

PRELIMINARY CONFERENCE PROGRAM



10th 3DBODY.TECH Conference & Expo

Lugano, Switzerland · 22-23 October 2019

Program Outline

3DBODY.TECH 2019 10th International Conference and Exhibition on 3D Body Scanning and Processing Technologies Lugano, Switzerland, 22-23 October 2019, www.3dbody.tech				
Time	Tuesday 22 October 2019		Wednesday 23 October 2019	
08:00	Registration		Registration	Exhibition Setup
09:00	Opening Session		Technical Session 7 3D Hand & Foot Scanning	Technical Session 8 3D Body Technology for Apparel II
10:00				
	Coffee Break		Coffee Break	
11:00	Technical Session 1 3D Body Scanning in Medicine I	Technical Session 2 3D & 4D Body Scanning	Technical Session 9 3D Body Technology for Social Sciences	Technical Session 10 3D Body Scanning Systems
12:00				
13:00	Lunch Break		Lunch Break	Poster Session
14:00				
15:00	Technical Session 3 3D Body Scanning in Medicine II	Technical Session 4 3D Body Technology for Apparel I	Technical Session 11 3D Body Technology for Health & Sport	Technical Session 12 3D Body Technology for Apparel III
16:00				
	Coffee Break		Coffee Break	
17:00	Technical Session 5 Digital Anthropometry & Ergonomics	Technical Session 6 3D Body Scanning & Measurement	Technical Session 13 3D Body Scanning Assessment & Use	Technical Session 14 3D Body Technology for Apparel IV
18:00				
19:00	Welcome Cocktail		Closing Session	
			Exhibition Breakdown	

Conference Office

Conference office: HOMETRICA CONSULTING - Dr. Nicola D'Apuzzo
Via Collegio 28, CH-6612 Ascona, Switzerland
Conference website: www.3dbody.tech info@3dbody.tech
Conference phone: +41.91.791.5524

3DBODY.TECH 2019 - CONFERENCE PROGRAM

Tuesday 22nd October 2019

08:00-09:30 **Registration** – Welcome Desk

09:30-10:30 **Opening Session** – Room B1

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

09:50 World Premieres, Product Launches and Announcements from Exhibitors at 3DBODY.TECH 2019
t.b.d


10:30-11:20 **Coffee Break** – Foyer

11:20-13:10 **Technical Session 1: 3D Body Scanning in Medicine I** – Room C

11:20 Automatic Low-Cost Tool for Head 3D Modelling and Cranial Deformation Analysis in Infants
Inés BARBERO-GARCÍA 1, José Luis LERMA 1, Pablo MIRANDA 2
1 Photogrammetry and Laser Scanning Research Group, Universitat Politècnica de València, Valencia, Spain;
2 Hospital Universitari i Politècnic La Fe, Valencia, Spain #07



11:42 Shapeshift 3D Repair™ - A Fully Automated and Unsupervised Cloud API for the Reliable Reconstruction of Raw 3D Surface Scans Data
Patrick LAURIN, Daniel BÉLAND, Jonathan BORDUAS
Technologies ShapeShift 3D Inc., Montreal QC, Canada #69



12:04 A Transportable Solution for Instant Body Scanning: The INBODY+ Scanner
Stanislao GRAZIOSO 1, Teodorico CAPORASO 1, Mario SELVAGGIO 2,
Dario PANARIELLO 1, Roberta A. RUGGIERO 3, Giuseppe DI GIRONIMO 1
1 Department of Industrial Engineering, University of Naples Federico II, Naples, Italy;
2 Department of Electrical Engineering and Information Technology, University of Naples Federico II, Naples, Italy;
3 Ortopedia Ruggiero Srl, Cardito, Italy #47


12:26  ManoX: Making 3D Hand Scanning Easy and Scalable
Pieter SMAKMAN
Manometric B.V., Delft, The Netherlands #70


12:48 *Available*


11:20-13:20 **Technical Session 2: 3D & 4D Body Scanning** – Room B1



11:20   The Capabilities of 4D Body Scanning: in Whole and in Part
Chris LANE
3dMD Ltd., London / Atlanta GA, UK / USA #01

