

# Lotfi Romdhane

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1681414/publications.pdf>

Version: 2024-02-01

104  
papers

1,797  
citations

361045

20  
h-index

301761

39  
g-index

122  
all docs

122  
docs citations

122  
times ranked

1108  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic analysis of a flexible slider-crank mechanism with clearance. <i>European Journal of Mechanics, A/Solids</i> , 2008, 27, 882-898.	2.1	204
2	A combined genetic algorithm-fuzzy logic method (GA-FL) in mechanisms synthesis. <i>Mechanism and Machine Theory</i> , 2004, 39, 717-735.	2.7	164
3	Analysis and dimensional synthesis of the DELTA robot for a prescribed workspace. <i>Mechanism and Machine Theory</i> , 2007, 42, 859-870.	2.7	154
4	A critical review of 3D printing in construction: benefits, challenges, and risks. <i>Archives of Civil and Mechanical Engineering</i> , 2020, 20, 1.	1.9	116
5	Design and analysis of a hybrid serial-parallel manipulator. <i>Mechanism and Machine Theory</i> , 1999, 34, 1037-1055.	2.7	93
6	Prediction of the pose errors produced by joints clearance for a 3-UPU parallel robot. <i>Mechanism and Machine Theory</i> , 2009, 44, 1768-1783.	2.7	81
7	Collision free path-planning for cable-driven parallel robots. <i>Robotics and Autonomous Systems</i> , 2009, 57, 1083-1093.	3.0	69
8	Design and Singularity Analysis of a 3-Translational-DOF In-Parallel Manipulator*. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2002, 124, 419-426.	1.7	53
9	Clearance and manufacturing errors' effects on the accuracy of the 3-RCC Spherical Parallel Manipulator. <i>European Journal of Mechanics, A/Solids</i> , 2013, 37, 86-95.	2.1	53
10	Synthesis of spherical parallel manipulator for dexterous medical task. <i>Frontiers of Mechanical Engineering</i> , 2012, 7, 150-162.	2.5	51
11	Multi-Objective optimal design of a cable driven parallel robot for rehabilitation tasks. <i>Mechanism and Machine Theory</i> , 2021, 156, 104141.	2.7	50
12	Advanced mechatronic design using a multi-objective genetic algorithm optimization of a motor-driven four-bar system. <i>Mechatronics</i> , 2007, 17, 489-500.	2.0	45
13	Multiobjective robust design optimization of rail vehicle moving in short radius curved tracks based on the safety and comfort criteria. <i>Simulation Modelling Practice and Theory</i> , 2013, 30, 21-34.	2.2	31
14	Application of multi-objective genetic algorithms to the mechatronic design of a four bar system with continuous and discrete variables. <i>Mechanism and Machine Theory</i> , 2013, 61, 68-83.	2.7	30
15	Design study of a cable-based gait training machine. <i>Journal of Bionic Engineering</i> , 2017, 14, 232-244.	2.7	30
16	An improved imperialist competitive algorithm for multi-objective optimization. <i>Engineering Optimization</i> , 2016, 48, 1823-1844.	1.5	28
17	Dynamics of a four-bar mechanism with clearance and springs - Modeling and experimental analysis. <i>Journal of Mechanical Science and Technology</i> , 2017, 31, 1023-1033.	0.7	28
18	Dimensional synthesis of a 3-translational-DOF in-parallel manipulator for a desired workspace. <i>European Journal of Mechanics, A/Solids</i> , 2004, 23, 311-324.	2.1	27

