Program of

3DBODY.TECH 2018

9th International Conference and Exhibition on

3D Body Scanning and Processing Technologies

Lugano, Switzerland, 16-17 Oct. 2018

www.3dbody.tech/2018

Organizer

Hometrica Consulting - Dr. Nicola D'Apuzzo
Ascona, Switzerland

CONFERENCE PROGRAM

9th **3DBODY.TECH** Conference & Expo
Lugano, Switzerland · 16-17 October 2018

Organized by HOMETRICA CONSULTING · Switzerland   www.3dbody.tech/2018

Program Outline

3DBODY.TECH 2018
9th International Conference and Exhibition on 3D Body Scanning and Processing Technologies
Lugano, Switzerland, 16-17 October 2018, www.3dbody.tech/2018

Time	Tuesday 16 October 2018			Wednesday 17 October 2018		
08:00	Registration		Exhibition Setup	Registration		Exhibition Setup
09:00	Opening Session		Exhibition	Technical Session 7 **Digital Anthropometry & Ergonomics**	Technical Session 8 **Full Body Scanning, Measurement & AI**	Exhibition
10:00	Coffee Break			Coffee Break		
11:00	Technical Session 1 **Medical Applications**	Technical Session 2 **3D Body Scanning Systems I**		Technical Session 9 **3D Hand & Foot Scanning**	Technical Session 10 **Full Body Scanning & Processing**	
12:00						
13:00	Lunch Break			Lunch Break		
14:00						
15:00	Technical Session 3 **3D Face & Body Scanning in Medicine**	Technical Session 4 **3D Body Scanning Systems II**		Technical Session 11 **3D Body Scanning for Health & Sport**	Technical Session 12 **3D Body Scanning for Apparel II**	
16:00	Coffee Break			Coffee Break		Exhibition Breakdown
17:00	Technical Session 5 **3D Body Scanning & Applications**	Technical Session 6 **3D Body Scanning for Apparel I**		Technical Session 13 **3D Technologies for Apparel**	Technical Session 14 **Anthropometric Surveys & Studies**	
18:00				**Closing Session**		
19:00	**Welcome Cocktail**					

Conference Office

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Tuesday 16th October 2018

08:00-09:30 Registration – Welcome Desk

09:30-10:30 Opening Session – Room B1
Session Chair: Dr Nicola D'APUZZO
Hometrica Consulting, Switzerland

09:30 Welcome Speech from the Conference Director
Nicola D'APUZZO
Hometrica Consulting, Switzerland

09:50 World Premieres, Product Launches and First Time Announcements at the Conference and Exhibition
Chris LANE, CEO of 3dMD Ltd; Michael STÖHR, CEO of Avalution GmbH; Dr Colin URQUHART, CEO of Dimensional Imaging Ltd; Lukas NEUHAUS, Photogrammetry Engineer at botspot GmbH; Jeffrey MESSER, VP Sales & Marketing of Size Stream LLC; Alewijn MEDENDORP, Co-Founder of Scanologics BV; Ronen HAKIMI, CEO of Photuro 3D; Michel BABIN, CEO of TechMed 3D Inc.; Prof Xiang ZHOU, CEO of Xi'an Chishine Optoelectronics Technology Co. Ltd.; others t.b.d.

10:30-11:20 Coffee Break – Foyer

11:20-13:10 Technical Session 1: Medical Applications – Room C
Session Chair: Prof Mia MARKEY
The University of Texas at Austin, USA

11:20 Processing 3D Scans Using Statistical Shape Analysis and Automatic Pose Correction for Subsequent Orthosis Fitting
Max THALMEIER, Khoi LAM, Max SCHNAUBELT, Felix GUNDLACK
Mecuris GmbH, Munich, Germany   #44

11:42 A New Method for Finding the Shoulder Complex Rotation Centre Using 3D Body Scanning
S.G. Rozevink 1, I. Kingma 1, D. Spies 2, M.I. Paalman 2, J. Molenbroek 3,
B. Naagen 3, M. Maas 4, G. Streekstra 4, H.A.M. Daanen 1
1 Faculty of Behavioural and Movement Sciences, Vrije Universiteit Amsterdam, The Netherlands;
2 Yumen Bionics, Amsterdam, The Netherlands; 3 Industrial Design Engineering, Technical University Delft, The Netherlands;
4 Dept. of Radiology & Nuclear Medicine, Division of Musculoskeletal Radiology,
Univ. of Amsterdam, Academic Medical Center, The Netherlands   #16

12:04 3D Profilomer Combined with Hyperspectral Camera for Simplified Rheumatoid Arthritis Diagnostics
Urban PAVLOVČIČ 1, Jošt STERGAR 2, Luka ROGELJ 2, Jure KOŠIR 1, Matija JEZERŠEK 1, Matija MILANIČ 2,3
1 Faculty of Mechanical Engineering, Univ. of Ljubljana, Slovenia; 2 Faculty of Mathematics and Physics, Univ. of Ljubljana, Slovenia;
3 Jozef Stefan Institute, Ljubljana, Slovenia   #47

12:26 Non-Contact Capturing of Burn Victims for Individual Combustion Supply
Michael STÖHR
Avalution GmbH, Kaiserslautern, Germany   #63

12:48 New Virtual Tool for Accurate Evaluation of Facial Volume
Rodrigo de Faria Valle DORNELLES, Nivaldo ALONSO
Department of Plastic Surgery, University of São Paulo, São Paulo, Brazil   #27

