

# Burcin Becerik-Gerber

## List of Publications by Year in descending order

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Version: 2024-02-01

130  
papers

7,452  
citations

50276

46  
h-index

58581

82  
g-index

132  
all docs

132  
docs citations

132  
times ranked

5162  
citing authors

#	ARTICLE	IF	CITATIONS
1	Application Areas and Data Requirements for BIM-Enabled Facilities Management. Journal of Construction Engineering and Management - ASCE, 2012, 138, 431-442.	3.8	601
2	Impacts of Working From Home During COVID-19 Pandemic on Physical and Mental Well-Being of Office Workstation Users. Journal of Occupational and Environmental Medicine, 2021, 63, 181-190.	1.7	372
3	Understanding Construction Industry Experience and Attitudes toward Integrated Project Delivery. Journal of Construction Engineering and Management - ASCE, 2010, 136, 815-825.	3.8	291
4	Coordinating occupant behavior for building energy and comfort management using multi-agent systems. Automation in Construction, 2012, 22, 525-536.	9.8	278
5	Measuring and monitoring occupancy with an RFID based system for demand-driven HVAC operations. Automation in Construction, 2012, 24, 89-99.	9.8	249
6	Immersive virtual environments versus physical built environments: A benchmarking study for building design and user-built environment explorations. Automation in Construction, 2015, 54, 116-126.	9.8	242
7	Monitoring fatigue in construction workers using physiological measurements. Automation in Construction, 2017, 82, 154-165.	9.8	225
8	Performance-based evaluation of RFID-based indoor location sensing solutions for the built environment. Advanced Engineering Informatics, 2011, 25, 535-546.	8.0	182
9	Infrared thermography of human face for monitoring thermoregulation performance and estimating personal thermal comfort. Building and Environment, 2016, 109, 1-11.	6.9	175
10	User-led decentralized thermal comfort driven HVAC operations for improved efficiency in office buildings. Energy and Buildings, 2014, 70, 398-410.	6.7	170
11	Imaged-based verification of as-built documentation of operational buildings. Automation in Construction, 2012, 21, 161-171.	9.8	160
12	A BIM centered indoor localization algorithm to support building fire emergency response operations. Automation in Construction, 2014, 42, 78-89.	9.8	158
13	A knowledge based approach for selecting energy-aware and comfort-driven HVAC temperature set points. Energy and Buildings, 2014, 85, 536-548.	6.7	148
14	An online learning approach for quantifying personalized thermal comfort via adaptive stochastic modeling. Building and Environment, 2015, 92, 86-96.	6.9	146
15	Energy savings from temperature setpoints and deadband: Quantifying the influence of building and system properties on savings. Applied Energy, 2016, 165, 930-942.	10.1	145
16	Human-Building Interaction Framework for Personalized Thermal Comfort-Driven Systems in Office Buildings. Journal of Computing in Civil Engineering, 2014, 28, 2-16.	4.7	140
17	A systematic approach to occupancy modeling in ambient sensor-rich buildings. Simulation, 2014, 90, 960-977.	1.8	134
18	Ten questions concerning occupant health in buildings during normal operations and extreme events including the COVID-19 pandemic. Building and Environment, 2021, 188, 107480.	6.9	130

