

Zdenek Hanzalek

List of Publications by Year in descending order

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Version: 2024-02-01

118
papers

1,206
citations

471061

17
h-index

500791

28
g-index

121
all docs

121
docs citations

121
times ranked

1030
citing authors

#	ARTICLE	IF	CITATIONS
1	Survey on Periodic Scheduling for Time-triggered Hard Real-time Systems. ACM Computing Surveys, 2022, 54, 1-32.	16.1	8
2	Large-scale periodic scheduling in time-sensitive networks. Computers and Operations Research, 2022, 137, 105512.	2.4	18
3	A hybrid learning-based meta-heuristic algorithm for scheduling of an additive manufacturing system consisting of parallel SLM machines. International Journal of Production Research, 2022, 60, 6205-6225.	4.9	14
4	Computing the execution probability of jobs with replication in mixed-criticality schedules. Annals of Operations Research, 2022, 309, 209-232.	2.6	0
5	Parallel Parking: Optimal Entry and Minimum Slot Dimensions. , 2022, , .		1
6	Control Performance Optimization for Application Integration on Automotive Architectures. IEEE Transactions on Computers, 2021, 70, 1059-1073.	2.4	6
7	A polynomial-time scheduling approach to minimise idle energy consumption: An application to an industrial furnace. Computers and Operations Research, 2021, 128, 105167.	2.4	5
8	Incorporating order acceptance, pricing and equity considerations in the scheduling of cloud manufacturing systems: matheuristic methods. International Journal of Production Research, 2021, 59, 2009-2027.	4.9	18
9	Scheduling of Parallel 3D-Printing Machines with Incompatible Job Families: A Matheuristic Algorithm. IFIP Advances in Information and Communication Technology, 2021, , 51-61.	0.5	3
10	Scheduling jobs with normally distributed processing times on parallel machines. European Journal of Operational Research, 2021, , .	3.5	5
11	An Exact Scheduling Algorithm for Convergecast and Broadcast in Tree Topology WSNs : -An Application to DSME-IEEE 802.15.4e-. , 2021, , .		0
12	Constraint programming approaches to joint routing and scheduling in time-sensitive networks. Computers and Industrial Engineering, 2021, 157, 107317.	3.4	15
13	Thermal-Aware Scheduling for MPSoC in the Avionics Domain: Tooling and Initial Results. , 2021, , .		2
14	On parallel dedicated machines scheduling under energy consumption limit. Computers and Industrial Engineering, 2021, 159, 107209.	3.4	9
15	Determining MPSoC layout from thermal camera images. , 2021, , .		1
16	Integrated Workforce Allocation and Scheduling in a Reconfigurable Manufacturing System Considering Cloud Manufacturing. IFIP Advances in Information and Communication Technology, 2021, , 535-543.	0.5	1
17	Car Racing Line Optimization with Genetic Algorithm using Approximate Homeomorphism. , 2021, , .		4
18	An Energy-efficient Distributed TDMA Scheduling Algorithm for ZigBee-like Cluster-tree WSNs. ACM Transactions on Sensor Networks, 2020, 16, 1-41.	2.3	7

