Curriculum Vitae of Wang Yi

Personal Details

- Home: Långvägen 28, 756 52, Uppsala, Sweden
- Work: Dept. of Information Technology, Uppsala University
- Tel: +46 70 4250293, Web: http://user.it.uu.se/~yi/ and Email: yi@it.uu.se

Education and Qualifications

- Docent in Computer Systems, Uppsala University, Sweden, 1995
- Ph.D. in Computing Science, Chalmers University of Technology, Sweden, 1991
- Lic.D. in Computing Science, Chalmers University of Technology, 1988
- B.Sc. in Computer Engineering, Northeastern University, China, 1982

Employment Record

- Professor (with a chair in Embedded Systems), Uppsala University, 2009 –
- Professor in Real-Time Systems, Uppsala University, 2000-2009
- Associate Professor (docent) in Computer Systems, Uppsala University, 1995-2000
- Senior lecturer (univ. lektor) in Computer Systems, Uppsala University, 1993-1995
- Postdoc Fellow, Aalborg University, Denmark, 1991-1992
- System Engineer, Volvo Data, Gothenburg, 1988-1989
- Ph.D. Position, Chalmers University of Technology, 1985-1990

Honors and Awards

- IEEE Fellow (elected 2014)
- ACM Fellow (elected 2020)
- Fellow of Royal Society of Sciences, Uppsala, Sweden (elected 2017)
- Member of Academy of Europe (Academia Europaea), London, UK (elected 2015)

- Recipient of ERC Advanced Grant 2019 (European Research Council)
- Recipient of KAW Grant 2020 (Knut and Alice Wallenberg Foundation)

- Uppsala University's Rudbeck Medal 2022 for "achievements in science"
- IEEE TCRTS Award 2019 for "technical achievements and leadership in real-time computing" (IEEE Technical Committee on Real-Time Systems)
- CAV Award 2013 for "the development of UPPAAL"

- Best Paper Award of ICESS 2022
- Best Paper Award of RTSS 2017
- Best Paper Award of RTSS 2015
- Best Paper Award of ECRTS 2015
- Best Paper Award of DATE 2013
- Best Paper Award of RTSS 2009
- Best Tool Paper/Demo Award of ETAPS 2002
- Best Paper Nominee/Outstanding Paper Award: ECRTS 2012, RTAS 2011, RTAS 2010, RTSS 2010, ASP-DAC 2009

Panels and Evaluation (selected)

- ERC Panel Member, 2022
- IEEE Fellow Evaluation Committee Member, 2021
- Panel member, Finish Natural Science Foundation, Academy of Finland, 2014
- Panel member, National Lab. of Computer Science, Chinese Academy of Sciences, 2013
- Panel member, INRIA ICT Evaluation (Embedded Systems), 2012
- Panel member, ARC Centres of Australian Research Council 2002-2004
- Reviewer (sakkuninga) for professorship/faculty positions at Royal Institute of Technology (Sweden), National University of Singapore, Macau University (Macau, China), University of North Carolina (USA), Washington University in St. Louis (USA), Aalborg University (Denmark), Hong Kong Polytechnic University (Hong Hong, China), Tsinghua University (China), Beijing University (China), University of Hamstad (Sweden), Teesside University (UK), Saarland University (Germany), Mälardalen University (Sweden), Linköpings university (Sweden), and Vienna University of Technology (Austria).

Service at Uppsala University (selected)

- Professor and Research leader of Real-Time and Embedded Systems, 2009 –
- National Evaluation of Ph.D. Studies in Computer Science, 2017– 2018
- Director of Research Education (Ph.D. studies), Information Technology, 2006 – 2018
- Board Member of UPMARC: Uppsala Prog. for Multicore Architectures Research Center, 2010 – 2015
- Coordinator of the M.Sc Program in Embedded Systems, 2009 – 2011
- Designed and Created the Education Program: M.Sc in Embedded Systems, 2008 – 2009
- Board Member of Research Education, Faculty of Natural Sciences and Technology, 2006 – 2015
- Member of Normination Committee, Faculty of Science and Technology, 2007 – 2010
- Member of Gender Equity Group, Department of Information Technology, 2004 – 2007
- Board Member of Department of Information Technology, 1999 – 2000
- Director of Research Education, Computer Systems, 1998 – 1999

Steering Committees (SC) etc.