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19	Building Information Modeling in Architecture, Engineering, and Construction: Emerging Research Directions and Trends. <i>Journal of Professional Issues in Engineering Education and Practice</i> , 2010, 136, 139-147.	0.9	129
20	A study on student perceptions of higher education classrooms: Impact of classroom attributes on student satisfaction and performance. <i>Building and Environment</i> , 2013, 70, 171-188.	6.9	127
21	Towards unsupervised learning of thermal comfort using infrared thermography. <i>Applied Energy</i> , 2018, 211, 41-49.	10.1	125
22	Unsupervised Approach for Autonomous Pavement-Defect Detection and Quantification Using an Inexpensive Depth Sensor. <i>Journal of Computing in Civil Engineering</i> , 2013, 27, 743-754.	4.7	118
23	The coupled effects of personalized occupancy profile based HVAC schedules and room reassignment on building energy use. <i>Energy and Buildings</i> , 2014, 78, 113-122.	6.7	114
24	A model calibration framework for simultaneous multi-level building energy simulation. <i>Applied Energy</i> , 2015, 149, 415-431.	10.1	111
25	Immersive virtual environments, understanding the impact of design features and occupant choice upon lighting for building performance. <i>Building and Environment</i> , 2015, 89, 217-228.	6.9	109
26	Do people follow the crowd in building emergency evacuation? A cross-cultural immersive virtual reality-based study. <i>Advanced Engineering Informatics</i> , 2020, 43, 101040.	8.0	92
27	BIM-Enabled Virtual and Collaborative Construction Engineering and Management. <i>Journal of Professional Issues in Engineering Education and Practice</i> , 2012, 138, 234-245.	0.9	91
28	A comparative study of predicting individual thermal sensation and satisfaction using wrist-worn temperature sensor, thermal camera and ambient temperature sensor. <i>Building and Environment</i> , 2019, 160, 106223.	6.9	89
29	Towards user centered building design: Identifying end-user lighting preferences via immersive virtual environments. <i>Automation in Construction</i> , 2017, 81, 56-66.	9.8	86
30	Working from home during the COVID-19 pandemic: Impact on office worker productivity and work experience. <i>Work</i> , 2021, 69, 1171-1189.	1.1	86
31	Building occupancy diversity and HVAC (heating, ventilation, and air conditioning) system energy efficiency. <i>Energy</i> , 2016, 109, 641-649.	8.8	85
32	Real-time activity recognition for energy efficiency in buildings. <i>Applied Energy</i> , 2018, 211, 146-160.	10.1	74
33	Effectiveness of VR-based training on improving construction workers' knowledge, skills, and safety behavior in robotic teleoperation. <i>Advanced Engineering Informatics</i> , 2021, 50, 101431.	8.0	69
34	Assessment of target types and layouts in 3D laser scanning for registration accuracy. <i>Automation in Construction</i> , 2011, 20, 649-658.	9.8	65
35	Modeling personalized occupancy profiles for representing long term patterns by using ambient context. <i>Building and Environment</i> , 2014, 78, 23-35.	6.9	63
36	A thermal preference scale for personalized comfort profile identification via participatory sensing. <i>Building and Environment</i> , 2013, 68, 140-149.	6.9	62

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37	Automated measurement of highway retaining wall displacements using terrestrial laser scanners. <i>Automation in Construction</i> , 2016, 65, 86-101.	9.8	62
38	HVAC system energy optimization using an adaptive hybrid metaheuristic. <i>Energy and Buildings</i> , 2017, 152, 149-161.	6.7	62
39	Thermal comfort modeling when personalized comfort systems are in use: Comparison of sensing and learning methods. <i>Building and Environment</i> , 2020, 185, 107316.	6.9	61
40	Occupant health in buildings: Impact of the COVID-19 pandemic on the opinions of building professionals and implications on research. <i>Building and Environment</i> , 2022, 207, 108440.	6.9	60
41	How occupants respond to building emergencies: A systematic review of behavioral characteristics and behavioral theories. <i>Safety Science</i> , 2020, 122, 104540.	4.9	59
42	Why is the reliability of building simulation limited as a tool for evaluating energy conservation measures?. <i>Applied Energy</i> , 2015, 159, 196-205.	10.1	57
43	Lights, building, action: Impact of default lighting settings on occupant behaviour. <i>Journal of Environmental Psychology</i> , 2016, 48, 212-223.	5.1	56
44	Energy consequences of Comfort-driven temperature setpoints in office buildings. <i>Energy and Buildings</i> , 2018, 177, 33-46.	6.7	52
45	Civil Engineering Grand Challenges: Opportunities for Data Sensing, Information Analysis, and Knowledge Discovery. <i>Journal of Computing in Civil Engineering</i> , 2014, 28, .	4.7	51
46	Situational awareness for supporting building fire emergency response: Information needs, information sources, and implementation requirements. <i>Fire Safety Journal</i> , 2014, 63, 17-28.	3.1	50
47	Human-building-emergency interactions and their impact on emergency response performance: A review of the state of the art. <i>Safety Science</i> , 2020, 127, 104691.	4.9	46
48	Inexpensive Multimodal Sensor Fusion System for Autonomous Data Acquisition of Road Surface Conditions. <i>IEEE Sensors Journal</i> , 2016, 16, 7731-7743.	4.7	45
49	Influence of LEED branding on building occupants' pro-environmental behavior. <i>Building and Environment</i> , 2015, 94, 477-488.	6.9	41
50	One size does not fit all: Understanding user preferences for building automation systems. <i>Energy and Buildings</i> , 2017, 145, 163-173.	6.7	40
51	Use of immersive virtual environments for occupant behaviour monitoring and data collection. <i>Journal of Building Performance Simulation</i> , 2017, 10, 484-498.	2.0	40
52	Life-Cycle Approach for Implementing RFID Technology in Construction: Learning from Academic and Industry Use Cases. <i>Journal of Construction Engineering and Management - ASCE</i> , 2011, 137, 1089-1098.	3.8	39
53	An unsupervised hierarchical clustering based heuristic algorithm for facilitated training of electricity consumption disaggregation systems. <i>Advanced Engineering Informatics</i> , 2014, 28, 311-326.	8.0	38
54	A framework for allocating personalized appliance-level disaggregated electricity consumption to daily activities. <i>Energy and Buildings</i> , 2016, 111, 337-350.	6.7	34