11:20-13:10 Technical Session 2: 3D Body Scanning Systems I – Room B1
Session Chair: Dr Agnes PSIKUTA
Empa, Switzerland

11:20 The Most Accurate and Complete Commercial 3D Body Scanning and Measurement Extraction Platform
Mark NEUMANN
Size Stream LLC, Cary NC, USA   #01

11:42 ScanLounge - High Volume Photogrammetry Scanning for Sizing and More
Alewijn MEDENDORP
Scanologics BV, Amsterdam, The Netherlands   #18

12:04 BodiData's Patented Kora Scanner and Software System
Tuoc LUONG
BodiData Inc., Saratoga CA, USA   #12

12:26 How to Tackle Retail Challenges with 3D Avatars
Etienne KOO
twinster GmbH, Traun, Austria   #41

12:48 Pushing the Envelope in Dense-Surface 4D/Motion Capture of the Body, Head, Hands, and Feet
Chris LANE
3dMD Ltd., London / Atlanta GA, UK / USA   #06

13:10-14:40 Lunch Break – Foyer

| 14:40-16:30 | **Technical Session 3: 3D Face & Body Scanning in Medicine** – Room C | Session Chair: Dr Urban PAVLOVCIC *University of Ljubljana, Slovenia* |

14:40 Novel 4D Whole Body Scanning Solution and its Medical Application
Paweł LIBERADZKI, Łukasz MARKIEWICZ, Marcin WITKOWSKI, Robert SITNIK
Mechatronics Faculty, Warsaw University of Technology, Warsaw, Poland #21

15:02 Potential of 3D Surface Imaging for Quantitative Analysis of Fat Grafting
Audrey L. CHEONG 1, Summer E. HANSON 2, Gregory P. REECE 2, Mia K. MARKEY 3,4, Fatima MERCHANT 1,5
1 Dep. of Electrical and Computer Engineering, Univ. of Houston, USA; 2 Dep. of Plastic Surgery, The Univ. of Texas MD Anderson Cancer Center, Houston TX, USA; 3 Dep. of Biomedical Engineering, The Univ. of Texas at Austin, USA; 4 Dep. of Imaging Physics, The Univ. of Texas MD Anderson Cancer Center, Houston TX, USA; 5 Dep. of Engineering Technology, Univ. of Houston, USA #57

15:24 Challenges with Life Surface Imaging
Lifong ZOU 1, Robin RICHARD 2, John BLYTHE 3, Nikolaos DONOS 4
1 The Bioengineering Centre, Bart's and The London School of Medicine and Dentistry, Queen Mary University of London, UK; 2 Cavendish Implants Ltd, London, UK; 3 Bart's and The London Dental Hospital, NHS Trust, UK; 4 Bart's and The London School of Medicine and Dentistry, Queen Mary University of London, UK #22

15:46 RhinOnBlender
Rodrigo de Faria Valle DORNELLES 1, Cícero André da Costa MORAES 2, Juan Pablo Borges MARICEVITCH 3, Everton Luis Santos da ROSA 4
1 Department of Plastic Surgery, Univ. of São Paulo, Brazil; 2 Arc-Team, Cles, Italy; 3 Hospital da Clínicas, Univ. Federal de Pernambuco, Recife, Brazil; 4 Hospital de Base do Distrito Federal, Brasília, Brasil #28

16:08 Why 3D Matters in the Patient Journey
Jordan MILLS
MirrorMe3D, New York NY, USA #73

| 14:40-16:30 | **Technical Session 4: 3D Body Scanning Systems II** – Room B1 | Session Chair: Prof Dr Xiang PENG *Shenzhen University, China* |

14:40 Fast Capturing of High Resolution 3D Data
Lukas NEUHAUS
botspot GmbH, Berlin, Germany #74

15:02 Photuro Makes 3D Body Modeling Accessible and Affordable
Ronen HAKIMI
Photuro 3D, Tel Aviv, Israel #68

15:24 Volumetric Content Live Broadcasting - The Challenges and the Market Use Cases
Shabtay NEGRY
Mantis Vision, Petach Tikva, Israel #39

15:46 Digital Processing of 3D Full Body Scans for 3D Printing
Yannick FRANCKEN, Stijn LIGOT
3D Body Cloud, Antwerpen, Belgium #69

16:08 Portal - Engaging 3D Scanning
Sergey KLIMENTYEV
Texel LLC, Moscow, Russia #23

| 16:30-17:00 | **Coffee Break** – Foyer |

| 17:00-19:12 | **Technical Session 5: 3D Body Scanning & Applications** – Room C | Session Chair: Dr Lifong ZOU *Bart's and The London School of Medicine and Dentistry, UK* |

17:00 How Software can Help Scanner Acceptance to Customers
Michel BABIN
TechMed 3D Inc., Lévis QC, Canada #03

17:22 The Web3D Consortium - Introduction
Chris LANE
Web3D Consortium, Mountain View CA, USA #66

17:44 Scanning Procedure of Female Torso Using Low-Cost Hand-Held Sense™ 3D Scanner
Michaela HASSMANN 1, Seraphina STÖGER 1, Jacqueline DASTL 2, Wolfgang KRACH 2
1 University of Vienna, Vienna, Austria; 2 CAE Simulation & Solutions GmbH, Vienna, Austria #32