#	ARTICLE	IF	CITATIONS
19	Evaluation of Calibrated Kinect Gait Kinematics Using a Vicon Motion Capture System. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017, 20, S111-S112.	0.9	27
20	Kinestatic Analysis of Multifingered Hands. <i>International Journal of Robotics Research</i> , 1990, 9, 3-18.	5.8	23
21	Design issues for human-machine platform interface in cable-based parallel manipulators for physiotherapy applications. <i>Journal of Zhejiang University: Science A</i> , 2010, 11, 231-239.	1.3	23
22	Genetic Algorithm Coupled with the Krawczyk Method for Multi-Objective Design Parameters Optimization of the 3-UPU Manipulator. <i>Robotica</i> , 2020, 38, 1138-1154.	1.3	19
23	Design of cable-driven parallel manipulators for a specific workspace using interval analysis. <i>Advanced Robotics</i> , 2016, 30, 585-594.	1.1	18
24	Nonlinear sliding mode control of the Furuta pendulum. , 2018, , .		18
25	Techniques of Indoor Positioning Systems (IPS): A Survey. , 2019, , .		17
26	Dimensional Synthesis and Performance Evaluation of Four Translational Parallel Manipulators. <i>Robotica</i> , 2021, 39, 233-249.	1.3	17
27	RRT*N: an efficient approach to path planning in 3D for Static and Dynamic Environments. <i>Advanced Robotics</i> , 2021, 35, 168-180.	1.1	17
28	Accuracy analysis of non-overconstrained spherical parallel manipulators. <i>European Journal of Mechanics, A/Solids</i> , 2014, 47, 362-372.	2.1	14
29	Real-Time Path Planning for Multi-DoF Manipulators in Dynamic Environment. <i>International Journal of Advanced Robotic Systems</i> , 2006, 3, 20.	1.3	12
30	Hybrid tail excitation for robotic fish: Modeling and performance analysis. <i>Ocean Engineering</i> , 2021, 234, 109296.	1.9	12
31	Experimental investigation of the scaphoid strain during wrist motion. <i>Journal of Biomechanics</i> , 1990, 23, 1277-1284.	0.9	11
32	An efficient evolutionary algorithm for engineering design problems. <i>Soft Computing</i> , 2019, 23, 6197-6213.	2.1	11
33	Advanced Synthesis of the DELTA Parallel Robot for a Specified Workspace. , 0, , .		10
34	Analytical modeling of rail vehicle safety and comfort in short radius curved tracks. <i>Comptes Rendus - Mecanique</i> , 2009, 337, 303-311.	2.1	10
35	Analytical analysis of the dynamic of a spherical parallel manipulator. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 101, 859-871.	1.5	10
36	Task-Based Design Approach: Development of a Planar Cable-Driven Parallel Robot for Upper Limb Rehabilitation. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 5635.	1.3	10

#	ARTICLE	IF	CITATIONS
37	Sensitivity Based Selection of an Optimal Cable-Driven Parallel Robot Design for Rehabilitation Purposes. <i>Robotics</i> , 2021, 10, 7.	2.1	9
38	Modeling and control of rail vehicle suspensions: A comparative study based on the passenger comfort. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2018, 232, 260-274.	1.1	8
39	Design and optimization of spherical parallel manipulator as a haptic medical device. , 2011, , .		7
40	Multi-objective optimization to predict muscle tensions in a pinch function using genetic algorithm. <i>Comptes Rendus - Mecanique</i> , 2012, 340, 139-155.	2.1	7
41	Modelling and analysis of the 3-UPU spherical manipulator. <i>European Journal of Computational Mechanics</i> , 2013, 22, 157-169.	0.6	7
42	Analytical modeling and analysis of the clearance induced orientation error of the RAF translational parallel manipulator. <i>Robotica</i> , 2016, 34, 1898-1921.	1.3	7
43	Multi-objective robust design optimization of a sewing mechanism under uncertainties. <i>Journal of Intelligent Manufacturing</i> , 2019, 30, 783-794.	4.4	7
44	Performance analysis of bio-inspired transformable robotic fish tail. <i>Ocean Engineering</i> , 2022, 244, 110406.	1.9	7
45	Optimal design of the needle bar and thread take up lever mechanism using a multi-objective imperialist competitive algorithm. , 2015, , .		6
46	Collision-free and dynamically feasible trajectory of a hybrid cable-serial robot with two passive links. <i>Robotics and Autonomous Systems</i> , 2016, 80, 24-33.	3.0	6
47	Error estimation and sensitivity analysis of the 3-UPU translational parallel robot due to design parameter uncertainties. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2019, 233, 2713-2727.	1.1	6
48	Geometric Based Approach for Workspace Analysis of Translational Parallel Robots. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2019, , 180-188.	0.3	6
49	Analysis and mapping of the orientation error of a 3-DOF translational parallel manipulator. <i>Robotica</i> , 2009, 27, 367-377.	1.3	5
50	Analysis and optimal synthesis of single loop spatial mechanisms. <i>Journal of Zhejiang University: Science A</i> , 2011, 12, 665-679.	1.3	5
51	Development of a reduced dynamic model for comfort evaluation of rail vehicle systems. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2016, 230, 489-504.	0.5	5
52	Design and optimization of a semi-active suspension system for a two-wheeled vehicle using a full multibody model. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2017, 231, 630-646.	0.5	5
53	RRT*N: An improved rapidly-exploring random tree approach for reduced processing times. , 2018, , .		5
54	Dynamic analysis of planar elastic mechanisms using the dyad method. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2003, 217, 1-14.	0.5	4