- Board Member, ARTIST/EMSIG Strategic Management Board, 2022 –
- Executive Committee Member, IEEE Technical Committee on Real-Time Systems, 2022 –
- Board Member, ACM SIGBED (Embedded Systems), 2016 –
- Vice Chair of the Board, ACM SIGBED (Embedded Systems), 2019 – 2021
- Chair of Award Committee, ACM CASPI Dissertation Award, 2016 – 2019
- Advisory Board Member, SETTA, Symposium on Dependable Software Engineering, China, 2016 –
- SC Member, ESWEEK (Embedded Systems Week: CASES, CODES+ISSS, EMSOFT), 2013 –
- SC Co-Chair, EMSOFT, ACM/IEEE Conf. on Embedded Software, 2006 –
- SC Member, FORMATS, Conf. on Formal Modelling and Analysis of Timed Systems, 2003 –
- SC Member, LCTES, ACM Conf. on Lang., Compilers, Tools & Theory for Emb. Sys., 2012 –
- SC Member, ARTIST/China Summer School on Embedded Systems Design since 2006 - 2011
- SC Member, ARTIST Working Group on Education in Embedded Software and Systems, 2001-2004
- SC Member, CUE (China, US and Europe) [1] initiative on Informatics, 2002-2005

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[1]CUE is an international research collaboration initiative (2002-2005), directed by Armando Haeberer, the late Director of UNU International Institute of Software Technology, Macau and supported by the Chinese CNSF, US NSF and EC.

Editorial Boards

- Associate Editor, ACM Transactions on Embedded Computing Systems, 2017 – 2020
- Associate Editor, IEEE Journal, Embedded System Letters, 2016 – 2020
- Associate Editor, IEEE Journal, Design and Test, 2016 – 2020
- Associate Editor, IEEE Transactions on Computers, 2002-2007
- Associate Editor, Elsevier Journal of Systems Architecture, 2009 – 2015
- Associate Editor, Journal of Computer Science and Technology (Chinese Academy of Sciences), 2007 –
- Guest editor for Nordic Journal of Computing (2005, 2000), Journal on Software Tools for Technology Transfer (2002), and ACM Transactions on Embedded Computing Systems (2007)

Technical Program Committees (PC)