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55	Influence of architectural visual access on emergency wayfinding: A cross-cultural study in China, United Kingdom and United States. <i>Fire Safety Journal</i> , 2020, 113, 102963.	3.1	33
56	Exploring the effectiveness of social messages on promoting energy conservation behavior in buildings. <i>Building and Environment</i> , 2016, 102, 83-94.	6.9	31
57	Impact of VR-Based Training on Human-Robot Interaction for Remote Operating Construction Robots. <i>Journal of Computing in Civil Engineering</i> , 2022, 36, .	4.7	29
58	A Research Outlook for Real-Time Project Information Management by Integrating Advanced Field Data Acquisition Systems and Building Information Modeling. , 2009, , .		28
59	Personalized Thermal Comfort-Driven Control in HVAC-Operated Office Buildings. , 2013, , .		28
60	Understanding human-building interactions under multimodal discomfort. <i>Building and Environment</i> , 2019, 151, 280-290.	6.9	28
61	Benchmarking thermoception in virtual environments to physical environments for understanding human-building interactions. <i>Advanced Engineering Informatics</i> , 2018, 36, 254-263.	8.0	26
62	Intelligent adaptive automation: A framework for an activity-driven and user-centered building automation. <i>Energy and Buildings</i> , 2019, 188-189, 184-199.	6.7	26
63	Intelligent Agents to Improve Thermal Satisfaction by Controlling Personal Comfort Systems Under Different Levels of Automation. <i>IEEE Internet of Things Journal</i> , 2021, 8, 7089-7100.	8.7	26
64	Continuous Sensing of Occupant Perception of Indoor Ambient Factors. , 2011, , .		25
65	An integrated emotional and physiological assessment for VR-based active shooter incident experiments. <i>Advanced Engineering Informatics</i> , 2021, 47, 101227.	8.0	24
66	Toward adaptive comfort management in office buildings using participatory sensing for end user driven control. , 2012, , .		23
67	Spatiotemporal lighting load disaggregation using light intensity signal. <i>Energy and Buildings</i> , 2014, 69, 572-583.	6.7	23
68	EMBED. , 2018, , .		23
69	Smart Desks to Promote Comfort, Health, and Productivity in Offices: A Vision for Future Workplaces. <i>Frontiers in Built Environment</i> , 2019, 5, .	2.3	23
70	Skin Temperature Extraction Using Facial Landmark Detection and Thermal Imaging for Comfort Assessment. , 2019, , .		23
71	Scan to BIM: Factors Affecting Operational and Computational Errors and Productivity Loss. , 2010, , .		23
72	Buildings with persona: Towards effective building-occupant communication. <i>Computers in Human Behavior</i> , 2017, 75, 607-618.	8.5	22

