

# Dar-Zen Chen

## List of Publications by Year in descending order

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119  
papers

1,947  
citations

201385

27  
h-index

315357

38  
g-index

120  
all docs

120  
docs citations

120  
times ranked

1415  
citing authors

#	ARTICLE	IF	CITATIONS
1	Factors of universityâ€™industry collaboration affecting university innovation performance. Journal of Technology Transfer, 2020, 45, 560-577.	2.5	82
2	How can academic innovation performance in universityâ€™industry collaboration be improved?. Technological Forecasting and Social Change, 2017, 123, 210-215.	6.2	75
3	Constructing a patent citation map using bibliographic coupling: A study of Taiwan's high-tech companies. Scientometrics, 2003, 58, 489-506.	1.6	60
4	Technological collaboration patterns in solar cell industry based on patent inventors and assignees analysis. Scientometrics, 2013, 96, 427-441.	1.6	60
5	Counting methods, country rank changes, and counting inflation in the assessment of national research productivity and impact. Journal of the Association for Information Science and Technology, 2011, 62, 2427-2436.	2.6	57
6	Strong ties and weak ties of the knowledge spillover network in the semiconductor industry. Technological Forecasting and Social Change, 2017, 118, 114-127.	6.2	57
7	Identifying and visualizing technology evolution: A case study of smart grid technology. Technological Forecasting and Social Change, 2012, 79, 1099-1110.	6.2	55
8	The inventive activities and collaboration pattern of universityâ€™industryâ€™government in China based on patent analysis. Scientometrics, 2012, 90, 231-251.	1.6	53
9	The influences of counting methods on university rankings based on paper count and citation count. Journal of Informetrics, 2013, 7, 611-621.	1.4	52
10	The coupled vibration in a rotating multi-disk rotor system. International Journal of Mechanical Sciences, 2011, 53, 1-10.	3.6	47
11	Design of Statically Balanced Planar Articulated Manipulators With Spring Suspension. IEEE Transactions on Robotics, 2012, 28, 12-21.	7.3	47
12	A theoretical study of weight-balanced mechanisms for design of spring assistive mobile arm support (MAS). Mechanism and Machine Theory, 2013, 61, 156-167.	2.7	46
13	International collaboration development in nanotechnology: a perspective of patent network analysis. Scientometrics, 2014, 98, 683-702.	1.6	46
14	The relationships between the patent performance and corporation performance. Journal of Informetrics, 2012, 6, 131-139.	1.4	45
15	Increasing science and technology linkage in fuel cells: A cross citation analysis of papers and patents. Journal of Informetrics, 2015, 9, 237-249.	1.4	44
16	Using Essential Patent Index and Essential Technological Strength to evaluate industrial technological innovation competitiveness. Scientometrics, 2007, 71, 101-116.	1.6	42
17	Using the comprehensive patent citation network (CPC) to evaluate patent value. Scientometrics, 2015, 105, 1319-1346.	1.6	40
18	International scientific and technological collaboration of China from 2004 to 2008: a perspective from paper and patent analysis. Scientometrics, 2012, 91, 65-80.	1.6	39