#	ARTICLE	IF	CITATIONS
19	Enhancing Schedulability and Throughput of Time-Triggered Traffic in IEEE 802.1Qbv Time-Sensitive Networks. IEEE Transactions on Communications, 2020, 68, 7023-7038.	4.9	34
20	Power of pre-processing: production scheduling with variable energy pricing and power-saving states. Constraints, 2020, 25, 300-318.	0.4	2
21	Grouping tasks to save energy in a cyclic scheduling problem: A complexity study. European Journal of Operational Research, 2020, 284, 445-459.	3.5	1
22	Non-overlapping Sequence-Dependent Setup Scheduling with Dedicated Tasks. Communications in Computer and Information Science, 2020, , 23-46.	0.4	1
23	On the Complexity of a Periodic Scheduling Problem with Precedence Relations. Lecture Notes in Computer Science, 2020, , 107-124.	1.0	1
24	Data-driven Algorithm for Scheduling with Total Tardiness. , 2020, , .		1
25	On Idle Energy Consumption Minimization in Production: Industrial Example and Mathematical Model. , 2020, , .		1
26	Scheduling with uncertain processing times in mixed-criticality systems. European Journal of Operational Research, 2019, 279, 687-703.	3.5	7
27	Combining PREM compilation and static scheduling for high-performance and predictable MPSoC execution. Parallel Computing, 2019, 85, 27-44.	1.3	6
28	Multi-Variant Scheduling of Critical Time-Triggered Communication in Incremental Development Process: Application to FlexRay. IEEE Transactions on Vehicular Technology, 2019, 68, 155-169.	3.9	3
29	Optimizing energy consumption of robotic cells by a Branch & Bound algorithm. Computers and Operations Research, 2019, 102, 52-66.	2.4	25
30	Scheduling on Dedicated Machines with Energy Consumption Limit. , 2019, , .		2
31	Accelerated RRT* and Its Evaluation on Autonomous Parking. , 2019, , .		2
32	Makespan Minimization with Sequence-dependent Non-overlapping Setups. , 2019, , .		3
33	Scheduling Jobs with Stochastic Processing Time on Parallel Identical Machines. , 2019, , .		0
34	Combining PREM compilation and ILP scheduling for high-performance and predictable MPSoC execution. , 2018, , .		7
35	The triangle scheduling problem. Journal of Scheduling, 2018, 21, 305-312.	1.3	0
36	Time-Triggered Co-Scheduling of Computation and Communication with Jitter Requirements. IEEE Transactions on Computers, 2018, 67, 115-129.	2.4	14

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37	An Energy Efficient Schedule for IEEE 802.15.4/ZigBee Cluster Tree WSN with Multiple Collision Domains and Period Crossing Constraint. IEEE Transactions on Industrial Informatics, 2018, 14, 12-23.	7.2	20
38	Accelerating the Branch-and-Price Algorithm Using Machine Learning. European Journal of Operational Research, 2018, 271, 1055-1069.	3.5	27
39	Time symmetry of resource constrained project scheduling with general temporal constraints and take-give resources. Annals of Operations Research, 2017, 248, 209-237.	2.6	13
40	Match-up scheduling of mixed-criticality jobs: Maximizing the probability of jobs execution. European Journal of Operational Research, 2017, 262, 46-59.	3.5	12
41	Algorithms for robust production scheduling with energy consumption limits. Computers and Industrial Engineering, 2017, 112, 391-408.	3.4	27
42	Makespan minimization of Time-Triggered traffic on a TTEthernet network. , 2017, , .		4
43	Energy Optimization of Robotic Cells. IEEE Transactions on Industrial Informatics, 2017, 13, 92-102.	7.2	41
44	Towards predictable execution model on ARM-based heterogeneous platforms. , 2017, , .		13
45	Scheduling of safety-critical time-constrained traffic with F-shaped messages. , 2017, , .		3
46	Distributed Real Time TDMA Scheduling Algorithm for Tree Topology WSNs. IFAC-PapersOnLine, 2017, 50, 5926-5933.	0.5	3
47	Minimization of useless work in resource failure recovery of workflow schedules. , 2017, , .		0
48	Exact Approach to the Scheduling of F-shaped Tasks with Two and Three Criticality Levels. , 2017, , .		1
49	Total Setup Time Minimisation in Production Scheduling with Alternatives. Lecture Notes in Computer Science, 2017, , 11-23.	1.0	0
50	Robust scheduling for manufacturing with energy consumption limits. , 2016, , .		0
51	Roster evaluation based on classifiers for the nurse rostering problem. Journal of Heuristics, 2016, 22, 667-697.	1.1	4
52	Adaptive online scheduling of tasks with anytime property on heterogeneous resources. Computers and Operations Research, 2016, 76, 95-117.	2.4	1
53	Efficient Algorithm for Jitter Minimization in Time-Triggered Periodic Mixed-Criticality Message Scheduling Problem. , 2016, , .		9
54	An analysis of the non-preemptive mixed-criticality match-up scheduling problem. Journal of Scheduling, 2016, 19, 601-607.	1.3	9