- PC Chair, SETTA, Symposium on Dependable Software Engineering, 2015
- PC Chair, LCTES, Conf. on Languages, Compilers, Tools and Theory for Embedded Systems, 2012
- PC Chair, HSCC, ACM Int. Conf. on Hybrid Systems: Computation and Control (HSCC), 2010
- PC Chair, EMSOFT, ACM/IEEE Conf. on Embedded Software, 2006
- PC Chair, FORMATS, Int. Conf. on Formal Modelling and Analysis of Timed Systems, 2005
- PC Chair, TACAS, Int. Conf. on Tools & Algorithms for Construction & Analysis of Systems, 2001
- Track Chair, RTSS, Design & Verification, the 32th IEEE Real-Time Systems Symposium, 2008
- Topic Chair, DATE, Model based Design and Verification of Embedded Systems, 2012-2014
- Tool Chair of FTRTFT: Sch. and Symp. on Formal Tech. in RT & Fault-Tolerant Systems, 1996
- PC Chair, NWPT, Nordic Workshop on Programming Theory, 1999 and 2004
- PC Chair, RTTOOLS: Workshop on Real-Time Tools (affiliated with CAV), 2002
- PC Member regularly for a number of prominent conferences (selected):
  - EMSOFT: ACM/IEEE Conference on Embedded Software, 2006 and 2011 – 2014, 2016-2017, 2023
  - SETTA, Symposium on Dependable Software Engineering, 2015 – 2017
  - RTSS: IEEE Real-Time Systems Symposium, 2008 – 2015, 2017
  - RTNS: International Conference on Real-Time and Network Systems, 2012, 2017
  - RTCSA: IEEE Conf. on Embedded and Real Time Comp. Sys. & Applications, 2002–2006, 2017
  - RTAS: IEEE Real Time and Embedded Technology and Applications Symp., 2007-2008, 2011 - 2016
  - DATE - Design, Automation and Test in Europe, 2009 – 2016
  - ECRTS: Euromicro Conference on Real-Time Systems, 1999, 2000, 2006 and 2015
  - HSCC: ACM Conference on Hybrid Systems: Computation and Control, 2010
  - SAC: ACM Symposium on Applied Computing, 2009 - 2015
  - ISCT: IEEE Conference on Software Testing, Verification, and Validation, 2009
  - TACAS: Conf. on Tools & Algorithms for Construction & Analysis of Systems, 2000–2002 and 2006
  - PSI: A.P. Ershov Conference Perspectives in System Informatics, 2003, 2006 and 2009
  - TASE: IEEE and IFIP Symposium on Theoretical Aspects of Software Engineering, 2007 – 2016
  - ICECCS: IEEE Conference on Engineering of Complex Computer Systems, 2007
  - ATVA: Symposium on Automated Technology for Verification and Analysis, 2006 - 2016
  - FMOODS: IFIP Conference on Formal Methods for Open Object-Based Distributed Systems, 2007
  - CONCUR: Conference on Concurrency Theory, 2000 and 2004
  - APLAS: ASIAN Symposium on Programming Languages and Systems, 2005
  - FORMATS: Conf. on Formal Modelling and Analysis of Timed Systems, 2003–2005 and 2008
  - SEFM: IEEE Conference on Software Engineering and Formal Methods, 2003–2005
  - ICTAC: Colloquium on Theoretical Aspects of Computing, 2004
  - ICFEM: Conference on Formal Engineering Methods, 2002–2016
  - ACS: Conference on Applications of Concurrency to System Design, 2003
  - CAV: Conference on Computer-Aided Verification, 2002
  - LCTES: ACM Conf. on Languages, Compilers, and Tools for Embedded Systems, 2000, 2013 – 2015

Organization Committees

- ETAPS: European Joint Conferences on Theory and Practice of Software, Uppsala, 2017
- CPSWEEK: Cyber Physical Systems Week, Stockholm, 2010
- ARTIST2 Summer School on Component & Modelling, Testing & Verification, and Statical Analysis of Embedded Systems, Stockholm, 2005
- FORMATS: Conf. on Formal Modelling and Analysis of Timed Systems, Uppsala, 2005 (Chair)
- NWPT: Nordic Workshop on Programming Theory, Uppsala, 1999 and 2004 (Chair)
- FTRTFT: Sch. and Symp. on Formal Techn. in RT & Fault Tolerant Systems, Uppsala, 1996
- CONCUR: Conf. on Concurrency Theory, Uppsala, 1994
- NWPT: Nordic Workshop on Program Correctness, Gothenburg, 1992
- Chalmers Workshop on Concurrency, Båstad, Sweden, 1991

