

# Programme

Wednesday, April 19, 2023 **Icebreaking party at 19:00**

## CONFERENCE DAY ONE

Thursday, April 20, 2023

8:00	9:00	REGISTRATION
9:00	9:20	<b>Opening of the conference</b> <b>Igor Drstvenšek, Snehashis Pal, Nataša Ihan Hren</b>
9:30	9:50	<b>Additive Manufacturing of Functionalized Material Systems for Medical Applications: Potentials and Challenges in Additive Processing</b> <b>Dietmar Drummer</b> , Institute of Polymer Engineering, University of Erlangen-Nürnberg, Germany
9:50	10:10	<b>Metal 3D printed porous bone ingrowth implants - the Hong Kong experience</b> <b>Christian Fang</b> , Department of Orthopaedics and Traumatology, Queen Mary Hospital, University of Hong Kong
10:10	10:40	COFFEE BREAK
10:40	11:00	<b>Patient-Specific Pelvic Implant: The Hong Kong-Kazakhstan Experience</b> <b>Sibyl Mak</b> , Department of Mechanical Engineering, the University of Hong Kong
11:00	11:20	<b>Sternal Reconstruction Using 3D-Printed Titanium Custom-Made Prosthesis for Sternal Dehiscence After Cardiac Surgery</b> <b>Miha Antonič</b> , Faculty of Medicine, University of Maribor, Slovenia
11:20	11:40	<b>Case Report: Preoperative Planning of Revision Total Hip Arthroplasty with a 3D Printed Hemipelvis Model in Juvenile Idiopathic Arthritis</b> <b>Rok Vojković</b> , Department of Orthopaedic Surgery, University Medical Center, Ljubljana, Slovenia
11:40	12:00	<b>3D printing of ceramics for modern medical engineering</b> <b>Jessica Sohl</b> , Lithoz GmbH, Vienna, Austria
12:00	14:00	LUNCH
14:00	14:20	<b>Engineering the future through additive manufacturing</b> <b>Paulo Jorge Da Silva Bartolo</b> , Singapore Centre for 3D Printing, School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore
14:20	14:40	<b>3D-printed ceramic dental restorations: Lithium disilicate veneers in clinical usage</b> <b>Sebastian Lanner</b> , Lithoz GmbH, Vienna, Austria
14:40	15:00	<b>Effects of printing direction and multi-material on hardness of additively manufactured thermoplastic elastomers for comfortable orthoses and prostheses</b> <b>Pawel Michalec</b> , ADMiRE Research Center - Additive Manufacturing, Intelligent Robotics, Sensors and Engineering, School of Engineering and IT, Carinthia University of Applied Sciences, Austria
15:00	15:30	<b>Additive Manufacturing: Industry-University collaboration in biomaterials and materials development</b> <b>J. M. Oliveira</b> , EMaRT Group- Emerging: Materials, Research, Technology; School of design, Management and Production Technologies Northern Aveiro and Aveiro Institute of materials (CICECO), University of Aveiro, Portugal
15:30	16:00	COFFEE BREAK
16:00	16:20	<b>3D Bioprinting of Cellulosic Structures for Versatile Applications</b> <b>Özkan Yapar</b> , Faculty of Mechanical Engineering, University of Maribor, Slovenia
16:20	16:40	<b>Design for Additive Manufacturing at Loughborough</b> <b>Patrick Pradel</b> , Loughborough University, UK
16:40	17:00	<b>Do it Yourself Kits (DOK) for Additive Manufacturing (AM) for Educational Use</b> <b>Bernhard Heiden</b> , Production Engineering, FH Kärnten Gemeinnützige Gesellschaft mbH, Austria
19:00	<b>GALA DINNER WITH CULTURAL PROGRAMME AND AWARD CEREMONY</b>	

