Masatoshi Ishikawa - Activities

2024

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1. CV & Awards (Affiliation / CV / Speciality / Awards)

Tokyo University of Science

Home Page | YouTube | Facebook | Twitter | Instagram | LinkedIn | LINE

Laboratory (En:English, Ja:Japanese)

Home Page | YouTube En | YouTube En | Facebook En | Facebook Ja

Personal

Facebook En | Facebook Ja

Affiliation

Tokyo University of Science
President / Professor
1-3 Kagurazaka, Shinjuku-ku, Tokyo 113-8601, JAPAN

E-Mail
E-Mail:ishikawa@ishikawa-vision.org

Curriculum Vitae

2023.4 **Professor**, Research Institute for Science and Technology, Tokyo University of Science[*1]
2022.1 **President**, Tokyo University of Science[*1,*2,*3]
2020.4 **Project Professor**, Data Science Division, Information Technology Center, the University of Tokyo[*4] (until March 2023)
2019.4 **Professor**, Department of Information Physics and Computing, Graduate School of Information Science and Technology, the University of Tokyo[*5,*7] (until March 2020)
2016.4 **Dean**, Graduate School of Information Science and Technology, the University of Tokyo[*5,*6,*7] (until March 2020)
2005.4 **Professor**, Department of Creative Informatics, Graduate School of Information Science and Technology, the University of Tokyo[*6,*7] (until March 2020)
- **Executive Vice-President**, the University of Tokyo[*5,*6,*7,*8,*9] (until March 2006)
2004.4 **Vice-President**, the University of Tokyo[*6,*7,*8] (until March 2005)
2002.4 **Executive Advisor to the President**, the University of Tokyo[*6,*7,*10] (until March 2004)
2001.4 **Professor**, Department of Information Physics and Computing, Graduate School of Information Science and Technology, the University of Tokyo[*7]
1999.4 **Professor**, Department of Mathematical Engineering and Information Physics, Graduate School of Engineering, the University of Tokyo[*7]
1995.4 **Associate Professor**, Department of Mathematical Engineering and Information Physics, Graduate School of Engineering, the University of Tokyo[*11]
1989.6 **Associate Professor**, Department of Mathematical Engineering and Information Physics, Faculty of Engineering, the University of Tokyo[*12,*13]
1987.4 **Senior Researcher**, Industrial Products Research Institute, Agency of Industrial Science and Technology[*14]
1979.4 **Researcher**, Industrial Products Research Institute, Agency of Industrial Science and Technology[*14]

1988.2 **Dr. of Engineering**, the University of Tokyo
1979.3 Completed Master Course of Department of Mathematical Engineering and Information Physics, Graduated School of Engineering, the University of Tokyo
1977.3 Graduated Department of Mathematical Engineering and Information Physics, Faculty of Engineering, the University of Tokyo

Concurrent position: *1: President, Tokyo University of Science, *2: Professor, Research Institute for Science and Technology, Tokyo University of Science from 2023.4, *3: Project Professor, Data Science Division, Information Technology Center, the University of Tokyo until 2023.3, *4: President, Tokyo University of Science, from 2022.1, *5: Professor, Department of Creative Informatics, Graduate School of Information Science and Technology, the University of Tokyo, *6: Professor, Department of Information Physics and Computing, Graduate School of Information Science and Technology, the University of Tokyo, *7: Professor, Department of Mathematical Engineering and Information Physics, Faculty of Engineering, the University of Tokyo, *8: Director, Division of University Corporate Relations, the University of Tokyo, *9: Director and Chief Information Officer, Division of University Information Systems, the University of Tokyo, *10: Director, Division of University Corporate Relations the University of Tokyo, from 2002.9, *11: Associate Professor, Department of Mathematical Engineering and Information Physics, Faculty of Engineering, the University of Tokyo, *12: Associate Professor, Department of Mathematical Engineering and Information Physics, Graduate School of Engineering, the University of Tokyo, *13: Senior Researcher, Industrial Products Research Institute, Agency of Industrial Science and Technology,
Present Name: *14: National Institute of Advanced Industrial Science and Technology

** For other activities, please visit "Academic Activities (Membership / Domestic / International / University of Tokyo / Other Activities) "

Speciality

Systems Informatics

Perception and Behavior Systems, Sensor Technology. Robotics, Image Processing, Bio-Informations Systems

Sensor Fusion, Massively Parallel High-speed Vision, High-speed Intelligent Robots, Visual Feedback, Dynamic Interaction, Optics in Computing, Tactile Sensor, Circuit Model of Neural Network

** For other activities, please visit " Research "

Awards

Medal of Honor (Domestic) (1)

2011.11 Medal with Purple Ribbon, Japanese Government (Masatoshi Ishikawa)

Awards from Academic Society (Domestic) (23)

2020.10 Excellent Research and Technology Award, the Robotics Society of Japan (Keisuke Koyama, Makoto Shimojo, Taku Senoo, and Masatoshi Ishikawa)
- 9 Best Paper Award, the Virtual Reality Society of Japan (Takuya Kadowaki, Michika Maruyama, Tomohiko Hayakawa, Naoki Matsuzawa, Kenichiro Iwasaki, and Masatoshi Ishikawa)

2019. 6 Takagi Award, the Society of Image Sensing Technology (Yoshihiro Watanabe, Masahiro Yamada, and Masatoshi Ishikawa)
2018. 9 Best Paper Award, the Virtual Reality Society of Japan (Takatoshi Yoshida, Yoshihiro Watanabe, and Masatoshi Ishikawa)
2017. 5 Niwa Takayanagi Best Paper Award, the Institute of Image Information and Television Engineers (Leo Miyashita, Yoshihiro Watanabe, and Masatoshi Ishikawa)
2016. 9 Advanced Robotics Best Paper Award, the Robotics Society of Japan (Kohei Okumura, Keiko Yokoyama, Hiromasa Oku, and Masatoshi Ishikawa)
2015. 9 Best Paper Award, the Virtual Reality Society of Japan (Tomohiro Sueishi, Keisuke Hasegawa, Kohei Okumura, Hiromasa Oku, Hiroyuki Shinoda, and Masatoshi Ishikawa)
2014. 9 Best Paper Award and Hasunuma Award, the Society of Instrument and Control Engineers (Kohei Okumura, Masato Ishii, Eri Tatsumi, Hiromasa Oku, and Masatoshi Ishikawa)
- 4 Best Video Contents Award, the Institute of Image Information and Television Engineers (Kohei Okumura, Hiromasa Oku, and Masatoshi Ishikawa)

2013. 9 Best Paper Award, the Virtual Reality Society of Japan (Yoshihiro Watanabe, Takashi Komuro, and Masatoshi Ishikawa)
- - Best Paper Award, the Robotics Society of Japan (Kohei Okumura, Hiromasa Oku, and Masatoshi Ishikawa)
- 2 Award for Encouragement of Technology, the Japanese Society of Printing Science and Technology (Masahiro Yamada, Yoshihiro Watanabe, and Masatoshi Ishikawa)

2011. 9 Best Paper Award, the Virtual Reality Society of Japan (Yoshihiro Watanabe, Alvaro Cassinelli, Takashi Komuro, and Masatoshi Ishikawa)
2010. 9 Best Paper Award, the Robotics Society of Japan (Hiromasa Oku, Takahiko Ishikawa, and Masatoshi Ishikawa)
- 8 Best Paper Award, the Society of Instrument and Control Engineers (Takaaki Nishino, Makoto Shimojo, and Masatoshi Ishikawa)

2008. 9 Best Paper Award, the Robotics Society of Japan (Yoshihiro Watanabe, Takashi Komuro, and Masatoshi Ishikawa)
2005. 3 Major Contribution Award in Integration of Opto-electronics, the Japan Society of Applied Physics (Izuo Hayashi Award) (Masatoshi Ishikawa)
2004. 8 Best Technique Award: Tomoda Award, the Society of Instrument and Control Engineers (Masatoshi Ishikawa, Takashi Komuro, Idaku Ishii, Atsushi Yoshida, Yoshiaki Inada, and Yasuhiro Komiya)
- 5 Best Development Award, the Institute of Image Information and Television Engineers (Intelligent Vision System Group [Hamamatsu Photonics, RIKEN, and the University of Tokyo, Leaders:Haruyoshi Toyoda, Yoshihiro Nakabo, and Masatoshi Ishikawa])

2001. 9 Best Paper Award, the Robotics Society of Japan (Akio Namiki, and Masatoshi Ishikawa)
1998. 9 Best Paper Award, the Robotics Society of Japan (Yoshihiro Nakabo, Idaku Ishii, and Masatoshi Ishikawa)
1990. 3 Best Optics Paper Award, the Optical Society of Japan, the Japan Society of Applied Physics (Masatoshi Ishikawa)
1984. 7 Best Paper Award, the Society of Instrument and Control Engineers (Masatoshi Ishikawa and Makoto Shimojo)

