Adaptive Systems Laboratory

Ben Abdallah Abderazek
Professor

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Refereed academic journal

[benab-203-037-01:2016] Abderazek Ben Abdallah Michael Meyer, Yuichi Okuyama. Microring Fault-resilient Photonic Network-on-Chip for Reliable High-performance Many-core Systems. *Supercomputing*, 73(4):1567–1599, 2017.

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[benab-203-037-02:2016] Yuichi Okuyama-Abderazek Ben Abdallah Khanh N. Dang, Michael Meyer. A Low-overhead Soft-Hard Fault Tolerant Architecture, Design, and Management Scheme for Reliable High-performance Many-core 3D-NoC Systems. *Supercomputing*, 73(6):2705–2729, 2017.

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[benab-203-037-03:2016] Yuichi Okuyama Abderazek Ben Abdallah, Khanh N. Dang. A Low-overhead Fault tolerant Technique for TSV-based Interconnects in 3D-IC Systems. *The 18th International Conference on Sciences and Techniques of Automatic control and computer engineering STA2017*, 12 2017.

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[benab-203-037-04:2016] Yuichi Okuyama Khanh N. Dang, Akram Ben Ahmed and Abderazek Ben Abdallah. Scalable Design Methodology and Online Algorithm for TSV-cluster Defects Recovery in Highly Reliable 3D-NoC Systems. *IEEE Transactions on Emerging Topics in Computing*, 3 2018.

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[benab-203-037-05:2016] Abderazek Ben Abdallah Achraf Ben Ahmed, Tsutomu Yoshinaga. Scalable Photonic Networks-on-Chip Architecture Based on a Novel Wavelength-Shifting Mechanism. *IEEE Transactions on Emerging Topics in Computing*, 3 2018.

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[benab-203-037-06:2016] Xuan-Tu Tran Yuichi Okuyama Abderazek Ben Abdallah Khanh N. Dang, Akram Ben Ahmed. A Comprehensive Reliability Assessment of Fault-Resilient Network-on-Chip Using Analytical Model.

IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 3 2018.

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[benab-203-037-07:2016] Abderazek Ben Abdallah. Advanced Multicore Systems On-Chip: Architecture, On-Chip Network, Design. *Book: Publishers: Springer; 1st ed, 2017*, (ISBN-13: 978-9811060915, ISBN-10: 98110609162017.), 2017.

Publishers: Springer; 1st ed, 2017, ISBN-13: 978-9811060915, ISBN-10: 98110609162017.

Refereed proceedings of an academic conference

[benab-203-037-08:2016] Yuichi Okuyama Abderazek Ben Abdallah Khanh N. Dang, Michael Meyer. Reliability Assessment and Quantitative Evaluation of Soft-Error Resilient 3D NoC System. In *IEEE Proc of the 25th-IEEE Asian Test Symposium (ATS16)*, pages 161–166, 2016.

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[benab-203-037-09:2016] Abderazek Ben Abdallah Michael Meyer, Yuichi Okuyama. A Power Estimation Method for Mesh-based Photonic NoC Routing Algorithms. In *Proc. of the Fourth International Symposium on Computing and Networking, Hiroshima*, pages 452–453, 2016.

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[benab-203-037-10:2016] Abderazek Ben Abdallah Khanh N. Dang, Yuichi Okuyama. Soft-Error Resilient Network-on-Chip for Safety-Critical Applications. In *2016 IEEE International Conference on Integrated Circuit Design and Technology (ICICDT), Ho Chi Minh*, 2016.

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Writing a textbook or technical book

[benab-203-037-11:2016] Abderazek Ben Abdallah. *Advanced Multicore Systems On-Chip: Architecture, On-Chip Network, Design*. Springer, 1st ed. edition, 09 2017.

SBN-13: 978-9811060915, ISBN-10: 98110609162017.

Academic society activities

[benab-203-037-12:2016] Abderaezk Ben Abdallah, 2017.

(1) External Ph.D. examiner, University of Otago, New Zealand, 2017 (2) Steering Chair, IEEE Symposium on Embedded Multicore/Manycore Systems-on-chip (MCSoC) Series, 2017. (3) Program member of the IEEE Symposium on Low-Power and High-Speed Chips (COOLChips), Yokohama, 2017 (4) Senior Member of IEEE (Institute of Electrical and Electronics Engineers) (5) Senior Member of ACM (Association for Computing Machinery) (6) Member of IEICE (The Institute of Electronics, Information, and Communication Engineers)

Patent

[benab-203-037-13:2016] Abderazek Ben Abdallah. Methods, Algorithm, and Robust Fault-tolerant Router for Reliable Networks-on-Chip,, 2016.

Advisor for undergraduate research and graduate research

[benab-203-037-14:2016] Nam Khanh Dang. Ph.d., Graduate School of Computer Science and Engineering, 9 2017.

Supervisor: Ben Adballah Abderazek

[benab-203-037-15:2016] Michael Meyer. Ph.d., Graduate School of Computer Science and Engineering, 2016.

[benab-203-037-16:2016] Ryunosuke Murakami. B.s., CSE, 2017.

[benab-203-037-17:2016] Yuji Murakami. B.s, CSE, 2017.

[benab-203-037-18:2016] Nao Miyamoto. B.s., CSE, 2017.

[benab-203-037-19:2016] Kaori Yatsu. B.s., CSe, 2017.

Others

[benab-203-037-20:2016] Abderazek Ben Abdallah, 2017.

(1) Invited Speaker, International Conference on Control, Automation and Robotics, April 22-24, 2017, Nagoya, Japan. Title: "Neuro-Inspired Adaptive Manycore SoCs and Applications". (2) Invited Talk, 1st ACM Chapter Networking Seminar on Globalization & Innovative Thinking, 2017/11/26, University of Aizu. Title: Developing a Mindset for Innovation & Entrepreneurship. (3) Invited Speaker, 17th International Conference on Sciences and Techniques of Automatic control & Computer Engineering (STA2016), Sousse, Dec. 19-21, 2016. Title: "Adaptive SoCs for Smart Autonomous Systems."

[benab-203-037-21:2016] Abderazek Ben Abdallah, 2017.

(1) Invited Speaker, International Conference on Control, Automation and Robotics, April 22-24, 2017, Nagoya, Japan. Title: Neuro-Inspired Adaptive Manycore SoCs and Applications. (2) Invited Talk, 1st ACM Chapter Networking Seminar on Globalization and Innovative Thinking, 2017/11/26, University of Aizu. Title: Developing a Mindset for Innovation and Entrepreneurship. (3) Invited Speaker, 17th International Conference on Sciences and Techniques of Automatic control and Computer Engineering (STA2016), Sousse, Dec. 19-21, 2016. Title: Adaptive SoCs for Smart Autonomous Systems.

[benab-203-037-22:2016] Abderazek Ben Abdallah, 2017.

(1) Invited Speaker, International Conference on Control, Automation and Robotics, April 22-24, 2017, Nagoya, Japan. Title: Neuro-Inspired Adaptive Manycore SoCs and Applications. (2) Invited Talk, 1st ACM Chapter Networking Seminar on Globalization and Innovative Thinking, 2017/11/26, University of Aizu. Title: Developing a Mindset for Innovation and Entrepreneurship. (3) Invited Speaker, 17th International Conference on Sciences and Techniques of Automatic control and Computer Engineering (STA2016), Sousse, Dec. 19-21, 2016. Title: Adaptive SoCs for Smart Autonomous Systems.