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19	Core technologies and key industries in Taiwan from 1978 to 2002: A perspective from patent analysis. <i>Scientometrics</i> , 2005, 64, 31-53.	1.6	38
20	Bibliometric analysis of complementary and alternative medicine research over three decades. <i>Scientometrics</i> , 2011, 88, 617-626.	1.6	36
21	Kinematic analysis of geared mechanisms using the concept of kinematic fractionation. <i>Mechanism and Machine Theory</i> , 2004, 39, 1207-1221.	2.7	33
22	Research evaluation of research-oriented universities in Taiwan from 1993 to 2003. <i>Scientometrics</i> , 2006, 67, 419-435.	1.6	31
23	The trend of concentration in scientific research and technological innovation: A reduction of the predominant role of the U.S. in world research & technology. <i>Journal of Informetrics</i> , 2012, 6, 457-468.	1.4	31
24	A stiffness matrix approach for the design of statically balanced planar articulated manipulators. <i>Mechanism and Machine Theory</i> , 2010, 45, 1877-1891.	2.7	30
25	Design of a Gravity-Balanced General Spatial Serial-Type Manipulator. <i>Journal of Mechanisms and Robotics</i> , 2010, 2, .	1.5	30
26	Design of an exoskeleton for strengthening the upper limb muscle for overextension injury prevention. <i>Mechanism and Machine Theory</i> , 2011, 46, 1825-1839.	2.7	30
27	Ranking patent assignee performance by h-index and shape descriptors. <i>Journal of Informetrics</i> , 2011, 5, 303-312.	1.4	29
28	Pattern Planarization Model of Chemical Mechanical Polishing. <i>Journal of the Electrochemical Society</i> , 1999, 146, 744-748.	1.3	28
29	Identifying missing relevant patent citation links by using bibliographic coupling in LED illuminating technology. <i>Journal of Informetrics</i> , 2011, 5, 400-412.	1.4	26
30	Globalization of collaborative creativity through cross-border patent activities. <i>Journal of Informetrics</i> , 2012, 6, 226-236.	1.4	25
31	Design of Perfectly Statically Balanced One-DOF Planar Linkages With Revolute Joints Only. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2009, 131, .	1.7	22
32	Positioning research and innovation performance using shape centroids of h-core and h-tail. <i>Journal of Informetrics</i> , 2011, 5, 515-528.	1.4	22
33	Determination of spring installation configuration on statically balanced planar articulated manipulators. <i>Mechanism and Machine Theory</i> , 2014, 74, 319-336.	2.7	22
34	Industry-academia collaboration in fuel cells: a perspective from paper and patent analysis. <i>Scientometrics</i> , 2015, 105, 1301-1318.	1.6	22
35	Detecting the temporal gaps of technology fronts: A case study of smart grid field. <i>Technological Forecasting and Social Change</i> , 2012, 79, 1705-1719.	6.2	20
36	On the Application of Kinematic Units to the Topological Analysis of Geared Mechanisms. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2001, 123, 240-246.	1.7	19

#	ARTICLE	IF	CITATIONS
37	A Methodology for Conceptual Design of Mechanisms by Parsing Design Specifications. Journal of Mechanical Design, Transactions of the ASME, 2005, 127, 1039-1044.	1.7	19
38	Scientific production and citation impact: a bibliometric analysis in acupuncture over three decades. Scientometrics, 2012, 93, 1061-1079.	1.6	19
39	Dynamic Analysis of Geared Robotic Mechanisms Using Graph Theory. Journal of Mechanical Design, Transactions of the ASME, 1998, 120, 240-244.	1.7	18
40	Topological Synthesis of Fractionated Geared Differential Mechanisms. Journal of Mechanical Design, Transactions of the ASME, 2000, 122, 472-478.	1.7	18
41	Measuring science-based science linkage and non-science-based linkage of patents through non-patent references. Journal of Informetrics, 2015, 9, 488-498.	1.4	17
42	Industry evolution and key technologies in China based on patent analysis. Scientometrics, 2011, 87, 175-188.	1.6	16
43	Exploring temporal relationships between scientific and technical fronts: a case of biotechnology field. Scientometrics, 2014, 98, 1085-1100.	1.6	16
44	Kinematic and Dynamic Synthesis of Geared Robotic Mechanisms. Journal of Mechanical Design, Transactions of the ASME, 1993, 115, 241-246.	1.7	15
45	Global performance of traditional Chinese medicine over three decades. Scientometrics, 2012, 90, 945-958.	1.6	15
46	Influences of counting methods on country rankings: a perspective from patent analysis. Scientometrics, 2014, 98, 2087-2102.	1.6	15
47	The bibliographic coupling approach to filter the cited and uncited patent citations: a case of electric vehicle technology. Scientometrics, 2013, 94, 75-93.	1.6	14
48	A taxonomy of patent strategies in Taiwan's small and medium innovative enterprises. Technological Forecasting and Social Change, 2015, 92, 84-98.	6.2	14
49	Do funding sources matter?: The impact of university-industry collaboration funding sources on innovation performance of universities. Technology Analysis and Strategic Management, 2019, 31, 1368-1380.	2.0	14
50	On the Embedded Kinematic Fractionation of Epicyclic Gear Trains. Journal of Mechanical Design, Transactions of the ASME, 2000, 122, 479-483.	1.7	13
51	Driving factors of external funding and funding effects on academic innovation performance in university-industry-government linkages. Scientometrics, 2013, 94, 1077-1098.	1.6	13
52	Technological impact factor: An indicator to measure the impact of academic publications on practical innovation. Journal of Informetrics, 2014, 8, 241-251.	1.4	12
53	Topological Synthesis of Geared Robotic Mechanisms. Journal of Mechanical Design, Transactions of the ASME, 1998, 120, 230-239.	1.7	11
54	Constructing a new patent bibliometric performance measure by using modified citation rate analyses with dynamic backward citation windows. Scientometrics, 2010, 82, 149-163.	1.6	11