Awards from Domestic Organization except Academic Society (13)

2021. 4 Ichimura Prize in Science for Excellent Achievement Award, Ichimura Foundation for New Technology (Masatoshi Ishikawa)
- 1 Infrastructure Maintenance Award, Ministry of Land, Infrastructure, Transport and Tourism Award, Ministry of Land, Infrastructure, Transport and Tourism (University of Tokyo [Tomohiko Hayakawa, Yushi Moko, Himari Tochioka, and Masatoshi Ishikawa], Central Nippon Expressway Co., Ltd [Hiroyuki Kameoka, Yuichiro Fujita, and Yoshimasa Onishi])

2018. 5 Tateisi Prize, Grand Award, Tateisi Science and Technology Foundation (Masatoshi Ishikawa)
2013.12 Best Paper Award, FA Foundation (Kenji Suzuki, Yousuke Suzuki, Hiroai Hasegawa, Aigou Ming, Masatoshi Ishikawa, and Makoto Shimojo)
2012.11 Ericsson Telecommunications Award, Ericsson Japan K.K. (Masatoshi Ishikawa)
- 10 Houkou Award, the Hattori Houkou Foundation (Masatoshi Ishikawa)
- 2 Shimazu Award, the Shimazu Science and Technology Foundation (Masatoshi Ishikawa)

2010. 3 Best Paper Award, the FANUC FA and Robot Foundation (Makoto Shimojo, Takaaki Nishino, and Masatoshi Ishikawa)
2002. 5 IP Award (LSI IP Design Award), the Steering Committee of LSI IP Design Award (Masatoshi Ishikawa, Shingo Kagami, Takashi Komuro, and Idaku Ishii)
2000. 5 Best IP Award (LSI IP Design Award), the Steering Committee of LSI IP Design Award (Masatoshi Ishikawa, Takashi Komuro, Kazuya Ogawa, and Idaku Ishii)
1999.12 Kenjiro Sakurai Memorial Prize, the Optoelectronic Industry and Technology Development Association (Masatoshi Ishikawa)
1998. 3 Award for Progress in Advanced Automation Technology, the Foundation for Promotion of Advanced Automation Technology (Yoshihiro Nakabo, Idaku Ishii, and Masatoshi Ishikawa)
1988.11 Best Researcher Award, the Agency of Industrial Science and Technology (Masatoshi Ishikawa)

Awards to the Laboratory from Domestic Organization except Academic Society (12)

2021. 3 The 9th Robot Award, Excellent Prize, Ministry of Economy, Trade and Industry, Japan Machinery Federation, and related Ministries (University of Tokyo and Central Nippon Expressway Company Limited)
2020.11 Innovative Technologies 2020, Special Prize - Vision -, Trade and Industry, Japan and Digital Content Association of Japan (Ishikawa Hayakawa Huang Sueishi Miyashita Laboratory)

- - Innovative Technologies 2020, Sponsor Award, Ministry of Economy, Trade and Industry, Japan and Digital Content Association of Japan (Ishikawa Hayakawa Huang Sueishi Miyashita Laboratory)
2019.11 Innovative Technologies 2019, ACM SIGGRAPH Special Prize, Ministry of Economy, Trade and Industry, Japan and Digital Content Association of Japan (Ishikawa Senoo Laboratory / Watanabe Laboratory, Tokyo Institute of Technology)
- - Innovative Technologies 2019, Sponsor Award, Ministry of Economy, Trade and Industry, Japan and Digital Content Association of Japan (Ishikawa Senoo Laboratory / Watanabe Laboratory, Tokyo Institute of Technology)
- - Innovative Technologies 2019, Ministry of Economy, Trade and Industry, Japan and Digital Content Association of Japan (Ishikawa Senoo Laboratory / Watanabe Laboratory, Tokyo Institute of Technology)
2015.12 Oe Ohama Award of 2015 Toretama, World Business Satellite, TV TOKYO (Ishikawa Watanabe Laboratory)
- 10 Innovative Technologies 2015, Ministry of Economy, Trade and Industry, Japan and Digital Content Association of Japan (Ishikawa Watanabe Laboratory)
- 5 Best of Toretama Finalist, the commemorative 4000th Toretama, Toretama Award Selection Committee, World Business Satellite, TV TOKYO (Faculty of Engineering, The University of Tokyo)
2014.10 Innovative Technologies 2014, Ministry of Economy, Trade and Industry, Japan and Digital Content Association of Japan (Ishikawa Watanabe Laboratory)
2013.10 Special Award of Innovative Technologies 2013 (Industry), Ministry of Economy, Trade and Industry, Japan and Digital Content Association of Japan (Ishikawa Oku Laboratory)
- - Innovative Technologies 2013, Ministry of Economy, Trade and Industry, Japan and Digital Content Association of Japan (Ishikawa Oku Laboratory)

Awards from Division of Academic Society (Domestic) (14)

2020. 5 Certificate of Merit for ROBOMECH Outstanding Research Activity, Division of Robotics and Mechatronics, the Japan Society of Mechanical Engineers (Keisuke Koyama, Makoto Shimojo, Taku Senoo, and Masatoshi Ishikawa)
2019.12 Award for Encouragement of Research, Technical Division of System Integration, the Society of Instrument and Control Engineers (Takuya Kadowaki, Tomohiko Hayakawa, and Masatoshi Ishikawa)
- 5 Certificate of Merit for ROBOMECH Outstanding Research Activity, Division of Robotics and Mechatronics, the Japan Society of Mechanical Engineers (Keisuke Koyama, Makoto Shimojo, Taku Senoio, and Masatoshi Ishikawa)
2018. 5 Certificate of Merit for ROBOMECH Outstanding Research Activity, Division of Robotics and Mechatronics, the Japan Society of Mechanical Engineers (Taku Senoo, Kennichi Murakami, and Masatoshi Ishikawa)
2016.12 Award for Encouragement of Research, Technical Division of System Integration, the Society of Instrument and Control Engineers (Taku Senoo, Masanori Koike, Kennichi Murakami, and Masatoshi Ishikawa)
2014. 9 Best Paper Award, Technical Division of Measurement, the Society of Instrument and Control Engineers (Kohei Okumura, Masato Ishii, Eri Tatsumi, Hiromasa Oku, and Masatoshi Ishikawa)
- 5 Certificate of Merit for ROBOMECH Outstanding Research Activity, Division of Robotics and Mechatronics, the Japan Society of Mechanical Engineers (Shohei Noguchi, Miho Tamei, Masahiro Yamada, Yoshihiro Watanabe, and Masatoshi Ishikawa)
2013. 5 Certificate of Merit for ROBOMECH Outstanding Research Activity, Division of Robotics and Mechatronics, the Japan Society of Mechanical Engineers (Yuji Yamakawa, Akio Namiki, and Masatoshi Ishikawa)
2011.12 Award for Encouragement of Research, Technical Division of System Integration, the Society of Instrument and Control Engineers (Yuji Yamakawa, Akio Namiki, and Masatoshi Ishikawa)
2007. 5 Certificate of Merit for ROBOMECH Outstanding Research Activity, Division of Robotics and Mechatronics, the Japan Society of Mechanical Engineers (Noriatsu Furukawa, Taku Senoo, Akio Namiki, and Masatoshi Ishikawa)
2005. 6 Certificate of Merit for ROBOMECH Outstanding Research Activity, Division of Robotics and Mechatronics, the Japan Society of Mechanical Engineers (Makoto Kaneko, Hie-Yong Jeong, Mitsuru Higashimori, Idaku Ishii, Akio Namiki, and Masatoshi Ishikawa)
2003.12 Award for Encouragement, Technical Division of System Integration, the Society of Instrument and Control Engineers (Akio Namiki, Yoshiro Imai, and Masatoshi Ishikawa)
- 5 Certificate of Merit for ROBOMECH Outstanding Research Activity, Division of Robotics and Mechatronics, the Japan Society of Mechanical Engineers (Makoto Shimojo, Ryota Makino, Hironori Ogawa, Takafumi Suzuki, Akio Namiki, Takashi Saito, Masatoshi Ishikawa, and Kunihiko Mabuchi)
1999. 6 Major Contribution Award, Division of Robotics and Mechatronics, Japan Society of Mechanical Engineers (Masatoshi Ishikawa)

Fellow and Honorary Member of Academic Society (Domestic) (6)

