Jan Beutel

List of Publications by Year
in descending order

83 papers	2,442 citations	331670 21 h-index	345221 36 g-index
113 all docs	113 docs citations	113 times ranked	1956 citing authors

#	Article	IF	Citations
1	Non-Intrusive Distributed Tracing of Wireless IoT Devices with the FlockLabÂ2 Testbed. ACM Transactions on Internet of Things, 2022, 3, 1-31.	4.6	0
2	Spectral amplification of ground motion linked to resonance of large-scale mountain landforms. Earth and Planetary Science Letters, 2022, 578, 117295.	4.4	4
3	Best Practice for Measuring Permafrost Temperature in Boreholes Based on the Experience in the Swiss Alps. Frontiers in Earth Science, 2021, 9, .	1.8	18
4	Environment and Application Testbed for Low-Power Energy Harvesting System Design. IEEE Transactions on Industrial Electronics, 2021, 68, 11146-11156.	7.9	7
5	STeC. , 2021, , .		2
6	How rock glacier hydrology, deformation velocities and ground temperatures interact: Examples from the Swiss Alps. Permafrost and Periglacial Processes, 2020, 31, 3-14.	3.4	40
7	Thermoelectric Energy Harvesting From Gradients in the Earth Surface. IEEE Transactions on Industrial Electronics, 2020, 67, 9460-9470.	7.9	37
8	Towards early warning of gravitational slope failure with co-detection of microseismic activity: the case of an active rock glacier. Natural Hazards and Earth System Sciences, 2019, 19, 1399-1413.	3.6	8
9	Water controls the seasonal rhythm of rock glacier flow. Earth and Planetary Science Letters, 2019, 528, 115844.	4.4	61
10	How many climb the matterhorn?. , 2019, , .		0
11	Systematic identification of external influences in multi-year microseismic recordings using convolutional neural networks. Earth Surface Dynamics, 2019, 7, 171-190.	2.4	9
12	The dual processor platform architecture. , 2019, , .		10
13	Event-triggered natural hazard monitoring with convolutional neural networks on the edge. , 2019, , .		20
14	Resolving the influence of temperature forcing through heat conduction on rock glacier dynamics: a numerical modelling approach. Cryosphere, 2019, 13, 927-942.	3.9	35
15	A testbed for long-range LoRa communication. , 2019, , .		5
16	BLITZ. ACM Transactions on Sensor Networks, 2019, 15, 1-38.	3.6	9
17	Multisensor validation of tidewater glacier flow fields derived from synthetic aperture radar (SAR) intensity tracking. Cryosphere, 2019, 13, 2953-2975.	3.9	8
18	A decade of detailed observations (2008â€“2018) in steep bedrock permafrost at the Matterhorn HÃ¶rnligrat (Zermatt, CH). Earth System Science Data, 2019, 11, 1203-1237.	9.9	28

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19	Monitoring mass movements using georeferenced time-lapse photography: Ritigraben rock glacier, western Swiss Alps. Cold Regions Science and Technology, 2018, 145, 127-134.	3.5	22
20	TTW: A Time-Triggered Wireless design for CPS. , 2018, , .		7
21	Ambient seismic vibrations in steep bedrock permafrost used to infer variations of ice-fill in fractures. Earth and Planetary Science Letters, 2018, 501, 119-127.	4.4	28
22	Two-level bulk microfabrication of a mechanical broadband vibration amplitude-amplifier with ten coupled resonators. Journal of Micromechanics and Microengineering, 2018, 28, 045009.	2.6	0
23	Acoustic and Microseismic Characterization in Steep Bedrock Permafrost on Matterhorn (CH). Journal of Geophysical Research F: Earth Surface, 2018, 123, 1363-1385.	2.8	22
24	Factors Controlling Velocity Variations at Shortâ€Term, Seasonal and Multiyear Time Scales, Ritigraben Rock Glacier, Western Swiss Alps. Permafrost and Periglacial Processes, 2017, 28, 675-684.	3.4	56
25	Stalwart. , 2017, , .		0
26	Quantifying irreversible movement in steep, fractured bedrock permafrost on Matterhorn (CH). Cryosphere, 2017, 11, 567-583.	3.9	37
27	Mitigating Erroneous Wake-ups. , 2017, , .		0
28	BLITZ. , 2017, , .		8
29	Wireless Sensor Networks Testing and Validation. , 2017, , 11-1-11-27.		0
30	Short-term velocity variations at three rock glaciers and their relationship with meteorological conditions. Earth Surface Dynamics, 2016, 4, 103-123.	2.4	67
31	End-to-End Real-Time Guarantees in Wireless Cyber-Physical Systems. , 2016, , .		14
32	Poster Abstract: A Heterogeneous System Architecture for Event-Triggered Wireless Sensing. , 2016, , .		0
33	A Benchmark for Low-power Wireless Networking. , 2016, , .		8
34	On platforms for CPS. , 2016, , .		0
35	A testbed for fine-grained tracing of time sensitive behavior in wireless sensor networks. , 2015, , .		12
36	Zippy. , 2015, , .		30