18:06 3D and 4D Facial Capture Using Passive Stereo Photogrammetry
Colin URQUHART
DI4D Dimensional Imaging Ltd., Glasgow, Scotland UK #76

18:28 ViALUX Sensor Design for High-Quality 3D Full Body Scanning
Roland HÖFLING, Petra ASWENDT
ViALUX GmbH, Chemnitz, Germany #78

18:50 Face scanner and 3D DSD
Xiang ZHOU
Xi'an Chishine Optoelectronics Technology Co. Ltd., Xi'an, Shaanxi, China #17

17:00-19:12	**Technical Session 6: 3D Body Scanning for Apparel I** – Room B1	Session Chair: Dr Simona VASILE *HoGent, Belgium*

17:00 The Volumetric Analysis of the Human Body as Starting Point for Clothing Pattern Design
Slavenka PETRAK, Ivana ŠPELIĆ, Maja MAHNIĆ NAGLIĆ
Faculty of Textile Technology, University of Zagreb, Zagreb, Croatia   #10

17:22 Three-Dimensional Quantification of Foundation Garment's Shaping Effects
Anke KLEPSER, Angela MAHR-ERHARDT, Simone MORLOCK
Hohenstein Institut fuer Textilinnovation gGmbH, Boennigheim, Germany   #15

17:44 The Distribution of Air Gap Thickness and the Contact Area During Alpine Skiing
Emel MERT [1], Agnes PSIKUTA [1], Ankit JOSHI [1], Marlène ARÉVALO [2], Caecilia CHARBONNIER [3],
Christiane LUIBLE-BÄR [2], Simon ANNAHEIM [1], Rene M. ROSSI [1]
1 Empa, Swiss Federal Laboratories for Materials Science and Technology, Biomimetic Membranes and Textiles, Switzerland;
2 Haute Ecole d'Art et de Design Genève, University of Geneva, Switzerland; 3 Artanim Foundation, Geneva, Switzerland   #30

18:06 3D Digital Anthropometry in Case of Fit and Ergonomics of Army Uniform
Inga DABOLINA, Eva LAPKOVSKA
Riga Technical University, Faculty of Material Science and Applied Chemistry, Institute of Design Technologies, Riga, Latvia   #26

18:28 Best Practice of Body Scanning: Optimization of Clothing Processes in Companies and Institutions
Ulrich BOTZENHARDT
Avalution GmbH, Kaiserslautern, Germany   #61

18:50 Measurement Tables for Overweight and Obese Portuguese Children
Raquel DE CAMPOS [1,2], Miguel Angelo CARVALHO [2], Bugao XU [3]
1 Federal Institute of Rio Grande do Sul, Erechim, Brasil; 2 Univ. of Minho, Portugal; 3 Univ. of North Texas, Danton TX, USA   #31

19:15-21:00	**Welcome Cocktail**

Wednesday 17th October 2018

08:00-08:30	**Registration** – Welcome Desk

08:30-10:20	**Technical Session 7: Digital Anthropometry & Ergonomics** – Room C	Session Chair: Dr Clinton O. NJOKU *Ebonyi State University, Nigeria*

08:30 Anthropometric Investigation of Head Measurements for Indian Adults
Parth SHAH [1], Yan LUXIMON [1], Fang FU [1], Vividh MAKWANA [2]
1 School of Design, The Hong Kong Polytechnic Univ., Hong Kong; 2 Navneet Hi-Tech Hospital and Research Centre, India   #19

08:52 Process Considerations in 3D Hand Anthropometric Data Collection
Linsey GRIFFIN [1], Susan L. SOKOLOWSKI [2], Emily SEIFERT [1]
1 University of Minnesota, St. Paul MN, USA; 2 University of Oregon, Portland OR, USA   #54

09:14 RAMSIS Defense / Anthropometric Data for Ergonomic Applications - Benefits for Developing Defense Vehicles
Dylan HENDRICKS
Human Solutions of North America Inc., Morrisville NC, USA   #64

09:36 3D Fit Scanning - Custom Fitting Hockey Skates for All
Michel BABIN
TechMed 3D Inc., Lévis QC, Canada   #72

09:58 *Available*

08:30-10:20	**Technical Session 8: Full Body Scanning, Measurement & AI** – Room B1	Session Chair: Dr Simeon GILL *The University of Manchester, UK*

08:30 Statistical Model for Human Measurements
Georgii MOLYBOGA, Ivan MAKEEV
3DLOOK, San Mateo CA, USA #05

08:52 Acquiring Accurate Body Measurements on a Smartphone from Supplied Colored Garments
for Online Apparel Purchasing Platforms and E-Retailers
Sibei XIA, Andre WEST, Cynthia ISTOOK, Jiayin LI
North Carolina State University, Raleigh, NC, USA   #08

09:14 Applying Deep-Learning to Reconstruct Accurate 3D Body Maps Using Mobile Phones
Suran GOONATILAKE [1,2], Mark RANSLEY [1]
1 University College London, London, UK; 2 Bodymetrics, London, UK   #52

09:36 3D Human Models from 1D, 2D & 3D Inputs: Reliability and Compatibility of Body Measurements
Alfredo BALLESTER, Ana PIÉROLA, Eduardo PARRILLA, Jordi URIEL,
Ana V. RUESCAS, Cristina PÉREZ, Juan V. DURÁ, Sandra ALEMANY
Instituto de Biomecánica de Valencia (IBV), Universitat Politècnica de València, Spain #36