Examination of Ph.D. Theses

- Petros Voudouris, Chalmers University of Technology, 2021 (examiner)
- Sara Asfar, Mäladalen University, 2017 (grading committee member)
- Waheed Ahmad, Twente University, 2017 (examiner)
- Andreas E. Dalsgaard, Aalborg University, 2016 (examiner)
- Yonghui Li, Eindhoven University of Technology, 2016 (examiner)
- Danny B Poulsen, Aalborg University, 2016 (examiner)
- Bogdan Tanasa, Linköpings university, 2015 (grading committee member)
- Martin Sjölunds, Linköpings university, 2015 (grading committee member)
- Stefan Bygde, Mälardalen University, 2013 (grading committee member)
- Tesnim Abdellatif, Verimag, Grenoble, 2012 (examiner)
- Sudipta Chattopadhyay, National University of Singapore, 2012 (examiner)
- Risat Pathan, Chalmers University of Technology, 2012 (examiner)
- Mahdi Jaghoori, Leiden University, the Neitherlands, 2010 (examiner)
- Martin Kero, Luleå University of Technology, 2010 (grading committee member)
- Boris Behnam, Mälardalen University, 2010 (grading committee member)
- Linh Thi Xuan PHAN, National University of Singapore (examiner)
- Johan Fredriksson, Mälardalen University, 2008 (grading committee member)
- Olga Grinchtein, Uppsala University, 2008 (grading committee member)
- Mayank Saksena, Uppsala University, 2008 (grading committee member)
- Juhana Helovuo, Tampere University of Technology, Finland, 2007 (examiner)
- Johann Deneux, Uppsala University, 2006 (grading committee member)
- Andrzej Wasowski, IT University of Copenhagen, Denmark, 2005 (examiner)
- Luis Alejandro Corts, Linköpings university, 2005 (grading committee member)
- Henrik Björklund, Uppsala University, 2005 (grading committee member)
- Jakob Engblom, Uppsala University, 2002 (grading committee member)
- Per Bjesse, Chalmers University of Technology, 2001 (grading committee member)
- Ansgar Fehnker, Nijmegen University, Holland, 2001 (examiner)
- Ivan Porres, Abo Academy University, Finland, 2001 (examiner)
- Alar Kuusik, Tallin Technical University, 2001 (examiner)
- Thomas Thune, Åhus University, Denmark, 2001 (examiner)
- Pedro Argino, Twente University, Holland, 1999 (examiner)
- Jorgen Andersen, Aalborg University, Denmark, 1997 (examiner)

Supervised Ph.D. Students

- Paul Pettersson, Ph.D. 1999, professor, President (Rector) of Mälardalen University, 2016-2022, Sweden
- Fredrik Larsson, Lic. 2000, Manager, Voicecorp AB, Sweden
- Johan Bengtsson, Lic. 2001 and Ph.D. 2002. Software Engineer, IAR Systems AB, Sweden
- Anders Wall, Lic. 1999 and Ph.D. 2003 (with Christer Nordstrom), Research manager, ABB Robotics
- Tobias Amnell, Lic. 2003, System Engineer, SAAB Systems, Sweden
- Alexandre David, Lic. 2001 and Ph.D. 2003, associate professor, Aalborg Univ., Denmark
- Elena Fersman, Ph.D. 2004, adjunct professor of KTH, Head of AI resarch, Senior VP of Ericsson, 2021-present, Sweden
- John Håkansson, Ph.D. 2009 (with Paul Pettersson), Software Engineer, IAR Systems AB, Sweden
- Pavel Krcal, Ph.D. 2009, System Analysist, Scandpower AB, Sweden (**Naturvetarna's Best Swedish Dissertation Award, Royal Swedish Academy of Sciences, 2009**)
- Fanxin Kong, Ph.D. June 2012, assistant professor, Syracuse University, USA.
- Rafal Somla, Ph.D. 2012, Software Architect, Oracle, Poland
- Liu Ying, Ph.D. Oct, 2013, associate Professor, North Eastern Univ, China
- Nan Guan, Ph.D. 2013, associate professor, City University of Hong Kong (**European EDAA Outstanding Dissertation Award, 2014**)
- Martin Stigge, Ph.D. April 11, 2014, System Engineer, ARISTA Networks, Vancouver, Canada
- Zhang Yi, Ph.D. Oct, 2014, assistant Professor, North Eastern Univ, China
- Pontus Ekberg, Ph.D. January 15, 2016, Assistant Professor, Uppsala University (**Oskar Prize 2021 and Bjurzons Premium Prize 2016 for his Ph.D. thesis work.**)
- Peter Backeman, 2019 (with Philipp Rummer), assistant professor, Mälardalen University.
- Ji Dong, Ph.D. June, 2020, Researcher, North Eastern Univ, China
- Liu Yongjun, Ph.D. Aug., 2020, associate professor, Technical Univ. of Changshu, China
- Gao Yanfang, Ph.D. Sept., 2020, Senior engineer, Neusoft, China
- Wang Yang, Ph.D. April, 2022, assistant professor, North Eastern Univ, China

