Conference Day One 12 July 2017

08:30 – 9:30 Registration
09:30 – 10:00 Opening
10:00 – 11:15 KEYNOTE by **Anna Dyson**
  Built Ecologies
11:15 – 11:30 Coffee Break

Session 1 SHAPE STUDIES I

11:30-12:45 Iestyn Jowers, Chris Earl and George Stiny.
  Shape Computations without Compositions

  Krishnendra Shekhawat and Jose Duarte.
  Rectilinear Floor Plans

  Rizal Muslimin.
  Weaving, Folding and the Tension between them: A discourse on a structural ideation method

  Alexandros Tsamis.
  The Marching Shape: Extensions to the ice-ray shape grammar

12:45 – 14:00 Lunch Break

Session 3 BUILDING PERFORMANCE STUDIES I

14:00-15:15 Pantea Alambeigi, Canhui Chen, Jane Burry and Eva Cheng.
  Shaping Design with Sound Performance Prediction: A case study for exploring the impact of early sound perform. prediction on arch. des.

  Sebastian Dietrich, Sven Schneider and Dimitry Demin.
  RhinoRstab: Introducing and testing a new structural analysis plugin for Grasshopper3D

  Elif Ensari, Bilge Kobaş and Can Sucuoglu.
  Comp. Decision Support for an Airport Complex Roof Design: A case study of evolutionary optimization for daylight provision and overheating prevention

  Dagmar Reinhardt, Densil Cabrera and Matthew Hunter.
  A Mathematical Model Linking Form and Material for Sound Scattering: Design, robotic fabrication, and evaluation of sound scattering discs: relating surface form to acoustic performance

15:15 – 15:30 Coffee Break

Session 2 ANALYZING and MODELLING URBAN ENVIRONMENTS I

11:30-12:45 Anetta Kepczynska-Walczak and Anna Pietrzak.
  An Experimental Methodology for Urban Morphology Analysis

  Kian Wee Chen, Patrick Janssen and Leslie Norford.
  Automatic Parameterisation of Semantic 3D City Models for Urban Design Optimisation

  Rui De Klerk and José Nuno Beirão.
  CIM-St: A Parametric Design System for Street Cross Sections

  Sarah Louise Jenney and Frank Petzold.
  Question of Perspective: Information visualisation in games and its possible application in planning communication

12:45 – 14:00 Lunch Break

Session 4 DESIGN GEOMETRY AND FORM STUDIES

14:00-15:15 Filipa Osorio, Alexandra Paio and Sancho Oliveira.
  Kinetic Origami Surfaces: From simulation to fabrication

  Aslı Agirbas.
  Teaching Design by Coding in Architecture Undergraduate Education: A case study with Islamic patterns

  Chao Yan and Philip F. Yuan.
  Spherical Perspective: Notational drawing system for non-euclidean geometry

  Saeid Zarrinmehr, Ergun Akleman, Mahmood Ettehad, Negar Kalantar, Alireza Borhani and Shinjiro Sueda.
  Kerfing with Generalized 2D Meander-Patterns: Conversion of planar rigid panels into locally-flexible panels with stiffness control

15:15 – 15:30 Coffee Break

Session 5 BUILDING INFORMATION MODELLING

15:30-16:45 Yi He, Marc Aurel Schnabel, Rong Chen and Ning Wang.
  A Comprehensive Application of BIM Modelling for Semi-underground Public Architecture: A study for Tiantian Square Complex, Wuhan, China

  J. Lima Da Silva, Andréa Quadrado Mussi, Lauro André Ribeiro.
  Plugins State of Art in BIM Software: Repositories assessment and professional use perspective

  Francesco Livio Rossini, Gabriele Novembri and Antonio Fioravanti.
  AS&BIM – A unified model of agent swarm and BIM to manage the complexity of the building process

  Ömer Halil Çavuşoğlu and Gülen Çağdaş.
  Why Do We Need Building Information Modeling (BIM) in Conceptual Design Phase?

