

MANUFACTURING

INTERNATIONAL CONFERENCE

2016

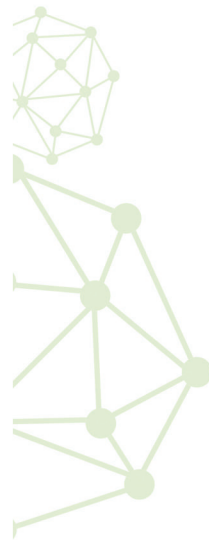
Challenges
for Technology
Innovation
an agenda
for the future

20 - 22
October
Lisbon - Portugal

Faculdade de Arquitetura
Universidade de Lisboa

For more information please consult - <http://s2m.fa.ulisboa.pt>

Thursday 20 October 2016



Friday 21 October 2016

CUBO	
09h30	Igniting social innovation, a design perspective from Hong Kong Cees de Bont
09h50	Material Innovation through Robotic Manufacturing. The DFL experience José Pedro Sousa
10h10	Fashion Design and Sustainability: Academic Research Ways - Brazilian Cases Marizilda Menezes
10h30	Resource Efficiency in a Circular Economy Paul Mativenga
10h50	Coffee Break
11h10	Round table debate with Keynotes. Panel Chair: José Pinto Duarte
12h00	Lunch Break

CUBO		5.0.8	5.0.9	5.0.10	5.0.11
	Design Education Session Chair: Fernando Moreira da Silva	Future Cities Session Chair: Filipa Roseta	Sustainable Business Models Session Chair: Conrad Tucker	Smart Manufacturing Session Chair: Carl Diver	Sustainable Construction Session Chair: Helena Bártolo
14h00	Reminiscent of Marcel Duchamp in design reuse R. Carreto & C. Carreto	The New Smart Cities Cities built from scratch and old cities transformed into Smart Cities. Sustainable growth A. C. Oliveira & C. A. Alho	Energy Cost Minimization in Changeable Manufacturing Systems S. Ghanel & T. AlGeddawy	Integration of sustainable design and additive manufacturing in design education S. Junk	Towards sustainable architecture and urbanism C. Alho
14h20	Sustainability in Brazilian and Portuguese design schools curricula N. D. Plentz & R. A. Almendra	Knowledge to industry transfer technology standards: future cities and territories (KITTS: FCT) M. Á. Fonseca & O. Chabanyuk	Incorporating customer perceived value in automated dispatch control D. H. Na Ayuthaya & P. Koomsap	Sustainable fused deposition modeling (FDM) parts with minimized GD&T error using PSO algorithm V. K. Pathak & A. K. Singh	Seamless architecture: innovative opaque to transparent material interfaces S. Nazarian, C.G. Pantano, P. Colombo & M. Marangoni
14h40	Design Education facing Europe 2020 – a reflection on demands: FAULisbon as the case study A.C. Dias, R. Almendra & F. Moreira da Silva	Vauban: an example of sustainability in the heart of Europe M. Baptista-Bastos & A. Lau	Competing trajectories for digital technology and skills among Canadian wood product companies Y. Bourgeois	Industry 4.0: Fundamentals and a quantitative analysis of benefits through a discrete event simulation A. Christians & J. Methven	Smart and sustainable materials for lightweight retaining walls R. Ortlepp
15h00	Design and Poetry for City Living M. L. Costa	Contemporary architectures intervention in historical part of Tblisland Lisbon (Qvemo Kala and Alfama) D. Ladiana & M. Di Sivo	Ethnography and Design: A methodology applied to business culture A. Cunha & L. Soares	Control chart pattern recognition approach to throughput monitoring in sustainable smart manufacturing F. T. Sunmola	Circular Economy and biological materials – Innovative narratives for the development of sustainable textile products G. S. Forman & C. Carvalho
15h20	An Inclusive approach to the design of educational toys C. Pereira & J. Cunha	Collective dwelling of cooperative housing a heritage with soul V. P. Matos & C. Alho	Technological forecasting in textile industry: from first to fourth industrial revolution A. Y. S. Duarte, F. G. Dedini, R. A. Sanches & R. Andert	Optimizing cost-quality trade-offs in manufacturing engineering projects M. A. Farooq & R. E. Kirchain	Computational architectural integrated implementation: a digital process from initial design to fabrication Y. He & M. A. Schnabel