Hosted Postdoc's and Current Positions

- Sanjit Kummar Roy, 2023 - 2024
- Petros Vouroudoris, 2021-2023, Uppsala University
- Morteza Mohaqeqi, 2015-2022, Senior engineer, Ericsson
- Philipp Ruemmer, 2009-2014, professor, University of Regensburg
- Kai Lampka, 2010-2015, associate professor, Uppsala University
- Justin Pearson, 1998-2000, associate professor, Uppsala University
- Pontus Ekberg, 2015-2016, assistant Professor, Uppsala University

Current Ph.D. Students

- Gaoyang Dai, Non-Preemptive Anomali-free Multiprocessor Scheduling
- Behnam Khodabandeloo, Embedded code generation on multi-core platforms
- Nikolaus Huber, Programming of "timing-predictable" embedded systems
- Jakaria Abdullah, Timing analysis (the TIMES-pro tool)
- Leonid Mokrushin, Resource virtualization of 5G networks
- Duc Anh Nguyen, Parallel discrete event simulation

Invited/Keynote Talks (selected)

- RTSS20, Real-Time Systems Symposium, Dec. 2020
- SETTA19, Symp. on Dependable Soft. Eng. Theories, Tools & Applications, Shanghai, Nov. 2019
- DATE19, Design Automation and Test in Europe, 25-29 March 2019
- MEMOCODE18, the 16th ACM-IEEE International Conference on Formal Methods and Models for System Design, October 2018
- SETSS18, the 2nd International School on Engineering Trustworthy Software Systems, April 2018
- ICFEM17, the 19th International Conference on Formal Engineering Methods, November 2017
- APSEC17, the 24th Asia-Pacific Software Engineering Conference, November 2017
- SIES16, the 11th IEEE Intern. Symp. on Industrial Embedded Systems, Poland, May 2016
- Pasargad Summer School on Cyber-Physical Systems, Tehran, Iran, Sept. 2016
- UPMARC Summer School on Multicore Programming, Uppsala, June 2016
- ETAPS15, European Joint Conf. on Theory and Practice of Software, London, April 2015
- EATCS Young Researchers School on Automata, Logic and Games, Czech, Aug. 2014
- Nano-Tera/Artist Summer School on Embedded System Design (ETH & EPFL), France, Sept. 2013.
- The 12th Conf. on Formal Engineering Methods, Shanghai, China, Nov. 2010
- Summer School on Model Checking, Chinese Academy of Sciences, Beijing, Oct. 2010
- VTSA School, Verification Technology, Systems and Applications, Luxembourg, 2010
- The 10th School on Formal Methods for the Design of Computer, Communication and Software Systems: Quantitative Aspects of Programming Languages, Bertinoro, Italy, 2010
- ARTIST Summer School Europe 2010, Autrans, Grenoble, France, September 2010
- ARTIST Summer School China, Beijing, July 2010
- The 7th IEEE/IFIP International Conference on Embedded and Ubiquitous Computing, Vancouver, 2009
- ARTIST2 School on Modelling, Testing and Verification for Embedded Systems, Trento, 2007
- ARTIST-China School on Embedded Systems Design, SuZhou, China, 2007
- The 22nd Conf. on Mathematical Foundations of Programming Semantics, Genova, 2006
- ARTIST-China School on *Models, Methods and Tools for Embedded Systems*, Xian, China, 2006
- SIGPL Summer School, Seoul, Republic of Korea, 2005
- The 3rd Symposium on Formal Methods for Components and Objects, Leiden, 2004
- The 2nd Workshop on Quantitative Aspects of Programming Languages, ETAPS04, Barcelona, 2004
- Workshop: Beyond Safety, Schloss Ringberg, Germany, 2004
- Workshop on Constraint Programming and Constraints for Verification, ETAPS04, Barcelona, 2004
- European Summer School on Embedded Systems, Mælardalen University, Sweden, 2003
- The 7th Workshop on Formal Methods for Industrial Critical Systems (FMICS02), Malaga, Spain. 2002
- The 10th anniversary colloquium of UNU IIST, Formal Methods at the Crossroads from Panacea to Foundational Support, Portugal, 2002
- The 5th Winter School in Computer Science, Tallinn, Estonia, 2000
- Real–Time Systems (RTSS'95), Pisa, Italy, 1995 (invited tutorial on UPPAAL).
- Workshop on Logic and Software Engineering, Chinese Academy of Sciences, Beijing, 1995