19:00 Cocktail Party

Session 6 DECISION SUPPORT SYSTEMS AND HUMAN COMPUTER INTERACTIONS I

15:30-16:45 Gabriela Barber, Marcos Lafluf, Pablo Accuosto and Fernando García Amen.
  Interactive Projection Mapping in Heritage: The Anglo case

  Eonyong Kim, Kibum Kim, Seungyeon Choo and Jikeun Ryu.
  Rule-based Security Planning System for Practical Application

  Salih Ofluoglu.
  BIM-based Interdisciplinary Collaborations in a Student Project Competition

  Julia Tschetwertak, Sven Schneider, Alexander Hollberg, Dirk Donath and Jürgen Ruth.
  A Matter of Sequence: Investigating the impact of the order of design decisions in multi-stage design processes

19:00 Cocktail Party

Conference Day Two 13 July 2017

08:30 – 9:30 Registration
09:30 – 10:45 KEYNOTE by **Martin Tamke**
  Complex Modelling
10:45 – 11:00 Coffee Break

Session 7 FABRICATION AND MATERIALITY

11:00-12:30 Elif Erdine, Alexandros Kallegias, Angel Fernando Lara Moreira, Pradeep Devadass and Alican Sungur.
  Robot-Aided Fabrication of Interwoven Reinforced Concrete Structures

  Özgüç Bertuğ Çapunaman, Cemal Koray Bingöl and Benay Gürsoy.
  Computing Stitches and Crocheting Geometry

  Rachel Dickey.
  Soft Computing in Design: Developing automation strategies from material indeterminacies

  Paloma Gonzalez and Lawrence Sass.
  Constructive Design: Rule discovery for 3D pr. decomposed large obj.

  Sergio Araya, Felipe Veliz, Sylvana Quest and Ricardo Trufello.
  Igneous Tectonic: Turning disaster into resource through dig. fabricat.

12:30 – 14:00 Lunch Break

Session 9 PARAMETRIC TOOLS AND MODELS FOR DESIGN

14:00-15:15 Adeline Stals, Elsen Catherine and Sylvie Jancart.
  Practical Trajectories of Parametric Tools in Small and Medium Architectural Firms

  Mallika Arora, Sergio Pineda, P. Andrew Williams, Kenneth D.M. Harris and Benson M. Kariuki.
  Polymorphic Adaptation

  Sinisa Kolaric, Halil Erhan and Robert Woodbury.
  CAMBRIA: Interacting with multiple CAD alternatives

  Serkan Kocabay and Sema Alaçam.
  Algorithm Driven Design: Comparison of single-objective and multi-objective genetic algorithms in the context of housing design

15:15 – 15:30 Coffee Break

Session 11 SHAPE STUDIES II

15:30-16:45 Onur Yüce Gün.
  Computing with Watercolor Shapes: Developing and analyzing visual styles

  Vernelle A. A. Noel.
  From Costuming and Dancing Sculptures to Architecture: The corporeal and computational in design and fabrication of lightweight mobile structures

  Rizal Muslimin.
  EthnoComputation: An inductive shape grammar on Toraja Glyph

  Diego Pinochet.
  Discrete Heuristics: Digital Design and Fabrication Through Shapes and Material Computation

19:00 Gala Dinner

Session 8 DECISION SUPPORT SYSTEMS IN COMPUTER HUMAN INTERACTIONS II

11:00-12:30 Serdar Aydin, Marc Aurel Schnabel and Iman Sayah.
  Association Rule Mining to Assess User-Generated Content in Digital Heritage: Participatory Content Making in 'The Museum of Gamers'

  Naghmi Shireen, Halil Erhan, Robert Woodbury and Ivy Wang.
  Making Sense of Design Space: What designers do with large numbers of alternatives?

  Elif Sezen Yağmur Kilimci and Leman Figen Gül.
  Designing as a Team by Utilizing Analogue Media versus a Compt. Tool for Parametric Modeling Lessons Learnt from a Study in an Edu.

  Marilena Sorrou and Mark Meagher.
  Flat Form: A software design for capturing the contribution of personality and ordinary activities in early design

  Halil Erhan and Naghmi Shireen.
  Juxtaposed Des. Models: A method for parallel explor. in param. CAD

12:30 – 14:00 Lunch Break

Session 10 PEDAGOGICAL APPROACHES TO CAAD

14:00-15:15 Julie Milovanovic, Guillaume Moreau, Daniel Siret and Francis Miguet.
  Virtual and Augmented Reality in Architectural Design and Education: An immersive multimodal platform to support architectural pedagogy

  Guzden Varinlioglu, Lale Basarir, Ozgur Genca, and Zeynep Vaizoglu.
  Challenges in Raising Digital Awareness in Architectural Curriculum

  Dina El-Zanfaly and Sherif Abdelmohsen.
  Imitation in Action: A pedagogical approach for making kinetic structures

