

Kazushi Yamashina

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Affiliation :

My interests

FPGA application, Hardware/Software co-system and design.

Personal History

- 2017 Received M.E. from Utsunomiya University, Graduate School of Engineering.
- 2015 Received B.E. from Utsunomiya University of Engineering, Japan.
- 2011 Received Assoc. from Shino North High School, Japan.

Publications

International Conference (Peer Reviewed)

- Takeshi Ohkawa, **Kazushi Yamashina**, Takuya Matsumoto, Kanemitsu Ootsu, Takashi Yokota, "Architecture Exploration of Robot System using ROS-Compliant FPGA Component," 27th IEEE International Symposium on Rapid System Prototyping (RSP), <http://dx.doi.org/10.1145/2990299.2990312>, 2016
- **Kazushi Yamashina**, Takeshi Ohkawa, Kanemitsu Ootsu, Takashi Yokota, "cReComp: Automated Design Tool for ROS-Compliant FPGA Component", IEEE 10th International Symposium on Embedded Multicore/Many-core Systems-on-Chip (MCSoc-16), <http://ieeexplore.ieee.org/document/7774431>, 2016
- **Kazushi Yamashina**, Takeshi Ohkawa, Kanemitsu Ootsu, Takashi Yokota, "Proposal of ROS-compliant FPGA Component for Low-Power Robotic Systems --case study on image processing application--, " Proceedings of 2nd International Workshop on FPGAs for Software Programmers (FSP 2015), pp.62-67, ePrint Proceedings: arXiv:1508.06320 (<http://arXiv.org/abs/1508.06320/>), 2015

Domestic Workshop (Non Reviewed)

- **Kazushi Yamashina**, Takeshi Ohkawa, Kanemitsu Ootsu, Takashi Yokota, "ROSのPublish/Subscribe通信のハードウェア実装による高速化の検討", 情報処理学会第79回全国大会予稿集, Japanese Only.
- **Kazushi Yamashina**, Takuya Matsumoto, Takeshi Ohkawa, Kanemitsu Ootsu, Takashi Yokota, "FPGAを用いた処理のロボット向けコンポーネントと設計生産性評価", TECHNICAL REPORT OF IEICE, Vol.116, No.462, CNR2016-23, pp.23-28, 2017, Japanese Only.
- Takuya Matsumoto, **Kazushi Yamashina**, Takeshi Ohkawa, Kanemitsu Ootsu, Takashi Yokota, "ニューラルネットワークのROS準拠FPGAコンポーネント化の初期検討", TECHNICAL REPORT OF IEICE, Vol. 116, No.417, RECONF2016-70, pp.133-134, 2017, Japanese Only.
- **Kazushi Yamashina**, Takeshi Ohkawa, Kanemitsu Ootsu, Takashi Yokota, "Functional Improvement of cReComp Design Tool for Software-Component Generation of FPGA Proces", TECHNICAL REPORT OF IEICE, Vol.116, No.210, RECONF2016-24, pp.1-6, 2016
- **Kazushi Yamashina**, Takeshi Ohkawa, Kanemitsu Ootsu, Takashi Yokota, "自律移動ロボット向けソフト・ハード協調のためのコンポーネント設計支援ツール", 第34回日本ロボット学会学術講演会予稿集, 2X1-08, 2016, Japanese Only.
- **Kazushi Yamashina**, Takeshi Ohkawa, Kanemitsu Ootsu, Takashi Yokota, "Automatic Design Environment for Componentization of an FPGA Processing in ROS", Proceedings of the 60th Annual Conference of the Institute of Systems, Control and Information Engineers, 111-3, 2016, Japanese Only.
- **Kazushi Yamashina**, Hitomi Kimura, Takeshi Ohkawa, Kanemitsu Ootsu, Takashi Yokota, "FPGAコンポーネントを用いた水中ロボット制御の高速化", 情報処理学会 第78回全国大会講演論文集, pp.xx~xx-xx, 2016, Japanese Only.
- **Kazushi Yamashina**, Takeshi Ohkawa, Kentaro Sano, Kouhei Nagasu, Daichi Tanaka, Kanemitsu Ootsu, Takashi Yokota, "ROS準拠FPGAコンポーネントを用いた遠隔制御ロボットカー", TECHNICAL REPORT OF IEICE, Vol.115, No.243, CPSY2015-54, pp.49, 2015
- **Kazushi Yamashina**, Takeshi Ohkawa, Kanemitsu Ootsu, Takashi Yokota, "ROS Compliant Componentizing of Image Processing Hardware on a Programmable SoC", TECHNICAL REPORT OF IEICE, Vol.115, No.109, RECONF2015-8, pp.41-46, 2015
- **Kazushi Yamashina**, Takeshi Ohkawa, Kanemitsu Ootsu, Takashi Yokota, " Fundamental Design of ROS Compliant Components of Image Processing on an FPGA for Robotic Application", 情報処理学会 第77回全国大会講演論文集, pp.1-

Open Project

- cReComp
 - <https://github.com/kazuyamashi/cReComp>
- OpenReroc
 - <http://kumikomi.github.io/OpenReroc>
- COCORE
 - <https://github.com/kazuyamashi/cocore>