09:58 Developing and Deploying Predictive Technologies atop 3D Body Scans
Greg MOORE
Fit3D Inc., San Mateo CA, USA   #77

10:20-10:50 Coffee Break – Foyer

10:50-12:40 Technical Session 9: 3D Hands & Foot Scanning – Room C
Session Chair: Ales JURCA
Volumental AB, Sweden

10:50 Current Technology Landscape for Collecting Hand Anthropometric Data
Susan L. SOKOLOWSKI 1, Linsey GRIFFIN 2, Sandeep CHANDRASEKHAR 1
1 University of Oregon, Portland OR, USA; 2 University of Minnesota, St. Paul MN, USA #53

11:12 Grasping Hand Pose Estimation from RGB Images Using Digital Human Model by Convolutional Neural Network
Kentaro INO 1, Naoto IENAGA 1, Yuta SUGIURA 1, Hideo SAITO 1, Natsuki MIYATA 2, Mitsunori TADA 2
1 Keio University, Yokohama, Japan; 2 Digital Human Research Group, Human Informatics Research Institute,
National Institute of Advanced Industrial Science and Technology, Tokyo, Japan #20

11:34 A Simple 3D Scanning System of the Human Foot Using a Smartphone with a Depth Camera
Takumi KOBAYASHI 1, Naoto IENAGA 1, Yuta SUGIURA 1, Hideo SAITO 1, Natsuki MIYATA 2, Mitsumori TADA 2
1 Keio University, Yokohama, Japan; 2 Digital Human Research Group, Human Informatics Research Institute,
National Institute of Advanced Industrial Science and Technology, Tokyo, Japan #25

11:56 The Reliability of Using The Artec Eva Hand Held 3 Dimensional Scanner on Children's Feet
Matyas VARGA 1, Stewart C. MORRISON 1, Juliet MCCLYMONT 1, Carina PRICE 2
1 School of Health Sciences, Univ. of Brighton, Eastbourne, UK; 2 School of Health and Society, Univ. of Salford, UK #71

12:18 Fast Foot Measurement System Based on 3D Measurement Network
Qijian TANG 1, Xinyun LIU 1, Chang LIU 1, Xiaoli LIU 1, Menglong LIU 2, Xiang PENG 1,2
1 Key Laboratory of Optoelectronic Devices and Systems of Ministry of Education and Guangdong Province,
College of Optoelectronic Engineering, Shenzhen University, Shenzhen, Guangdong, China;
2 Shenzhen ESUN Co. Ltd., Shenzhen, Guangdong, China #45

10:50-12:40 Technical Session 10: Full Body Scanning & Processing – Room B1
Session Chair: Dr Andre WEST
North Carolina State University, USA

10:50 Working Group Progress for IEEE P3141 - Standard for 3D Body Processing, 2017-2018
Carol MCDONALD 1, Alfredo BALLESTER 2, Randy K. RANNOW 3, Maxim FEDYUKOV 4, Susan SOKOLOWSKI 5
1 Gneiss Concept, Woodinville WA, USA; 2 Instituto de Biomecánica, Universistat Politècnica de València, Spain;
3 Silverdraft Supercomputing, Boise ID, USA; 4 Texel Inc., Moscow, Russia; 5 University of Oregon Portland, USA #34

11:12 Fitting Close-to-Body Garments with 3D Soft Body Avatars
Darcy HARRISON 1, Ye FAN 1,2, Egor LARIONOV 1,2, Dinesh K. PAI 1,2
1 Vital Mechanics Research, Canada; 2 University of British Columbia, Vancouver BC, Canada #35

11:34 Benchmarking a 3D Scanner: Understanding the Sources of Variance
Warren WRIGHT
Size Stream LLC, Cary NC, USA #59

11:56 Intelligent Harvesting of High-Precision 4D Data of Human Subjects in a Personalized Digital Economy
Chris LANE
3dMD Ltd., London / Atlanta GA, UK / USA #60

12:18 Consumer Attitudes and Acceptance of 3D Scanning Solutions in Apparel
Ed GRIBBIN
Alvanon Inc., New York NY, USA #75

12:40-14:10 Lunch Break – Foyer

14:10-16:00 Technical Session 11: 3D Body Scanning for Health & Sport – Room C
Session Chair: Prof Dr Wolfram MÜLLER
Medical University of Graz, Austria

14:10 Breathing Cycle and Posture Affect Magnitude and Anatomic Measurement Site
of Waist Girth in Healthy Adults: An Insight from 3D Scanning
Clinton O. NJOKU 1, Arthur D. STEWART 2
1 Dep. of Anatomy, Ebonyi State Univ., Abakaliki, Nigeria; 2 School of Health Sciences, Robert Gordon Univ., Aberdeen, UK #04

14:32 Prediction of Fat Mass and Validation Using 3D-Whole Body Scanner in Healthy Indian Males
Robert VARTE, Shweta RAWAT, Inderjeet SINGH, Shilpa CHOUDHARY, Suchitra SINGH,
Deepika KAKKAR, Yashmita CHAUDHARY, Usha PANJWANI, Bhuvnesh KUMAR
Defence Inst. of Physiology and Allied Sciences (DIPAS), Defence Research and Development Organisation (DRDO), Delhi, India #11

