

Insup Lee

List of Publications by Year in descending order

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Version: 2024-02-01

103
papers

2,606
citations

567281

15
h-index

414414

32
g-index

103
all docs

103
docs citations

103
times ranked

1792
citing authors

#	ARTICLE	IF	CITATIONS
1	0585 Use of a Hybrid Closed Loop Insulin Delivery System Improves Sleep and Glycemic Control in Adults with Long-Standing Type 1 Diabetes and Hypoglycemia Unawareness. <i>Sleep</i> , 2022, 45, A257-A258.	1.1	0
2	Model Checking Resiliency and Sustainability of In-Vehicle Network for Real-Time Authenticity. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 1068.	2.5	2
3	Characterizing Glycemic Control and Sleep in Adults with Long-Standing Type 1 Diabetes and Hypoglycemia Unawareness Initiating Hybrid Closed Loop Insulin Delivery. <i>Journal of Diabetes Research</i> , 2021, 2021, 1-8.	2.3	8
4	Stacked LSTM based deep recurrent neural network with kalman smoothing for blood glucose prediction. <i>BMC Medical Informatics and Decision Making</i> , 2021, 21, 101.	3.0	62
5	VitalCore: Analytics and Support Dashboard for Medical Device Integration. , 2021, 2021, 82-86.		4
6	MAuth-CAN: Masquerade-Attack-Proof Authentication for In-Vehicle Networks. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 2204-2218.	6.3	38
7	Assured Runtime Monitoring and Planning: Toward Verification of Neural Networks for Safe Autonomous Operations. <i>IEEE Robotics and Automation Magazine</i> , 2020, 27, 102-116.	2.0	9
8	Intelligent and Dynamic Ransomware Spread Detection and Mitigation in Integrated Clinical Environments. <i>Sensors</i> , 2019, 19, 1114.	3.8	55
9	Continuous Estimation Using Context-Dependent Discrete Measurements. <i>IEEE Transactions on Automatic Control</i> , 2019, 64, 238-253.	5.7	4
10	Continuous Glucose Monitoring for Hypoglycemia Avoidance and Glucose Counterregulation in Long-Standing Type 1 Diabetes. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2018, 103, 105-114.	3.6	42
11	MC-Fluid: Multi-Core Fluid-Based Mixed-Criticality Scheduling. <i>IEEE Transactions on Computers</i> , 2018, 67, 469-483.	3.4	6
12	Towards Overhead-Free Interface Theory for Compositional Hierarchical Real-Time Systems. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2018, 37, 2869-2880.	2.7	2
13	LogSafe: Secure and Scalable Data Logger for IoT Devices. , 2018, , .		11
14	Context-Aware Detection in Medical Cyber-Physical Systems. , 2018, , .		10
15	Reducing pulse oximetry false alarms without missing life-threatening events. <i>Smart Health</i> , 2018, 9-10, 287-296.	3.2	9
16	Data Freshness Over-Engineering: Formulation and Results. , 2018, , .		5
17	Towards Context-Aware Cyber-Physical Systems. , 2018, , .		9
18	Cyber-Physical System Checkpointing and Recovery. , 2018, , .		37

#	ARTICLE	IF	CITATIONS
19	Trapfetch: A breakpoint-based prefetcher for both launch and run-time. , 2017, , .		2
20	Advanced Split-TCP with End-to-End Protocol Semantics over Wireless Networks. , 2016, , .		3
21	Human-interpretable diagnostic information for robotic planning systems. , 2016, , .		4
22	A stochastic approach for attack resilient UAV motion planning. , 2016, , .		6
23	Prediction of Critical Pulmonary Shunts in Infants. IEEE Transactions on Control Systems Technology, 2016, 24, 1936-1952.	5.2	6
24	Toward a Hybrid Sensor Fusion Using Probabilistic and Abstract Sensor Models. , 2016, , .		0
25	Physiology-Invariant Meal Detection for Type 1 Diabetes. Diabetes Technology and Therapeutics, 2016, 18, 616-624.	4.4	37
26	Cloud-Based Secure Logger for Medical Devices. , 2016, , .		20
27	Estimation of Blood Oxygen Content Using Context-Aware Filtering. , 2016, , .		3
28	Representation of Confidence in Assurance Cases Using the Beta Distribution. , 2016, , .		12
29	Clinician-in-the-Loop Annotation of ICU Bedside Alarm Data. , 2016, , .		3
30	Automatic verification of linear controller software. , 2015, , .		10
31	Hierarchical multi-formalism proofs of cyber-physical systems. , 2015, , .		2
32	Attack-resilient state estimation in the presence of noise. , 2015, , .		48
33	A Data-Driven Behavior Modeling and Analysis Framework for Diabetic Patients on Insulin Pumps. , 2015, , .		2
34	Patient Infusion Pattern based Access Control Schemes for Wireless Insulin Pump System. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 3108-3121.	5.6	38
35	Formal synthesis of application and platform behaviors of embedded software systems. Software and Systems Modeling, 2015, 14, 839-859.	2.7	2
36	MC-Fluid: Fluid Model-Based Mixed-Criticality Scheduling on Multiprocessors. , 2014, , .		39