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55	The unbalanced performance and regional differences in scientific and technological collaboration in the field of solar cells. <i>Scientometrics</i> , 2013, 94, 423-438.	1.6	11
56	Exploring technology evolution and transition characteristics of leading countries: A case of fuel cell field. <i>Advanced Engineering Informatics</i> , 2013, 27, 366-377.	4.0	11
57	A Hierarchical Decomposition Scheme for the Topological Synthesis of Articulated Gear Mechanisms. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 1999, 121, 256-263.	1.7	10
58	A probe into dynamic measures for h-core and h-tail. <i>Journal of Informetrics</i> , 2013, 7, 129-137.	1.4	10
59	Exploring patent performance and technology interactions of universities, industries, governments and individuals. <i>Scientometrics</i> , 2013, 96, 11-26.	1.6	10
60	A comparative study of patent counts by the inventor country and the assignee country. <i>Scientometrics</i> , 2014, 100, 577-593.	1.6	10
61	Inequality of publishing performance and international collaboration in physics. <i>Journal of the Association for Information Science and Technology</i> , 2011, 62, 1156-1165.	2.6	9
62	Biomechanical study of upper-limb exoskeleton for resistance training with three-dimensional motion analysis system. <i>Journal of Rehabilitation Research and Development</i> , 2014, 51, 111-126.	1.6	9
63	Design of planar variable-payload balanced articulated manipulators with actuated linear ground-adjacent adjustment. <i>Mechanism and Machine Theory</i> , 2017, 109, 296-312.	2.7	9
64	BIBLIOMETRIC ANALYSIS OF ACUPUNCTURE RESEARCH FRONTS AND THEIR WORLDWIDE DISTRIBUTION OVER THREE DECADES. <i>Tropical Journal of Obstetrics and Gynaecology</i> , 2017, 14, 257-273.	0.3	8
65	Measuring technological performance of assignees using trace metrics in three fields. <i>Scientometrics</i> , 2015, 104, 61-86.	1.6	7
66	Discovering types of research performance of scientists with significant contributions. <i>Scientometrics</i> , 2020, 124, 1529-1552.	1.6	7
67	A decomposition approach for the kinematic synthesis of tendon-driven manipulators. <i>Journal of Field Robotics</i> , 1999, 16, 433-443.	0.7	6
68	Positioning and shifting of technology focus for integrated device manufacturers by patent perspectives. <i>Technological Forecasting and Social Change</i> , 2014, 81, 363-375.	6.2	6
69	Design of one DOF closed-loop statically balanced planar linkage with link-collinear spring arrangement. <i>Mechanism and Machine Theory</i> , 2018, 130, 301-312.	2.7	6
70	Bibliographically coupled patents: Their temporal pattern and combined relevance. <i>Journal of Informetrics</i> , 2019, 13, 100978.	1.4	6
71	Drive train configuration arrangement for gear coupled manipulators. <i>Journal of Field Robotics</i> , 1997, 14, 601-612.	0.7	5
72	A modular approach for the topological synthesis of geared robot manipulators. <i>Mechanism and Machine Theory</i> , 2003, 38, 53-69.	2.7	5

