Herman Bruyninckx

List of Publications by Year
in descending order

75 papers	2,230 citations	361413 20 h-index	265206 42 g-index
79 all docs	79 docs citations	79 times ranked	1884 citing authors

#	Article	IF	Citations
1	Exploiting plant dynamics in robotic fruit localization. Computers and Electronics in Agriculture, 2022, 196, 106860.	7.7	0
2	Invariant-Based World Models for Robust Robotic Systems Demonstrated on an Autonomous Football Table. IEEE Robotics and Automation Letters, 2022, 7, 8542-8549.	5.1	1
3	Fabrication grammars: bridging design and robotics to control emergent material expressions. Construction Robotics, 2021, 5, 35-48.	2.2	6
4	Dynamic Semantic World Models and Increased Situational Awareness for Highly Automated Inland Waterway Transport. Frontiers in Robotics and AI, 2021, 8, 739062.	3.2	2
5	Semiâ€automatic methods for tracking the medial gastrocnemius muscleâ€"tendon junction using ultrasound: a validation study. Experimental Physiology, 2020, 105, 120-131.	2.0	8
6	Collision-Free Trajectory Planning With Deadlock Prevention: An Adaptive Virtual Target Approach. IEEE Access, 2020, 8, 115240-115250.	4.2	2
7	Material Sketching. , 2019, , .		5
8	Query-based integration of heterogeneous knowledge bases for search and rescue tasks. Robotics and Autonomous Systems, 2019, 117, 80-91.	5.1	3
9	Efficient image based method using water-filled balloons for improving probe spatial calibration in 3D freehand ultrasonography. Ultrasonics, 2019, 94, 124-130.	3.9	6
10	Reliability of a clinical 3D freehand ultrasound technique: Analyses on healthy and pathological muscles. Computer Methods and Programs in Biomedicine, 2018, 156, 97-103.	4.7	35
11	Can in Vivo Medial Gastrocnemius Muscleâ€"Tendon Unit Lengths be Reliably Estimated by Two Ultrasonography Methods? A Within-Session Analysis. Ultrasound in Medicine and Biology, 2018, 44, 110-118.	1.5	13
12	Medial Gastrocnemius Muscleâ€"Tendon Junction and Fascicle Lengthening across the Range of Motion Analyzed in 2-D and 3-D Ultrasound Images. Ultrasound in Medicine and Biology, 2018, 44, 2505-2518.	1.5	12
13	An innovative solution to reduce muscle deformation during ultrasonography data collection. Journal of Biomechanics, 2018, 77, 194-200.	2.1	12
14	Children with Spastic Cerebral Palsy Experience Difficulties Adjusting Their Gait Pattern to Weight Added to the Waist, While Typically Developing Children Do Not. Frontiers in Human Neuroscience, 2016, 10, 657.	2.0	15
15	The reliability and validity of a clinical 3D freehand ultrasound system. Computer Methods and Programs in Biomedicine, 2016, 136, 179-187.	4.7	54
16	A Novel Method of Quantifying Gait Deviations Using Plantar Pressure Patterns. Journal of the American Podiatric Medical Association, 2016, 106, 299-304.	0.3	1
17	Efficacy measures associated to a plantar pressure based classification system in diabetic foot medicine. Gait and Posture, 2016, 49, 168-175.	1.4	14
18	Cloud based centralized task control for human domain multi-robot operations. Intelligent Service Robotics, 2016, 9, 63-77.	2.6	13

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19	DOF Decoupling Task Graph Model: Reducing the Complexity of Touch-Based Active Sensing. Robotics, 2015, 4, 141-168.	3.5	1
20	A color-code based method for the interpretation of plantar pressure measurements in clinical gait analysis. Gait and Posture, 2015, 41, 852-856.	1.4	7
21	Action selection for touch-based localisation trading off information gain and execution time. , 2014, , .		8
22	Augmented Switching Linear Dynamical System Model for Gas Concentration Estimation with MOX Sensors in an Open Sampling System. Sensors, 2014, 14, 12533-12559.	3.8	11
23	An open embedded industrial robot hardware and software architecture applied to position control and visual servoing application. International Journal of Mechatronics and Automation, 2014, 4, 63.	0.2	1
24	A Novel Device for Standardizing Marker Placement at the Calcaneus. Journal of the American Podiatric Medical Association, 2014, 104, 43-49.	0.3	9
25	Extending the iTaSC Constraint-based Robot Task Specification Framework to Time-Independent Trajectories and User-Configurable Task Horizons. , 2013, , .		14
26	Geometric Relations Between Rigid Bodies (Part 1): Semantics for Standardization. IEEE Robotics and Automation Magazine, 2013, 20, 84-93.	2.0	23
27	Pattern description and reliability parameters of six force–time related indices measured with plantar pressure measurements. Gait and Posture, 2013, 38, 824-829.	1.4	5
28	Geometric Relations Between Rigid Bodies (Part 2): From Semantics to Software. IEEE Robotics and Automation Magazine, 2013, 20, 91-102.	2.0	6
29	DOF-Decoupled Active Force Sensing (D-DAFS): A human-inspired approach to touch-based localisation tasks. , 2013, , .		1
30	A scene graph based shared 3D world model for robotic applications. , 2013, , .		20
31	Rigid body pose and twist scene graph founded on geometric relations semantics for robotic applications. , 2013, , .		0
32	Preview coordination: An enhanced execution model for online scheduling of mobile manipulation tasks. , 2013, , .		1
33	Classification of Forefoot Plantar Pressure Distribution in Persons with Diabetes: A Novel Perspective for the Mechanical Management of Diabetic Foot?. PLoS ONE, 2013, 8, e79924.	2.5	36
34	Behavior-based Task Learning by Demonstration on Mobile Manipulation. International Journal of Automation and Smart Technology, 2013, 3, 19-28.	0.4	2
35	Constraint-Based Task Specification and Control for Visual Servoing Application Scenarios. Automatisierungstechnik, 2012, 60, 260-269.	0.8	0
36	An open embedded hardware and software architecture applied to industrial robot control. , 2012, , .		6

