Yary Volpe

List of Publications by Year
in descending order

98 papers	1,071 citations	394421 19 h-index	501196 28 g-index
101 all docs	101 docs citations	101 times ranked	1077 citing authors

#	Article	IF	Citations
1	Assessment and treatment of pectus deformities: a review of reverse engineering and 3D printing techniques. Rapid Prototyping Journal, 2023, 29, 19-32.	3.2	3
2	CNN Approach for Monocular Depth Estimation: Ear Case Study. Lecture Notes in Mechanical Engineering, 2022, , 220-228.	0.4	0
3	A Rapid Prototyping Strategy for Manufacturing of Personalized Bolus. Lecture Notes in Mechanical Engineering, 2022, , 209-219.	0.4	0
4	A CAD-Based Tool for Tissue-Mimicking Replica of Human Costal Cartilage. Lecture Notes in Mechanical Engineering, 2022, , 199-208.	0.4	0
5	3D-Printed Patient-Specific Casts for the Distal Radius in Children: Outcome and Pre-Market Survey. Materials, 2022, 15, 2863.	2.9	3
6	Machine Learning for Renal Pathologies: An Updated Survey. Sensors, 2022, 22, 4989.	3.8	5
7	Emotion recognition in the times of COVID19: Coping with face masks. Intelligent Systems With Applications, 2022, 15, 200094.	3.0	7
8	Reverse engineering by CAD template fitting: study of a fast and robust template-fitting strategy. Engineering With Computers, 2021, 37, 2803-2821.	6.1	2
9	A novel ear elements segmentation algorithm on depth map images. Computers in Biology and Medicine, 2021, 129, 104157.	7.0	9
10	A new metrological characterization strategy for 3D multi-camera systems. International Journal on Interactive Design and Manufacturing, 2021, 15, 69-72.	2.2	0
11	Design of an automatic optical system to measure anthropometric hand parameters. International Journal on Interactive Design and Manufacturing, 2021, 15, 73-75.	2.2	0
12	A computer-aided strategy for preoperative simulation of autologous ear reconstruction procedure. International Journal on Interactive Design and Manufacturing, 2021, 15, 77-80.	2.2	3
13	Statistical Shape Model: comparison between ICP and CPD algorithms on medical applications. International Journal on Interactive Design and Manufacturing, 2021, 15, 85-89.	2.2	3
14	Preoperative Planning of Spiral Intestinal Lengthening and Tailoring: A Geometrical Approach. Bioengineering, 2021, 8, 20.	3.5	5
15	A Fast and Reliable Optical 3D Scanning System for Human Arm. Lecture Notes in Mechanical Engineering, 2021, , 268-273.	0.4	5
16	Handheld Optical System for Pectus Excavatum Assessment. Applied Sciences (Switzerland), 2021, 11, 1726.	2.5	3
17	How to best predict short bowel syndrome outcome with machine learning approaches?. Computer Methods and Programs in Biomedicine Update, 2021, 1, 100016.	3.7	0
18	Application of carbon nanotubes–based coating in the field of art conservation: the IMAT project and the development of new mild heat transfer technology. , 2021, , 81-133.		0