2022. 9 Honorary Member, the Society of the Instrument and Control Engineers (Masatoshi Ishikawa)
2019. 6 Fellow, the Japan Federation of Engineering Societies (Masatoshi Ishikawa)
2014. 1 Fellow, the Japan Society of Mechanical Engineers (Masatoshi Ishikawa)
2012. 9 Fellow, the Institute of Electronics, Information and Communication Engineers (Masatoshi Ishikawa)
2010. 9 Fellow, the Robotics Society of Japan (Masatoshi Ishikawa)
1997. 7 Fellow, the Society of the Instrument and Control Engineers (Masatoshi Ishikawa)

Medal from International Academic Society (1)

2017.11 The Finkelstein Medal, Institute of Measurement and Control (InstMC) (Masatoshi Ishikawa)

Awards at International Conference (20)

2023. 9 SICE Annual Conference International Award (Application), SICE Annual Conference 2023 (SICE2023) (Himari Tochioka, Tomohiro Sueishi, and Masatoshi Ishikawa)
2022. 3 Best Poster Award Nomination, 2022 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW2022) (Ayumi Matsumoto, Tomohiro Sueishi, and Masatoshi Ishikawa)
2020. 1 Best Student Paper Award, 2020 IEEE/SICE Int. Symp. on System Integration (Mikihiro Ikura, Leo Miyashita, and Masatoshi Ishikawa)
2019.11 Best Demo Voted By Committee - Honorable Mentions (Emerging Technology), SIGGRAPH Asia 2019 (Ryo Ito, Leo Miyashita, and Masatoshi Ishikawa)
2018.12 Honorable Mentions (Paper), The 24th ACM Symposium on Virtual Reality Software and Technology (VRST2018) (Masashi Nitta, Tomohiro Sueishi, and Masatoshi Ishikawa)
- - Microsoft Award, The 24th ACM Symposium on Virtual Reality Software and Technology (VRST2018) (Masashi Nitta, Tomohiro Sueishi, and Masatoshi Ishikawa)
2016.12 T.J.Tarn Best Paper in Robotics Award, 2016 IEEE Int. Conf. on Robotics and Biominetics (ROBIO 2016) (Taku Senoo, Yuuki Horiuchi, Yoshinobu Nakanishi, Kenichi Murakami, and Masatoshi Ishikawa)
2015.12 Best Paper Award, Int. Display Workshops (IDW '15) (Yoshihiro Watanabe, Gaku Narita, Sho Tatsuno, Takeshi Yuasa, Kiwamu Sumino, and Masatoshi Ishikawa)

- 10 Finalist of Best Student Paper Award, 2015 IEEE Int. Conf. on Robotics and Biominetics (ROBIO 2015) (Kenichi Murakami, Yuji Yamakawa, Taku Senoo, and Masatoshi Ishikawa)
2014.10 Best Student Paper Award, 2014 Int. Conf. on Advanced Computer Science and Information Systems (Muhammad Sakti Alvissalim, Masahiko Yasui, Chihiro Watanabe, and Masatoshi Ishikawa)
- 3 Best Paper Award, Winter Conference on the Applications of Computer Vision (Shohei Noguchi, Masahiro Yamada, Yoshihiro Watanabe, and Masatoshi Ishikawa)
- - Honorable Mention, 5th Augmented Human International Conference (Takehiro Niikura, Yoshihiro Watanabe, and Masatoshi Ishikawa)
2012.10 Best IROS Jubilee Video Award, IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (Masatoshi Ishikawa, Akio Namiki, Taku Senoo, and Yuji Yamakawa)
2011. 6 Best Presentation Award, 42nd IEEE VAIL Computer Elements Workshop (Masatoshi Ishikawa)
2007.10 Best Paper Nomination Finalist, IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (Makoto Shimojo, Takuma Araki, Aiguo Ming, and Masatoshi Ishikawa)
2006.12 Best Paper in Biomimetics, IEEE Int. Conf. on Robotics and Biomimetics (Anchelee Davies, Naoko Ogawa, Hiromasa Oku, Koichi Hashimoto, and Masatoshi Ishikawa)
- 5 Best Manipulation Paper Award, IEEE Int. Conf. on Robotics and Automation (Noriatsu Furukawa, Akio Namiki, Taku Senoo, and Masatoshi Ishikawa)
2004. 4 Best Vision Paper Award Finalist, IEEE Int. Conf. on Robotics and Automation (Yoshiro Imai, Akio Namiki, Koichi Hashimoto, and Masatoshi Ishikawa)
2003. 9 Excellent Paper Award, 6th Japan-France Congress on Mechatronics & 4th Asia-Europe Congress on Mechatronics (Makoto Shimojo, Ryota Makino, Hironori Ogawa, Takafumi Suzuki, Akio Namiki, Takashi Saito, Masanori Kunimoto, Masatoshi Ishikawa, and Kunihiko Mabuchi)
1996. 4 Best Video Award Finalist, IEEE Int. Conf. on Robotics and Automation (Yoshihiro Nakabo, Idaku Ishii, and Masatoshi Ishikawa)

Awards from International Academic Council (13)

IEEE Sensors Council, Most Accessed/Cited Articles (Makoto Shimojo, Akio Namiki, Masatoshi Ishikawa, Ryota Makino, and Kunihiko Mabuchi)

IEEE Sensors Council, 50 Most Accessed Articles
2017 May No.41, Apr. No.35, Mar. No.50
2016 Dec. No.32, Nov. No.16, Oct. No.21, Sep. No.49
2014 Oct. No.10, Sep. No.37

IEEE Sensors Council, Most Cited from All Time by April 2014
2014 Apr. No.8

IEEE Sensors Council, 25 Most Accessed Articles
2014 Apr. No.22
2012 Jun. No.10 Apr. No.15

Awards to the Laboratory at International Conference (2)

2011. 4 Le Grand Prix du Jury, 13th Int. Conf. on Virtual Reality (Laval Virtual) (Ishikawa Komuro Laboratory)
2009. 4 Best Project in the Category of Medicine and Health, 11th Int. Conf. on Virtual Reality (Laval Virtual) (Ishikawa Komuro Laboratory)

Awards from International Organization except Academic Society (1)

2010.10 Nissan Research Challenge Innovative Concept Award, Nissan Research Center (Carson Reynolds, Alvaro Cassinelli, Yoshihiro Watanabe, Masatoshi Ishikawa, Tomoko Hayashi, Isao Kanemaki, Takehiro Goto, Takashi Asari, Yuichi Nakamura, Koutaro Furukawa)

Awards at Domestic Conference (42)

2020. 3 Interactive Presentation Award (Recommendation by PC), Interaction 2020 (Kentaro Fukamizu, Leo Miyashita, and Masatoshi Ishikawa)
2019.10 MVE Award, Technical Group on Media Experience and Virtual Environment, The Institute of Electronics, Information and Communication Engineers (Ryo Ito, Leo Miyashita, and Masatoshi Ishikawa)
2018.12 Best Poster Award, ITS Symposium 2018 (Tomohiko Hayakawa, Yushi Moko, Kenta Morishita, and Masatoshi Ishikawa)
- 6 Excellent Paper Award, Symposium on Sensing via Image Information 2017 (SSII2017) (Michika Maruyama, Satoshi Tabata, Yoshihiro Watanabe, and Masatoshi Ishikawa)
2017. 3 Research Encouragement Award, Dynamic Image-processing for Real Application Workshop 2017 (Chaerim Yeo, Yoshihiro Watanabe, and Masatoshi Ishikawa)
2016. 3 Excellent Paper Award, Robotics Symposia (Taku Senoo, Masanori Koike, Kennichi Murakami, and Masatoshi Ishikawa)
2014. 6 Best Paper Award, Symposium on Sensing via Image Information 2013 (SSII2013) (Hiromasa Oku, Kohei Okumura, and Masatoshi Ishikawa)
2013. 6 Audience Award, Symposium on Sensing via Image Information 2013 (SSII2013) (Hiromasa Oku, Kohei Okumura, and Masatoshi Ishikawa)
- 2 Award for Encouragement of Research Presentation, the Japanese Society of Printing Science and Technology (Masahiro Yamada, Yoshihiro Watanabe, and Masatoshi Ishikawa)
2012. 6 Excellent Paper Award, Symposium on Sensing via Image Information 2011 (SSII2011) (Hideshi Arima, Koutaro Itoyama, Masahiro Yamada, Takashi Komuro, Yoshihiro Watanabe, and Masatoshi Ishikawa)
2011. 6 Audience Award, Symposium on Sensing via Image Information 2011 (SSII2011) (Hideshi Arima, Koutaro Itoyama, Masahiro Yamada, Takashi Komuro, Yoshihiro Watanabe, and Masatoshi Ishikawa)
2009. 7 Best Paper Award, 3D Image Conference 2008 (Hiroshi Sugihara, Yoshihiro Watanabe, Takashi Komuro, and Masatoshi Ishikawa)
2000.11 Award for Encouragement, the IEEE Solid-State Circuits Society Japan Chapter (Shingo Kagami, Takashi Komuro, Kazuya Ogawa, Idaku Ishii, and Masatoshi Ishikawa
1998. 5 Best Paper Award, Robotics Symposia (Idaku Ishii, Tatsuya Murata, Ryosuke Matsuuchi, Takashi Komuro, and Masatoshi Ishikawa)

