Yary Volpe

List of Publications by Year
in descending order

98	1,071	394421	501196
papers	citations	19	28
		h-index	g-index

101	101	101	1077
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the Performance of the Intel SR300 Depth Camera: Metrological and Critical Characterization. IEEE Sensors Journal, 2017, 17, 4508-4519.	4.7	73
2	Metrological and Critical Characterization of the Intel D415 Stereo Depth Camera. Sensors, 2019, 19, 489.	3.8	72
3	Reverse engineering modeling methods and tools: a survey. Computer-Aided Design and Applications, 2018, 15, 443-464.	0.6	65
4	Ear Reconstruction Simulation: From Handcrafting to 3D Printing. Bioengineering, 2019, 6, 14.	3.5	46
5	ANN-based method for olive Ripening Index automatic prediction. Journal of Food Engineering, 2010, 101, 318-328.	5.2	40
6	A practical methodology for computer-aided design of custom 3D printable casts for wrist fractures. Visual Computer, 2020, 36, 375-390.	3.5	39
7	Reverse engineering of mechanical parts: A template-based approach. Journal of Computational Design and Engineering, 2018, 5, 145-159.	3.1	36
8	From 2D to 2.5D i.e. from painting to tactile model. Graphical Models, 2014, 76, 706-723.	2.4	34
9	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
10	Kinematic synthesis and testing of a new portable hand exoskeleton. Meccanica, 2017, 52, 2873-2897.	2.0	28
11	Surgery of complex craniofacial defects: A single-step AM-based methodology. Computer Methods and Programs in Biomedicine, 2018, 165, 225-233.	4.7	24
12	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
13	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
14	Fast and Low Cost Acquisition and Reconstruction System for Human Hand-wrist-arm Anatomy. Procedia Manufacturing, 2017, 11, 1600-1608.	1.9	23
15	Metrological Characterization and Comparison of D415, D455, L515 RealSense Devices in the Close Range. Sensors, 2021, 21, 7770.	3.8	22
16	A Novel Objective Approach to the External Measurement of Pectus Excavatum Severity by Means of an Optical Device. Annals of Thoracic Surgery, 2018, 106, 221-227.	1.3	21
17	Current Practice in Preoperative Virtual and Physical Simulation in Neurosurgery. Bioengineering, 2020, 7, 7.	3.5	21
18	A Semi-Automatic Hybrid Approach for Defective Skulls Reconstruction. Computer-Aided Design and Applications, 2019, 17, 190-204.	0.6	20

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19	Modelling and simulation of an innovative fabric coating process using artificial neural networks. Textile Reseach Journal, 2012, 82, 1282-1294.	2.2	19
20	Color matching of fabric blends: hybrid Kubelka-Munk + artificial neural network based method. Journal of Electronic Imaging, 2016, 25, 061402.	0.9	19
21	Tailor-Made Hand Exoskeletons at the University of Florence: From Kinematics to Mechatronic Design. Machines, 2019, 7, 22.	2.2	19
22	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
23	A Robust and Automatic Method for the Best Symmetry Plane Detection of Craniofacial Skeletons. Symmetry, 2019, 11, 245.	2.2	17
24	Digital Bas-Relief Design: a Novel Shape from Shading-Based Method. Computer-Aided Design and Applications, 2014, 11, 153-164.	0.6	16
25	Development and experimental testing of a portable hand exoskeleton. , 2015, , .		16
26	Tactile Representation of Paintings: An Early Assessment of Possible Computer Based Strategies. Lecture Notes in Computer Science, 2012, , 261-270.	1.3	15
27	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
28	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
29	Are We Ready to Build a System for Assisting Blind People in Tactile Exploration of Bas-Reliefs?. Sensors, 2016, 16, 1361.	3.8	13
30	Wearable Robots: An Original Mechatronic Design of a Hand Exoskeleton for Assistive and Rehabilitative Purposes. Frontiers in Neurorobotics, 2021, 15, 750385.	2.8	13
31	Customized Cutting Template to Assist Sternotomy in Pectus Arcuatum. Annals of Thoracic Surgery, 2019, 107, 1253-1258.	1.3	12
32	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
33	Machine Vision-Based Pilling Assessment: A Review. Journal of Engineered Fibers and Fabrics, 2015, 10, 155892501501000.	1.0	10
34	A RGB-D based instant body-scanning solution for compact box installation. Lecture Notes in Mechanical Engineering, 2017, , 819-828.	0.4	10
35	Towards Automated and Objective Assessment of Fabric Pilling. International Journal of Advanced Robotic Systems, 2014, 11, 171.	2.1	9
36	A Survey of Methods for Symmetry Detection on 3D High Point Density Models in Biomedicine. Symmetry, 2018, 10, 263.	2.2	9