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19	Wearable Robots: An Original Mechatronic Design of a Hand Exoskeleton for Assistive and Rehabilitative Purposes. Frontiers in Neurorobotics, 2021, 15, 750385.	2.8	13
20	A rapid prototyping approach for custom training of autologous ear reconstruction. International Journal on Interactive Design and Manufacturing, 2021, 15, 577.	2.2	1
21	Metrological Characterization and Comparison of D415, D455, L515 RealSense Devices in the Close Range. Sensors, 2021, 21, 7770.	3.8	22
22	A Semi-Automatic CAD Procedure to Design Custom-made Surgical Cutting Guides. Computer-Aided Design and Applications, 2021, 19, 733-740.	0.6	1
23	U-net for auricular elements segmentation: a proof-of-concept study. , 2021, 2021, 2712-2716.		0
24	G-ear: a user-friendly tool for assisted autologous ear reconstruction. , 2021, 2021, 2750-5755.		0
25	A practical methodology for computer-aided design of custom 3D printable casts for wrist fractures. Visual Computer, 2020, 36, 375-390.	3.5	39
26	Outpatient monitoring of Pectus Excavatum: a Neural Network-based approach. , 2020, 2020, 5388-5393.		2
27	CAD-based automatic modelling of customized cutting templates for Pectus Arcuatum surgical correction. , 2020, 2020, 6044-6048.		0
28	A low-cost ChArUco-based 3D scanner for cultural heritage. IOP Conference Series: Materials Science and Engineering, 2020, 949, 012033.	0.6	0
29	Scene Acquisition with Multiple 2D and 3D Optical Sensors: A PSO-Based Visibility Optimization. Sensors, 2020, 20, 1726.	3.8	4
30	Design and Manufacturing of an Innovative Triple-Layer Thermo-Insulated Fabric. Applied Sciences (Switzerland), 2020, 10, 680.	2.5	2
31	Current Practice in Preoperative Virtual and Physical Simulation in Neurosurgery. Bioengineering, 2020, 7, 7.	3.5	21
32	Towards a Non-invasive Pectus Excavatum Severity Assessment Tool Using a Linear Discriminant Analysis on 3D Optical Data. Lecture Notes in Mechanical Engineering, 2020, , 686-695.	0.4	2
33	A Reliable Procedure for the Construction of a Statistical Shape Model of the Cranial Vault. Lecture Notes in Mechanical Engineering, 2020, , 788-800.	0.4	4
34	3D Acquisition of the Ear Anatomy: A Low-Cost Set up Suitable for the Clinical Practice. IFMBE Proceedings, 2020, , 669-678.	0.3	5
35	3D Printing-Based Pediatric Trainer for Ultrasound-Guided Peripheral Venous Access. IFMBE Proceedings, 2020, , 735-745.	0.3	5
36	Pectus Excavatum: A New Approach for Monitoring Cup-Suction Treatment. IFMBE Proceedings, 2020, , 746-754.	0.3	0

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37	CAD Reconstruction: A Study on Reverse Modelling Strategies. Lecture Notes in Mechanical Engineering, 2020, , 165-176.	0.4	0
38	3D Digital Surgical Planning: An Investigation of Low-Cost Software Tools for Concurrent Design. Lecture Notes in Mechanical Engineering, 2020, , 765-775.	0.4	0
39	Autologous Ear Reconstruction: Towards a Semiautomatic CAD-based Procedure for 3D Printable Surgical Guides. Computer-Aided Design and Applications, 2020, 18, 357-367.	0.6	1
40	Toward the integration of lattice structure-based topology optimization and additive manufacturing for the design of turbomachinery components. Advances in Mechanical Engineering, 2019, 11, 168781401985978.	1.6	14
41	Machine Vision System for Counting Small Metal Parts in Electro-Deposition Industry. Applied Sciences (Switzerland), 2019, 9, 2418.	2.5	9
42	Pectus Carinatum: a non-invasive and objective measurement of severity. Medical and Biological Engineering and Computing, 2019, 57, 1727-1735.	2.8	1
43	Tailor-Made Hand Exoskeletons at the University of Florence: From Kinematics to Mechatronic Design. Machines, 2019, 7, 22.	2.2	19
44	Customized Cutting Template to Assist Sternotomy in Pectus Arcuatum. Annals of Thoracic Surgery, 2019, 107, 1253-1258.	1.3	12
45	A novel application of a surface ElectroMyoGraphy-based control strategy for a hand exoskeleton system: A single-case study. International Journal of Advanced Robotic Systems, 2019, 16, 172988141982819.	2.1	24
46	Ear Reconstruction Simulation: From Handcrafting to 3D Printing. Bioengineering, 2019, 6, 14.	3.5	46
47	Metrological and Critical Characterization of the Intel D415 Stereo Depth Camera. Sensors, 2019, 19, 489.	3.8	72
48	A Robust and Automatic Method for the Best Symmetry Plane Detection of Craniofacial Skeletons. Symmetry, 2019, 11, 245.	2.2	17
49	Towards a CAD-based automatic procedure for patient specific cutting guides to assist sternal osteotomies in pectus arcuatum surgical correction. Journal of Computational Design and Engineering, 2019, 6, 118-127.	3.1	11
50	A Semi-Automatic Hybrid Approach for Defective Skulls Reconstruction. Computer-Aided Design and Applications, 2019, 17, 190-204.	0.6	20
51	Automatic CAD Modeling of Ventilation Holes for 3D Printed Wrist Orthoses. Computer-Aided Design and Applications, 2019, 17, 325-336.	0.6	2
52	A Novel Objective Approach to the External Measurement of Pectus Excavatum Severity by Means of anÂOptical Device. Annals of Thoracic Surgery, 2018, 106, 221-227.	1.3	21
53	3D printing of cardiac structures from medical images: an overview of methods and interactive tools. International Journal on Interactive Design and Manufacturing, 2018, 12, 597-609.	2.2	17
54	A semi-automatic computer-aided method for personalized Vacuum Bell design. Computer-Aided Design and Applications, 2018, 15, 247-255.	0.6	7