#	ARTICLE	IF	CITATIONS
37	Towards Assurance Cases for Resilient Control Systems. , 2014, , .		3
38	The MIDdleware Assurance Substrate: Enabling Strong Real-Time Guarantees in Open Systems with OpenFlow. , 2014, , .		22
39	Wandering Data: A Scalable, Durable System for Effective Visualization of Patient Health Data. , 2014, , .		0
40	Robustness of attack-resilient state estimators. , 2014, , .		162
41	Functional Alarms for Systems of Interoperable Medical Devices. , 2014, 2014, 247-248.		1
42	Attack resilient state estimation for autonomous robotic systems. , 2014, , .		42
43	Overhead-aware compositional analysis of real-time systems. , 2013, , .		20
44	AS-CRED: Reputation and Alert Service for Interdomain Routing. IEEE Systems Journal, 2013, 7, 396-409.	4.6	8
45	Distributed aspects of the artificial pancreas. , 2013, , .		2
46	Improving schedulability of fixed-priority real-time systems using shapers. , 2013, , .		12
47	Assuring the safety of on-demand medical cyber-physical systems. , 2013, , .		14
48	A trust model for vehicular network-based incident reports. , 2013, , .		29
49	Evaluation and Enhancement of an Intraoperative Insulin Infusion Protocol via In-Silico Simulation. , 2013, , .		3
50	PIPAC: Patient infusion pattern based access control scheme for wireless insulin pump system. , 2013, , .		60
51	Invited talk: Challenges in Medical Cyber-Physical Systems. , 2012, , .		1
52	From Verification to Implementation: A Model Translation Tool and a Pacemaker Case Study. , 2012, , .		44
53	Extending Task-level to Job-level Fixed Priority Assignment and Schedulability Analysis Using Pseudo-deadlines. , 2012, , .		13
54	Realizing Compositional Scheduling through Virtualization. , 2012, , .		49

#	ARTICLE	IF	CITATIONS
55	Device Time, Data Logging, and Virtual Medical Devices. Journal of Medical Devices, Transactions of the ASME, 2012, 6, .	0.7	1
56	Introduction to the special section on runtime verification. International Journal on Software Tools for Technology Transfer, 2012, 14, 243-247.	1.9	21
57	Challenges and Research Directions in Medical Cyber-Physical Systems. Proceedings of the IEEE, 2012, 100, 75-90.	21.3	258
58	A Semantic Framework for Mode Change Protocols. , 2011, , .		10
59	Removing Abstraction Overhead in the Composition of Hierarchical Real-Time Systems. , 2011, , .		9
60	Compositional Analysis of Multi-mode Systems. , 2010, , .		36
61	Generating Reliable Code from Hybrid-Systems Models. IEEE Transactions on Computers, 2010, 59, 1281-1294.	3.4	9
62	Timed and Resource-Oriented Statecharts for Embedded Software. IEEE Transactions on Industrial Informatics, 2010, 6, 568-578.	11.3	18
63	A Safety-Assured Development Approach for Real-Time Software. , 2010, , .		26
64	Optimal virtual cluster-based multiprocessor scheduling. Real-Time Systems, 2009, 43, 25-59.	1.3	59
65	Strong and Weak Policy Relations. , 2009, , .		7
66	A Compositional Scheduling Framework for Digital Avionics Systems. , 2009, , .		41
67	Timing Analysis of Mixed Time/Event-Triggered Multi-Mode Systems. , 2009, , .		17
68	Model Checking of Real-Time Properties of Resource-Bound Process Algebra. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2009, E92-A, 2781-2789.	0.3	1
69	Hierarchical Scheduling Framework for Virtual Clustering of Multiprocessors. , 2008, , .		110
70	Compositional Feasibility Analysis of Conditional Real-Time Task Models. , 2008, , .		16
71	Challenges and opportunities in deeply embedded systems security. ACM SIGBED Review, 2008, 5, 1-2.	1.8	1
72	Improving the Safety of Patient-Controlled Analgesia Infusions with Safety Interlocks and Closed-Loop Control. , 2007, , .		5