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73	Energy trade off analysis of optimized daily temperature setpoints. Journal of Building Engineering, 2018, 19, 584-591.	3.4	22
74	Building preparedness in response to active shooter incidents: Results of focus group interviews. International Journal of Disaster Risk Reduction, 2020, 48, 101617.	3.9	22
75	A Non-Intrusive Occupancy Monitoring System for Demand Driven HVAC Operations. , 2012, , .		20
76	Comparative assessment of an indoor localization framework for building emergency response. Automation in Construction, 2015, 57, 42-54.	9.8	19
77	How Does Building Occupancy Influence Energy Efficiency of HVAC Systems?. Energy Procedia, 2016, 88, 775-780.	1.8	19
78	Worker Perspectives on Incorporating Artificial Intelligence into Office Workspaces: Implications for the Future of Office Work. International Journal of Environmental Research and Public Health, 2021, 18, 1690.	2.6	19
79	Promise and Barriers to Technology Enabled and Open Project Team Collaboration. Journal of Professional Issues in Engineering Education and Practice, 2005, 131, 301-311.	0.9	17
80	Influencing occupant's choices by using spatiotemporal information visualization in Immersive Virtual Environments. Building and Environment, 2019, 150, 330-338.	6.9	17
81	Deployment Strategies and Performance Evaluation of a Virtual-Tag-Enabled Indoor Location Sensing Approach. Journal of Computing in Civil Engineering, 2012, 26, 574-583.	4.7	15
82	Analysis of the variability of RSSI values for active RFID-based indoor applications. Turkish Journal of Engineering and Environmental Sciences, 2013, 37, 186-211.	0.1	15
83	Smart Building Technology [TC Spotlight]. IEEE Robotics and Automation Magazine, 2014, 21, 18-20.	2.0	15
84	Assessing the impacts of real-time occupancy state transitions on building heating/cooling loads. Energy and Buildings, 2017, 135, 201-211.	6.7	15
85	Smart IoT desk for personalizing indoor environmental conditions. , 2018, , .		14
86	Human-Building Interaction for Energy Conservation in Office Buildings. , 2012, , .		13
87	TESLA: an extended study of an energy-saving agent that leverages schedule flexibility. Autonomous Agents and Multi-Agent Systems, 2014, 28, 605-636.	2.1	12
88	Automated Recognition of Building Façades for Creation of As-Is Mock-Up 3D Models. Journal of Computing in Civil Engineering, 2017, 31, .	4.7	12
89	Iterative Maximum Likelihood Estimation Algorithm: Leveraging Building Information and Sensing Infrastructure for Localization during Emergencies. Journal of Computing in Civil Engineering, 2015, 29, .	4.7	11
90	Integrated Project Delivery and Building Information Modeling: Redefining the Relationship between Education and Practice. International Journal of Design Education, 2013, 6, 47-56.	0.1	11

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91	Towards Optimization of Building Energy and Occupant Comfort Using Multi-Agent Simulation. , 2011, , .		11
92	Cross-Space Building Occupancy Modeling by Contextual Information Based Learning. , 2015, , .		10
93	Establishing Social Dialog between Buildings and Their Users. International Journal of Human-Computer Interaction, 2019, 35, 1545-1556.	4.8	10
94	Improving In-Building Asset Localization by Offset Vector and Convergence Calibration Methods. Journal of Computing in Civil Engineering, 2013, 27, 337-344.	4.7	8
95	Understanding the influence of orientation, time-of-day and blind use on user's lighting choices and energy consumption using immersive virtual environments. Advances in Building Energy Research, 2019, , 1-27.	2.3	8
96	Assessment of WSN and RFID Technologies for Real-Time Occupancy Information. , 2011, , .		8
97	Associations Among Home Indoor Environmental Quality Factors and Worker Health While Working From Home During COVID-19 Pandemic. ASME Journal of Engineering for Sustainable Buildings and Cities, 2021, 2, .	0.9	8
98	The impact of security countermeasures on human behavior during active shooter incidents. Scientific Reports, 2022, 12, 929.	3.3	8
99	Online Learning for Personalized Room-Level Thermal Control. , 2013, , .		7
100	RFID-Based Occupancy Detection Solution for Optimizing HVAC Energy Consumption. , 2011, , .		7
101	Predicting HVAC Energy Consumption in Commercial Buildings Using Multiagent Systems. , 2013, , .		7
102	Effects of Color, Distance, and Incident Angle on Quality of 3D Point Clouds. , 2011, , .		6
103	A novel system for road surface monitoring using an inexpensive infrared laser sensor. , 2012, , .		6
104	Coupling occupancy information with HVAC energy simulation: A systematic review of simulation programs. , 2014, , .		6
105	Quantifying the influence of temperature setpoints, building and system features on energy consumption. , 2015, , .		6
106	A Study of Time-Dependent Variations in Personal Thermal Comfort via a Dynamic Bayesian Network. , 2015, , .		6
107	An Immersive Virtual Learning Environment for Worker-Robot Collaboration on Construction Sites. , 2020, , .		6
108	Towards Understanding End-User Lighting Preferences in Office Spaces by Using Immersive Virtual Environments. , 2015, , .		5