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55	Reverse engineering modeling methods and tools: a survey. Computer-Aided Design and Applications, 2018, 15, 443-464.	0.6	65
56	Computer-aided design tool for GT ventilation system ductworks. Computer-Aided Design and Applications, 2018, 15, 170-179.	0.6	2
57	Reverse engineering of mechanical parts: A template-based approach. Journal of Computational Design and Engineering, 2018, 5, 145-159.	3.1	36
58	Tactile reproduction of paintings: the experience of the Department of Industrial Engineering of Florence. IOP Conference Series: Materials Science and Engineering, 2018, 364, 012101.	0.6	0
59	Original strategy for avoiding over-smoothing in SFS problem resolution. International Journal of Computational Vision and Robotics, 2018, 8, 58.	0.3	0
60	A Survey of Methods for Symmetry Detection on 3D High Point Density Models in Biomedicine. Symmetry, 2018, 10, 263.	2.2	9
61	Surgery of complex craniofacial defects: A single-step AM-based methodology. Computer Methods and Programs in Biomedicine, 2018, 165, 225-233.	4.7	24
62	Reverse Engineering Techniques for Virtual Reconstruction of Defective Skulls: an Overview of Existing Approaches. Computer-Aided Design and Applications, 2018, 16, 103-112.	0.6	14
63	A CAD-based Procedure for Designing 3D Printable Arm-Wrist-Hand Cast. Computer-Aided Design and Applications, 2018, 16, .	0.6	8
64	Optimizing Fabrication Outcome in Low-cost FDM Machines. Part 1 - Metrics. Manufacturing Technology, 2018, 18, 372-378.	1.4	4
65	Kinematic synthesis and testing of a new portable hand exoskeleton. Meccanica, 2017, 52, 2873-2897.	2.0	28
66	On the Performance of the Intel SR300 Depth Camera: Metrological and Critical Characterization. IEEE Sensors Journal, 2017, 17, 4508-4519.	4.7	73
67	3D geometry reconstruction from orthographic views: An improved method exploiting shading information. Computers in Industry, 2017, 92-93, 137-151.	9.9	2
68	Enhancing Porcelain Whiteware Quality Assessment by Means of Reverse Engineering-based Procedures. Procedia Manufacturing, 2017, 11, 1659-1666.	1.9	0
69	Fast and Low Cost Acquisition and Reconstruction System for Human Hand-wrist-arm Anatomy. Procedia Manufacturing, 2017, 11, 1600-1608.	1.9	23
70	Recent strategies for 3D reconstruction using Reverse Engineering: a bird's eye view. Lecture Notes in Mechanical Engineering, 2017, , 841-850.	0.4	8
71	Analysis of deformations induced by manufacturing processes of fine porcelain whiteware. Lecture Notes in Mechanical Engineering, 2017, , 1063-1072.	0.4	2
72	Designing the architecture of a preliminary system for assisting tactile exploration of bas-reliefs. Journal of Design Research, 2017, 15, 110.	0.1	0

