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On the power efficiency, low latency, and quality of service in network-on-chip

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Citation

Wang, P. (2020, February 12). *On the power efficiency, low latency, and quality of service in network-on-chip*. Retrieved from <https://hdl.handle.net/1887/85165>

Version: Publisher's Version

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Cover Page



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Author: Wang, P.

Title: On the power efficiency, low latency, and quality of service in network-on-chip

Issue Date: 2020-02-12

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List of Publications

First Author Publications

1. **Peng Wang**, Sobhan Niknam, Sheng Ma, Zhiying Wang, and Todor Stefanov, "Surf-Bless: A Confined-interference Routing for Energy-Efficient Communication in NoCs", In Proc. "56th ACM/IEEE Int. Design Automation Conference (DAC'19)", pp. 50, Las Vegas, NV, USA, June 2-6, 2019, (**Winner of 2019 HiPEAC Paper Award**).
2. **Peng Wang**, Sobhan Niknam, Sheng Ma, Zhiying Wang, and Todor Stefanov, "A Dynamic Bypass Approach to Realize Power Efficient Network-on-Chip", In Proc. "21st IEEE International Conference on High Performance Computing and Communications (HPCC-2019)", Zhangjiajie, Hunan, China, August 10-12, 2019.
3. **Peng Wang**, Sobhan Niknam, Sheng Ma, Zhiying Wang, and Todor Stefanov, "EVC-based Power Gating Approach to Achieve Low-power and High Performance NoC", In Proc. "Euromicro Conference on Digital System Design (DSD)", Chalkidiki, Greece, August 28-30, 2019.
4. **Peng Wang**, Sobhan Niknam, Zhiying Wang, and Todor Stefanov, "A Novel Approach to Reduce Packet Latency Increase caused by Power Gating in Network-on-Chip", In Proc. "11th ACM/IEEE International Symposium on Networks-on-Chip (NOCS'17)", pp. 1-8, Seoul, South Korea, Oct. 19-20, 2017.

Co-author Publications

1. Sobhan Niknam, **Peng Wang**, and Todor Stefanov, "Resource Optimization for Real-Time Streaming Applications using Task Replication", IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), vol. 37, No. 11, pp. 2755-2767, Nov 2018.

2. Sobhan Niknam, **Peng Wang**, and Todor Stefanov, "Hard Real-Time Scheduling of Streaming Applications Modeled as Cyclic CSDF Graphs", In Proc. "22nd Int. Conf. Design, Automation and Test in Europe (DATE'19)", pp. 1528-1533, Florence, Italy, Mar. 25-29, 2019.
3. Di Liu, Jelena Spasic, **Peng Wang**, and Todor Stefanov, "Energy-Efficient Scheduling of Real-Time Tasks on Heterogeneous Multicores Using Task Splitting", In Proc. "22nd IEEE International Conference on Embedded and Real-Time Computing Systems and Applications (RTCSA'16)", pp. 149-158, Daegu, South Korea, Aug. 17-19, 2016.
4. Fuchs, Christian M, Murillo, Nadia M, Plaat, Aske, van der Kouwe, Erik, **Peng Wang**, "Towards affordable fault-tolerant nanosatellite computing with commodity hardware", In Proc. "27th IEEE Asian Test Symposium (ATS'2018)", pp. 127-132, Heifei, China, Oct. 15-18, 2018.