H-Index: 62 (Google Scholar)

Software

[1] UPPAAL (www.uppaal.org): a Model-Checker for Real Time Systems developed jointly by Uppsala University and Aalborg University (co-founder and team leader at Uppsala, received CAV Award 2013)

[2] TIMES (www.timestool.com): a Tool for Implementation and Modelling of Embbedded Systems developed at Uppsala University (co-founder and team leader, received ETAPS Tool Paper/Demo Award 2002)

[3] CATS (http://www.timestool.com/cats). Pavel Krcal, Leonid Mokrushin, Wang Yi: A tool for compositional analysis of timed systems by abstraction, Proc. of 19th Nordic workshop on programming theory, Oslo, 2007.

[4] TIMES-Pro (http://www.it.uu.se/research/group/darts/timespro/). Jakaria Abdullah, Gaoyang Dai, Nan Guan, Morteza Mohaqeqi, Wang Yi: A Tool: TIMES-Pro for Modeling, Analysis, Simulation and Implementation of Cyber-Physical Systems. Models, Algorithms, Logics and Tools 2017: 623-639.

[5] MIMOS (to be released at https://www.it.uu.se/research/group/darts/CUSTOMER): a tool-chain for embedded systems design and update. Co-authors: Morteza Mohaqeqi et al. RealTime@work, RTSS 2022.

Peer-Reviewed Journal Papers

[1] Xu Jiang, Zewei Chen, Maolin Yang, Nan Guan, Yue Tang, Wang Yi: A Unified Blocking Analysis for Parallel Tasks With Spin Locks Under Global Fixed Priority Scheduling. IEEE Trans. Computers 72(1): 15-28 (2023)

[2] Yue Tang, Xu Jiang, Nan Guan, Dong Ji, Xiantong Luo, Wang Yi: Comparing Communication Paradigms in Cause-Effect Chains. IEEE Trans. Computers 72(1): 82-96 (2023)

[3] Xu Jiang, Haochun Liang, Nan Guan, Yue Tang, Lei Qiao, Wang Yi: Scheduling Parallel Real-Time Tasks on Virtual Processors. IEEE Trans. Parallel Distributed Syst. 34(1): 33-47 (2023)

[4] Pontus Ekberg, Wang Yi: Complexity of Uniprocessor Scheduling Analysis. Handbook of Real-Time Computing 2022: 489-506

[5] Desheng Wang, Yangjie Wei, Ke Zhang, Dong Ji, Wang Yi: Automatic Speech Recognition Performance Improvement for Mandarin Based on Optimizing Gain Control Strategy. Sensors 22(8): 3027 (2022)

[6] Weiguang Pang, Xu Jiang, Mingsong Lv, Teng Gao, Di Liu, Wang Yi: Toward the Predictability of Dynamic Real-Time DNN Inference. IEEE Trans. Comput. Aided Des. Integr. Circuits Syst. 41(9): 2849-2862 (2022)

[7] Gaoyang Dai, Morteza Mohaqeqi, Petros Voudouris, Wang Yi: Response-Time Analysis of Limited-Preemptive Sporadic DAG Tasks. IEEE Trans. Comput. Aided Des. Integr. Circuits Syst. 41(11): 3673-3684 (2022)

[8] Desheng Wang, Yangjie Wei, Dong Ji, Ye Ma, Wang Yi: Optimized Volume Control Architecture for Cascaded Audio System. IEEE Trans. Consumer Electron. 68(2): 170-180 (2022)

[9] Yue Tang, Nan Guan, Wang Yi: Real-Time Task Models. Handbook of Real-Time Computing 2022: 469-487

[10] Xinyang Dong, Gang Chen, Mingsong Lv, Weiguang Pang, Wang Yi: Flexible Mixed-Criticality Scheduling with Dynamic Slack Management. J. Circuits Syst. Comput. 30(10): 2150306:1-2150306:20 (2021)