# Programme

## CONFERENCE DAY TWO

Friday, April 21, 2023

9:00	9:20	<b>Fine Porous Structures Fabricated Using Laser Powder Bed Fusion of Ti-6Al-4V</b> <b>Ian Gibson</b> , Department of Design Production and Management, University of Twente, Netherland
9:20	9:40	<b>Fabrication and mechanical characterisation of additively manufactured cellular metamaterials</b> <b>Matej Vesenjajk</b> , Faculty of Mechanical Engineering, University of Maribor, Slovenia
9:40	10:00	<b>Neurosurgical approaches to skull reconstruction</b> <b>Tadej Strojnik</b> , Alma Mater Europaea ECM, Slovenia
10:00	10:20	<b>Influence of Carbon Content on the Material Properties of Low-alloyed Steel Bainidur AM</b> <b>Dominic Bartels</b> , Institute of Photonic Technologies, University of Erlangen-Nuremberg, Germany
10:20	10:40	<b>Comparison of material properties of duplex stainless steel 1.4462 processed by DED-LB/M and PBF-LB/M</b> <b>Andreas Maier</b> , Bayerisches Laserzentrum GmbH, Germany
10:40	11:00	COFFEE BREAK
11:00	11:20	<b>Functionally-graded Inconel 718 microstructures through Laser Powder Bed Fusion: characterisation of local mechanical properties and defect formation</b> <b>Bonnie Attard</b> , Department of Metallurgy & Materials Engineering, Faculty of Engineering, University of Malta, Malta
11:20	11:40	<b>Mechanical behaviour of polyamide 12 parts manufactured by SLS process</b> <b>Henrique de Amorim Almeida</b> , Mechanical Engineering Department, School of Technology and Management, Polytechnic Institute of Leiria, Portugal
11:40	12:00	<b>Understanding geometry dependent temperature fields in laser powder bed fusion of PA12 by means of infra-red thermal imaging</b> <b>Sandra Greiner</b> , Department of Additive Manufacturing, University Erlangen-Nuremberg, Germany
12:00	12:20	<b>Accelerated Non-Isothermal Powder Bed Fusion of Polypropylene Using Superposed Fractal Exposure Strategies</b> <b>Samuel Schlicht</b> , Department of Additive Manufacturing, University Erlangen-Nuremberg, Germany
12:20	14:10	LUNCH
14:10	14:30	<b>Effect of automotive fluids on additive manufactured components for the automotive industry</b> <b>Maria Leopoldina Alves</b> , School of Technology and Management, Polytechnic Institute of Leiria, Portugal
14:30	14:50	<b>Additively Manufactured Glass Fiber Reinforced Polymeric (GFRP) Structures for High Performance Applications</b> <b>Marius Rimašauskas</b> , Department of Production Engineering, Kaunas University of Technology, Lithuania
14:50	15:10	<b>Reprocessing study of Polyethylene terephthalate filaments for Fused Filament Fabrication</b> <b>S. Magalhães da Silva</b> , EMaRT Group- Emerging: Materials, Research, Technology; School of design, Management and Production Technologies Northern Aveiro and Aveiro Institute of materials, University of Aveiro, Portugal
15:10	15:30	<b>Holistic characterization of PBF-LB/P powder regarding isothermal crystallization, rheology and optical properties under process conditions</b> <b>Maximilian Marschall</b> , Bayerisches Laserzentrum GmbH, Germany
15:30	16:00	COFFEE BREAK
16:00	16:20	<b>Multimaterial 3D printing of programmable architected structures</b> <b>Mehrshad Mehrpouya</b> , Faculty of Engineering Technology, University of Twente, The Netherland
16:20	16:40	<b>Fabricating lightweight gear using 3D printing and topology optimization</b> <b>Riad Ramadani</b> , Faculty of Mechanical Engineering, University of Prishtina, Kosovo
16:40	17:00	<b>Validation of simplified injection molding simulation results for conformal cooling with a hybrid mold insert using thermal imaging technology</b> <b>Janez Gotlih</b> , Faculty of Mechanical Engineering, University of Maribor, Slovenia

AM PROCESS FOR METALS

AM SIMULATIONS