



Fei Guan

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RESEARCH INTERESTS

Real-time System and Scheduling Theory.

APPOINTMENTS

Lecturer <i>Department of Computer Science and Technology</i> <i>Northeast Forestry University</i>	2018-
Engineer <i>Antiy Technology Group Co.,Ltd</i>	2017-2018

EDUCATION

Doctor of Engineering Sciences <i>Department of Electronics and Informatics</i> <i>Vrije Universiteit Brussel</i> Academic/Research advisors: Hichem Sahli and Martin Timmerman	2012-2017
Master of Engineering <i>Automatic Test and Control Institute</i> <i>Harbin Institute of Technology</i> Academic/Research advisor: Ping Fu	2010-2012
Bachelor of Engineering <i>Department of Instrument Science and Technology</i> <i>Harbin Institute of Technology</i>	2006-2010

SELECTED PAPERS

1. [F. Guan](#), L. Peng and J. Qiao, “[A New Federated Scheduling Algorithm for Arbitrary-Deadline DAG Tasks](#)”, *IEEE Transactions on Computers* , vol. 72, no. 8, pp. 2264-2277 (1 Aug. 2023).
2. [F. Guan](#), L. Peng and J. Qiao, “[A Fluid Scheduling Algorithm for DAG Tasks With Constrained or Arbitrary Deadlines](#)”, *IEEE Transactions on Computers* , vol. 71, no. 8, pp. 1860-1873 (1 Aug. 2022).

3. J. Qiao, L. Liu, [F. Guan](#), W. Zheng, “[The BH-mixed Scheduling Algorithm for DAG Tasks with Constrained Deadlines](#)”, *Journal of Systems Architecture* , Vol. 131 (18 Aug. 2022).
4. J. Qiao, H. Wang and [F. Guan](#), “[A Multiprocessor Real-time Scheduling Embedded Testbed Based on Linux](#)”, *International Journal of Embedded Systems* , Vol. 14, No. 5, pp 451-464 (13 Jan., 2022).
5. [F. Guan](#), J. Qiao and Y. Han, “[DAG-Fluid: A Real-Time Scheduling Algorithm for DAGs](#)”, *IEEE Transactions on Computers* , Vol. 70, No. 3, pp. 471-482 (1 Mar. 2021).
6. L. Peng, [F. Guan](#), L. Perneel, H. Fayyad-Kazan and M. Timmerman, “[Decentralized Multi-Robot Formation Control with Communication Delay and Asynchronous Clock](#)”, *Journal of Intelligent and Robotic Systems* , Vol. 89, No. 3, pp. 465-484 (1 Mar. 2018).
7. [F. Guan](#), L. Peng, L. Perneel, H. Fayyad-Kazan and M. Timmerman, “[A Design That Incorporates Adaptive Reservation into Mixed-Criticality Systems](#)”, *Scientific Programming* , Vol. 2017 (1 Feb. 2017).
8. [F. Guan](#), L. Peng, L. Perneel and M. Timmerman, “[Open Source FreeRTOS as a Case Study in Real-time Operating System Evolution](#)”, *Journal of Systems and Software* , Vol. 118, pp. 19-35 (7 May 2016).
9. L. Peng, [F. Guan](#), L. Perneel and M. Timmerman, “[Behaviour and performance comparison between FreeRTOS and \$\mu\$ C/OS-III](#)”, *International Journal of Embedded Systems* , Vol. 8, No. 4, pp. 300-312 (16 Jul. 2016).

FUNDING

- National Natural Science Foundation of China, “Research on the Scheduling and Schedulability Analysis of Parallel Tasks in Mixed-criticality Systems”, 300,000 CNY (PI, 01/2023 - 12/2025).
- Fundamental Research Funds for the Central Universities, “Research on the Scheduling of the Real-time Remote Image Processing Tasks on Embedded Platforms”, 100,000 CNY (PI, 09/2023 - 09/2026).
- Fundamental Research Funds for the Central Universities, “Research on Real-time Scheduling Algorithms for Multi-core Platforms and DAG Tasks”, 40,000 CNY (PI, 9/2019 - 9/2021).

TEACHING

- 2019-2023: **Computer Organization, Microcontroller Principles and Interface Technology, and Digital Logic.**