

# Karel Kellens

## List of Publications by Year in descending order

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49  
papers

2,726  
citations

393982

19  
h-index

253896

43  
g-index

54  
all docs

54  
docs citations

54  
times ranked

2183  
citing authors

#	ARTICLE	IF	CITATIONS
1	Human-robot mobile co-manipulation of flexible objects by fusing wrench and skeleton tracking data. International Journal of Computer Integrated Manufacturing, 2023, 36, 30-50.	2.9	3
2	Simulation-driven parameter study of concentric Halbach cylinders for magnetorheological robotic grasping. Journal of Magnetism and Magnetic Materials, 2022, 546, 168637.	1.0	1
3	Techno-Economic Assessment of Robotic Sorting of Aluminium Scrap. Procedia CIRP, 2022, 105, 152-157.	1.0	8
4	Development of an assistive webtool for robotic gripper selection. Procedia CIRP, 2022, 106, 250-257.	1.0	2
5	Automation and robotics in the cultivation of pome fruit: Where do we stand today?. Journal of Field Robotics, 2021, 38, 513-531.	3.2	28
6	Robotic Cultivation of Pome Fruit: A Benchmark Study of Manipulation Tools – From Research to Industrial Standards. Agronomy, 2021, 11, 1922.	1.3	2
7	Probabilistic Decision Model for Adaptive Task Planning in Human-Robot Collaborative Assembly Based on Designer and Operator Intents. IEEE Robotics and Automation Letters, 2021, 6, 7325-7332.	3.3	11
8	Life cycle assessment of a hot-pressing machine to manufacture particleboards: hotspots, environmental indicators, and solutions. International Journal of Life Cycle Assessment, 2020, 25, 1059-1077.	2.2	10
9	Benchmarking low-cost inertial measurement units for indoor localisation and navigation of AGVs. Procedia CIRP, 2019, 86, 204-209.	1.0	10
10	Development of a membrane-shaped MR-based composite draping tool. Procedia CIRP, 2019, 86, 167-172.	1.0	1
11	Cleaner Production. , 2019, , 272-275.		1
12	Sustainability of additive manufacturing: An overview on its energy demand and environmental impact. Additive Manufacturing, 2018, 21, 694-704.	1.7	188
13	Exploring the potential of magnetorheology in robotic grippers. Procedia CIRP, 2018, 76, 127-132.	1.0	20
14	Accuracy of geometry data exchange using STEP AP242. Procedia CIRP, 2018, 78, 219-224.	1.0	2
15	Towards robust intention estimation based on object affordance enabling natural human-robot collaboration in assembly tasks. Procedia CIRP, 2018, 78, 255-260.	1.0	10
16	Complex deformation routes for direct recycling aluminium alloy scrap via industrial hot extrusion. AIP Conference Proceedings, 2018, , .	0.3	2
17	Environmental Impact of Additive Manufacturing Processes: Does AM Contribute to a More Sustainable Way of Part Manufacturing?. Procedia CIRP, 2017, 61, 582-587.	1.0	167
18	Charting the Environmental Dimensions of Additive Manufacturing and 3D Printing. Journal of Industrial Ecology, 2017, 21, S9.	2.8	48