14:54 Estimating Body Fat from Depth Images: Hand-Crafted Features vs Convolutional Neural Networks
Marco CARLETTI 1 Marco CRISTANI 1, Valentina CAVEDON 2, Chiara MILANESE 2, Carlo ZANCANARO 2, Andrea GIACHETTI 1
1 Dpt. of Computer Science, University of Verona, Verona, Italy;
2 Lab. of Anthropometry & Body Composition, Dpt. of Neurological and Movement Sciences, University of Verona, Verona, Italy #48

15:16 Breast Segmentation Procedure from Upper Body 3D Scans Using Open Source Software Blender
Michaela HASSMANN 1, Jacqueline DASTL 2, Wolfgang KRACH 2
1 University of Vienna, Vienna, Austria; 2 CAE Simulation & Solutions GmbH, Vienna, Austria #33

15:38 Using the 3D Body Scanner in Elite Sports
Axel SCHÜLER, Ina FICHTNER, Olaf UEBERSCHÄR
Institute for Applied Training Science, Leipzig University, Leipzig, Germany #65

| 14:10-16:00 | **Technical Session 12: 3D Body Scanning for Apparel II** – Room B1 | Session Chair: Dr Inga DĀBOLIŅA *Riga Technical University, Latvia* |

14:10 Making Bespoke Apparel Mainstream: Scalable Measurement Capture, Pattern Generation, and Production
Marc C. CLOSE
Bespokify Pte Ltd, Singapore, Singapore   #09

14:32 Landmarking and Measuring for Critical Body Shape Analysis Targeting Garment Fit
Emma SCOTT 1, Abu Sadat Muhammad SAYEM 2
1 Fashion Should Empower Research Group, Vancouver Island BC, Canada;
2 Manchester Fashion Institute, Manchester Metropolitan University, Manchester, UK   #24

14:54 Scan to Pattern: How Body Scanning Can Help Transform Traditional Methods of Creating Pattern Blocks
Simeon GILL, Yuting WANG, Maryam AHMED, Steven G. HAYES, Adrian R. G. HARWOOD, James GILL
The University of Manchester, Oxford Road, Manchester, UK   #51

15:16 Efficient Virtual Garment Fit Evaluation Infrastructure based on
Synthetic Avatar Target Customer Groups for MtM Application
Michael ERNST 1, Monika BOEHM 1, Antje CHRISTOPHERSEN 1, Guido HANSEN 2,
Ulrich BOTZENHARDT 2, Bettina SEIDER 2, Susanne WAGNER 3
1 Niederrhein University of Applied Sciences, Germany; 2 Avalution GmbH, Kaiserslautern, Germany;
3 Assyst GmbH, München, Germany   #62

15:38 Digitize Your CAD-Processes from the ECommerce Shop to the Marker for the Production
Stefan GERTSCH
Gertsch Consulting & Mode Vision, Zofingen, Switzerland   #67

| 16:00-16:30 | **Coffee Break** – Foyer |

| 16:30-18:20 | **Technical Session 13: 3D Technologies for Apparel** – Room C | Session Chair: Prof Dr Michael ERNST *Hochschule Niederrhein, Germany* |

16:30 Virtual Prototype of Clothing in Academic Environment
Rachel S. BOLDT, Miguel A. CARVALHO
Minho University, Department of Textile Engineering, Portugal   #56

16:52 The Design of Vocal Performance Dress Based on 3D Technology
Zifei LI, Wei XIONG, Li ZHOU
College of Textile & Garment, Southwest University, Chongqing, China   #40

17:14 Study of Fashion Accessories Design Based on 3D Printing Technology
Siyu CHEN, Zifei LI, Li ZHOU
College of Textile & Garment, Southwest University, Chongqing, China   #55

17:36 *Available*

| 16:30-18:20 | **Technical Session 14: Anthropometric Surveys & Studies** – Room B1 | Session Chair: Dr Yan LUXIMON *The Hong Kong Polytechnic University* |

16:30 Foot Scanning in UK, USA and China
Zach ARMITAGE
SATRA Technology, Kettering, UK   #14

16:52 Analysis of 1 Million 3D Foot Scans from North America, Europe, Asia and Australia
Ales JURCA 1,2, Jure ZABKAR 3, Saso DZEROSKI 4,2
1 Volumental AB, Stockholm, Sweden; 2 Jožef Stefan International Postgraduate School, Ljubljana, Slovenia;
3 Faculty of Computer and Information Science, Univ. of Ljubljana, Slovenia; 4 Jozef Stefan Institute, Ljubljana, Slovenia   #70

17:14 AVALYTICS PORTAL - A New Access Point for Anthropometric Data. Benefits for Data Owners and Data Analysts
Tim GUENZEL, Anke RISSIEK
Avalution GmbH, Kaiserslautern, Germany   #38

17:36 The Anthropometric Study of the Portuguese Population Using the 3D Body Scanning Technology
- Its Contribution to the Improvement of Size Tables
Ana Florinda RAMÔA 1, Ana BARROS 1, José MORGADO 1, Ana Paula DINIS 2
1 CITEVE - Centro Tecnológico das Industrias Têxtil e do Vestuário de Portugal, Vila Nova de Famalicão, Portugal;
2 ATP - Associação Têxtil e Vestuário de Portugal, Vila Nova de Famalicão, Portugal   #13