#	ARTICLE	IF	CITATIONS
55	On the Kinematics of Spherical Parallel Manipulators for Real Time Applications. Lecture Notes in Mechanical Engineering, 2013, , 53-60.	0.3	4
56	A hybrid multi-objective imperialist competitive algorithm and Monte Carlo method for robust safety design of a rail vehicle. Comptes Rendus - Mecanique, 2017, 345, 712-723.	2.1	4
57	Dynamic modeling and handling study of a two-wheeled vehicle on a curved track. Mechanics and Industry, 2017, 18, 409.	0.5	4
58	Cable-Driven Parallel Robot Workspace Identification and Optimal Design Based on the Upper Limb Functional Rehabilitation. Journal of Bionic Engineering, 2022, 19, 390-402.	2.7	4
59	A hybrid cable-driven parallel robot as a solution to the limited rotational workspace issue. Robotica, 2023, 41, 850-868.	1.3	4
60	Multi-objective robust design optimization of the mechanism in a sewing machine. Mechanics and Industry, 2017, 18, 606.	0.5	3
61	Design, implementation, and performance analysis of miniature wind turbine. , 2018, , .		3
62	Sensitivity analysis and prediction of the orientation error of a three translational parallel manipulator. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 140-161.	1.1	3
63	Parametric dynamic analysis of walking within a cable-based gait trainer. Robotica, 2019, 37, 1225-1239.	1.3	3
64	Design-to-Workspace Synthesis of a Cable Robot Used in Legs Training Machine. Robotica, 2020, 38, 1703-1714.	1.3	3
65	Comparative Study of Design of a 3-DOF Translational Parallel Manipulator with Prescribed Workspace. Mechanisms and Machine Science, 2019, , 501-512.	0.3	3
66	Applying robotics principles for the analysis of key fingered grip with normal and abnormal human hands. , 2007, , .		2
67	A biomechanical analysis of the healthy and the pathological index finger during pinch function. , 2008, , .		2
68	A new experimental set-up based on a parallel cable robot for analysis and control of human motion. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 83-85.	0.9	2
69	Dynamic in Path Planning of a Cable Driven Robot. Lecture Notes in Mechanical Engineering, 2013, , 11-18.	0.3	2
70	Validation of optimisation model that estimates the musculotendinous forces during an isometric extension of knee. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 167-169.	0.9	2
71	Kinematics, Workspace and Singularities Analysis of the 3-UPU Wrist Manipulator. Lecture Notes in Mechanical Engineering, 2013, , 45-52.	0.3	2
72	Multi-objective Design Optimization of the NBTTL Mechanism. Applied Condition Monitoring, 2017, , 175-184.	0.4	2