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55	Using Two Independent Channels With Gateway for FlexRay Static Segment Scheduling. IEEE Transactions on Industrial Informatics, 2016, 12, 1887-1895.	7.2	19
56	A novel approach for nurse rostering based on a parallel algorithm. European Journal of Operational Research, 2016, 251, 624-639.	3.5	11
57	Scalable and efficient configuration of time-division multiplexed resources. Journal of Systems and Software, 2016, 113, 44-58.	3.3	9
58	The impact of core precedences in a cyclic RCPSP with precedence delays. Journal of Scheduling, 2015, 18, 275-284.	1.3	8
59	An efficient configuration methodology for time-division multiplexed single resources. , 2015, , .		14
60	FlexRay static segment scheduling on two independent channels with gateway. , 2015, , .		1
61	ZigBee cluster tree formation for time-bounded data flows in one collision domain. , 2015, , .		0
62	Solving the Resource Constrained Project Scheduling Problem using the parallel Tabu Search designed for the CUDA platform. Journal of Parallel and Distributed Computing, 2015, 77, 58-68.	2.7	26
63	Scheduling of Production with Alternative Process Plans. , 2015, , 1187-1204.		0
64	A polynomial scheduling algorithm for IEEE 802.15.4/ ZigBee cluster tree WSN with one collision domain and period crossing constraint. , 2014, , .		3
65	Case study on combined validation of safety & security requirements. , 2014, , .		5
66	Performance evaluation of Linux CAN-related system calls. , 2014, , .		4
67	Multi-variant time constrained FlexRay static segment scheduling. , 2014, , .		7
68	Mixed-criticality scheduling of messages in time-triggered protocols. , 2014, , .		0
69	A multistage approach for an employee timetabling problem with a high diversity of shifts as a solution for a strongly varying workforce demand. Computers and Operations Research, 2014, 49, 117-129.	2.4	3
70	Production scheduling with alternative process plans. European Journal of Operational Research, 2012, 217, 300-311.	3.5	36
71	Distributed Algorithm for Real-Time Energy Optimal Routing Based on Dual Decomposition of Linear Programming. International Journal of Distributed Sensor Networks, 2012, 8, 346163.	1.3	0
72	In-Network Distributed Algorithm for Energy Optimal Routing Based on Dual Decomposition of Linear Programming. IEEE Transactions on Communications, 2012, 60, 1634-1645.	4.9	10

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73	Measurement automation and result processing in timing analysis of a Linux-based CAN-to-CAN gateway. , 2011, , .		15
74	Energy-Aware Navigation and Guidance Algorithms for Unmanned Aerial Vehicles. , 2011, , .		4
75	Low-Cost Reconfigurable Control System for Small UAVs. IEEE Transactions on Industrial Electronics, 2011, 58, 880-889.	5.2	41
76	Solving production scheduling with earliness/tardiness penalties by constraint programming. Journal of Intelligent Manufacturing, 2011, 22, 553-562.	4.4	17
77	A cyclic scheduling problem with an undetermined number of parallel identical processors. Computational Optimization and Applications, 2011, 48, 71-90.	0.9	12
78	Modular software architecture for flexible reservation mechanisms on heterogeneous resources. Journal of Systems Architecture, 2011, 57, 366-382.	2.5	33
79	Aircraft Control System Validation via Hardware-in-the-Loop Simulation. Journal of Aircraft, 2011, 48, 1466-1468.	1.7	9
80	A comparison of Linux CAN drivers and their applications. , 2010, , .		9
81	Energy Efficient Scheduling for Cluster-Tree Wireless Sensor Networks With Time-Bounded Data Flows: Application to IEEE 802.15.4/ZigBee. IEEE Transactions on Industrial Informatics, 2010, 6, 438-450.	7.2	100
82	Distributed algorithm for energy optimal multi-commodity network flow routing in sensor networks. , 2010, , .		2
83	Open Physical Models in Control Engineering Education. International Journal of Electrical Engineering and Education, 2010, 47, 448-459.	0.4	3
84	Simulation study of energy efficient scheduling for IEEE 802.15.4/ZigBee cluster-tree Wireless Sensor Networks with time-bounded data flows. , 2010, , .		4
85	Alternative process plans in wire harnesses production. , 2010, , .		0
86	Profinet IO IRT Message Scheduling With Temporal Constraints. IEEE Transactions on Industrial Informatics, 2010, 6, 369-380.	7.2	73
87	Model Checking of Multitasking Real-Time Applications Based on the Timed Automata Model Using One Clock. , 2010, , 194-218.		1
88	Case study on distributed and fault tolerant system modeling based on timed automata. Journal of Systems and Software, 2009, 82, 1678-1694.	3.3	27
89	Modular architecture for real-time contract-based framework. , 2009, , .		1
90	Profinet IO IRT Message Scheduling. , 2009, , .		31