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37	Repeatability in the assessment of multi-segment foot kinematics. Gait and Posture, 2012, 35, 255-260.	1.4	44
38	Repeatability of a 3D multi-segment foot model protocol in presence of foot deformities. Gait and Posture, 2012, 36, 635-638.	1.4	36
39	A hybrid pose / wrench control framework for quadrotor helicopters. , 2012, , .		47
40	On the integration of skilled robot motions for productivity in manufacturing. , 2011, , .		32
41	Upper limb kinematics: Development and reliability of a clinical protocol for children. Gait and Posture, 2011, 33, 279-285.	1.4	92
42	Body of evidence supporting the clinical use of 3D multisegment foot models: A systematic review. Gait and Posture, 2011, 33, 338-349.	1.4	133
43	The reliability of upper limb kinematics in children with hemiplegic cerebral palsy. Gait and Posture, 2011, 33, 568-575.	1.4	79
44	The Arm Profile Score: A new summary index to assess upper limb movement pathology. Gait and Posture, 2011, 34, 227-233.	1.4	56
45	Probabilistic gait classification in children with cerebral palsy: A Bayesian approach. Research in Developmental Disabilities, 2011, 32, 2542-2552.	2.2	35
46	Three-dimensional upper limb movement characteristics in children with hemiplegic cerebral palsy and typically developing children. Research in Developmental Disabilities, 2011, 32, 2283-2294.	2.2	86
47	Towards safe human-robot interaction in robotic cells: An approach based on visual tracking and intention estimation. , 2011, , .		18
48	Predicting the unexpected. Computers in Industry, 2011, 62, 623-637.	9.9	20
49	Haptic coupling with augmented feedback between two KUKA Light-Weight Robots and the PR2 robot arms. , 2011, , .		2
50	Reusable hybrid force-velocity controlled motion specifications with executable Domain Specific Languages. , 2011, , .		17
51	Composition of complex robot applications via data flow integration. , 2011, , .		10
52	Representing actions with Kernels. , 2011, , .		6
53	Towards safe human-robot interaction in robotic cells: An approach based on visual tracking and intention estimation. , 2011, , .		27
54	Identification of Contact Parameters from Stiff Multi-point Contact Robotic Operations. International Journal of Robotics Research, 2010, 29, 367-385.	8.5	15

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55	Extending iTaSC to support inequality constraints and non-instantaneous task specification. , 2009, , .		50
56	Identification of Contact Dynamics Parameters for Stiff Robotic Payloads. IEEE Transactions on Robotics, 2009, 25, 240-252.	10.3	29
57	Review of quantitative measurements of upper limb movements in hemiplegic cerebral palsy. Gait and Posture, 2009, 30, 395-404.	1.4	89
58	Integration of planning and execution in force controlled compliant motion. Robotics and Autonomous Systems, 2008, 56, 437-450.	5.1	17
59	iTASC: a tool for multi-sensor integration in robot manipulation. , 2008, , .		30
60	Rigorously Bayesian range finder sensor model for dynamic environments. , 2008, , .		13
61	Constraint-based Task Specification and Estimation for Sensor-Based Robot Systems in the Presence of Geometric Uncertainty. International Journal of Robotics Research, 2007, 26, 433-455.	8.5	218
62	Application of a Generic Constraint-Based Programming Approach to an Industrially Relevant Robot Task with Geometric Uncertainties. , 2007, , .		2
63	An application of constraint-based task specification and estimation for sensor-based robot systems. , 2007, , .		0
64	Contact-State Segmentation Using Particle Filters for Programming by Human Demonstration in Compliant-Motion Tasks. , 2007, 23, 218-231.		59
65	Model Based Position-Force-Vision Sensor Fusion for Robot Compliant Motion Control. , 2006, , .		10
66	Particle Filters for Hybrid Event Sensor Fusion with 3D Vision and Force. , 2006, , .		5
67	Active compliant motion: a survey. Advanced Robotics, 2005, 19, 479-499.	1.8	71
68	Kalman filters for non-linear systems: a comparison of performance. International Journal of Control, 2004, 77, 639-653.	1.9	264
69	Integrated Vision/Force Robotic Servoing in the Task Frame Formalism. International Journal of Robotics Research, 2003, 22, 941-954.	8.5	55
70	Forward kinematics for Hunt–Primrose parallel manipulators. Mechanism and Machine Theory, 1999, 34, 657-664.	4.5	22
71	Efficient kinematics of a spherical 4R wrist by means of an equivalent 3R wrist. Mechanism and Machine Theory, 1998, 33, 649-659.	4.5	6
72	Model-Based Planar Contour Following in the Presence of Pose and Model Errors. International Journal of Robotics Research, 1997, 16, 840-858.	8.5	14

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73	Invariant Hybrid Force/Position Control of a Velocity Controlled Robot with Compliant End Effector Using Modal Decoupling. International Journal of Robotics Research, 1997, 16, 340-356.	8.5	28
74	Robot force control with an actively damped flexible end effector. Robotics and Autonomous Systems, 1996, 19, 205-214.	5.1	6
75	Kinematic Models for Model-Based Compliant Motion in the Presence of Uncertainty. International Journal of Robotics Research, 1995, 14, 465-482.	8.5	44