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37	Bolt. , 2015, , .		23
38	Deriving high-resolution urban air pollution maps using mobile sensor nodes. Pervasive and Mobile Computing, 2015, 16, 268-285.	3.3	204
39	Predictable wireless embedded platforms. , 2015, , .		0
40	Estimating velocity from noisy GPS data for investigating the temporal variability of slope movements. Natural Hazards and Earth System Sciences, 2014, 14, 2503-2520.	3.6	19
41	Dynamic power management for long-term energy neutral operation of solar energy harvesting systems. , 2014, , .		61
42	Towards Enabling Uninterrupted Long-Term Operation of Solar Energy Harvesting Embedded Systems. Lecture Notes in Computer Science, 2014, , 66-83.	1.3	22
43	The Problem Bit. , 2013, , .		3
44	FlockLab. , 2013, , .		155
45	Environmental controls of frost cracking revealed through in situ acoustic emission measurements in steep bedrock. Geophysical Research Letters, 2013, 40, 1748-1753.	4.0	103
46	Battery State-of-Charge Approximation for Energy Harvesting Embedded Systems. Lecture Notes in Computer Science, 2013, , 179-196.	1.3	23
47	Multi-hop network tomography. , 2012, , .		0
48	Distributed and synchronized measurements with FlockLab. , 2012, , .		5
49	How was your journey?. , 2012, , .		33
50	Visualizing large sensor network data sets in space and time with vizzly. , 2012, , .		6
51	Multi-hop network tomography. Performance Evaluation Review, 2012, 40, 421-422.	0.6	1
52	Poster abstract: Light-weight network health monitoring. , 2012, , .		1
53	Kinematics of steep bedrock permafrost. Journal of Geophysical Research, 2012, 117, .	3.3	88
54	A custom acoustic emission monitoring system for harsh environments: application to freezing-induced damage in alpine rock walls. Geoscientific Instrumentation, Methods and Data Systems, 2012, 1, 155-167.	1.6	20

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55	X-SENSE: Sensing in extreme environments. , 2011, , .		40
56	Comparative performance analysis of the PermaDozer protocol in diverse deployments. , 2011, , .		11
57	iAssist. , 2010, , .		11
58	Deployment Techniques for Sensor Networks. Signals and Communication Technology, 2010, , 219-248.	0.5	31
59	NoSE: Efficient Maintenance and Initialization of Wireless Sensor Networks. , 2009, , .		4
60	Learning from sensor network data. , 2009, , .		10
61	The FlockLab testbed architecture. , 2009, , .		13
62	Embedded Tutorial - Software for Wireless Networked Embedded Systems. , 2008, , .		0
63	Coping with unreliable channels: Efficient link estimation for low-power wireless sensor networks. , 2008, , .		22
64	EvAnT: Analysis and Checking of Event Traces for Wireless Sensor Networks. , 2008, , .		6
65	Designing a High-Reliability Low-Power Status Monitoring Protocol. , 2007, , .		2
66	Increasing the reliability of wireless sensor networks with a distributed testing framework. , 2007, , .		11
67	Automated Wireless Sensor Network Testing. , 2007, , .		12
68	S-XTC: A Signal-Strength Based Topology Control Algorithm for Sensor Networks. , 2007, , .		16
69	Deployment Support Network. , 2007, , 195-211.		26
70	Fast-prototyping Using the BTnode Platform. , 2006, , .		25
71	Robust topology formation using BTnodes. Computer Communications, 2005, 28, 1523-1530.	5.1	4
72	Next-generation prototyping of sensor networks. , 2004, , .		36

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73	Prototyping Wireless Sensor Network Applications with BTnodes. Lecture Notes in Computer Science, 2004, , 323-338.	1.3	67
74	A systematic approach to the design of distributed wearable systems. IEEE Transactions on Computers, 2004, 53, 1017-1033.	3.4	56
75	The case for reconfigurable hardware in wearable computing. Personal and Ubiquitous Computing, 2003, 7, 299-308.	2.8	27
76	Cyclic behaviour of concrete filled steel tubular column to steel beam connections. Engineering Structures, 2002, 24, 29-38.	5.3	67
77	The role of screen parameters and print-through in the performance of film/screen systems. Physics in Medicine and Biology, 1993, 38, 1181-1193.	3.0	21
78	The image quality characteristics of a novel ultra-high-resolution film/screen system. Physics in Medicine and Biology, 1993, 38, 1195-1206.	3.0	18
79	Photoconductivity of microcrystalline AgBrâ€‰:â€‰Iâ˜emulsions. Journal of Applied Physics, 1975, 46, 4649-4653.	2.5	9
80	Location in distributed ad-hoc wireless sensor networks. , 0, , .		361
81	Reconfigurable hardware in wearable computing nodes. , 0, , .		13
82	Scalable topology control for deployment-support networks. , 0, , .		9
83	The power consumption of Bluetooth scatternets. , 0, , .		6