martin Bechthold

Soil 3D Printing

Daniela Mitterberger, Tiziano Deme

Vertical Modulations

Ana Anton, Angela Yoo, Patrick Bedarf, Lex Reiter, Timothy Wangler, Benjamin Dillenburger

Lithophanic Dunes: The Dunejars

Rhett Russo

IceFormwork for Cast HPFRC Elements

Vasily Sitnikov, Peter Eigenraam, Panagiotis Papanastasi, Stephan Wassermann-Fry

10:45 - 12:15

Session 13 | Responsive Structures

Chair: Jasno Kelly Johnson

Expanding the Systemic Agency of a Material System

Sean Ahlquist

Compliant Laminar Assemblies

Pamela Dycherongbong Chua, Lee Fu Hui

Self-Choreographing Network

Mathias Maierhofer, Valentina Soana, Maria Yablonica, Seichi Suzuki Erazo, Axel Körner, Jan Knippers,

Achim Menges

Alive

Daniil Koshelyuk, Ardeshir Talaei, Soroush Garivani, Areti Markopoulou, Angelos Chronis, David Andres Leon,

Raimund Krenmüller

IRIDESCENCE:Bio-Inspired Emotive Matter

Behnaz Farahi

2:30 - 3:00

Special Paper Session | Autodesk Emergnig Research Award

Chair: Kathy Veikou

Ellena Baseta

Bastian Beyer, Daniel Suarez