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37	Machine Vision System for Counting Small Metal Parts in Electro-Deposition Industry. Applied Sciences (Switzerland), 2019, 9, 2418.	2.5	9
38	A novel ear elements segmentation algorithm on depth map images. Computers in Biology and Medicine, 2021, 129, 104157.	7.0	9
39	Recent strategies for 3D reconstruction using Reverse Engineering: a bird's eye view. Lecture Notes in Mechanical Engineering, 2017, , 841-850.	0.4	8
40	A CAD-based Procedure for Designing 3D Printable Arm-Wrist-Hand Cast. Computer-Aided Design and Applications, 2018, 16, .	0.6	8
41	Towards the Development of a Novel CNTs-Based Flexible Mild Heater for Art Conservation. Nanomaterials and Nanotechnology, 2014, 4, 8.	3.0	7
42	A semi-automatic computer-aided method for personalized Vacuum Bell design. Computer-Aided Design and Applications, 2018, 15, 247-255.	0.6	7
43	Methods for Predicting Spectral Response of Fibers Blends. Lecture Notes in Computer Science, 2015, , 79-86.	1.3	7
44	Autologous Ear Reconstruction: Towards a Semiautomatic CAD-Based Procedure for 3D Printable Surgical Guides. , 0, , .		7
45	Emotion recognition in the times of COVID19: Coping with face masks. Intelligent Systems With Applications, 2022, 15, 200094.	3.0	7
46	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
47	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
48	A vane-motor automatic design procedure. International Journal on Interactive Design and Manufacturing, 2013, 7, 147-157.	2.2	6
49	Tactile exploration of paintings: An interactive procedure for the reconstruction of 2.5D models. , 2014, , .		6
50	Preoperative Planning of Spiral Intestinal Lengthening and Tailoring: A Geometrical Approach. Bioengineering, 2021, 8, 20.	3.5	5
51	A Fast and Reliable Optical 3D Scanning System for Human Arm. Lecture Notes in Mechanical Engineering, 2021, , 268-273.	0.4	5
52	3D Acquisition of the Ear Anatomy: A Low-Cost Set up Suitable for the Clinical Practice. IFMBE Proceedings, 2020, , 669-678.	0.3	5
53	3D Printing-Based Pediatric Trainer for Ultrasound-Guided Peripheral Venous Access. IFMBE Proceedings, 2020, , 735-745.	0.3	5
54	Machine Learning for Renal Pathologies: An Updated Survey. Sensors, 2022, 22, 4989.	3.8	5

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55	Scene Acquisition with Multiple 2D and 3D Optical Sensors: A PSO-Based Visibility Optimization. Sensors, 2020, 20, 1726.	3.8	4
56	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
57	Optimizing Fabrication Outcome in Low-cost FDM Machines. Part 1 - Metrics. Manufacturing Technology, 2018, 18, 372-378.	1.4	4
58	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
59	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
60	Handheld Optical System for Pectus Excavatum Assessment. Applied Sciences (Switzerland), 2021, 11, 1726.	2.5	3
61	3D-Printed Patient-Specific Casts for the Distal Radius in Children: Outcome and Pre-Market Survey. Materials, 2022, 15, 2863.	2.9	3
62	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
63	A New Methodology for Computer Aided Design of Fine Porcelain Whiteware. , 2008, , .		2
64	3D geometry reconstruction from orthographic views: An improved method exploiting shading information. Computers in Industry, 2017, 92-93, 137-151.	9.9	2
65	Analysis of deformations induced by manufacturing processes of fine porcelain whiteware. Lecture Notes in Mechanical Engineering, 2017, , 1063-1072.	0.4	2
66	Computer-aided design tool for GT ventilation system ductworks. Computer-Aided Design and Applications, 2018, 15, 170-179.	0.6	2
67	Outpatient monitoring of Pectus Excavatum: a Neural Network-based approach. , 2020, 2020, 5388-5393.		2
68	Design and Manufacturing of an Innovative Triple-Layer Thermo-Insulated Fabric. Applied Sciences (Switzerland), 2020, 10, 680.	2.5	2
69	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
70	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
71	Automatic CAD Modeling of Ventilation Holes for 3D Printed Wrist Orthoses. Computer-Aided Design and Applications, 2019, 17, 325-336.	0.6	2
72	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