11:40   MOVE 4D: Accurate High-Speed 3D Body Models in Motion
Eduardo PARRILLA, Alfredo BALLESTER, Francisco PARRA,
Ana V. RUESCAS, Jordi URIEL, David GARRIDO, Sandra ALEMANY
Instituto de Biomecánica de Valencia, Universidad Politècnica de Valencia, Valencia, Spain #20

12:00  Man vs. Machine - Measuring People for the Apparel Industry
Warren WRIGHT
Size Stream LLC, Cary, NC, USA #37

12:20  Full Body Scanner and Virtual Scanner - The Right 3D Solution for Apparel Companies and their Customers
Tim GÜNZEL
Avalution GmbH, Kaiserslautern, Germany #67


12:40  Title n.a.
Author(s) n.a.
Spacevision Inc., Tokyo, Japan #32

13:00   Web3D Consortium's ISO standards (X3D and HAnim) - Overview, Insight, Applications
Anita HAVELE 1, Chris LANE 2
1 Web3D Consortium, Mountain View CA, USA; 2 3dMD Ltd., London / Atlanta GA, UK / USA #79

13:10-14:40 **Lunch Break** – Foyer

14:40-16:30 **Technical Session 3: 3D Body Scanning in Medicine II – Room C**

- 14:40 Interactive Visualization of Breast Shape for Breast Surgery
Urmila SAMPATHKUMAR 1, Audrey CHEONG 2, Gregory P. REECE 3, Mary Catherine BORDES 3, Summer E. HANSON 3, Mia K. MARKEY 4,5, Fatima A. MERCHANT 1,2,4,6
1 Department of Computer Science, University of Houston, TX, USA;
2 Department of Electrical and Computer Engineering, University of Houston, TX, USA;
3 Department of Plastic Surgery, The University of Texas MD Anderson Cancer Center, TX, USA;
4 Department of Biomedical Engineering, The University of Texas at Austin, Austin, TX, USA;
5 Department of Imaging Physics, The University of Texas MD Anderson Cancer Center, TX, USA;
6 Department of Engineering Technology, University of Houston, TX, USA #24


-  15:02 ARSynth : Robust Real-Time Human Torso Tracking from Synthetically Trained Deep Neural Networks
Prashanth CHANDRAN 1, Endri DIBRA 2, Ben HUBER 3
1 Computer Graphics Lab, ETH Zurich, Zurich, Switzerland; 2 Arbrea Labs AG, Zurich, Switzerland #26

- 15:24 Title n.a.
 Xiang ZHOU
Xi'an Chishine Optoelectronics Technology Co. Ltd., Xi'an, Shaanxi, China #36

- 15:46 A Novel Approach to Treating Cleft Lip/Palate through Nasoalveolar Molding and Advanced Technology
Jordan MILLS, Margaret JAKUS
MirrorMe3D, New York NY, USA #61


16:08 *Available*


14:40-16:30 **Technical Session 4: 3D Body Technology for Apparel I – Room B1**

- 14:40 The Missing Link Between 3D Body Scan and Apparel Production
 Marc C. CLOSE
Bespokify Pte Ltd., Singapore #09

- 15:02 Title n.a.
Stefan GERTSCH
Gertsch Consulting & Mode Visions, Zofingen, Switzerland #11

- 15:24 The Suitability of Body Scanning Measurement in Pattern Drafting Methods
Maryam AHMED, Tarfah ALRUSHAYDAN, Simeon GILL, Steven G. HAYES, Kristina BRUBACHER
The University of Manchester, Manchester, UK #41

- 15:46 Evaluating Soft and Hard Avatars for Virtual Fit Testing
 Yuan TIAN 1,2, Ye FAN 1,2, Dinesh K. PAI 1,2
1 Vital Mechanics Research, Canada; 2 University of British Columbia, Vancouver BC, Canada #55


- 16:08 Development of a Kinematic Human Model for Clothing and High Performance Garments
 Doudou ZHANG, Sybille KRZYWINSKI
TU Dresden, Institute of Textile Machinery and High Performance Material Technology, Germany #03