17:58 3D Digital Anthropometric Study on Chinese Head and Face
Haining WANG 1, Wenxiu YANG 1, Yang YU 1, Wanrong CHEN 1, Roger BALL 1,2
1 School of Design, Hunan Univ., Changsha, China; 2 School of Industrial Design, Georgia Inst. of Technology, Atlanta, USA   #42

| 18:20-18:30 | **Closing Session** – Room B1 |

18:20 Closing Speech from the Conference Director and Announcements for 3DBODY.TECH 2019:
The 10th 3DBODY.TECH Conference & Expo will be held on 22-23 Oct. 2019, in Lugano, Switzerland
Nicola D'APUZZO
Hometrica Consulting, Switzerland

Size Stream (USA) www.sizestream.com
Size Stream (USA) is focused on 3D color body scanning, 4D scanning and all related applications requiring high performance, high automation and cost effective solutions. Size Stream products are widely used for research, size prediction and custom fit specification of clothing, body measurement for health and fitness applications and color 3D printing applications.

3dMD (USA/UK) www.3dmd.com
3dMD (USA/UK), a proven leader in 3D high-precision anatomical scanning, will be demonstrating workflow efficiencies with its latest temporal-3D (4D) capture systems. 3dMD sequences of high-quality motion images of the full body, head, foot, and/or hand help promote and advance the creation of new wearable technologies that precisely adapt to a person's shape and enhance performance.

Avalution (Germany) www.avalution.net
Avalution puts the human being at the heart of product development. The company has the world's largest body dimension database which contains the body scans of around 100,000 persons. Avalution also carries out serial measurement surveys and is a leader in the field of body scanning. More than 20 employees at the company with headquarters in Germany make size & fit and ergonomics measurable for product development in various industries.

VITRONIC (Germany) www.vitronic.com
With 20 years of experience in the field of body scanning, VITRONIC (Germany) is among the pioneers of fast, automatic 3D measuring of the human body. VITUS body scanners are used around the world for customized clothing, standardization, ergonomics, orthopedics, sports medicine, and printing of 3D figurines.

Scanologics (The Netherlands) www.scanlounge.com
Scanologics had developed the ScanLounge, a portable, full body, photogrammetry 3D scanning solution and delivers high quality results. Currently scanning over 150.000 people per year. Scanologics offers a full service solution. The scans can be used to create figurines, personalise games, rigging, research and measurements for the clothing industry.

Fit3D (USA) www.fit3d.com bodyblock.ai
600,000+ scans collected from patented scanners in 45 countries. Fit3D is a 3D body scanning & analytics company that supports fitness & wellness institutions around the world. Fit3D is growing at an astounding rate, collecting another scan every single minute. Fit3D recently launched the platform "BodyBlock AI" that is helping Tier 1 clothing brands change their approach to design & eCommerce in order to reduce returns & increase customer satisfaction.

The Institute of Biomechanics IBV (Spain) www.anthropometry.ibv.org
The Institute of Biomechanics IBV offers novel 3D data treatment tools (accurate and automated creation of avatars from 3D raw scans, 2D pictures or 1D measurements; 3D databases harmonisation tools, virtual measuring tape or shape analysis tools) and smartphone 3D scanning technologies to support innovative business models based on user anthropometry.

3DLOOK (USA) 3dlook.me
3DLOOK offers solutions for instant body measuring from mobile devices. SAIA Perfect Fit allows customers of any online apparel retailer to find their perfect size in a few seconds after uploading only 2 photos. SAIA 3D API generates 3D body models of a customer with 2 photos for subsequent use for virtual try-on, pre-production and fit stages of manufacturing.

twinster (Austria) www.twinster.eu
twinster has the goal of bringing the advantages of the digitalization to the end customer as well as companies. It's focus lies on holistic and innovative solutions in the area around 3D body measurements in a variety of different segments. twinster's solution allows the automatic body measurements in 3D in complete privacy by operating the twinster 3D full body scanner directly over the customer's smartphone via an App.

botspot (Germany) www.botspot.de
Since 2013 botspot develops and builds 3D scanners "Made in Germany". The scanning technology utilizes photogrammetry that enables contactless, rapid and completely safe scanning. Objects of every size and every shape are scanned in just 0,01 seconds, the digital 3D replica appears as ultra precise data with highly colorfast texturing. Individual complete scanning solutions within every scope of application are also realized in the special botspot R&D department.

TechMed 3D (Canada) www.techmed3d.com
TechMed 3D is specialized in body measurement technologies and digital imaging solutions adapted to the orthotics, prosthetics and custom equipment market. 3D surface imaging devices and application software will be demonstrated at the exhibition.

Dimensional Imaging DI4D (UK) www.di4d.com
Dimensional Imaging (DI4D) is a world-leading technology company formed in 2003 and based in Glasgow, Scotland and Los Angeles, California. DI4D provides 3D and 4D facial performance capture services, systems and software for advanced research applications, visual effects in movies, television, video games and virtual reality (VR). DI4D's leading research customers include University of Glasgow, Imperial College London and Dallas Children's Hospital.

Photuro 3D (Israel) www.photuro3d.com
Photuro 3D is set to make state-of-the-art 3D imaging technologies easily available for the masses. Its business model brings high-definition 3D scanners to retail environments, such as shopping malls, trade-shows and other events and offers post-scan online 3D experience to consumers. PHOTURO Booth enables to scan visitors in three-dimensions and to have within a few minutes their quality virtual image at an affordable price.