  Desantila Hysa and Mine Özkar.
  Meno in the Studio: Design computation in a pedagogical dialogue

15:15 – 15:30 Coffee Break

Session 12 AUGMENTED AND VIRTUAL REALITY ENVIRONMENT STUDIES

15:30-16:45 Ikhwan Kim, Injung Lee and Ji-Hyun Lee.
  The expansion of virtual landscape in digital games: classification of virtual landscapes through five principles

  Tomohiro Fukuda, Hideki Nada, Haruo Adachi, Shunta Shimizu, Chikako Takei, Yusuke Sato, Nobuyoshi Yabuki and Motamedi Ali.
  Integration of a Structure from Motion into Virtual and Augmented Reality for Architectural and Urban Simulation: Demonstrated in real architectural and urban projects

  Leman Figen Gül, Can Uzun and Müge Halici.
  Studying Co-design: How place and representation would change the co-design behavior?

  Yuqiang Ben, Chantelle Niblock and Lukasz Bonenberg.
  Lincoln Cathedral Interactive Virtual Reality Exhibition

19:00 Gala Dinner

Conference Day Three 14 July 2017

08:30 – 9:30: Registration
09:30 – 10:45 KEYNOTE by **Christoph Hölscher**
  Human behavior and cognition of architectural space – assessing psychological building performance
10:45 – 11:00 Coffee Break

Session 13 GENERATIVE DESIGN SYSTEMS

11:00-12:30 David Jason Gerber, Evangelos Pantazis and Alan Wang.
  Interactive Design of Shell Structures Using Multi Agent Systems: Design exploration of reciprocal frames based on environmental and structural performance

  Abel Groenewolt.
  Stair Design Using Quantified Smoothness

  Manuel Muehlbauer, Andy Song and Jane Burry.
  Towards Intelligent Control in Generative Design

  Theodoros Dounas, Benjamin Spaeth, Hao Wu and Chenke Zhang.
  Dense Urban Typologies and the Game of Life: Evolving cellular automata

  Judyta Cichocka, Agata Migalska, Will N. Browne and Ed. Rodriguez.
  SILVEREYE: The implementation of Particle Swarm Optimization algorithm in a design optimization tool.

12:30 – 14:00 Lunch Break

Session 15 URBAN DESIGN II

14:00-15:00 Kian Wee Chen, Patrick Janssen and Leslie Norford.
  Auto. Gen. of Semantic 3D City Models from Conceptual Massing Models

  Reinhard Koenig, Yufan Miao, Katja Knecht, Peter Buš and Chang-Mei-Chih.
  Interactive Urban Synthesis: Computational methods for fast prototyping of urban design proposals

  Nai Chun Chen, Yan Zhang, Marissa Stephens, Takehiko Nagakura and Kent Larson.
  Urban Data Mining with Natural Language Processing: Social media as complementary tool for urban decision making

15:00 - 15:30 General Assembly - Closing

17:00 - 18:30 Bosphorus Boat Tour

Session 14 BUILDING PERFORMANCE STUDIES II

11:00-12:30 Hülya Oral and Gülen Çağdaş.
  Body Patterning: A model for responsive and interactive building envelope

  Francesco De Luca and Hendrik Voll.
  Solar Collection Multi-isosurface Method: Computational design adv. method for the prediction of direct solar access in urban environm.

  Ji Won Jun, Matteo Silverio, Josep Alcover Llubia, Areti Markopoulou, Angelos Chronis and Alexandre Dubor.
  Remembrane : A shape changing adaptive structure

  Sarah Mokhtar, Christopher Leung and Angelos Chronis.
  Neighbourhood Shading Impacts on Adaptive Façade Collect. Behaviour

  Orkan Zeynel Güzelci.
  Investigating the Role of Entropy in Design Evaluation Process: A case study on municipality buildings

12:30 – 14:00 Lunch Break

Session 16 RETHINKING DESIGN IN DIGITAL CONTEXT

14:00-15:00 Duygu Tüntaş Karaman.
  Models of Subjectivity and Intentionality in Computational Architecture: From centralized to distributed approach

  Hayri Dortdivanlioglu and Athanassios Economou.
  Outlining Terragni: A riddle reworked

  Joao Rocha.
  Design and Architecture for the Dawn of the Personal Computer. The pioneer vision of Adriano Olivetti

15:00 - 15:30 General Assembly - Closing

17:00- 18.30 Bosphorus Boat Tour