16:30-17:00 **Coffee Break – Foyer**

17:00-18:50 **Technical Session 5: Digital Anthropometry & Ergonomics – Room C**

- 17:00 Designing Physical Human-Machine-Interfaces for Exoskeletons Using 3D-Shape Analysis
Christine LINNENBERG 1, Robert WEIDNER 1,2
1 Leopold-Franzens-Universität Innsbruck, Innsbruck, Austria;
2 Helmut Schmidt University / University of the Federal Armed Forces Hamburg, Hamburg, Germany #21


- 17:22 Assessment of 3D Scanning Postures for Anthropometry Considering Norms, Equipment Limitations and Participant Feedback
Isabella de S. SIERRA, Matheus C. BARBOSA, Flávio S. K. OURA, Bruno ROCHA, Caelen T. SILVA, Maria Lúcia L. R. OKIMOTO
Ergonomics and Usability Laboratory - LABERG, Federal University of Paraná, Curitiba (PR), Brazil #23


- 17:44 Localizing Anthropometric Landmarks Using 3-D Surface Features
 Chang SHU 1, Pengcheng XI 1, Allan KEEFE 2
1 National Research Council of Canada, Ottawa, Canada; 2 Defence Research and Development Canada, Toronto, Canada #10


- 18:06 Selection of Protective Helmets Based on the Scanning System
 Konstantin KARAVAEV, Maxim TRUPHANOV
Elasizer srl, Milan, Italy #34

- 18:28 Digital People - Avatars in Virtual Product Development
 Michael STÖHR
Avalution GmbH, Kaiserslautern, Germany #68

17:00-19:00 **Technical Session 6: 3D Body Scanning & Measurement** – Room B1

17:00 Title n.a.
Author(s) n.a.
 meepl AG, Zurich, Switzerland #64

17:20 Fully Anonymised Human Measure Acquisition Process by Mobile for Identity Protection
 Alessandro CANEPA
i-Deal S.r.l., Biella, Italy #74

17:40 Title n.a.
 Tomislav TOMOV
Presize, Munich, Germany #78

18:00 Smartphone-Based Precision 3D Body Scanning Applications in Apparel and Footwear Markets
Jeff CHEN, Andy EOW, Chelsea LOMBARDI, Cameron ARMSTRONG
NetVirta Inc., Boston MA, USA #66

18:20 Title n.a.
Dobrin MIREVSKI
Imagifinity Ltd., Sofia, Bulgaria #65

18:40 Real Avatar Production - Raspberry Pi Zero W Based Low-Cost Full Body 3D Scan System Kit for VRM Format
Yukihiro IWAYAMA
EIDEN Inc., Tokyo, Japan #75

18:50-21:00 **Welcome Cocktail**


Wednesday 23rd October 2019

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


08:30-10:20 **Technical Session 7: 3D Hand & Foot Scanning** – Room C

08:30 Comparison of Glove Specifications, 3D Hand Scans, & Sizing of Sports Gloves for Athletes
Linsey GRIFFIN 1, Susan L. SOKOLOWSKI 2
1 University of Minnesota, St. Paul, MN, USA; 2 University of Oregon, Portland OR, USA #53

08:52 Development of a 3D Grading Method for Shoe Lasts Based on Scanned 3D Foot Data
Jana SIEGMUND, Huangmei LIN, Sybille KRZYWINSKI, Monika RICHTER, Kathrin SCHÄFER
1 TU Dresden, Institute of Textile Machinery and High Performance Material Technology, Germany;
2 Prüf- und Forschungsinstitut Pirmasens e. V., Pirmasens, Germany #04

09:14 MySize.Shoes: Using Small Data and Machine Learning Based Individual Fit Profile
to Enable Industrial Made to Measure Approach in Footwear
 Andrey GOLUB
ELSE Corp Srl, Milan, Italy #57

09:36 Title n.a.
Ales JURCA
Volumental AB, Stockholm, Sweden #73

09:58 Capture Every Foot's Unique Form
 Antonin G. BÉRUBÉ
Bodyform3D, Montréal QC, Canada #71

