The Casablanca International Conference on Additive Manufacturing

CASICAM'22

Conference program

November 22-24, 2022

	Tuesday, Novembre 22, 2022	
18h00-20h00	Welcome of Guests and Keynote Speakers	
20h00-22h00	Guests and Keynote Speakers Welcome Reception	
	Wednesday, Novembre 23, 2022	
10h00-12h00	Welcome and Registration of Participants	
12h00-14h00	LUNCH	
	Opening Ceremony - Moderator: Prof. Zoulal Mansouri.	
	Conference Hall.	
14h00-15h00	Pr. Houssine AZEDDOUG - President of Hassan II University Pr. Abdelmajid BADRI - ESTC Director Pr. Badreddine BENAMEUR - ENSEM Director Pr. Zitouni BEIDOURI - AMFAIM3D President Pr. Khalid ZARBANE - CASICAM'22 Chair	
	Inaugural Speeches of Honorary CASICAM'22 Guests	
	Conference Hall.	
15h00-15h30	*Prof. Hoummada Abdeslam,* *Scientific Director of the Hassan II Academy of Sciences and Technics, Morocco.*	
	Prof. Leszek Adam Dobrzanski, *Director of Science Centre ASKLEPIOS, Poland.* "Inaugural considerations - The importance of additive manufacturing in the contemporary concept of Economy 4.0 - has it been overestimated or underestimated?"	
	Plenary Conferences : Chair, Prof. Henrique de Amorim Almeida, Polytechnic Institute of Leiria, Portugal.	
	Conference Hall.	
15h30-16h00	Conference 1 : "Additive Manufacturing - towards sustainability in Manufacturing". *Prof. Mika Salmi, Aalto University, Finland.*	
16h00-16h30	Conference 2 : "3D Bioprinting in tissue engineering and regenerative medicine". *Prof. Adil Akkouch, Western Michigan University Homer Stryker M.D. School of Medicine, USA.*	
16h30-17h00	Coffee break and networking	
	Session 1: Chair, Prof. Leszek Adam Dobrzanski, Director of Science Centre ASKLEPIOS, Poland.	Session 2: Chair, Prof. Allan E.W. Rennie, School of Engineering, Lancaster University, UK.
	Conference Hall.	Salle 1.
17h00-17h20	Effect of the heat treatment on the fatigue resistance of selective laser melted 316l stainless steel. *A. Hamada, M. Jaskari, S. Gosh, A. Järvenpää*	Local structural anisotropy in particle simulations of powder spreading in additive manufacturing. *S. Roy, H. Xiao, M.Y. Shaheen, T. Pöschel*
17h20-17h40	Temperature gradients as a source of balling and humping in laser processing of titanium. *M. Blank, T. Pöschel.*	An open-source discrete element model for SS316L alloy powder characterization using a virtual Hall-Flow meter to study the flowability in powder bed fusion additive manufacturing. *A. Bouabbou and S. Vaudreuil.*
17h40-18h00	Effect of density and surface quality on fatigue behaviour of LPBF 316L Steel. *M. Jaskari, A. Hamada, P. Karjalainen, A. Järvenpää*	Porosity of Alsi10Mg0,6 parts produced in selective laser melting, challenges and research opportunities. *E. Kiass, Kh. Zarbane, Z. Beidouri*