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73	The Evolution of Knowledge Spillover and Company cluster in Semiconductor Industry. Journal of the Knowledge Economy, 2012, 3, 109-124.	2.7	5
74	Capturing and Tracking Performance of Patent Portfolio Using $h$ -Complement Area Centroid. IEEE Transactions on Engineering Management, 2013, 60, 496-505.	2.4	5
75	Compact Arrangements of Cable-Pulley Type Zero-Free-Length Springs. Journal of Mechanisms and Robotics, 2017, 9, .	1.5	5
76	Spring Configurations and Attachment Angles Determination for Statically Balanced Planar Articulated Manipulators. Journal of Mechanisms and Robotics, 2022, 14, .	1.5	5
77	Kinematic Analysis of Geared Robot Manipulators by the Concept of Structural Decomposition. Mechanism and Machine Theory, 1998, 33, 975-986.	2.7	4
78	Kinematic Characteristics and Classification of Geared Mechanisms Using the Concept of Kinematic Fractionation. Journal of Mechanical Design, Transactions of the ASME, 2008, 130, .	1.7	4
79	Cross-field evaluation of publications of research institutes using their contributions to the fieldsâ€™ MVPs determined by h-index. Journal of Informetrics, 2013, 7, 455-468.	1.4	4
80	Missing links: Timing characteristics and their implications for capturing contemporaneous technological developments. Journal of Informetrics, 2018, 12, 259-270.	1.4	4
81	Are invalid patents still cited?. Proceedings of the Association for Information Science and Technology, 2019, 56, 639-641.	0.3	4
82	Dynamic Modeling of Geared Robotic Mechanismsâ€™ The Virtual Link Approach. Mechanism and Machine Theory, 1999, 34, 105-121.	2.7	3
83	On the Operation Space and Motion Compatibility of Variable Topology Mechanisms. Journal of Mechanisms and Robotics, 2011, 3, .	1.5	3
84	A two-dimensional approach to performance evaluation for a large number of research institutions. Journal of the Association for Information Science and Technology, 2012, 63, 817-828.	2.6	3
85	Dynamic Analysis and Preliminary Evaluation of a Spring-Loaded Upper Limb Exoskeleton for Resistance Training with Overload Prevention. Journal of Mechanics, 2013, 29, 35-44.	0.7	3
86	Muscle Activation Levels During Upper Limb Exercise Performed Using Dumbbells and A Spring-Loaded Exoskeleton. Journal of Medical and Biological Engineering, 2017, 37, 345-356.	1.0	3
87	Tracking research performance before and after receiving the Cheung Kong Scholars award: A case study of recipients in 2005. Research Evaluation, 2018, 27, 367-379.	1.3	3
88	Characterizing Patent Assignees by Their Structural Positions Relative to a Fieldâ€™s Evolutionary Trajectory. Journal of Informetrics, 2021, 15, 101187.	1.4	3
89	Drive train design of redundant-drive backlash-free robotic mechanisms. Mechanism and Machine Theory, 2000, 35, 1269-1285.	2.7	2
90	Is Foundry only a capacity provider still?: Relations of role playing for semiconductor industry value chain by patent analysis. , 2010, , .		2