08:30-10:20 **Technical Session 8: 3D Body Technology for Apparel II** – Room B1

08:30 Development of a Jeans Sizing System for Young Black Pear-Shaped South African Women Using a 3D Body Scanner
Phumza SOKHETYE
Durban University of Technology, South Africa #77

08:52 CLO3D Fashion Design Software - A Perspective for Virtual Thermal Modelling of Garments
Agnes PSIKUTA, Marie-Helene JÄGER, Annette MARK, Harry MCGOWAN, Ankit JOSHI, Marin KINK
Empa, Swiss Federal Laboratories for Materials Science and Technology, St. Gallen, Switzerland #59

09:14 Analysis of Thermal Comfort of Clothing with Different Textile Material through Thermal Simulation
Muhammad AWAIS, Ellen WENDT, Sybille KRZYWINSKI
TU Dresden, Institute of Textile Machinery and High-Performance Material Technology, Germany #05

09:36 Evaluation of the Accuracy and Suitability of Low-Cost RGB-D Sensor
for Automated Air Gap Measuring in the Apparel Industry
Yordan K. KYOSEV1, Jana SIEGMUND
Chair of Assembly Technology for Textile Products, ITM, TU Dresden, Dresden, Germany #08

09:58 Firefighters' Anthropometrics and 3D Scanning Systems: Considerations from a Pilot Study in the North of Portugal
A.S. MORAES, R.S. BOLDT, M.A. CARVALHO, F.B. FERREIRA
Department of Textile Engineering, University of Minho, Guimarães, Portugal #30

10:20-10:50 **Coffee Break** – Foyer

10:50-12:40 **Technical Session 9: 3D Body Scanning for Social Sciences** – Room C

10:50 From Body Movements to Music - A New Device for Movement Therapies



Christian BRÄUER-BURCHARDT 1, Matthias HEINZE 1, Roland RAMM 1,
Robert WECHSLER2, Ursula MÜLLER3, Peter KÜHMSTEDT 1, Gunther NOTNI 1,4
1 Fraunhofer IOF Jena, Jena, Germany; 2 Palindrome Dance Company e.V., Weimar, Germany;
3 Grenzenlos e.V., Jena, Germany; 4 Technical University Ilmenau, Ilmenau, Germany #22

11:12 Real-time 360° Body Scanning System for Virtual Reality Research Applications



Louis ALBERT 2, Florian LANCE 1, Margaux DUBESSY 2, Bruno HERBELIN 1, Gilles REYMOND 2, Olaf BLANKE 1
1 Laboratory of Cognitive Neuroscience, Ecole Polytechnique Fédérale de Lausanne, Geneva, Switzerland;
2 VR Facility, Foundation Campus Biotech Geneva, Geneva, Switzerland #50

11:34 The Use of 3D Bodies in a Computerised and Immersive Virtual Reality Body Image Intervention

Nadia MAALIN 1, Kamila R. IRVINE 1, Andrew IRVINE 1, Piers L. CORNELISSEN 2, Kay L. RITCHIE 1, Martin J. TOVÉE 1
1 School of Psychology, University of Lincoln, Lincoln, UK;
2 School of Psychology, Northumbria University, Newcastle Upon Tyne, UK #14

12:56 The Development of a 3D Body Scan and Composition Database
to Assess Body Size Perception in Psychological Research

Nadia MAALIN 1, Sophie M. MOHAMED 1, Robin S. KRAMER 1, Andrew IRVINE 1,
Piers L. CORNELISSEN 2, Kay L. RITCHIE 1, Martin J. TOVÉE 1
MAALIN, Sophie MOHAMED, Robin KRAMER, Kay RITCHIE, Martin TOVÉE
1 School of Psychology, University of Lincoln, Lincoln, UK;
2 School of Psychology, Northumbria University, Newcastle Upon Tyne, UK #15

13:18 *Available*

10:50-12:40 **Technical Session 10: 3D Body Scanning Systems** – Room B1

10:50 One Scan for All. Using Machine Learning Approaches to Apply
an Accurate 4D Sequence Data Across Multiple Industries



Chris LANE
3dMD Ltd., London / Atlanta GA, UK / USA #02

11:12 Title n.a.