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73	A Verifiable Language for Programming Real-Time Communication Schedules. IEEE Transactions on Computers, 2007, 56, 1505-1519.	3.4	25
74	Compositional Schedulability Analysis of Hierarchical Real-Time Systems. , 2007, , .		19
75	Composition Techniques for Tree Communication Schedules. Real-Time Systems (ECRTS), Proceedings of the Euromicro Workshop on, 2007, , .	0.0	8
76	Compositional Analysis Framework Using EDP Resource Models. , 2007, , .		99
77	Editorial: Special issue on real-time wireless sensor networks. Real-Time Systems, 2007, 37, 181-182.	1.3	0
78	Unit & dynamic typing in hybrid systems modeling with CHARON. , 2006, , .		2
79	Research challenges in embedded and hybrid systems. ACM SIGBED Review, 2004, 1, 1-5.	1.8	4
80	Java-MaC: A Run-Time Assurance Approach for Java Programs. Formal Methods in System Design, 2004, 24, 129-155.	0.8	169
81	Formal specifications and analysis of the computer-assisted resuscitation algorithm (CARA) Infusion Pump Control System. International Journal on Software Tools for Technology Transfer, 2004, 5, 308-319.	1.9	29
82	Data flow testing as model checking. , 2003, , .		13
83	Verisim: formal analysis of network simulations. IEEE Transactions on Software Engineering, 2002, 28, 129-145.	5.6	68
84	Specification and analysis of real-time systems with PARAGON. Annals of Software Engineering, 1999, 7, 211-234.	0.5	16
85	A Process Algebraic Approach to the Schedulability Analysis of Real-Time Systems. Real-Time Systems, 1998, 15, 189-219.	1.3	34
86	A Graphical Language for Specifying and Analyzing Real-Time Systems. Integrated Computer-Aided Engineering, 1998, 5, 279-302.	4.6	2
87	An efficient state space generation for analysis of real-time systems. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 1996, 21, 4-13.	0.7	7
88	Maintaining Consistency Over A Network in Real-Time Applications. , 1989, , .		0
89	A Real-Time Kernel for Distributed Multi-Robot Systems. , 1988, , .		1
90	Adding Time to Synchronous Process Communications. IEEE Transactions on Computers, 1987, C-36, 941-948.	3.4	23

#	ARTICLE	IF	CITATIONS
91	Implementing A Real-time Process Algebra In HOL. , 0, , .		4
92	A graphical language with formal semantics for the specification and analysis of real-time systems. , 0, , .		12
93	The specification and schedulability analysis of real-time systems using ACSR. , 0, , .		19
94	Distributed spatial control, global monitoring and steering of mobile agents. , 0, , .		12
95	Process algebraic approach to the parametric analysis of object scheduling in real-time systems. , 0, , .		0
96	Steering of real-time systems based on monitoring and checking. , 0, , .		0
97	Distributed Web-based simulation optimization. , 0, , .		3
98	Fair real-time traffic scheduling over a wireless LAN. , 0, , .		39
99	Distributed simulation of multi-agent hybrid systems. , 0, , .		4
100	Modular code generation from hybrid automata based on data dependency. , 0, , .		2
101	Periodic resource model for compositional real-time guarantees. , 0, , .		146
102	Compositional Real-Time Scheduling Framework. , 0, , .		165
103	End-to-end Application Performance Impact on Scheduler in CDMA-1XRTT Wireless System. , 0, , .		1