Award from the System Integration Technical Division of the Society of Instrument and Control Engineers
2023.12 SI2023 Best Presentation Award, (Satoshi Tabata, Tomohiro Sueishi, Leo Miyashita, and Masatoshi Ishikawa)
2022.12 SI2022 Best Presentation Award, (Himari Tochioka, Tomohiro Sueishi, and Masatoshi Ishikawa)
- - SI2022 Best Presentation Award, (Taku Senoo, Hiromichi Kawahara, Idaku Ishii, Kento Yabuuchi, Masahiro Hirano, Norimasa Kishi, and Masatoshi Ishikawa)
- - SI2022 Best Presentation Award, (Shouren Huang, Kenichi Murakami, and Masatoshi Ishikawa)
2021.12 SI2021 Best Presentation Award, (Tomohiro Sueishi, and Masatoshi Ishikawa)
- - SI2021 Best Presentation Award, (Kenichi Murakami, Shouren Huang, Masatoshi Ishikawa, and Yuji Yamakawa)
2020.12 SI2020 Best Presentation Award, (Hiromichi Kawahara, Taku Senoo, Idaku Ishii, Masahiro Hirano, Norimasa Kishi, and Masatoshi Ishikawa)

- - SI2020 Best Presentation Award, (Tomohiro Sueishi, Ryota Nishizono, and Masatoshi Ishikawa)
- - SI2020 Best Presentation Award, (Ayumi Matsumoto, Tomohiro Sueishi, and Masatoshi Ishikawa)

2019.12 SI2019 Best Presentation Award, (Satoshi Tanaka, Keisuke Koyama, Taku Senoo, and Masatoshi Ishikawa)
- - SI2019 Best Presentation Award, (Taku Senoo, Yunzhuo Wang, Masahiro Hirano, Norimasa Kishi, and Masatoshi Ishikawa)
- - SI2019 Best Presentation Award, (Ryo Ito, Leo Miyashita, and Masatoshi Ishikawa)
- 3 SI2018 Best Presentation Award, (Takuya Kadowaki, Tomohiko Hayakawa, and Masatoshi Ishikawa)

2017.12 SI2017 Best Presentation Award, (Hiroshi Sato, Yuji Yamakawa, Taku Senoo, and Masatoshi Ishikawa)
- - SI2017 Best Presentation Award, (Masahiro Hirano, Taku Senoo, Norimasa Kishi, and Masatoshi Ishikawa)

2015.12 SI2015 Best Presentation Award, (Masahiko Yasui, Yoshihiro Watanabe, and Masatoshi Ishikawa)
- - SI2015 Best Presentation Award, (Koichiro Ito, Tomohiro Sueishi, Yuji Yamakawa, and Masatoshi Ishikawa)
- - SI2015 Best Presentation Award, (Taku Senoo, Masanori Koike, Kenichi Murakami, and Masatoshi Ishikawa)
- - SI2015 Best Presentation Award, (Shouren Huang, Niklas Bergström, Yuji Yamakawa, Taku Senoo, and Masatoshi Ishikawa)

2014.12 SI2014 Best Presentation Award, (Masahiko Yasui, M. Sakti Alvissalim, Hirotsugu Yamamoto, and Masatoshi Ishikawa)

2012.12 SI2012 Best Presentation Award, (Naoto Kouda, Yousuke Suzuki, Aigou Ming, Masatoshi Ishikawa, and Makoto Shimojo)

2010.12 SI2010 Best Presentation Award, (Kazuki Terada, Hiroaki Hasegawa, Naoto Kouda, Yousuke Suzuki, Aiguo Ming, Masatoshi Ishikawa, and Makoto Shimojo)
- - SI2010 Best Presentation Award, (Hiroaki Hasegawa, Yu Mukoyama, Yousuke Suzuki, Aiguo Ming, Masatoshi Ishikawa, and Makoto Shimojo)
- 3 SI2009 Best Presentation Award, (Seiichi Teshigawara, Satoru Shimizu, Aiguo Ming, Masatoshi Ishikawa, and Makoto Shimojo)

2008.12 SI2008 Best Presentation Award, (Yoshitomo Mizoguchi, Kenjiro Tadakuma, Aiguo Ming, Masatoshi Ishikawa, and Makoto Shimojo)

2006.12 SI2006 Best Presentation Award, (Noriatsu Furukawa, Taku Senoo, Akio Namiki, and Masatoshi Ishikawa)
- - SI2006 Best Presentation Award, (Yuji Yamakawa, Akio Namiki, and Masatoshi Ishikawa)

2005.12 SI2005 Best Session Presentation Award, (Hiromasa Oku, Theodorus, Koichi Hashimoto, and Masatoshi Ishikawa)

2004.12 SI2004 Best Session Presentation Award, (Daisuke Shiokata, Akio Namiki, and Masatoshi Ishikawa)

Awards to Laboratory Members (57)

2023 Research Encouragement Award, Sensing Forum (Leo Miyashita)

2021 Young Excellent Presentation Award, XXIII World Congress of the Int. Measurement Confederation (IMEKO2021) (Masahiro Hirano)

2020 Best Presentation Award, Tokyo Branch, Illuminating Engineering Institute of Japan (Tomohiko Hayakawa)
- Young Award, IEEE Robotics and Automation Society Japan Joint Chapter (IROS 2020) (Satoshi Tanaka)
- Young Fellow Award for Best Presentation, the Japan Society of Mechanical Engineers (Mikihiro Ikura)
- Funai Research Award, the Funai Foundation for Information Technology (Tomohiko Hayakawa)

2019 Excellent Presentation Award in Annual Meeting 2019, Japan Society of Civil Engineering (Yuki Kubota)
- MIRU Student Encourage Award, MIRU 2019 (Yohta Kimura)
- Young Fellow Award for Best Presentation, the Japan Society of Mechanical Engineers (Osamu Kojima)
- Funai Research Award, the Funai Foundation for Information Technology (Leo Miyashita)

2018 Young Investigation Excellence Award, the Robotics Society of Japan (Keisuke Koyama)
- Best Demo paper Award, 2018 Symposia on VLSI Technology and Circuits (Hirofumi Sumi)
- Funai Academic Award, the Funai Foundation for Information Technology (Yuji Yamakawa)
- Funai Research Award, the Funai Foundation for Information Technology (Tomohiro Sueishi)
- Inoue Research Award for Young Scientists, the Inoue Foundation for Science (Leo Miyashita)
- PRMU Monthly Best Presentation Award (Satoshi Tabata)

2017 MIRU Student Encourage Award, MIRU 2017 (Kenta Shinya)
- Third Prize winner in the Internet and Mobile Internet (IT) Industry Final of The First China (Shenzhen) Innovation & Entrepreneurship International Competition (Shouren Huang, Yuji Yamakawa, Dengji Guo)
- Award for Encouragement of Research, the Virtual Reality Society of Japan (Takatoshi Yoshida)
- Young Author Award, the Society of Instrument and Control Engineers (Shouren Huang)
- Young Author Award, the Society of Instrument and Control Engineers (Yuji Yamakawa)
- Outstanding Reviewer, Mechatronics, Elsevier (Taku Senoo)

2016 Young Excellence Award, the System Integration Technical Division of the Society of Instrument and Control Engineers (Taku Senoo)
- Best Student Research Presentation Award, the Institute of Image Information and Television Engineers (Kenjiro Saito)
- Yamashita Memorial Award, Information Processing Society of Japan (Masahiro Hirano)
- Best Research Presentation Award, Information Processing Society of Japan, The Special Interest Group of Computer Graphics and Visual Informatics (Masahiro Hirano)
- Young Author Award, the Society of Instrument and Control Engineers (Satoshi Tabata)
- Young Author Award, the Society of Instrument and Control Engineers (Masahiko Yasui)
- Best Presentation Award, 2016 3rd Int. Conf. on Geological and Civil Engineering (ICGCE 2016) (Tomohiko Hayakawa)

2014 Young Fellow Award for Best Presentation, the Japan Society of Mechanical Engineers (Shohei Noguchi)
- Young Engineers Award (Research), the Japan Society of Mechanical Engineers (Yuji Yamakawa)