Alexander VANDEVELDE
QuantaCorp, Ghent, Belgium #35

11:34 Title n.a.



Michel BABIN
TechMed 3D Inc., Lévis QC, Canada #60

11:56 Multi-Sensor RGB-D Scanning with the ImFusion Vision SDK



Alexander LADIKOS
ImFusion GmbH, Munich, Germany #63

12:18 Title n.a.



Author(s) n.a.
botspot GmbH, Belin, Germany #72

12:40-14:10 **Lunch Break** – Foyer

12:50-14:00 **Poster Session** – Room B2/3

12:50 Custom Dress Forms from 3D Body Scans

Carol HULS
DittoForm Michigan LLC, Detroit MI, USA #58

12:50-14:00 **Poster Session** – Room B2/3


12:50 Optimum Design of Women's Bicycle Cycling Suit Based on 3D Dynamic Capture Technology
ZhiQing HAN
Southwest University, Chongqing, China #38

12:50 Study of Modern Architectural Structures in Minimalist Clothing Design Based on CLO 3D
Rui ZHANG, Li ZHOU
College of Textile and Garment, Southwest University, Chongqing, China #45

12:50 Research on the Application of 3D Scanning Printing of Chinese Facial Makeup Elements in Women's Clothing
Li Meng Chun
College of Textile & Garment, Southwest University, Chongqing, China #62


12:50 *Available*

14:10-16:00 **Technical Session 11: 3D Body Technology for Health & Sport** – Room C

14:10 Size Stream Body Fat Formulas
 Breck SIEGLINGER, David BRUNER
Size Stream LLC, Cary, NC, USA #40


14:32 Development of a 3D Body Database to Improve Measures of Perceptual Male Body Image Distortion
Sophie MOHAMED 1,2, Nadia MAALIN 1, Robin KRAMER 1, Andrew IRVINE 1, Piers L. CORNELISSEN 3, Martin J. TOVÉE 1
1 School of Psychology, University of Lincoln, Lincoln, UK;
2 Lincoln Institute for Health, University of Lincoln, Lincoln, UK;
3 School of Psychology, Northumbria University, UK #13

14:54 3D Body Scanning in Fitness Clubs
Nikolay KOZLOV, Dzmitry KOMAR
Scaneca GmbH, Berlin, Germany #48

15:16 A Motion Capture System for Sport Performance Analysis Based on Inexpensive RGB-D Sensors
 Cyrille ANDRÉ, Cedric LEMAÎTRE, Matthieu VOIRY, Antoine LAVAUULT
Apeira Technologies, Le Creusot, France #25

15:38 *Available*

14:10-16:00 **Technical Session 12: 3D Body Technology for Apparel III** – Room B1

14:10 Working Group Progress for IEEE P3141 - Standard for 3D Body Processing, 2018-2019
 Carol MCDONALD 1, Alfredo BALLESTER 2, Randy K. RANNOV 3, Maxim FEDYUKOV 4, Inga DABOLINA 5
1 Gneiss Concept, Washougal, WA, USA; 2 Instituto de Biomecánica, Universitat Politècnica de València, València, Spain;
3 Silverdraft Supercomputing, Boise, ID, USA; 4 Texel, Moscow, Russia; 5 Institute of Design Technologies, RTU, Riga, Latvia #27

14:32 Garment Fit: Where Do We Stand?
Eva LAPKOVSKA, Inga DABOLINA, Liene SILINA
Riga Technical University, Faculty of Material Science and Applied Chemistry, Institute of Design Technologies, Riga, Latvia #16

14:54 3D Body Scanning in the Apparel Industry: Do We Really Know Where We Are Heading?
Monika JANUSZKIEWICZ 1, Christopher J. PARKER 2, Steven G. HAYES 1, Simeon GILL 1
1 The University of Manchester, Manchester, UK;
2 Loughborough University, Loughborough, UK #43