Xi'an Chishine Optoelectronics Technology (China) www.chishine3d.com

Xi'an Chishine 3D Optoelectronics Technology is an high-tech company focusing on 3D scanners, which has developed, with ultra-fast 3D scanning technology, fast body scanners and industrial 3D sensors. Chishine 3D scanners are widely used in the fields of medical plastic surgery, scientific experiments, industrial inspection and others.

IEEE-SA (USA) standards.ieee.org

The IEEE-SA is a leading consensus building organization that nurtures, develops and advances global technologies. IEEE standards drive the functionality, capabilities and interoperability of a wide range of products and services that transform the way people live, work and communicate, including IEEE's Industry Connections program on 3D Body Processing.

Bespokify (Singapore) bespokify.com

Bespokify generates bespoke apparel patterns in seconds, no matter the body type or product design. Bespokify's API fully automates custom pattern creation from 3D body scans or hand measurements, which can be cut straight to fabric within seconds of an order being placed.

Vital Mechanics Research (Canada) www.vitalmechanics.com

Vital Mechanics Research develops the world's most advanced computational models of the human body. Its patent-pending technology simulates how the human body moves and interacts with physical objects, leveraging two decades of research in soft tissue biomechanics at the University of British Columbia. Its software solutions enable digital transformation of the apparel pipeline, particularly for close-to-body garments.

Elasizer (Italy) www.elasizer.com

Elasizer (Italy) offers unique ground-breaking solution for human body scan, aiming to make the process of individual wear fitting fast, easy, and precise. The easy 3D body scanning technology based on a special elastic measuring garment is a compromise between expensive measuring rigs and low cost methods, which narrows the gap between manufacturer and customer in modern mass market and line production.

BRONZE Exhibitors

Texel (Russia)

Texel produces professional 3D scanning systems and develops dedicated algorithms and software solutions. Texel's scanners are available at strongly competitive prices; they produce accurate scanning results and have an outstanding price/quality ratio; they are equipped with hi-tech 3D model processing cloud platform. These results are achieved with in-house developed hardware, algorithms and software.

3D Body Cloud (Belgium)

3D Body Cloud is a software company that offers cloud services for processing 3D full body scans. 3D Body Cloud's API supports back offices by offering automated processing pipelines to turn raw 3D scans into producible and/or publishable results, such as 3D printed figurines, 2.5D products, rigged models and animation videos.

Gertsch Consulting & Mode Vision (Switzerland)

Gertsch Consulting & Mode Visio is specialized on products, solutions and services for the apparel and fashion industry. Gertsch Consulting & Mode Vision offers manufacturers and suppliers of individualized made-to-measure clothing, the "pod-Pattern on Demand", a platform for digitizing the processing from the e-commerce to the finished layplan/marker for the cutting room.

Shape Analysis (UK)

Shape Analysis is the European distributor for Size Stream and Space Vision scanners and the worldwide exclusive distributor for CAESAR survey data. Services of Shape Analysis have been used for the national sizing surveys SizeUK & SizeGB and for many other companies involved in fashion, health, fitness, sportswear, medical applications.

BRONZE Sponsors

Anatomi Metrix (Canada) www.manu3lab.com

Anatomi Metrix is focused on the development of technologies, devices and protocols dedicated to the anatomical measurements and evaluation of conditions of the human hand. Manu3 is a touch-less portable desktop device to measure the dimensions of the hand and fingers in terms of lengths and circumferences.

HOMETRICA CONSULTING (Switzerland) www.hometrica.ch

Hometrica Consulting - Dr. Nicola D'Apuzzo is organizing the series of 3DBody.Tech Conference & Expo. Hometrica Consulting is a leading international consulting firm in the sectors of 3D human body scanning and processing technologies.
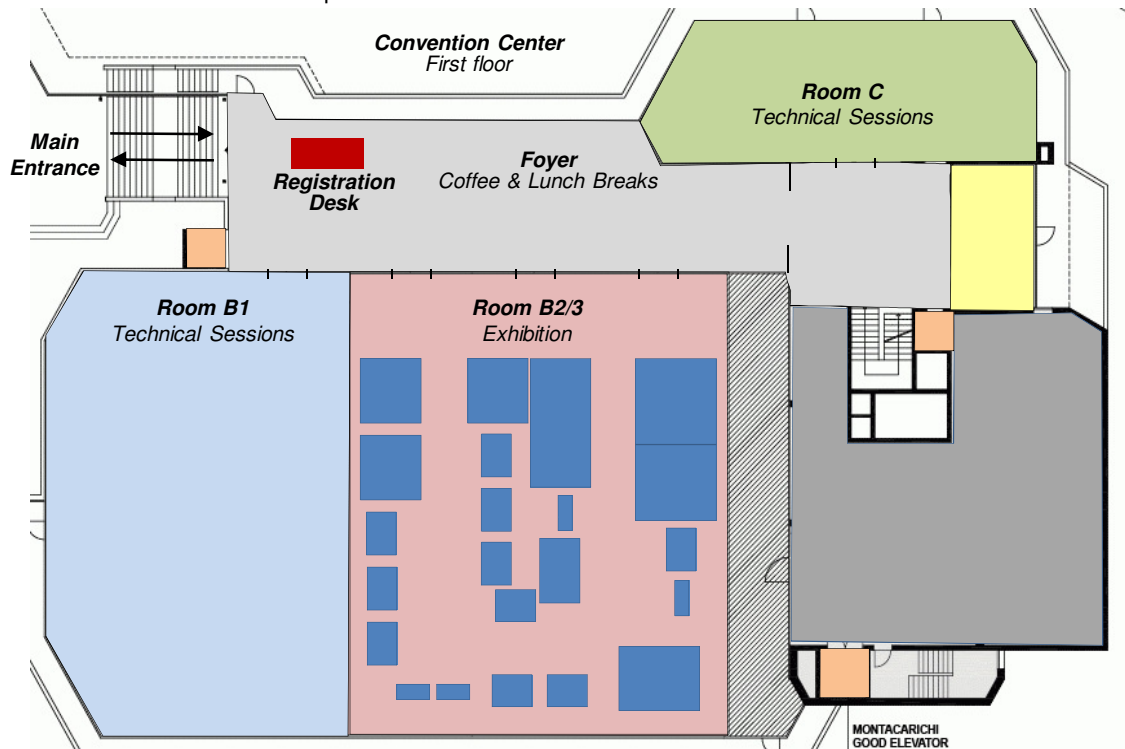
Supporters