[11] He Du, Xu Jiang, Mingsong Lv, Tao Yang, Wang Yi: Scheduling and analysis of real-time task graph models with nested locks. J. Syst. Archit. 114: 101969 (2021)

[12] Jinghao Sun, Nan Guan, Rongxiao Shi, Guozhen Tan, Wang Yi: Schedulability Analysis for Timed Automata With Tasks. ACM Trans. Embed. Comput. Syst. 20(5s): 89:1-89:26 (2021)

[13] Ye Ma, Gang Chen, Mingsong Lv, Wang Yi, Xue Liu, Hao Chen, Bo Zhu: Efficient and Effective Dimension Control in Automotive Applications. IEEE Trans. Ind. Informatics 17(3): 1583-1591 (2021)

[14] Yang Wang, Xu Jiang, Nan Guan, Zhishan Guo, Xue Liu, Wang Yi: Partitioning-Based Scheduling of OpenMP Task Systems With Tied Tasks. IEEE Trans. Parallel Distributed Syst. 32(6): 1322-1339 (2021)

[15] Ernst-Rdiger Olderog, Bernhard Steffen, Wang Yi: Model Checking, Synthesis, and Learning. Model Checking, Synthesis, and Learning 2021: 1-7

[16] Jakaria Abdullah, Wang Yi: Cause-Effect Reaction Latency in Real-Time Systems (Book chapter). Model Checking, Synthesis, and Learning 2021: 41-56

[17] Dong Ji, Mingsong Lv, Jiayu Yang, Wang Yi: Optimizing the Locations and Sizes of Solar Assisted Electric Vehicle Charging Stations in an Urban Area. IEEE Access 8: 112772-112782 (2020)

[18] Gang Chen, Nan Guan, Kai Huang, Wang Yi: Fault-tolerant real-time tasks scheduling with dynamic fault handling. J. Syst. Archit. 102 (2020)

[19] Zhiwei Feng, Nan Guan, Mingsong Lv, Wenchen Liu, Qingxu Deng, Xue Liu, Wang Yi: Efficient drone hijacking detection using two-step GA-XGBoost. J. Syst. Archit. 103: 101694 (2020)

[20] Jinghao Sun, Nan Guan, Feng Li, Huimin Gao, Chang Shi, Wang Yi: Real-Time Scheduling and Analysis of OpenMP DAG Tasks Supporting Nested Parallelism. IEEE Trans. Computers 69(9): 1335-1348 (2020)

[21] Jinghao Sun, Nan Guan, Shuangshuang Chang, Feng Li, Qingxu Deng, Wang Yi: Capacity Augmentation Function for Real-Time Parallel Tasks With Constrained Deadlines Under GEDF Scheduling. IEEE Trans. Comput. Aided Des. Integr. Circuits Syst. 39(12): 4537-4548 (2020)

[22] S Liu, N Guan, D Ji, W Liu, X Liu, W Yi: Leaking your engine speed by spectrum analysis of real-time scheduling sequences. Journal of Systems Architecture, 2019.

[23] Zhiwei Feng, Nan Guan, Mingsong Lv, Weichen Liu, Qingxu Deng, Xue Liu, Wang Yi: An Efficient UAV Hijacking Detection Method Using Onboard Inertial Measurement Unit. ACM Trans. Embedded Comput. Syst. 17(6): 96:1-96:19 (2019)

[24] He Du, Wei Zhang, Nan Guan, Wang Yi: Scope-aware data cache analysis for OpenMP programs on multi-core processors. J. Syst. Archit. 98: 443-452 (2019)

[25] D Liu, N Guan, J Spasic, G Chen, S Liu, T Stefanov, W Yi: Scheduling Analysis of Imprecise Mixed-Criticality Real-Time Tasks. IEEE Trans. Computers 67(7): 975-991 (2018)

[26] Gang Chen, Nan Guan, Di Liu, Qingqiang He, Kai Huang, Todor Stefanov, Wang Yi: Utilization-Based Scheduling of Flexible Mixed-Criticality Real-Time Tasks. IEEE Trans. Computers 67(4): 543-558 (2018)