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73	Pectus Carinatum: a non-invasive and objective measurement of severity. Medical and Biological Engineering and Computing, 2019, 57, 1727-1735.	2.8	1
74	A rapid prototyping approach for custom training of autologous ear reconstruction. International Journal on Interactive Design and Manufacturing, 2021, 15, 577.	2.2	1
75	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
76	A Semi-Automatic CAD Procedure to Design Custom-made Surgical Cutting Guides. Computer-Aided Design and Applications, 2021, 19, 733-740.	0.6	1
77	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
78	IMPROVED INTERACTIVE METHOD FOR RECO-VERING 2.5D MODELS FROM SINGLE IMAGES. Journal of Computer Science, 2014, 10, 2141-2154.	0.6	0
79	Carded Tow Real-Time Color Assessment: A Spectral Camera-Based System. Sensors, 2016, 16, 1404.	3.8	0
80	Enhancing Porcelain Whiteware Quality Assessment by Means of Reverse Engineering-based Procedures. Procedia Manufacturing, 2017, 11, 1659-1666.	1.9	0
81	Designing the architecture of a preliminary system for assisting tactile exploration of bas-reliefs. Journal of Design Research, 2017, 15, 110.	0.1	0
82	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
83	Original strategy for avoiding over-smoothing in SFS problem resolution. International Journal of Computational Vision and Robotics, 2018, 8, 58.	0.3	0
84	CAD-based automatic modelling of customized cutting templates for Pectus Arcuatum surgical correction. , 2020, 2020, 6044-6048.		0
85	A low-cost ChArUco-based 3D scanner for cultural heritage. IOP Conference Series: Materials Science and Engineering, 2020, 949, 012033.	0.6	0
86	A new metrological characterization strategy for 3D multi-camera systems. International Journal on Interactive Design and Manufacturing, 2021, 15, 69-72.	2.2	0
87	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
88	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
89	Application of carbon nanotubesâ€"based coating in the field of art conservation: the IMAT project and the development of new mild heat transfer technology. , 2021, , 81-133.		0
90	Pectus Excavatum: A New Approach for Monitoring Cup-Suction Treatment. IFMBE Proceedings, 2020, , 746-754.	0.3	0

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91	CAD Reconstruction: A Study on Reverse Modelling Strategies. Lecture Notes in Mechanical Engineering, 2020, , 165-176.	0.4	0
92	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
93	CNN Approach for Monocular Depth Estimation: Ear Case Study. Lecture Notes in Mechanical Engineering, 2022, , 220-228.	0.4	0
94	A Rapid Prototyping Strategy for Manufacturing of Personalized Bolus. Lecture Notes in Mechanical Engineering, 2022, , 209-219.	0.4	0
95	A CAD-Based Tool for Tissue-Mimicking Replica of Human Costal Cartilage. Lecture Notes in Mechanical Engineering, 2022, , 199-208.	0.4	0
96	U-net for auricular elements segmentation: a proof-of-concept study. , 2021, 2021, 2712-2716.		0
97	G-ear: a user-friendly tool for assisted autologous ear reconstruction. , 2021, 2021, 2750-5755.		0
98	Design Automation of Lattice-based Customized Orthopedic for Load-bearing Implants. Computer-Aided Design and Applications, 0, , 158-173.	0.6	0