15:16 Novel Methods to Drive Pattern Engineering through and for Enhanced Use of 3D Technologies
Emma SCOTT 1, Simeon GILL 2, Carol MCDONALD 3
1 Fashion Should Empower, Vancouver Island BC, Canada; 2 The University of Manchester, UK;
3 Gneiss Concept, Washougal, WA, USA #17

15:38 How the U.S. Sport Performance Apparel Industry Sizes Up to Female Plus Bodies
Susan L. SOKOLOWSKI 1, Jessie SILBERT 1, Linsey GRIFFIN 2
1 University of Oregon, Portland OR, USA; 2 University of Minnesota, St. Paul, MN, USA #52

16:00-16:30 **Coffee Break** – Foyer

16:30-18:00 **Technical Session 13: 3D Body Scanning Assessment & Use – Room C**


16:30 From 3D Body Scan to Finished Product Without Pushing the Button
Yannick FRANCKEN, Stijn LIGOT
3D Body Cloud, Brasschaat, Belgium #31


16:52 HOLOFIL - 3D Visualization Experience Creator
Mrunal GAWADE
HOLOFIL, Amsterdam, The Netherlands #33


17:14 3D Face Analysis vs Applications: Studies and Perspectives
Enrico VEZZETTI, Federica MARCOLIN, Sandro MOOS, Mariagrazia VIOLANTE, Luca ULRICH
DIGEP - Politecnico di Torino, Turin, Italy #44

17:36 Reliability of Measuring Morphology of the Paediatric Foot Using the Artec Eva Hand Held Scanner
Matyas VARGA 1, Stewart C. MORRISON 1, Carina PRICE 2
1 School of Health Sciences, University of Brighton, Eastbourne, UK;
2 School of Health and Society, University of Salford, Salford, UK #12

16:30-18:00 **Technical Session 14: 3D Body Technology for Apparel IV – Room B1**

16:30 Functional Body Measurements - Motion-Oriented 3D Analysis of Body Measurements
 Simone MORLOCK, Christine LOERCHER, Andreas SCHENK, Anke KLEPSE
Hohenstein Institut fuer Textilinnovation gGmbH, Boennigheim, Germany #06

16:52 Method to Capture and Analyze the Waist-Hip-Thigh Body Region of Seated-Standing 3D Scans
 Linsey GRIFFIN, Bethany JUHNKE, Emily SEIFERT, Colleen POKORNY, Karolina DORAN
University of Minnesota, St. Paul, MN, USA #54

17:14 The Detection of the Upper Boundary of Breasts Using 4D Scanning Technology
 Jie PEI 1, Linsey GRIFFIN 2, Jintu FAN 1,3, Susan P. ASHDOWN 1
1 Department of Fiber Science and Apparel Design, Cornell University, Ithaca, NY, USA;
2 Department of Design, Housing, and Apparel, University of Minnesota, St. Paul, MN, USA;
3 The Hong Kong Polytechnic University, Kowloon, Hong Kong #56

17:36 Trends in Breast Measurements of Unilateral Breast Reconstruction Patients to Inform Bra Design
Krista M. NICKLAUS 1,2, Eloise JEWETT 1, Chi LIU 3, Jun LIU 2, Gregory P. REECE 2,
Summer E. HANSON 2, Fatima A. MERCHANT 1,4, Mia K. MARKEY 1,5
1 Department of Biomedical Engineering, The University of Texas at Austin, Austin, TX, USA;
2 Department of Plastic Surgery, The University of Texas MD Anderson Cancer Center, Houston, TX, USA;
3 Apparel and Art Design College, Xi'an Polytechnic University, Xi'an, Shaanxi, P.R. China;
4 Department of Engineering Technology, University of Houston, Houston, TX, USA;
5 Department of Imaging Physics, The University of Texas MD Anderson Cancer Center, Houston, TX, USA #28


18:00-18:10 **Closing Session – Room B1**

18:10 Closing Speech from the Conference Director and Announcements for 3DBODY.TECH 2020
Nicola D'APUZZO
Hometrica Consulting, Switzerland

Icons/Symbols

 **GOLD** Presentation/talk from **GOLD** Exhibitor & Sponsor

 **SILVER** Presentation/talk from **SILVER** Exhibitor & Sponsor

 Presentation/talk related to **AI / ML** Artificial Intelligence & Machine Learning

 Presentation/talk related to **4D & DYNAMIC** scanning, measurement, simulation, visualization

GOLD Exhibitors & Sponsors

3dMD (USA/UK) www.3dmd.com

3dMD 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.