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91	Light Controlled Intersection Model Based on the Continuous Petri Net. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 519-525.	0.4	8
92	Formal verification of multitasking applications based on timed automata model. Real-Time Systems, 2008, 38, 39-65.	1.1	53
93	Deadline constrained cyclic scheduling on pipelined dedicated processors considering multiprocessor tasks and changeover times. Mathematical and Computer Modelling, 2008, 47, 925-942.	2.0	6
94	FPGA based tester tool for hybrid real-time systems. Microprocessors and Microsystems, 2008, 32, 447-459.	1.8	3
95	Experiments for real-time communication contracts in IEEE 802.11e EDCA networks. , 2008, , .		6
96	Optimisation of applications for FPGAs with PowerPC processor using priced timed automata. , 2008, , .		0
97	Optimal flow routing in multi-hop sensor networks with real-time constraints through linear programming.. , 2007, , .		6
98	Integrated Environment for Embedded Control Systems Design. , 2007, , .		5
99	Control System for Unmanned Aerial Vehicles. Industrial Informatics, 2009 INDIN 2009 7th IEEE International Conference on, 2007, , .	0.0	14
100	A Simulation Model for the IEEE 802.15.4 protocol: Delay/Throughput Evaluation of the GTS Mechanism. , 2007, , .		56
101	Scheduling of Iterative Algorithms with Matrix Operations for Efficient FPGA Designâ€”Implementation of Finite Interval Constant Modulus Algorithm. Journal of Signal Processing Systems, 2007, 46, 35-53.	1.0	4
102	Processor Expert Enhances Matlab Simulink Facilities for Embedded Software Rapid Development. , 2006, , .		0
103	TORSCHÉ Scheduling toolbox for Matlab. , 2006, , .		17
104	Tool supporting the co-design of control systems and their real-time implementation: Current status and future directions. , 2006, , .		10
105	Testing of Hybrid Real-time Systems Using FPGA Platform. , 2006, , .		1
106	Los-Cost Avionics System for Ultra-Light Aircrafts. , 2006, , .		0
107	Efficient FPGA Implementation of Equalizer for Finite Interval Constant Modulus Algorithm. , 2006, , .		1
108	Tool Supporting the Co-design of Control Systems and Their Real-time Implementation: Current Status and Future Directions. , 2006, , .		11

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109	TORSCHÉ Scheduling Toolbox for Matlab. , 2006, , .		7
110	Analysis of OSEK/VDX Based Automotive Applications. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 197-202.	0.4	2
111	Analysis of Real Time Operating System Based Applications. Lecture Notes in Computer Science, 2004, , 219-233.	1.0	8
112	Modeling of Systems with Delays Using Hybrid Petri Nets. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 177-182.	0.4	1
113	STPN Model of Physical and MAC Layer of Lon Works®. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2000, 33, 331-336.	0.4	0
114	A parallel algorithm for gradient training of feedforward neural networks. Parallel Computing, 1998, 24, 823-839.	1.3	19
115	Use of the fieldbus systems in academic setting. , 0, , .		7
116	An algorithm for the evolution graph of extended hybrid Petri nets. , 0, , .		1
117	Optimization of finite interval CMA implementation for FPGA. , 0, , .		2
118	Testbed for thermal and performance analysis in MPSoC systems. , 0, , .		3