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109	Towards Measuring the Impact of Personal Control on Energy Use through the Use of Immersive Virtual Environments. , 2014, , .		5
110	An Environment-Aware Sequence-Based Localization Algorithm for Supporting Building Emergency Response Operations. , 2013, , .		4
111	'Designing in' Complex System Interaction: Multi-Agent Based Systems for Early Design Decision Making. , 2011, , .		4
112	Comparison of Image-Based and Manual Field Survey Methods for Indoor As-Built Documentation Assessment. , 2011, , .		3
113	Use of Immersive Virtual Environments to Understand Human-Building Interactions and Improve Building Design. Communications in Computer and Information Science, 2015, , 180-184.	0.5	3
114	Automated Cleaning of Point Clouds for Highway Retaining Wall Condition Assessment. , 2014, , .		2
115	A Data Quality-Driven Framework for Asset Condition Assessment Using LiDAR and Image Data. , 2015, , .		2
116	Information Requirements for Virtual Environments to Study Human-Building Interactions during Active Shooter Incidents. , 2019, , .		2
117	Can Immersive Virtual Environments Be Used for Understanding Occupant-System Interactions Under Thermal Stimuli?. , 0, , .		2
118	Effects of Variant Occupancy Transitions on the Energy Implications of Setpoint/Setback Control Policies. , 2015, , .		1
119	Defining Lighting Settings to Accommodate End-User Preferences While Reducing Energy Consumption in Buildings. , 2016, , .		1
120	Authorsâ€™ Response to â€œWork From Home (WFH) During COVID-19: Is Virtual Reality (VR) a New Solution to New Problems?â€. Journal of Occupational and Environmental Medicine, 2021, 63, e757-e758.	1.7	1
121	Exploration of Building-Occupant Communication Methods for Reducing Energy Consumption in Buildings. Communications in Computer and Information Science, 2015, , 558-563.	0.5	1
122	Impact of Immersive and Interactive Information Visualization on Occupantâ€™s Lighting Choices. , 0, , .		1
123	Iterative reassignment algorithm: Leveraging occupancy based hvac control for improved energy efficiency. , 2015, , .		0
124	Special Issue on the 2013 International Workshop on Computing in Civil Engineering. Journal of Computing in Civil Engineering, 2015, 29, .	4.7	0
125	A Novel Method for Monitoring Air Speed in Offices Using Low Cost Sensors. , 2019, , .		0
126	Human-Building Interaction (HBI). , 2021, , 913-917.		0



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127	Impact of Building Occupancy on Assessing the Effectiveness of Energy Conservation Measures. , 2015, , .		0
128	Default Conditions: A Reason for Design to Integrate Human Factors. , 2015, , .		0
129	Human-Building Interaction (HBI). , 2020, , 1-5.		0
130	Modeling the Impact of Visual Access and Crowd Flow on Human Indoor Emergency Wayfinding: From Empirical Investigations to Simulations. , 2022, , .		0