2013 Young Author Award, Asia-Pacific Symposium on Measurement of Mass, Force and Torque (APMF2013) (Yuji Yamakawa)
- Poster Award, International Workshop on Optical Terahertz Science and Technology (OTST) (Yasuaki Monnai)
- Inoue Research Award for Young Scientists, the Inoue Foundation for Science (Yuji Yamakawa)

2012 Award for Encouragement of Research and Technology, the Measurement Technical Division of the Society of Instrument and Control Engineers (Yuji Yamakawa)
- Excellent Student Presentation Award, the Institute of Image Information and Television Engineers (Kohei Okumura)
- Young Excellence Award, the System Integration Technical Division of the Society of Instrument and Control Engineers (Yuji Yamakawa)
- Suzuki Memorial Incentive Award, the Institute of Image Information and Television Engineers (Kohei Okumura)
- Funai Research Award, the Funai Foundation for Information Technology (Yuji Yamakawa)

2011 Young Author Award, Asia-Pacific Symposium on Measurement of Mass, Force and Torque (APMF2011) (Yuji Yamakawa)
- Young Investigation Excellence Award, the Robotics Society of Japan (Yuji Yamakawa)

2010 Young Author Award in IROS2010, IEEE Robotics and Automation Society Japan Chapter (Yuji Yamakawa)
- Excellence Prize, Entertainment Division of Japan Media Arts Festival (Alvaro Cassinelli, Daito Manabe, Yusaku Kuribara, and Alexis Zerroug)

2009 Young Investigation Excellence Award, the Robotics Society of Japan (Hiromasa Oku)
- Ericsson Young Scientist Award, Ericsson Japan (Yoshihiro Watanabe)
2008 Best Poster Award, Global COE ADIST Symposium, Toyohashi University of Technology (Yuji Yamakawa)
- Best Poster Award, IEIEC Image Media Processing Symposium (Kota Yamaguchi)
- Young Author Award in ICRA'08, IEEE Robotics and Automation Society Japan Chapter (Takeshi Hasegawa)
2006 Grand Prize, Art Division of Japan Media Arts Festival (Alvaro Cassinelli)
- Young Investigation Excellence Award, the Robotics Society of Japan (Naoko Ogawa)
2005 Young Author Award, the Society of Instrument and Control Engineers (Taku Senoo)
2004 Young Investigation Excellence Award, the Robotics Society of Japan (Shingo Kagami)
2002 Best Author Award, the Institute of Image Information and Television Engineers (Takashi Komuro)
- Ericsson Young Scientist Award, Ericsson Japan (Takashi Komuro)
2000 Research Award, the Research Foundation for Opto-Science and Technology (Makoto Naruse)
- Inoue Research Award for Young Scientists, the Inoue Fondation for Science (Makoto Naruse)
- Young Investigation Excellence Award, the Robotics Society of Japan (Akio Namiki)
1999 Young Investigation Excellence Award, the Robotics Society of Japan (Idaku Ishii)

Awards to Laboratory's Members from the University of Tokyo (9)

Dean's Award, Graduate School of Information Science and Technology, the University of Tokyo
2022 Department of Information Physics and Computing, Doctor Course (Masahiko Yasui)
2019 Department of Information Physics and Computing, Doctor Course (Satoshi Tabata)
2017 Department of Information Physics and Computing, Doctor Course (Leo Miyashita)
- Department of Information Physics and Computing, Master Course (Takatoshi Yoshida)
2016 Department of Information Physics and Computing, Master Course (Masahiko Yasui)
2014 Department of Creative Informatics, Doctor Course (Shouren Huang)
2013 Department of Creative Informatics, Master Course (Daniel Heffernan)
2011 Dean's Award, Graduate School of Information Science and Technology (Department of Information Physics and Computing, Doctor Course) (Yuji Yamakawa)
2008 Department of Creative Informatics, Master Course (Kazuhiro Terajima)

Awards to Co-Authors (Non Laboratory's Members) (5)

2013 Young Fellow Award for Best Presentation, the Japan Society of Mechanical Engineers (Ichiro Miyamoto, Shimojo Laboratory, The University of Electro-Communications)
2011 Young Fellow Award for Best Presentation, the Japan Society of Mechanical Engineers (Satoru Shimizu, Shimojo Laboratory, The University of Electro-Communications)
2010 Young Excellence Award, the System Integration Technical Division of the Society of Instrument and Control Engineers (Seiichi Teshigawara, Shimojo Laboratory, The University of Electro-Communications)
- Young Investigation Excellence Award, the Robotics Society of Japan (Seiichi Teshigawara, Shimojo Laboratory, The University of Electro-Communications)
2009 Young Fellow Award for Best Presentation, the Japan Society of Mechanical Engineers (Seiichi Teshigawara, Shimojo Laboratory, The University of Electro-Communications)

Awards to Related Persons (2)

2018 Best Animated Music Videos, 25. Internationale Trickfilm-Festival Stuttgart (Nobumichi Asai, and Eiji Tanigawa)
- Recommended Work by Review Committee, Art Division of Japan Media Arts Festival (Nobumichi Asai, Eiji Tanigawa, and Aya Bambi)

Awards to Related Company and Organization (1)

2017 JEITA Venture Award, Japan Electronics and Information Technology Industries Association (Exvision Corporation)

2. Research (Overview / Research Projects)

Overview

We are going on many projects related on integration of recognition and behavior using recent developing technologies such as semiconductor integration, optics in computing, and parallel processing. In other words, we are trying to realize human sensory processing functionalities including sensory integration, brain function for information processing using hierarchical parallel processing, and intelligent behavior on artificial systems beyond human.

The details of our researches are described in our booklet on our research. In addition, my research activities are listed in a booklet.

High-Speed Intelligent Robot Systems / Sensor Fusion

- Ultra-high-speed Intelligent Robots / Recognition Behavior Systems / High-speed Robot Tasks
- Hierarchical Parallel Processing Architecture Using Parallel Decomposition
- Active Sensor Fusion Systems / Active Sensing
- Dynamics Matching / Dynamic Compensation / High-speed Visual Feedback
- Sensor Fusion Using Internal Model / Sensor Network
- Human-robot Interaction / Target Tracking

High-Speed Image Tracking / Dynamic Active Vision

- High-speed Tracking Optics / Optical Axis Control / Focus Control
- Microvisual Feedback / Microbial Tracking System
- Sports Science / High-Speed Tracking Imaging / Physical Measurement
- Active Optical Systems / High-speed Variable Focus Lens / High-speed Projector
- Real-time Dynamic Image Control System
- Dynamic Projection Mapping (Tracking Type)

Massively Parallel and Ultra-high-speed Vision / Vision Systems

- Vision Chip Implementation Using VLSI Technology / High-speed Vision Camera
- 3D Shape Measurement / 3D Motion and Kinetics Measurement Using High-speed Vision
- High-speed Feature Extraction / Model Matching / High-speed Algorithm
- Parallel Processing Architecture for High-speed Vision
- High-speed Image Inspection and Control Systems / Hierarchical Integration System with AI
- Dynamic Projection Mapping (Shape Measurement Type)

High-Speed Information Environment / Next Generation Human Interface

- Human Interface Using Proprioceptive Feedback
- Construction of High-speed Information Environment / Virtual Reality (VR, AR, MR)
- Visual and Tactile Fusion Experiments / Audiovisual Fusion Models / Latency Perception Measurements
- Multimodal Interface / Dynamic Interaction
- Unrestrained, Real-world, Multidimensional, Low-latency Information Display
- Interactive Art / Next-generation User Interface

We have a plan to expand the above research to a wide research area based on advanced technology basis from the viewpoint of integrated intelligent system, implementation of brain function, and intelligent robots.

We performed research projects below in the past.