[27] Tianyu Zhang, Nan Guan, Qingxu Deng, Wang Yi: Start time configuration for strictly periodic real-time task systems. Journal of Systems Architecture - Embedded Systems Design 66-67: 61-68 (2016)

[28] Mingsong Lv, Nan Guan, Jan Reineke, Reinhard Wilhelm, and Wang Yi: A Survey on Static Cache Analysis for Real-Time Systems. Leibniz Transactions on Embedded Systems, LITES 3(1): 05:1-05:48 (2016)

[29] Jinghao Sun, Nan Guan, Yang Wang, Qingxu Deng, Peng Zeng, Wang Yi: Feasibility of Fork-Join Real-Time Task Graph Models: Hardness and Algorithms. ACM Trans. Embedded Comput. Syst. (TECS) 15(1):14 (2016)

[30] Pontus Ekberg, Wang Yi: Schedulability analysis of a graph-based task model for mixed-criticality systems. Real-Time Systems (RTS) 52(1):1-37 (2016)

[31] Y Bi, M Lv, C Song, W Xu, N Guan, W Yi: Autodietary: A wearable acoustic sensor system for food intake recognition in daily life. IEEE Sensors Journal 16 (3), 806-816, 2016

[32] Yin Bi, Mingsong Lv, Yangjie Wei, Nan Guan, Wang Yi: Multi-feature fusion for thermal face recognition, Infrared Physics & Technology, Volume 77, 2016, Pages 366-374.

[33] Martin Stigge, Wang Yi: Combinatorial abstraction refinement for feasibility analysis of static priorities. *Real-Time Systems Journal*, 51(6):639-674 (2015)

[34] Martin Stigge, Wang Yi: Graph-Based Models for Real-TimeWorkload: a Survey. *Real-Time Systems Journal*, 51(5):602-636 (2015)

[35] Hao Lin, Wenyao Xu, Nan Guan, Dong Ji, Yangjie Wei, Wang Yi: Noninvasive and Continuous Blood Pressure Monitoring Using Wearable Body Sensor Networks. IEEE Intelligent Systems 30(6):38-48 (2015)

[36] Pontus Ekberg, Nan Guan, Martin Stigge, Wang Yi: An optimal resource sharing protocol for generalized multiframe tasks. Journal of Logical and Algebraic Methods in Programming 84 (1), 92-105 (2015)

[37] Nan Guan, Mingsong Lv, Wang Yi, Ge Yu: WCET analysis with MRU cache: Challenging LRU for predictability ACM Transactions on Embedded Computing Systems (TECS) 13 (4s), 123, (2014)

[38] Chuanwen Li, Yu Gu, Jianzhong Qi, Ge Yu, Rui Zhang, Wang Yi: Processing Moving kNN Queries Using Influential Neighbor Sets. PVLDB 8(2): 113-124 (2014)

[39] Changqing Xia, Nan Guan, Qingxu Deng, Wang Yi: Maximizing Lifetime of Three-Dimensional Corona-Based Wireless Sensor Networks. IJDSN 10 (2014)

[40] Pontus Ekberg, Wang Yi: Bounding and shaping the demand of generalized mixed-criticality sporadic task systems. *Real-Time Systems Journal*, 50(1): 48-86 (2014)

[41] Philip Axer, Rolf Ernst, Heiko Falk, Alain Girault, Daniel Grund, Nan Guan, Bengt Jonsson, Peter Marwedel, Jan Reineke, Christine Rochange, Maurice Sebastian, Reinhard von Hanxleden, Reinhard Wilhelm, Wang Yi: Building Timing Predictable Embedded Systems. ACM Trans. Embedded Computing Systems (TECS) 13(4): 82 (2014)

[42] Martin Stigge, Pontus Ekberg, Wang Yi: The fork-join real-time task model. *SIGBED Review* 10(2): 20 (2013)

[43] Nan Guan, Wang Yi, Qingxu Deng, Zonghua Gu, Ge Yu: Schedulability analysis for non-preemptive fixed-priority multiprocessor scheduling. *Journal of Systems Architecture - Embedded Systems Design* 57(5): 536-546 (2011)

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