#	ARTICLE	IF	CITATIONS
73	A RGB-D based instant body-scanning solution for compact box installation. Lecture Notes in Mechanical Engineering, 2017, , 819-828.	0.4	10
74	Are We Ready to Build a System for Assisting Blind People in Tactile Exploration of Bas-Reliefs?. Sensors, 2016, 16, 1361.	3.8	13
75	Carded Tow Real-Time Color Assessment: A Spectral Camera-Based System. Sensors, 2016, 16, 1404.	3.8	0
76	Color matching of fabric blends: hybrid Kubelka-Munk + artificial neural network based method. Journal of Electronic Imaging, 2016, 25, 061402.	0.9	19
77	Machine Vision-Based Pilling Assessment: A Review. Journal of Engineered Fibers and Fabrics, 2015, 10, 155892501501000.	1.0	10
78	Development and experimental testing of a portable hand exoskeleton. , 2015, , .		16
79	Methods for Predicting Spectral Response of Fibers Blends. Lecture Notes in Computer Science, 2015, , 79-86.	1.3	7
80	IMPROVED INTERACTIVE METHOD FOR RECO-VERING 2.5D MODELS FROM SINGLE IMAGES. Journal of Computer Science, 2014, 10, 2141-2154.	0.6	0
81	Towards the Development of a Novel CNTs-Based Flexible Mild Heater for Art Conservation. Nanomaterials and Nanotechnology, 2014, 4, 8.	3.0	7
82	Tactile exploration of paintings: An interactive procedure for the reconstruction of 2.5D models. , 2014, , .		6
83	From 2D to 2.5D i.e. from painting to tactile model. Graphical Models, 2014, 76, 706-723.	2.4	34
84	Digital Bas-Relief Design: a Novel Shape from Shading-Based Method. Computer-Aided Design and Applications, 2014, 11, 153-164.	0.6	16
85	Towards Automated and Objective Assessment of Fabric Pilling. International Journal of Advanced Robotic Systems, 2014, 11, 171.	2.1	9
86	A vane-motor automatic design procedure. International Journal on Interactive Design and Manufacturing, 2013, 7, 147-157.	2.2	6
87	3D geometry reconstruction from orthographic views: A method based on 3D image processing and data fitting. Computers in Industry, 2013, 64, 1290-1300.	9.9	23
88	Design and Assessment of a Machine Vision System for Automatic Vehicle Wheel Alignment. International Journal of Advanced Robotic Systems, 2013, 10, 242.	2.1	31
89	Modelling and simulation of an innovative fabric coating process using artificial neural networks. Textile Reseach Journal, 2012, 82, 1282-1294.	2.2	19
90	A computational model for early assessment of padded furniture comfort performance. Human Factors and Ergonomics in Manufacturing, 2012, 25, n/a-n/a.	2.7	6

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91	Tactile Representation of Paintings: An Early Assessment of Possible Computer Based Strategies. Lecture Notes in Computer Science, 2012, , 261-270.	1.3	15
92	ANN-based method for olive Ripening Index automatic prediction. Journal of Food Engineering, 2010, 101, 318-328.	5.2	40
93	A New Methodology for Computer Aided Design of Fine Porcelain Whiteware. , 2008, , .		2
94	Comfort assessment of motorcycle saddles: a methodology based on virtual prototypes. International Journal on Interactive Design and Manufacturing, 2007, 1, 155-167.	2.2	6
95	A Practical Approach Based on Shape from Shading and Fast Marching for 3D Geometry Recovery under Oblique Illumination. Applied Mechanics and Materials, 0, 472, 503-509.	0.2	1
96	Autologous Ear Reconstruction: Towards a Semiautomatic CAD-Based Procedure for 3D Printable Surgical Guides. , 0, , .		7
97	A Simple Interactive Tool for the CAD Modelling of Surgical Guides for Autologous Ear Reconstruction. Computer-Aided Design and Applications, 0, , 109-118.	0.6	1
98	Design Automation of Lattice-based Customized Orthopedic for Load-bearing Implants. Computer-Aided Design and Applications, 0, , 158-173.	0.6	0