Optics in Computing / Optical Ingterconnection / Opto-Electronic Integrated System

- Neurocomputing System with Learning Capabilities
- Optoelectronic Hybrid Parallel Processing
- Reconfigurable Optical Interconnection
- Smart Pixels

Tactile Sensors and Haptics

- Position Detection Sensor Using Pressure Conductive Rubber
- Tactile Imaging Sensor Using VIDEO Signal
- Processing Architecture and Implementation of Haptic Motion
- Application of Tactile Sensor

Three Dimentional Mesurement System for Human Motion / Motion Capture System

- Development of High Speed 3D Motion Capture System
- Analysis of Motion Capture Data and Sports Analysis

Circuit Model of Information Processing in Brain

- Fluxon Logic and Neuro Device Using Josephson Transmission Line
- Lattice Type Network Circuits

Research Projects

Laboratory

- Next Generation Information Environment Systems Using High-speed Vision and Tracking (2020-2024)
- Research on High-speed Vision Technology for Applications i Next Generation Production Systems (2020-2024)
- Multidimensional Digital Twin Sensing and Reconstraction Based on High-speed Vision (2021-2023)

- Applications of Intelligent Systems Using Hgh-speed Image Processing (2016-2020)

Sensor Fusion

- Research on FA Technology Using High-speed Image Processing (2017-2021)
- Research on Image Processinhg for Recognition of Vehicle Motion ang Environment by Proximity Sensing of Moving Object for Vehicle Control (2018-2021)
- Development of Realtime IoT System and Applications Using High-speed Vision Network (2017-2020)
- Research on High-speed Manipulation Using Active Recognition Method of Objects (2015-2018)
- Development of Ultra-MEMS Conector for Robots Using Laser Exposure Technology (2016-2018)
- High Speed Intelligent Robots Using Ultra High Speed Vision (2012-2016)
- Development of Large Scale High-speed Sensing System and Its Applications (2015-2016)
- Practical Applications of High-speed Image Processing Using High-sensitivity, High-speed, and Low Noise CMOS Imager (2014-2016)
- Collaboration Research on Applications of Next Generation High-speed and High Functionality Sensing Syustems (2016)
- Creation of Harmonized Dynamic Information Environment Based on High Speed Sensor Technology (2009-2015)
- Bidirectional Recognition between Objects and Environment Using Networked High Speed Vision (2012-2014)
- Advanced Vision and Control for Intelligent Autonomous System (2011-2014)
- Advanced Vision and Control for Intelligent Autonomous System (2011-2013)
- Research on High Speed Image Measurement and Control (2012-2013)
- Research and Development of Architectures of Integrated Tactile Sensor (2010-2013)
- Ultra High Speed Recognition and Behavior System with Distributed Network Architecture (2002-2006)
- Synthetic Realization of Hand-Eye System Based on Sensory-Motor Integration Theory (1999-2009)
- Interactive Network Architecture Based on Sensor Fusion (2000-2004)
- Tangible System in Real World Using High Speed Vision (2001-2003)
- Biomedical Measurement and Control Project : Basic Research on Sensing and Information Processing for Biomedical Applications (1997-2001)
- Active Recognition and Behavior System Using High Speed Sensor Feedback Based on Hierarchical Fusion Model (1998-2000)
- Real Time Interaction Based on Sensory Integration (1995-1999)
- Virtual Reality Project : Sensory Data Display and Interaction between Perception and Behavior (1995-1997)
- Intelligent Robot Project : Active Sensory-Motor Integration System Using Vision and Tactile Sensing (1995-1997)
- Sensor Fusion Project : Sensing Architecture (1991-1993), Intentional Sensing (1994-1995)
- Visuo-Tactile Fusion System Using Active Sensing (1994-1995)
- Autonomous Distributed System Project : Sensor Fusion System Using Internal Model (1990-1992)
- Analysis of Brain Function Project : Analog Associative Memory Model (1989-1991)

Dynamic Vision System / Dynamic Image Control / Micro Visual Feedback

- New Developments in Vital and Biological Information Using High-speed Tracking Technology (2022-2023)
- Research on High-accuracy Counting and Shape Inspectio Technology of Multiple High-speed Moving Objects by High-speed Imaging (2016-2021)

- Advances in Image Measurement System for High Speed Flying Objects (2012-2018)
- Applications of Spatio Temporal Analysis (2016-2018)
- Dynamic Object Image Recording by 1ms Auto Pan/Tilt System (2014-2017)
- Development of Projection System (2016-2017)
- Creation of Harmonized Dynamic Information Environment Based on High Speed Sensor Technology (2009-2014)
- Research and Development of High-speed and High-accuracy Dynamoph Lens (2012-2014)
- Collaboration Research on High Speed Vision (2013)
- Inprovement of High Speed Image Mesurement System for High Speed Flying Objects (2012-2013)
- High-speed Tracking of Objects with Various Characteristic (2012-2014)
- Basic Research on High Speed and High Resolution Imaging System (2013)
- Research on High-speed Data Trasfering for DMD (2014)
- Expansion of Vision Chip Applications (2007-2011)

System Vision Design / Vision Architecture / Vision Chip

- Next Generation Industrial High-speed Robot Control System (2020-2021)
- High-precision All-around Object Shape Measurement System with High-resolution Texture Information Acquisition Function (2021-2022)
- Research on Next-generation High-speed 3D Shape Measurement System(2020-2022)

- Next Generation Industrial High-speed Robot Control System (2020-2021)
- Development of High-speed Vision Network System (2015-2019)

- Development of Inspection Technology for High Accuracy Counting and Shape of Multiple Objects by High-speed Imaging (2016-2018)
- Fluid Analysis Using High Speed Vision (2010-2018)
- Applications of Vision Chip for Vehicle and Environment (2014-2017)
- Verification of Realizability of High-speed and High Luminance Projector (2017)
- Research on Image Processing (2010-2014)
- Collaboration Research on High-speed Camera (2013-2014)
- Bidirectional Recognition between Objects and Environment Using Networked High Speed Vision (2012-2014)
- Creation of Harmonized Dynamic Information Environment Based on High Speed Sensor Technology (2009-2014)
- Collaboration Research on Next Generation Sensing Architecture (2013-2015)
- Collaboration Research on High Speed Vision(2013-2014)
- Development of High Speed Vision Module (2006-2008)
- Preprocessing for Smart Visual Feedback (1999-2002)
- Ultra high speed Manipulation by Using 1ms Vision Chip with Massively Parallel Processing Architecture (1999-2002)
- Fast Gesture Recognition Using Massively Parallel and High-speed Vision (1999-2001)
- High Speed Image Recognition for Multi Media (1999-2001)
- Development of Super Vision Chip (1996-2000)
- High Speed Micro Visual Feedback (1998-2000)
- Development of Massively Parallel Vision System for High Speed Visual Recognition (2000)
- Development of High Speed Intelligent Vision System (1997-1999)
- Integrated Intelligent Silicon Electronics Project :
  Real Time Two Dimensional Information Processing System (1995-1998)
- Massively Parallel and High Speed One Chip Vision (1994-1996)

Active Perception / Meta Perception

- Development of High-speed Vision and High-speed Intelligent Systemss for Nerve System Analysis under Freey Moving Conditions (2017-2022)
- Joint Research on Development of High-Speed Image Processing System (2018-2022)
- Joint Research on Improving Crack Detection Accuracy of High-Speed Image Processing Systems (2022)

- Sophisticated Inspection Technology for Highway (2013-2021)
- Developmant of Smart Ceramic Drilling Machine Using Ultrashort Pulse Laser (2016-2018)
- Applications of Spatio Temporal Analysis (2016-2018)
- Research on Apllications of High-speed Vision in Railroad Area (2018-2019)
- High speed computer vision for in-car-gesture recognition and for crash avoidance (2014-2017)
- Creation of Harmonized Dynamic Information Environment Based on High Speed Sensor Technology (2001-2006)
- Research on Meta Perception (2012-2013)
- Expansion of Vision Chip Applications (2007-2011)

Optics in Computing

- Research on High Speed 3D Micro Imaging Using WDM Technology (2001-2003)
- Massively Parallel Confocal Microscope System Using Surface Emitting Laser Array (2001-2002)
- Massively Parallel VLSi Photonics Using Free Space Optical Interconnection (2001)
- Real World Intelligence Project : Digital Smart Pixel Architecture (1997-2000)
- Design of Parallel Optical Interconnection Using Functional Filter (1998-2000)
- Submicron Alignment of Optical Interconnection based on Singular Value Decomposition (1999-2000)
- Robot System with Free Space Optical Interconnection Using VCSEL(1999-2000)
- Opto-Electronic Hybrid Computing System (1998-1999)
- Optical Interconnection for Massively Parallel Computer (1998-1999)
- Massively Parallel and High Speed Optical Computing System (1997-1999)
- Optical Quantum Computing (1997-1998)
- Parallel Optoelectronic Computing and Its Application (1995-1996)
- Massively Parallel Processing Using Optical Interconnection (1994-1995)
- Real World Computing Project : Basic Study on Learning Capabilities and Massively Parallel Implementation (1993-1995)
- Ultra Parallel and Ultra High Speed OptoElectronics Project :
  Massively Parallel Optical Computing with Learning Capabilities (1991-1993)

