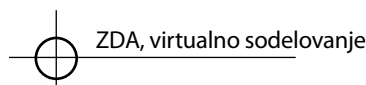


Stanford, Tečaj globalnega timskega dela AEC 2013

Stanford, AEC Global Teamwork Course 2013



ZDA, virtualno sodelovanje



2012/2013

TIP DELAVNICE *TYPE OF WORKSHOP*

interdisciplinarna arhitekturna delavnica/ mednarodna delavnica

MENTORJI *MENTORS*

Super-Coach and Mentor: Renate Fruchter, Stanford University; Architects – Industry: Robert Alvarado, CS & Associates, David Bendet, Perkins+Will, Kristian Fosholt, Perkins+Will, Hans Verheij, NACO, Wafaa Sabil, Gensler, Friedrich Traub, Hanover, Germany; Architects – Faculty: Mike Martin, UC Berkeley, Humberto Cavallin, University of Puerto Rico, Willem Kymmel, UCS Chico, Michael Mullins, AAU, Denmark, Michael Luring, AAU, Denmark, Gitte Sørensen, Copenhagen, Denmark, Jan Slyk, WUoT, Poland, Anja Jutraz, University of Ljubljana, Slovenia; Structural Engineers – Industry: Greg Luth, GPLA, Shilin Young, GPLA, Tim Schrottenboer, GPLA, Erik Kneer, Degenkolb, Geoff Bomba, Forell/Elsesser, Eric Borchers, ARUP, Nick Arenson, D. Horton Developers, Guido Morgenthal, Bauhaus University, Frank Scheiber, Bauhaus University, Justin Schwaiger, Thornton Tomasetti, Riam Firouz, Oakland, Justin Bocian, Hong Kong; Structural Engineers – Faculty: Eduardo Miranda, Stanford University, Ronnie Borja, Stanford University, Martin Tjioe, Stanford University, David Borowicz, USMA West Point, Michael Oliva, UW Madison, Graham Brasic, Atlanta; MEP – Industry: Cole Roberts, ARUP, Afaan Naqvi, ARUP, Kyle Adams, ARUP, Luis Rivera, ARUP; MEP – Faculty: Michael Lepech, Stanford University, John Nelson, UW Madison, Lotte Bjerregaard Jensen, DTU, Denmark, Jan Karlshøj, DTU, Denmark, Annika Feige, ETH Zurich; CM – Industry: Adhamina Rodriguez, Swinerton Builders, Henry Too-ryani, Microestimating Inc., Mark Bartlett, Hunt construction, Dan Gonzales,

DPR, Fernando Castillo Cohen, DPR, Dustin Rothwell, DPR, Mike Miller, DPR, Michael Pearson, DPR, Maria Selk, Mortensen Construction, Julian Nahan, BECK Group, Forest Olaf Peterson, Stanford University, Lauren Scammell, ARUP, Plamen Ivanov, Clark Construction, Ramprasath Palanisamy, Bechtel, Diana Louie, Webcor, Matt Larson, Webcor; CM – Faculty: Tomo Cerovsek, University of Ljubljana, Slovenia, Martin Lah, University of Ljubljana, Slovenia, Milos Todorovic, University of Ljubljana, Slovenia, Martin Fischer, Stanford University, Jochen Teizer, Georgia Tech, Thomas Thorsell, KTH, Sweden; LCFM – Industry: Matthias Ehrlich, CAPGEMINI, Axel Seifert, LA; LCFM – Faculty: Hans Wilhelm Alfen, Bauhaus University, Germany, Bjorn Wuendsch, Bauhaus University, Germany, Maria Frank, Bauhaus University, Germany

ORGANIZATOR *ORGANISATION*

Stanford University, PBL Lab, prof.dr. Renate Fruchter

DATUM IN KRAJ RAZSTAVE *DATE AND LOCATION OF EXHIBITION*

Spletna stran projekta in rezultatov: www.pbl.si in <http://pbl.stanford.edu/>

GRADIVO PRIPRAVILA *MATERIALS PREPARED BY*

asist.dr. Anja Jutraz, prof.dr. Tadeja Zupančič

UVODNIK

EDITORIAL

ČLANEK

ARTICLE

RAZPRAVA

DISCUSSION

RECENZIJA

REVIEW

PROJEKT

PROJECT

DELAVNICA

WORKSHOP

NATEČAJ

COMPETITION

PREDSTAVITEV

PRESENTATION

Slika 1: Vstopna avla (foto: Skupina Atlantic)