15h40	Coffee Break				
	Design and Digital Manufacturing Session Chair: José Pinto Duarte	Medicine 4.0 Session Chair: Henrique Almeida	Sustainable Business Models Session Chair: Jim Methven	Smart Manufacturing Session Chair: Paula Bártolo	Sustainable construction Session Chair: Shadi Nazarian
16h00	Game-engine based design system for mass customization E. Castro e Costa & J. P. Duarte	3D PCL/graphene scaffold for bone tissue engineering W. Wang, G. Caetano, J. Cornish, D. S. Musson, M. A. Frade, P. Bártolo	Design for ease of service P. Suwannimr & P. Koomsap	Towards co-robot navigation in manufacturing environments through machine learning of human movement patterns A. Mohammed, T. Viola, C. S. Tucker & J. P. Duarte	A challenge with the use of cork in Design L. Niemeyer & W. Cantú
16h20	Using a pattern as a 3D generator for producing a modular and flexible system for architecture A. Salvador-John A. Liotta	Mechanical effects of medical implants on intervertebral disc injury A. Sarfraz, G. Douglil & G. Cooper	Offsite construction – U.S. market trends in prefabrication K.R. Grosskopf, J.W. Elliott & J.E. Killingsworth	Defining design guidelines for single point incremental forming – Rules to a good design of container and tunnel like parts manufactured by incremental forming D. Alfonso, R. Torcato & R. Alves de Sousa	In direction to a sustainable material – Graphene C. A. A. Alho & S. M. F. Basilio
16h40	Semi-immersive interactive virtual environment for training on lathe machine A. A. M. El-Tamimi, B. M. H. Abidi & G. A. M. Al-Ahmari	Morphological, mechanical and biological assessment of bio-ceramic scaffolds for bone regeneration Y. Zheng, G. Caetano & P. Bártolo	Sustainability, social innovation and collaborative economy in fashion design S. R. Fernandes, J. M. Lucas, A. I. C. Gomes & R. A. L. Miguel	Additive manufacturing: an opportunity for functional and sustainable constructions N. Labonnote & P. Rüther	Simulation of the thermal comfort of a traditional house in Tiemoen, Algeria W. Ghaifour & M. N. Ouissi
17h00	Designing with people for inclusive growth C. Rijo, H. Grácio & S. Antunes	Influence of pore size and fibre orientation on stem cell proliferation and differentiation in a 3D printed polycaprolactone scaffold C. Vyas, G. Caetano, G. P. Poologasundarampillai, J. Hoyland, P. Bártolo	Creating a business model from the traditional to global fashion: Guimarães embroidery C. Fernandes & A. C. Broega	Optimized brick – Print optimization I.V. Barbosa & B. Figueiredo	Designing cork-based functionally graded concrete walls F. Craveiro, H. Bártolo, J. P. Duarte, P. Bártolo
17h20	Methodological Pathways - Innovative principles and instruments for the inclusive product M. Buono & S. Capece	Novel metallic bone fixation implants with reduced stiffness A. A. Al-Tamimi, P. J. Bártolo, C. Peach & P. Fernandes	6is 3D printing the answer to a sustainable supply chain: A look at localised consumer 3D printing R. Chudasama & L. Le Merlus	Design considerations for additive manufacturing of feed channel spacers for spiral wound membrane modules J. An, W.S. Tan, C.K. Chua, T.H. Chong & A.G. Fane	InForm – programming material H. Sachs
17h40				Sustainable product lifecycle decision making using Q-Learning F. Sunmola	
18h30	Closing Session				
18h30	Gala Dinner				