3. Papers (Invited Papers / Regular Papers)

Invited Papers (9)

in English

- Yoshihiro Watanabe, Hiromasa Oku, and Masatoshi Ishikawa: Architectures and Applications of High-Speed Vision (Invited Review Paper), Optical Review, Vol.21, No.6, pp.875-882 (2014)
- Masatoshi Ishikawa: Is There Real Fusion between Sensing and Network Technology? - What are the Problems? (Invited Paper), IEICE Trans. Commun., Vol.E93.B, No.11, pp.2855-2858 (2010)
- Akio Namiki, Takashi Komuro, and Masatoshi Ishikawa: High Speed Sensory-Motor Fusion Based on Dynamics Matching (Invited Paper), Proc. IEEE, Vol.90, No.7, pp.1178-1187 (2002)
- Neil McArdle, Makoto Naruse, Haruyoshi Toyoda, Yuji Kobayashi, and Masatoshi Ishikawa: Reconfigurable Optical Interconnections for Parallel Computing (Invited), Proc. IEEE, Vol. 88, No.6, pp.829-837 (2000)
- N.McArdle, M.Naruse, and M.Ishikawa: Optoelectronic Parallel Computing Using Optically Interconnected Pipelined Processing Arrays (Invited), IEEE J. of Selected Topics in Quantum Electronics, Vol.5, No.2, pp.250-260 (1999)
- Masatoshi Ishikawa: System Architecture for Integrated Optoelectronic Computing, Optoelectronics - Devices and Technologies -, Vol.9, No.1, pp.29-38 (1994)

in Japanese

- Shingo Kagami, and Masatoshi Ishikawa: Sensor Fusion -- An Architectural Perspective on Information Processing in Sensor Networks, IEICE Trans. on Fundamentals, Vol.J88-A, No.12, pp.1404-1412 (2005)
- Masatoshi Ishikawa, and Takashi Komuro: Digital Vision Chip and Its Applications, IEICE Trans. on Electronics, Vol.J84-C, No.6, pp.451-461 (2001)
- Masatoshi Ishikawa: Parallel Processing for Sensory Information, IEICE Trans. on Electronics, Vol.J74-C-II, No.5, pp.255-266 (1991)

Regular Papers (240)

in English

- Masahiko Yasui, Ryota Iwataki, Masatoshi Ishikawa, and Yoshihiro Watanabe: Projection Mapping with a Brightly Lit Surrounding Using a Mixed Light Field Approach, IEEE Trans. on Visualization and Computer Graphics, Vol.30, No.5, pp.2217-2227 (2024)
- Jiaqi Li, Lin Li, Lihui Wang, Lei Li, Shaoyong Li, and Masatoshi Ishikawa: Adaptive Milliseconds Tracking and Zooming Optics Based on a High-speed Gaze Controller and Liquid Lenses, Optics Express, Vol.32, Issue2, pp.2257-2270 (2024)
- Lihui Wang, Satoshi Tabata, Hongjin Xu, Yunpu Hu, Yoshihiro Watanabe, and Masatoshi Ishikawa: Dynamic Depth-of-field Projection Mapping Method Based on a Variable Focus Lens and Visual Feedback, Optics Express, Vol.31, Issue 3, pp.3945-3953 (2023)
- Yunpu Hu, Leo Miyashita, and Masatoshi Ishikawa: Differential Frequency Heterodyne Time-of-Flight Imaging for Instantaneous Depth and Velocity Estimation, ACM Transactions on Graphics, Vol.42, No.1, pp.9:1-9:13 (2023)
- Yuri Mikawa, Tomohiro Sueishi, Yoshihiro Watanabe, and Masatoshi Ishikawa: Dynamic Projection Mapping for Robust Sphere Posture Tracking Using Uniform/Biased Circumferential Markers, IEEE Trans. on Visualization and Computer Graphics, Vol.28, No.12, pp.4016-4031 (2022)
- Haowen Liang, Masatoshi Ishikawa, Hao Xu, Satoshi Tabata, and Lihui Wang: Accurate Measurement of Virtual Image Distance for Near-Eye Displays Based on Auto-Focusing, Appl. Opt. Vol.61, Issue 30, pp.9093-9098 (2022)
- Leo Miyashita and Masatoshi Ishikawa: Portable High-Speed Optical Gaze Controller with Vision Chip, Journal of Robotics and Mechatronics, Vol.34, No.5, pp.1133-1140 (2022)
- Leo Miyashita, Yohta Kimura, Satoshi Tabata, and Masatoshi Ishikawa: High-Speed Depth-Normal Measurement and Fusion Based on Multiband Sensing and Block Parallelization, Journal of Robotics and Mechatronics, Vol.34, No.5, pp.1111-1121 (2022)
- Tomohiro Sueishi, Ryota Nishizono, and Masatoshi Ishikawa: EmnDash: A Robust High-Speed Spatial Tracking System Using a Vector-Graphics Laser Display with M-Sequence Dashed Markers, Journal of Robotics and Mechatronics, Vol.34, No.5, pp.1085-1095 (2022)
- Hyuno Kim, Yuji Yamakawa, and Masatoshi Ishikawa: Seamless Multiple-Target Tracking Method Across Overlapped Multiple Camera Views Using High-Speed Image Capture, Journal of Robotics and Mechatronics, Vol.34, No.5, pp.1043-1052 (2022)
- Taku Senoo, Atsushi Konno, Yunzhuo Wang, Masahiro Hirano, Norimasa Kishi and Masatoshi Ishikawa: Tracking of Overlapped Vehicles with Spatio-Temporal Shared Filter for High-Speed Stereo Vision, Journal of Robotics and Mechatronics, Vol.34, No.5, pp.1033-1042 (2022)
- Tomohiko Hayakawa, Yushi Moko, Kenta Morishita, Yuka Hiruma, Masatoshi Ishikawa： Tunnel Lining Surface Monitoring System Deployable at Maximum Vehicle Speed of 100 km/h Using View Angle Compensation Based on Self-Localization Using White Line Recognition, Journal of Robotics and Mechatronics, Vol.34, No.5, pp.997-1010 (2022)
- Yuriko Ezaki, Yushi Moko, Tomohiko Hayakawa, and Masatoshi Ishikawa： Angle of View Switching Method at High-Speed Using Motion Blur Compensation for Infrastructure Inspection, Journal of Robotics and Mechatronics, Vol.34, No.5, pp.985-

996 (2022)