SPACE VISION (Japan) www.spacevision.tokyo

SPACE VISION manufactures innovative 3D full body and 3D face imaging solutions used in various application fields and offers assistance in selecting scanners and applied software according to the customer's wishes and product lineup, as well as individual customization development and measurement data management.



Size Stream (USA) www.sizestream.com

Size Stream 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.



The Institute of Biomechanics IBV (Spain) antropometria.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.



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.



SILVER Exhibitors & Sponsors

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.



Web3D Consortium (USA) www.web3d.org

Web3D Consortium, founded in 1997, is an International, non-profit, member-funded, industry standards development organization. Web3D Consortium develops and maintains royalty-free ISO standards for web-based 3D graphics. Of particular interest for 3D body data are the X3D (Extensible 3D) Graphics Standard and the H-Anim (Humanoid Animation) International Standard.



QuantaCorp (Belgium) www.quantacorp.io

QuantaCorp offers 3D body measurement systems for mobile devices. Just two pictures are required to measure and sizing the entire body with QuantaCorp's technology. Results are delivered automatically within 10 seconds, from start to finish. The 3D avatar and measurements are instantly available. Applications are focused in retail, health/fitness and medical markets.



TechMed 3D (Canada) techmed3d.com

TechMed 3D's mission is to make CAD-CAM technologies for human body accessible by developing and offering the most user-friendly and fast scanning system. TechMed 3D (Canada) helps practitioners in the orthotics, prosthetics and custom made equipment industry to seamlessly integrate technology to their business, to make their life easier, increase their productivity, their turnaround time and their profitability.



Manometric (The Netherlands) manometric.nl

Manometric creates the digital standard for brace production, highly improves the quality and comfort of orthotics and reduces drastically manual labor with unique 3D print & scan technology. For medical analysis and the production of orthotics and prosthetics, a 3D scan is the starting point. With ManoX - an instant, reliable way of body scanning - the entire hand is 3D scanned faster than the blink of an eye.



Elasizer (Italy) www.elasizer.com

Elasizer 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.



SILVER Exhibitors & Sponsors (cont.)

ImFusion (Germany) www.imfusion.com

ImFusion offers software solutions and R&D services for 3D scanning, computer vision and medical image analysis. ImFusion's software platform allows rapid development of custom scanning and geometry processing solutions using GPU-accelerated algorithms and advanced interactive visualization. Popular RGB-D sensors are directly supported. For common use cases, ImFusion's RecFusion software offers ready-to-use real-time scanning solutions supporting one or multiple RGB-D sensors.



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.



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.



Bespokify (Singapore) bespokify.com

Bespokify is a leading fashion-tech company that generates custom-fitted 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. Bespokify integrates with all major 3D scanning vendors for the apparel industry.



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

Xi'an Chishine Optoelectronics Technology is an high-tech company originated in Xi'an and backed by Xi'an Jiaotong University and Xi'an Institute of Optics and Precision Mechanics. Chishine focuses on 3D digitization systems, holding the notion of "accurate and easy scan". Chishine fast 3D face scanners are used in the fields of medicine, cosmetics, biometry and others.



Revopoint 3D Technologies (USA/China) www.revopoint3d.com

Revopoint 3D Technologies, part of Xi'an Chishine Optoelectronics Technology, is an emerging high-tech company specialized in providing 3D digitalization and intelligent image recognition solutions. Revopoint's team is committed to developing and manufacturing more intelligent and highly accurate 3D cameras that are easy to use for everyone.



meepl (Switzerland) www.meepl.com

meepl deals with the acquisition and processing of body-related data and provides software solutions for the apparel industry. Leveraging artificial intelligence and visual computing, meepl enables brands and retailers to reduce return rates, digitize supply chains and deliver an interactive and personalized 3D shopping experience to end users. meepl's product portfolio offers smartphone-based 3D body scanning, size recommendation, 3D virtual showroom and 3D virtual dressing room.