	Thursday, Novembre 24, 2022	
	Plenary Conferences : Chair, Prof. Mika Salmi, Aalto University, Finland.	
	Conference Hall.	
09h00-09h45	**Conference 3 : "Biomimetics design for Additive Manufacturing".** *Prof. Henrique de Amorim Almeida, Polytechnic Institute of Leiria, Portugal.*	
09h45-10h30	**Conference 4 (On-line) : "Metal Additive Manufacturing: Opportunities and Challenges".** *Prof. Mohd Rizal Bin Alkahari, Universiti Teknikal Malaysia Melaka (UTeM), Malaysia.*	
10h30-11h00	**Poster session / Coffee break and networking**	
	Session 3: Chair, Prof. Prof. Leszek Adam Dobrzanski, Director of Science Centre ASKLEPIOS, Poland.	**Session 4: Chair, Prof. Adil Akkouch, Western Michigan University Homer Stryker M.D. School of Medicine, USA.**
	Conference Hall	**Salle 1**
11h00-11h20	A review on selective laser sintering 3D printing technology for polymer materials. *F. Jabri, A. Ouballouch, L. Lasri, R. El Alaiji*	Additive manufacturing as an enabler of environmental solutions to address food security. *J. Roberts, P. Donkersley, L. Ashmore, A. Rennie*
11h20-11h40	Optimization of the roughness of PA12 parts produced by selective laser sintering. *Z. Faraj, M. Aboussaleh, S. Zaki, H. Abouchadi*	A Review on the Use of Additive Manufacturing to fabricate Systems with Complex Configurations to Improve Heat Transfer. *J. Byiringiro, M. Chaanaoui, S. Vaudreuil*
11h40-12h00	Viscous Layer Formation in Electrochemical Polishing L-PBF Parts with Different Surface Profiles. *Haitao Zhu, Yingtao Tian and Allan Rennie.*	Control of a 3D printed carbon fiber reinforced plate by ultrasonic guided wave. *I. Zitouni, H. Rhimini , A. Chouaf*
12h00-12h20	Effects of powder recycling on the microstructure and mechanical properties of Stainless steel 316L produced by SLM process. *K. Fellah, M. Hayani Mechkouri, H. Azzouzi and K. Reklaoui.*	Smart materials moisture-responsive use in 4D printing. *B.B. M. A. Al Nahari, Kh. Zarbane, Z. Beidouri*
12h20-12h40	Impact of Support Structures on the Mechanical Behaviour of Components Produced by Extrusion-based Additive Manufacturing. *J. Martins, M. Correia, H. Almeida, J. Vasco*	Design of a benchmark part with recent design rules for Selective Laser Melting. *M.A. Daoud, M.H. Mechkouri, Y. Chairi , K. Reklaoui*
12h40-13h00	Effects of build orientation and raster angle on tensile properties and surface roughness of various fused deposition modeling filaments. *A. El Azzouzi, H. Zaghar, L. Lasri, M. Sallaou*	Lean and Additive Manufacturing: How Can Additive Manufacturing Contribute to Lean Manufacturing? *L. Driouach, Kh. Zarbane , Z. Beidouri*
13h00-14h00	**LUNCH**	
	Session 5: Chair, Prof. Henrique de Amorim Almeida, Polytechnic Institute of Leiria, Portugal.	**Session 6: Chair, Prof. Mustapha Ouardouz, FST of Tanger, Morocco.**
	Conference Hall	**Salle 1**
14h00-14h20	Experimental investigation of ReCycled Pet Materials FDM process parameters using Taguchi analysis. *O. Colak and A. Abbasov.*	Numerical Study of Mechanical Behavior of the Topologically Optimized Part Produced Virtually by Fused Deposition Modeling. *I. Antar, M. Othmani, Kh. Zarbane, M. El Oumami, Z. Beidouri*
14h20-14h40	Multi-Response optimization of tensile behavior of 3D printed Polyethylene material using response surface methodology. *A. El Magri and S. Vaudreuil.*	Design for Additive Manufacturing via Topology Optimization methodology. *A. Boschetto, L. Bottini, S. Vatanparast*
14h40-15h00	Mechanical performance of cellular structures in additive manufacturing by Fused Deposition Modeling. *A. Eljihad, M. Nassraoui , O. Bouksour*	The impact of topology optimization parameters in the shape and the strength of the structure. *A. Ait Ouchaoui, M. Nassraoui, B. Radi*
15h00-15h20	Effect of raster width on the strength of the cohesive zone between abs filaments from a printed digital CT. *O. Aourik, M. Othmani, A. Chouaf*	Topological optimization for FDM process. *A. Boualaoui, D. Sarsri and M. Lamrhari*
15h20-15h40	Numerical modelling of mortar extrusion and path planning deposition for 3D Concrete Printing. *K. El Abbaoui, I. Al Korachi*	Design for additive manufacturing *O. Lkadi, M. Nassraoui et O. Bouksour*
15h40-16h00	Comparative study of dimensional and surface specification of the PMMA polymer: additive manufacturing and injection molding. *M. Lamrhari, A. Allouch and M. Elghadoui.*	
16h00-16h30	**Coffee break and networking**	
16h30-17h30	**Round Table and Closing Ceremony**	