City of Lugano (Switzerland) www.lugano.ch

The city of Lugano is officially supporting the 3DBODY.TECH Conference & Expo. The welcome cocktail offered to all attendees on Tuesday evening has been made possible with the city's support.

Conference & Expo Venue: Lugano Convention Center - Palazzo dei Congressi Lugano

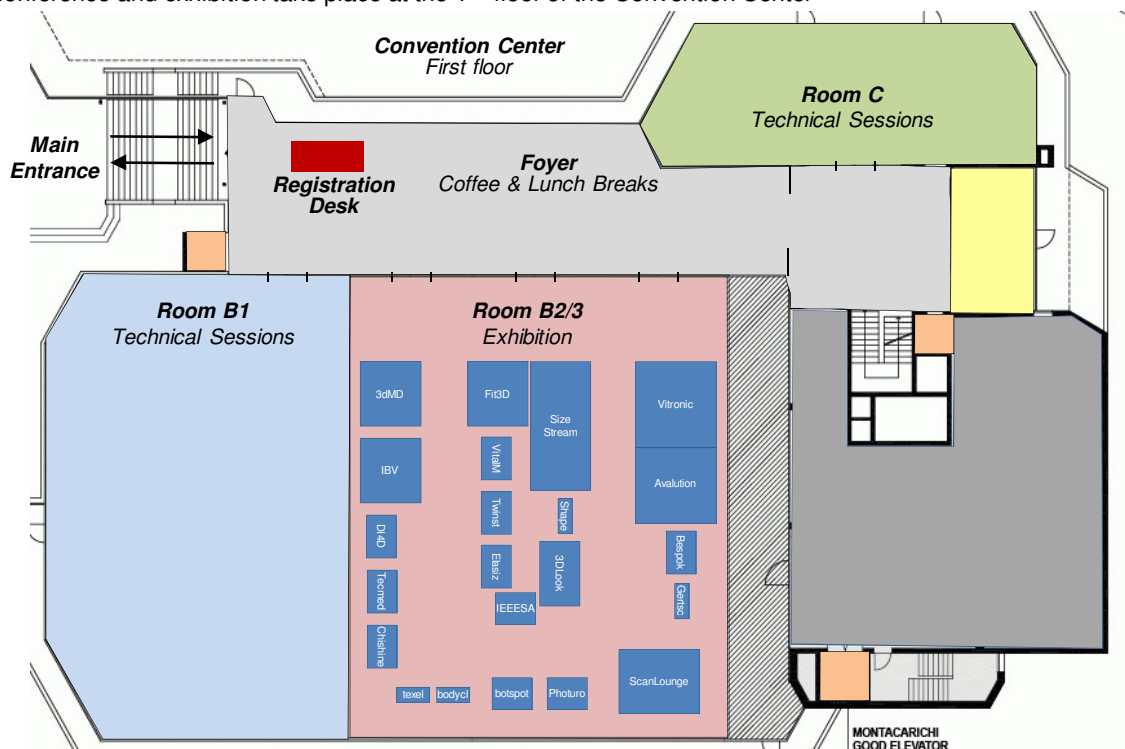The conference and exhibition take place at the 1st floor of the Convention Center

Address: Palazzo dei Congressi, Piazza Indipendenza 4, 6900 Lugano, Switzerland
www.luganoconventions.com

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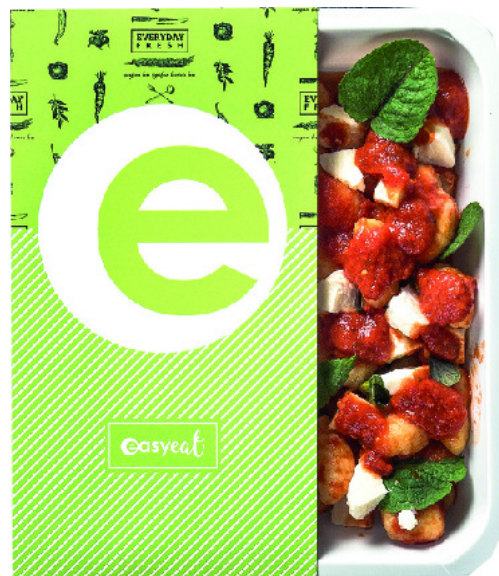

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The 10th 3DBODY.TECH Conference & Expo will be held on 22-23 October 2019, in Lugano, Switzerland

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