SizeYou by i-Deal (Italy) www.SizeYou.it

SizeYou, by i-Deal, collects the measures of the whole body by two pictures from a smartphone. The peculiarities of the process are the completely anonymized identity of the subject and the absolute privacy protection (developed specifically for healthcare, security and defense domains). SizeYou app collects human measures by A.I., reproducing the behavior of a professional tailor and providing the contour of the body, the posture, a graphical visualization and the evolution in time.



Sizolution (Germany) sizolution.com

Sizolution helps fashion stores boost sales and reduce returns by bringing real personalization to the customer experience. AI and computer vision are used to precisely determine body measurements from a simple questionnaire or a body selfie right in websites or smartphone app and deliver size recommendation with detailed fit prediction based on the customer's body and garment properties.



BRONZE Exhibitors

Gertsch Consulting & Mode Vision (Switzerland) gertsch.ch

Gertsch Consulting & Mode Vision 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.



DittoForm Michigan (USA) www.dittoform.com

DittoForm Michigan produces the custom dress forms DittoForms. The precision carved, high-resolution dress forms are made by starting with a 3D body scan and by translating the digital files into a physical figure. DittoForm is a copy, a "ditto", of a real person and captures significant details of the body shape. This means the form also includes important landmark references when fitting clothes or developing patterns.



BRONZE Exhibitors (cont.)

3D Body Cloud (Belgium) 3dbodycloud.com

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.



HOLOFIL by Artosci (The Netherlands) www.holofil.com

HOLOFIL by Artosci is a 3D visualization tabletop device that creates engaging visual experiences for promotions, product marketing, branding, education and training. It can be used in different scenarios including retail, healthcare, events, gaming, education. HOLOFIL's mixed reality mode allows combination of physical objects and virtual content to create engaging visual stories.



Presize.ai (Germany) presize.ai

Presize.ai helps fashion online shops reduce returns, increase conversions and personalize the UX based on users' individual body. Users just turn around once in front of their smartphone camera and receive size recommendations for every clothing item. The patent pending video scanning technology is as accurate as a professional tailor's manual measurements.



Bodyform3D (Canada) www.bodyform3d.com

Bodyform3D leverages computer vision and machine learning to provide 3D body scanning software available from any mobile devices. Bodyform3D builds ready-to-use mobile applications optimized for the custom-made and healthcare industry to give the power to seamlessly integrate accurate individual's morphological data.



Shape Analysis (UK) shapeanalysis.com

Shape Analysis is the exclusive worldwide distributor of the CAESAR 3-D Anthropometric Database. The company has extensive experience in the development and use of 3D capture systems. Services of Shape Analysis have been used for the National Sizing Survey SizeUK, ShapeGB and for many other companies involved in apparel, health, fitness, sportswear, medical applications.



BRONZE Sponsors

Meshcapade (Germany) meshcapade.com

Meshcapade aims to revolutionize the world of human body modeling, sizing, and animation. Meshcapade employs a state of the art statistical model that encodes realistic shapes, sizes, and motions. The goal is to make animating, simulating, and recognizing human bodies effortless, and to bring realistic virtual humans into simulation and 3D environments.



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

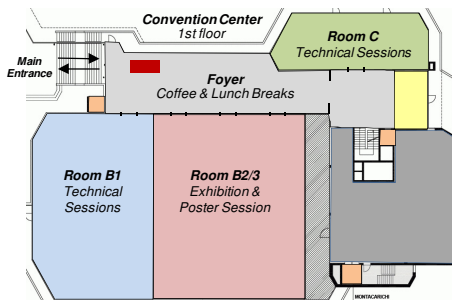
The city of Lugano is officially supporting the 3DBODY.TECH Conference & Expo. The welcome cocktail offered to all attendees on Tuesday evening has been made possible with the city's support.



3DBODY.TECH Conference & Expo Venue: Lugano Convention Center

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

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



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