#	ARTICLE	IF	CITATIONS
19	Environmental Dimensions of Additive Manufacturing: Mapping Application Domains and Their Environmental Implications. <i>Journal of Industrial Ecology</i> , 2017, 21, S49.	2.8	184
20	Solid state recycling of aluminium alloys via a porthole die hot extrusion process: Scaling up to production. <i>AIP Conference Proceedings</i> , 2017, , .	0.3	4
21	Intelligent occupancy-driven thermostat by dynamic user profiling. , 2016, , .		2
22	Impact reduction potential by usage anticipation under comfort trade-off conditions. <i>CIRP Annals - Manufacturing Technology</i> , 2016, 65, 33-36.	1.7	5
23	Current Status, Future Expectations and Mitigation Potential Scenarios for China's Primary Aluminium Industry. <i>Procedia CIRP</i> , 2016, 48, 295-300.	1.0	13
24	Environmental Impact Analysis of Primary Aluminium Production at Country Level. <i>Procedia CIRP</i> , 2016, 40, 209-213.	1.0	49
25	Cleaner Production. , 2016, , 1-4.		0
26	Environmental Comparison of Metal Coating Processes. <i>Procedia CIRP</i> , 2015, 29, 420-425.	1.0	4
27	Environmental assessment of solid state recycling routes for aluminium alloys: Can solid state processes significantly reduce the environmental impact of aluminium recycling?. <i>CIRP Annals - Manufacturing Technology</i> , 2015, 64, 37-40.	1.7	90
28	Forecasting waste compositions: A case study on plastic waste of electronic display housings. <i>Waste Management</i> , 2015, 46, 28-39.	3.7	31
29	Environmental modelling of aluminium recycling: a Life Cycle Assessment tool for sustainable metal management. <i>Journal of Cleaner Production</i> , 2015, 105, 357-370.	4.6	101
30	Environmental impact modeling of selective laser sintering processes. <i>Rapid Prototyping Journal</i> , 2014, 20, 459-470.	1.6	93
31	Energy and Resource Efficiency of Laser Cutting Processes. <i>Physics Procedia</i> , 2014, 56, 854-864.	1.2	44
32	A comprehensive analysis of electric energy consumption of single point incremental forming processes. <i>Journal of Cleaner Production</i> , 2014, 67, 173-186.	4.6	38
33	Energy Efficient Trajectories for an Industrial ABB Robot. <i>Procedia CIRP</i> , 2014, 15, 105-110.	1.0	74
34	Economic and Environmental Aware Maintenance Optimization. <i>Procedia CIRP</i> , 2014, 15, 343-348.	1.0	15
35	Cleaner Production. , 2014, , 205-208.		1
36	Laser Cutting with Direct Diode Laser. <i>Physics Procedia</i> , 2013, 41, 558-565.	1.2	18

#	ARTICLE	IF	CITATIONS
37	Environmental Impact Reduction in Discrete Manufacturing: Examples for Non-Conventional Processes. Procedia CIRP, 2013, 6, 27-34.	1.0	15
38	Towards energy and resource efficient manufacturing: A processes and systems approach. CIRP Annals - Manufacturing Technology, 2012, 61, 587-609.	1.7	865
39	Critical comparison of methods to determine the energy input for discrete manufacturing processes. CIRP Annals - Manufacturing Technology, 2012, 61, 63-66.	1.7	63
40	Methodology for systematic analysis and improvement of manufacturing unit process life-cycle inventory (UPLCI) CO2PE! initiative (cooperative effort on process emissions in manufacturing). Part 1: Methodology description. International Journal of Life Cycle Assessment, 2012, 17, 69-78.	2.2	193
41	Methodology for systematic analysis and improvement of manufacturing unit process life cycle inventory (UPLCI) CO2PE! initiative (cooperative effort on process emissions in manufacturing). Part 2: case studies. International Journal of Life Cycle Assessment, 2012, 17, 242-251.	2.2	125
42	Environmental Impact Modeling of Discrete Part Manufacturing Processes. , 2012, , 557-562.		3
43	Environmental Analysis of the Air Bending Process. AIP Conference Proceedings, 2011, , .	0.3	11
44	Preliminary Environmental Assessment of Electrical Discharge Machining. , 2011, , 377-382.		27
45	Unit process impact assessment for discrete part manufacturing: A state of the art. CIRP Journal of Manufacturing Science and Technology, 2011, 4, 129-135.	2.3	59
46	Environmental Performance of Sheet Metal Working Processes. Key Engineering Materials, 2011, 473, 21-26.	0.4	20
47	Exergy Efficiency Definitions for Manufacturing Processes. , 2011, , 329-334.		13
48	Energy related environmental impact reduction opportunities in machine design: case study of a laser cutting machine. International Journal of Sustainable Manufacturing, 2010, 2, 80.	0.3	19
49	Electric Energy Consumption Analysis of SPIF Processes. Key Engineering Materials, 0, 549, 547-554.	0.4	5