CUBO		5.0.8	5.0.9	5.0.10	5.0.11
09h00	Conference Registration	Sustainable Design and Technology Session Chair: Fernando Moreira da Silva	Eco-design and Eco-innovation Session Chair: Rita Almendra	Design and Digital Manufacturing Session Chair: José Pedro Sousa	Sustainable Recycling Session Chair: Regine Ortlepp
09h30	Opening Session				
10h00	Design for AM: key issues and future trends Alain Bernard	What is innovation in architecture? The exhibition as a research tool F. Roseta & S. Marçal	Practical and symbolic dimensions in newspaper design and sustainability P. A. Matos	Clay Robotics: a hybrid 3D printing casting process S. Wang, S. Dritsas, P. Moret & K. Ho	Transforming ash to resources by electrolytic separation – sewage sludge ash as an example L. M. Ottosen, P.E. Jensen, G. M. Kirkelund, A.B. Ribeiro & C. D.
10h20	Sustainable Smart Manufacturing: state of the art of 4D printing Chua Chee Kai				
10h40	Coffee Break				
11h00	Recent Disruptive Advances in Additive Manufacturing- on the way to Industrial Acceptance Gideon Levy	Energy efficiency in residential buildings in Tehran: A case study S. Broumandi, P. Zarrabi & H. Bártolo	Development of a jewellery piece that functions as both neck brace and necklace J. Matos, H. A. Almeida, R. M. T. Ascenso, C. Novo & M. Freire	Modular formwork system layout development and assembly in actual scale based on robotic technology O. Kontovourkis & E. Demartino	Sustainability in fashion: a study of clean waste management within a clothing company H. Cruz & A. C. Broega & M. Amorim
11h20	Concrete printing – promising but not self-evident Theo Salet	Legislative developments in Portugal of the concept of NZEB's C. Duarte & A. Morais	Design and development of a medical product using 3D technologies: scalp cooling cap design case study E. Unver, C. Sorbie, R. Silkstone, M. Kagioglu, R. Pazman & P.	Performance-oriented design – An integrative approach to data-driven design including associative computational modeling, computational analysis, advanced computational visualization and rapid prototyping M. U. Hensel, S. Killi & S. S. Sørensen	Life cycle analysis of a portable cosmetic package P. Jaccarini & P. Refalo
11h40	Round table debate with Keynotes Panel Chair: Paulo Bártolo				
12h00	Lunch Break				
14h00	Workshop "Additive Manufacturing as key driver for future innovations"	The resilience of socio-spatial systems. Innovative scenarios for safe communities in safe cities D. Ladiana & M. Di Sivo	Adaptation of liquid crystal textures. A contribution to textile design and to the sustainability of the traditional Arraiolos tapestry industry. N. Monge, M. Areias & A.C. Ribeiro	A morphological comparison between physical and digital model generated by 3d scanning R. F. Barbosa, L. M. Mateus, V. M. Ferreira, J. N. Beirão	Sustainability evaluation of home appliance industry in Pakistan Fahad
16h00	Workshop "Additive Manufacturing as key driver for future innovations"				
15h40	Coffee Break				
		Sustainable Design and Technology Session Chair: José Beirão	Eco-design and Eco-innovation Session Chair: Rita Almendra	Design and Digital Manufacturing Session Chair: Steiner Killi	Sustainable Recycling Session Chair: Robert Lig
16h00		The concept of NZEB's A. Morais & C. Duarte	Development of a sustainable toothbrush with the aid of additive manufacturing technologies J. Matos, H. A. Almeida, R. M. T. Ascenso, C. Novo & M. Freire	Sustainable smart manufacturing: Assembling innovation-friendly enterprises M. F. Nunes & C. L. Park	Impact and assessment of design on higher order benefits C. Klahn, F. Fontana
16h20		Alqueva experience H. Amador & C. Alho	Automotive coating industry: Sustainability challenges and smart innovations M. T. I. Bhuiyan, H. Zhang & J. Zhu	Milling-tool wear-condition prediction with static analysis and ecostate networks G. Wang & R. Grosu	Lessons learnt from an LCA based re-Design for manufacture of soap dispensers R. Coppini, P. Refalo & J.C. Borg
16h40		Cork: New uses in Architecture C. Verissimo	Topology and material optimization of architectural components F. Craveiro, H. Almeida, H. Bártolo, P. J. Bártolo, J. P. Duarte	Finite element analysis in design of DMLS mandible implants T.C. Dzoobewu, L. Monaheng, I. Yadroitsev, W.B. du Preez & I.Yadroitsev	Life cycle analysis as a tool of complex evaluation of food packaging systems Z. Bogóné-Tóth, Z. Lakner, I. Hajdu & O. Fehér
17h00		Smart manufacturing flexible wood H. R. A. Morais & P. M. G. Januário	Advanced analysis by using the Eco-Design Tool EINDAMI R. Ilg, H. Krieg, D. Wehner & L. Brethauer	Ergonomics and Design in Industry 4.0 E. Laudante	Green construction methods of buildings capable for disassembly to support circular economy S. Ortlepp, R. Masou & R. Ortlepp
17h20		Reutilization of bovine and tilapia fish leather residue in the footwear design M.S. Held, F.M. Silva, R.A. sanches	Fashion business oriented for sustainability A. Anicet & E. Dias	Towards Industry 4.0 ready Advanced Sustainability Analytics D. Wehner, T. Betten, M. Held & R. Ilg	Valorization of waste paper sludge ash for manufacturing materials B. B. Allariz & D. Levacher
17h40		Lower-level communication line analysis of automated dispatch control systems of distributed facilities A. Belousov, Y. Koshlich, A. Grebenik & I. Gvozdevskiy			Reducing the life cycle assessment heterogeneity: A system design view of the life-cycle inventory stage M. Dassisti, A. Giovannini & F. Intini
18h30	Closing Session				
18h30	Port of Honor				