ŠTUDENTJE STUDENTS

Architects: Bjarke Apollo, Andrej Kurent, Joanna Pietrzykowska, Joanne Muñiz, Ana Sofia Cardona Fernandez, Pablo Gabrielle Alejandro Cabral Juan, Jorge Silen; Structural Engineers: Elias Chuayffet, Stephanie Chen, Daniel Hall, Stefan Markic, Michael J. Muller, Danielle Peterson, Shihui Qu, Donata Trost, Nanyu Zhao, Minyan Zhang; Construction Managers: Charles Bovet, Ramon Dario Iglesias, Enrique Hernandez, Yang Ji, Niklas Kindahl, Laura Mighetto, Nolan Milord, Kourosh Salehzadeh, Sijie Zhang; Life-Cycle Financial Managers: Felix Bollwahn, Jana Unterschuetz, Mareike Deurloo; MEP: Reinier Kok, Ronnie Piil, Haagensen, Chasapis Kleanthis, Graham Ryan, Ethan Landy; Apprentice: Anran Li, Sijia Tao.

DRUGI SODELUJOČI

Sodelujoče univerze: Stanford University; Berkeley University of California; University of Wisconsin – Madison; California State University – Chico; University of Puerto Rico; Bauhaus – Universität Weimar; TU Delft; Aalborg University; KTH, Sweden; Danmarks Tekniske Universitat; The Royal Danish Academy of Fine Arts, School of Architecture; Politechnika Warszawska; University College Cork; ETH Zurich.

Vodje skupin/ Owners: David Borowicz, Fernando Castillo, Maria Frank, Anja Jutraz, Zuzanna Koltowska, Sinan Mihelcic, Mike Miller, Hossein Nasser, Karolina Ostrowska, Anirudh Rao, Michael Christopher Seaman, Maria Selk, Lauren Scammell, Gitte Sørensen, Bjoern Wuendsch.

Žirija: 7th Swinerton Sustainability Challenge: Adhamina Rodriguez (Swinerton Builders); 4th DPR Challenge: Atul Khanzode, Josh Odelson and Dan Gonzales (DPR Construction)

VSEBINA

Pri virtualni delavnici, z dvema kratkima srečanjima na Univerzi Stanford na začetku in ob koncu projekta, so sodelovali študentje in mentorji iz vsega sveta. Sodelovalo je 7 arhitektov, 10 statikov, 9 vodij gradbišča, 3 LCFM, 5 strojnikov in 2 pripravnikov. Hkrati je sodelovalo 15 t.i. investorjev ter številni univerzitetni mentorji in mentorji iz industrije (Perkins+Will, NACO,

Slika 2: Uvodno srečanje januarja na Univerzi Stanford (foto: Andrej Kurent).



Swinerton Builders, ARUP, GPLA, DPR, Bechtel, Webor idr.). Študentje so v sedmih interdisciplinarnih skupinah izdelali projekt javne skladbe, v katerem so preizkušali nove tehnološke rešitve in raziskovali inovativne koncepte učenja in zasnove fakultet.

Študentje so se soočili z dvema izzivoma: »Value for Money« in »Leapfrog Sustainability«. Pri prvem so razvijali tehnologije, ki pomagajo pri trajnostnem obnašanju stavbe, in sicer so predlagali nov pametni sistem (app), ki bi povezoval človekove dejavnosti in vedenje s samo stavbo: kako lahko uporabniki sami oblikujejo in upravljajo stavbo. Pametni sistem bi tako predstavljal t.i. živi laboratorij za raziskovalce. Njen glavni namen je optimizirati učinkovitost stavbe in izobraževati uporabnike o tem, kako njihova odločitev vpliva na delovanje stavbe in kako lahko pripomorejo k odpravljanju težav. Te so povezali z drugim izzivom, kjer so ugotavljali, kako dodatna investicija lahko prispeva k večjemu zadovoljstvu končnih uporabnikov. Podrobno so pogledali različne vrste uporabnikov in njihovo vlogo pri odločanju o načrtovanju, gradnji in obratovanju stavbe.

ABSTRACT

In 2013, students focused on two challenges: Value for Money and Leapfrog Sustainability. In the first Swinerton challenge Leapfrog, they came up with a disruptive sustainable technology, a new smart system (app), which could connect human activities and behaviour, especially in terms of how to design and operate their buildings, with the building itself, and materials used within a linked system. The smart system within the building is meant to provide a living laboratory for the researchers. Its main purpose is to optimize the performance of the building and educate users on how their decisions impact that performance, and moreover, it can be used as a troubleshooting system. The second, DPR challenge, presented them with a task of finding a way to bring better Value for Money to the end users of the building by looking at the life-cycle of the facility. They stated that through the implemented technology they could reduce life-cycle impacts on the facility. They looked carefully at different user perspectives when deciding on the design, construction and operation techniques for the building.