#	ARTICLE	IF	CITATIONS
73	A Reconfigurable 6-DoF Cable-Driven Parallel Robot with an Extended Rotational Workspace. Mechanisms and Machine Science, 2021, , 322-331.	0.3	2
74	Novel Safety Criterion for Synthesis of Cable Driven Parallel Robots. Mechanisms and Machine Science, 2020, , 112-120.	0.3	2
75	Daily Life Activities Analysis for Rehabilitation Purposes. Mechanisms and Machine Science, 2021, , 290-297.	0.3	2
76	Cable-Driven Parallel Robot Accuracy Improving Using Visual Servoing. Mechanisms and Machine Science, 2022, , 97-105.	0.3	2
77	Path Planning for Manipulator Robots in Cluttered Environments. , 2005, , 633.		1
78	Collision Free Path Planning for Multi-DoF Manipulators. , 2006, , .		1
79	Index finger system force capabilities under simulated pathological conditions. , 2010, , .		1
80	Biomechanical model of the ankle to estimate the musculotendinous forces during an isometric plantar flexion. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 167-170.	0.9	1
81	Dynamic Analysis of the Tilted Furuta Pendulum. MATEC Web of Conferences, 2017, 104, 02011.	0.1	1
82	Mechatronic suspension design for full rail vehicle system. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2017, 231, 571-590.	0.5	1
83	Dynamic Analysis and Control of a Hybrid Serial/Cable Driven Robot for Lower-Limb Rehabilitation. Mechanisms and Machine Science, 2018, , 109-116.	0.3	1
84	Multi-objective design optimisation of four-bar mechanisms using a hybrid ICA-GA algorithm. International Journal of Reasoning-based Intelligent Systems, 2017, 9, 43.	0.1	1
85	A Critical Speed Optimization of Rail Vehicle System Based on Safety Criterion. , 2012, , 201-211.		1
86	Control and vibration of rail vehicle semi-active suspensions with comfort evaluation. International Journal of Vehicle Noise and Vibration, 2017, 13, 52.	0.0	1
87	Identifying Friction in a Nonlinear Chaotic System Using a Universal Adaptive Stabilizer. IEEE Access, 2022, 10, 39177-39192.	2.6	1
88	Precision comparison of two 3-DoF translational parallel manipulators based on the orientation errors due to joint clearances. Robotica, 0, , 1-17.	1.3	1
89	SMARP: A Tool for Parallel Manipulators Design and Simulation. , 2006, , 1169.		0
90	TENDON FORCE PREDICTION IN STATIC PINCH TASK USING MULTIOBJECTIVE OPTIMIZATION BASED ON GENETIC ALGORITHM. Journal of Biomechanics, 2007, 40, S258.	0.9	0

#	ARTICLE	IF	CITATIONS
91	Evaluation of the Position Error of Four Non-Overconstrained Spherical Parallel Manipulators. Applied Mechanics and Materials, 0, 162, 194-203.	0.2	0
92	Analysis of tendinous actuation in balancing the maximal fingertip force for normal and abnormal forefinger system. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 701-709.	0.9	0
93	Generating the Optimum Dynamic Trajectory of a Hybrid Cable-Serial Robot. Mechanisms and Machine Science, 2016, , 251-260.	0.3	0
94	Control and vibration of rail vehicle semi-active suspensions with comfort evaluation. International Journal of Vehicle Noise and Vibration, 2017, 13, 52.	0.0	0
95	Biomechanical Approach for the Development and Simulation of a Musculoskeletal Model of the Ankle. Lecture Notes in Mechanical Engineering, 2018, , 955-968.	0.3	0
96	FPGA-based gait rehabilitation system. , 2018, , .		0
97	Clearance, Manufacturing Errors Effects on the Accuracy of the 3-RCC Spherical Parallel Manipulators. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2013, , 27-34.	0.3	0
98	Modeling and Simulation for Lateral Rail Vehicle Dynamic Vibration with Comfort Evaluation. Lecture Notes in Mechanical Engineering, 2015, , 625-634.	0.3	0
99	Robust Multi-objective Design Optimization of the 3-UPU TPM Based on the GA-Krawczyk Method. Mechanisms and Machine Science, 2018, , 403-410.	0.3	0
100	A New Experimental Set-up for Training Multi-parameter Gaits. Mechanisms and Machine Science, 2018, , 152-162.	0.3	0
101	Comprehensive Dynamic Study of an Unloaded Walking Within a Cable-Based Gait Trainer. Mechanisms and Machine Science, 2018, , 165-173.	0.3	0
102	Experimental Analysis of Electromyography (EMG) Signal for Evaluation of Isometric Muscle Force. Lecture Notes in Mechanical Engineering, 2020, , 183-192.	0.3	0
103	Co-simulation Study of a Two Wheeled Vehicle Equipped with an ABS System. Lecture Notes in Mechanical Engineering, 2020, , 931-939.	0.3	0
104	Modelling of the Orientation Error of a 3-DOF Translational Parallel Manipulator. , 2009, , 495-503.		0