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91	A study of collaborations in solar cell science and technology. , 2010, , .		2
92	Design and preliminary evaluation of an exoskeleton for upper limb resistance training. <i>Frontiers of Mechanical Engineering</i> , 2012, 7, 188-198.	2.5	2
93	The Longitudinal Study of Highly-Impact-Technology Enterprises in the ICT Industry. <i>Journal of Global Information Management</i> , 2014, 22, 54-74.	1.4	2
94	The greater scattering phenomenon beyond Bradford's law in patent citation. <i>Journal of the Association for Information Science and Technology</i> , 2014, 65, 1917-1928.	1.5	2
95	Who files provisional applications in the United States?. <i>Scientometrics</i> , 2016, 107, 555-568.	1.6	2
96	Potential Value of Patents With Provisional Applications: An Assessment of Bibliometric Approach. <i>IEEE Transactions on Engineering Management</i> , 2022, 69, 2497-2516.	2.4	2
97	On the drive train design of gear coupled manipulators. <i>Journal of Field Robotics</i> , 1998, 15, 477-486.	0.7	1
98	Dynamic analysis of geared robotic mechanisms by the concept of torque transmission. <i>Mechanism and Machine Theory</i> , 2000, 35, 629-643.	2.7	1
99	On the conceptual design of redundant-drive backlash-free geared robot manipulators. <i>Mechanism and Machine Theory</i> , 2002, 37, 3-14.	2.7	1
100	A decomposition methodology for design of mechanisms from functional and structural perspectives. <i>Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an</i> , 2003, 26, 537-542.	0.6	1
101	On the design of the latch mechanism for wafer containers in a SMIF environment. <i>Journal of Mechanical Science and Technology</i> , 2006, 20, 2025-2033.	0.7	1
102	On the concentration of productivity and impact in science and technology. , 2010, , .		1
103	Patent analysis in external technology acquisition: A case of Taiwan Semiconductor Manufacturing Company. , 2016, , .		1
104	Longitudinal Analysis of Mechanism and Machine Theory: Geospatial Productivity, Journal Citation Networks, and Researcher Communities. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2016, 138, .	1.7	1
105	Exploring Technology Evolution in the Solar Cell Field: An Aspect from Patent Analysis. <i>Data and Information Management</i> , 2017, 1, 124-134.	0.7	1
106	The overlooked citations: Investigating the impact of ignoring citations to published patent applications. <i>Journal of Informetrics</i> , 2020, 14, 100997.	1.4	1
107	On the Embedded Kinematic Fractionation of Epicyclic Gear Trains. , 1999, , .		1
108	Comparative Study of Trace Metrics between Bibliometrics and Patentometrics. <i>Journal of Data and Information Science</i> , 2017, 1, 13-31.	0.5	1

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109	Geared robot manipulators with a jointed unit: Kinematic analysis and its application. Journal of Field Robotics, 2001, 18, 589-598.	0.7	0
110	On the Design of An Innovative Latch Mechanism in SMIFed Wafer Containers. Journal of Mechanics, 2003, 19, 389-395.	0.7	0
111	Topological synthesis of compound geared differential mechanisms. International Journal of Vehicle Design, 2003, 31, 427.	0.1	0
112	Kinematic Synthesis of One-DOF Geared Mechanisms According to Specified Gain Types. , 2008, , .		0
113	Kinematic Families of Non-Fractionated Geared Kinematic Chains With up to Three-DOF Eight-Link Based on Mobility Degeneration. , 2010, , .		0
114	Technology manager's radar screen: Monitoring competitors' innovation performance. , 2011, , .		0
115	The Technological Linkage of Four-posed Semiconductor Companies with Alliance and Non-alliance Partner. , 2011, , .		0
116	Patents are Not Patents Only: Turning Point of Characters in the Semiconductor Industry. , 2011, , .		0
117	What drives external funding to university and how funding effects academic innovation performance in UIG collaboration. , 2012, , .		0
118	Classifying Patents by Tracing the Chronology of Patent Citation Increments. , 2018, , .		0
119	Do extraordinary science and technology scientists balance their publishing and patenting activities?. PLoS ONE, 2021, 16, e0259453.	1.1	0