- Leo Miyashita, and Masatoshi Ishikawa: Real-Time Inspection of Rod Straightness and Appearance by Non-Telecentric Camera Array, Journal of Robotics and Mechatronics, Vol.34, No.5, pp.975-984 (2022)
- Shouren Huang, Kenichi Murakami, Masatoshi Ishikawa, and Yuji Yamakawa: Robotic Assistance for Peg-and-Hole Alignment by Mimicking Annular Solar Eclipse Process, Journal of Robotics and Mechatronics, Vol.34, No.5, pp.946-955 (2022)
- Kenichi Murakami, Shouren Huang, Masatoshi Ishikawa, and Yuji Yamakawa: Fully Automated Bead Art Assembly for Smart Manufacturing Using Dynamic Compensation Approach, Journal of Robotics and Mechatronics, Vol.34, No.5, pp.936-945 (2022)
- Yu-Ping Wang, Senwei Xie, Lihui Wang, Hongjin Xu, Satoshi Tabata, and Masatoshi Ishikawa: ARSlice: Head-Mounted Display Augmented with Dynamic Tracking and Projection, J. of Computer Science and Technology, Vol.37, No.3, pp.666-679 (2022)
- Kenichi Murakami, Tomohiko Hayakawa, and Masatoshi Ishikawa: Hybrid Surface Measuring System for Motion-blur Compensation and Focus Adjustment Using a Deformable Mirror, Applied Optics, Vol.9, Issue 2, pp.429-438 (2022)
- Ruimin Cao, Jian Fu, Hui Yang, Lihui Wang, and Masatoshi Ishikawa: Robust Optical Axis Control of Monocular Active Gazing Based on Pan-tilt Mirrors for High Dynamic Targets, Optics Express, Vol.29, Issue 24, pp.40214-40230 (2021)
- Masahiro Hirano, Yuji Yamakawa, Taku Senoo, and Masatoshi Ishikawa: An Acceleration Method for Correlation-based High-speed Object Tracking, Measurement: Sensors, Vo.18, 100258, pp.1-4 (2021)
- Yuki Kubota, Yushan Ke, Tomohiko Hayakawa, Yushi Moko, and Masatoshi Ishikawa: Optimal Material Search for Infrared Markers under Non-Heating and Heating Conditions, Sensors, Vol.21, Issue 19, Article No.6527, pp.1-17 (2021)
- Hyuno Kim, and Masatoshi Ishikawa: Sub-Frame Evaluation of Frame Synchronization for Camera Network Using Linearly Oscillating Light Spot, Sensors, Vol.21, Issue 18, Article No.6148, pp.1-14 (2021)
- Leo Miyashita, Akihiro Nakamura, Takuto Odagawa, Masatoshi Ishikawa: BIFNOM: Binary-Coded Features on Normal Maps, Sensors, Vol.21, Issue 10, Article No.3469, pp.1-12 (2021)
- Hongjin Xu, Lihui Wang, Satoshi Tabata, Yoshihiro Watanabe, and Masatoshi Ishikawa: Extended Depth-of-field Projection Method Using a High-speed Projector with a Synchronized Oscillating Variable-focus Lens, Appl. Opt., Vol.60, Issue 13, pp.3917-3924 (2021)
- Masahiko Yasui, Yoshihiro Watanabe, and Masatoshi Ishikawa: Wide viewing angle with a downsized system in projection-type integral photography by using curved mirrors, Optics Express, Vol.29, Issue 8, pp.12066-12080 (2021)
- Yuki Kubota, Tomohiko Hayakawa, and Masatoshi Ishikawa: Dynamic Perceptive Compensation for the Rotating Snakes Illusion with Eye Tracking, PLOS ONE 16(3): e0247937, pp.1-20 (2021)
- Yuji Yamakawa, Yugo Katsuki, Yoshihiro Watanabe, and Masatoshi Ishikawa: Development of a High-speed, Low-latency Telemanipulated Robot Hand System, Robotics, Vol.10, Issue 1, Article No.41, pp.1-22 (2021)
- Mikihiro Ikura, Leo Miyashita, and Masatoshi Ishikawa: Stabilization System for UAV Landing on Rough Ground by Adaptive 3D Sensing and High-speed Landing Gear Adjustment, J. of Robotics and Mechatronics, Vol.33 No.1 pp.108-118 (2020)
- Yuji Yamakawa, Yutaro Matsui, and Masatoshi Ishikawa: Development of a Real-Time Human-Robot Collaborative System Based on 1 kHz Visual Feedback Control and Its Application to a Peg-in-Hole Task, Sensors, Vol.21, Issue 2, Article No.663, pp.1-25 (2021)
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- Zhangxu Pan, Chan Guo, Xianchi Wang, Jiucheng Liu, Ruimin Cao, Yanfen Gong, Jiantai Wang, Ningyang Liu, Zhitao Chen, Lihui Wang, Masatoshi Ishikawa, and Zheng Gong: Wafer-Scale Micro-LEDs Transferred onto an Adhesive Film for Planar and Flexible Displays, Advanced Materials Technologies, 2000549, pp.1-11 (2020)
- Kento Yabuuchi, Masahiro Hirano, Taku Senoo, Norimasa Kishi, and Masatoshi Ishikawa: Real-Time Traffic Light Detection with Frequency Patterns Using High-speed Camera, Sensors, Vol.20, Issue 21, Issue 14, Article No.4635, pp.1-18 (2020), https://doi.org/10.3390/s20144035
- Shouren Huang, Masatoshi Ishikawa, and Yuji Yamakawa: A Coarse-to-Fine Framework for Accurate Positioning under Uncertainties - from Autonomous Robot to Human-Robot System, Int. J. Advanced Manufacturing Technology, vol.108, pp.2929-2944 (2020), https://doi.org/10.1007/s00170-020-05376-w
- Lihui Wang, and Masatoshi Ishikawa: Dynamic Response of Elastomer-based Liquid-filled Variable Focus Lens, Sensors, Vol.19, Issue 21, Article No.4624, pp.1-13 (2019), https://doi.org/10.3390/s19214624
- Keisuke Koyama, Makoto Shimojo, Aiguo Ming, and Masatoshi Ishikawa: Integrated Control of Multi-Degree-of-freedom Hand and Arm Using a Reactive Architecture based on High-Speed Proximity Sensing, Int. J. of Robotics Research, Vol.38, Issue14, pp.1717-1750 (2019)
- Lihui Wang, Hongjin Xu, and Masatoshi Ishikawa: Solar energy-actuated back and forth optical mechanism, App. Opt. Vol. 58, Issue 15, pp. E7-E11 (2019)
- Taku Senoo, Kenichi Murakami, and Masatoshi Ishikawa: Deformation Control of a Manipulator Based on the Zener Model, J. of Robotics and Mechatronics, Vol.31 No.2, pp.263-273 (2019)
- Yunpu Hu, Leo Miyashita, Yoshihiro Watanabe, and Masatoshi Ishikawa: Visual Calibration for Multiview Laser Doppler Speed Sensing, Sensors, Vol.19, Issue 3, Article No.582, pp.1-12 (2019), https://doi.org/10.3390/s19030582
- Keisuke Koyama, Kenichi Murakami, Taku Senoo, Makoto Shimojo, and Masatoshi Ishikawa: High-Speed, Small-Deformation Catching of Soft Objects Based on Active Vision and Proximity Sensing, IEEE Robotics and Automation Letters, Vol.4, Issue 2, pp.578-585 (2019)
- Satoshi Tabata, Michika Maruyama, Yoshihiro Watanabe, and Masatoshi Ishikawa: Pixelwise Phase Unwrapping based on Ordered Periods Phase Shift, Sensors, Vol.19, Issue 2, Article No.377, pp.1-20 (2019), https://doi.org/10.3390/s19020377
- Masahiko Yasui, Yoshihiro Watanabe, and Masatoshi Ishikawa: Occlusion-robust Sensing Method by Using the Light-field of a 3D Display System toward Interaction with a 3D Image, Appl. Opt., Vol.58, Issue 5, pp.A209-A277 (2019)

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- Lihui Wang, Satoshi Tabata, and Masatoshi Ishikawa: Low-Cost, Readily Available 3D Microscopy Imaging System with Variable Focus Spinner, Optics Express Vol.26, Issue 23, pp.30576-30587 (2018)
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- Masatoshi Ishikawa: Smart Systems Using High-speed Image Processing and Applications (Keynote), 24th ACM Symp. on Virtual Reality Software and Technology (VRST) (Tokyo, 2018.11.30)
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- Neil McArdle, Takashi Komuro, Makoto Naruse, Hideyuki Sakaida, and Masatoshi Ishikawa: An Optoelectronic Smart-Pixel Parallel Processing System with Dynamic Interconnections, OSA Annual Meeting & Exhibit (Rochester, 1996.10.22)
- Neil McArdle, Takashi Komuro, Neil Naruse, Hirotsugu Yamamoto, Hideyuki Sakaida, and Masatoshi Ishikawa: A Smart-Pixel Free-Space Interconnected Parallel Processing System, 1996 Summer Topical Meeting on Smart Pixels (Keystone, 1996.8.8) / Digest, pp.59-60
- Toshiharu Mukai and Masatoshi Ishikawa: Resistive Network for Detecting the Centroid of Nonlinear Coordinates, The 22nd Annual Int. Conf. on Industrial Electronics, Control, and Instrumentation (Taipei, 1996.8.8) / Proceedings, pp.1052-1058
- Idaku Ishii, Yoshihiro Nakabo, and Masatoshi Ishikawa: Target Tracking Algorithm for 1ms Visual Feedback System Using Massively Parallel Processing, IEEE Int. Conf. Robotics and Automation (Minneapolis, 1996.4.25) / Proc., pp.2309-2314
- Yoshihiro Nakabo, Idaku Ishii, and Masatoshi Ishikawa: High Speed Target Tracking Using 1ms visual Feedback System, Video Proceedings of IEEE Int. Conf. Robotics and Automation (Minneapolis, 1996.4.24-26) / Abstract, p.6 [Best Video Award Finalist]
- Makoto Naruse, Neil McArdle, Hirotsugu Yamamoto, and Masatoshi Ishikawa: An algorithmic approach to hierarchical parallel optical processing systems, 1996 Int. Topical Meeting on Optical Computing (Sendai, 1996.4.21) / Technical Digest, pp.102-103
- Neil McArdle, Hideyuki Sakaida, Hirotsugu Yamamoto and Masatoshi Ishikawa: A Compact Dynamically-Interconnected Parallel Optoelectronic Computing System, 1996 Int. Topical Meeting on Optical Computing (Sendai, 1996.4.21) / Technical Digest, pp.16-17
- Masatoshi Ishikawa: Parallel optoelectronic computing system, '95 RWC Symp. (Tokyo, 1995.6.15) / Proceedings, pp.145-146
- Takayuki Ishida and Masatoshi Ishikawa: Reconfigurable Space-Variant Optical Interconnection Using Binary CGH, Optical Computing Topical Meeting (Salt Lake City, Utah, 1995.3.14) / 1995 Technical Digest Series, Vol.10, pp.PD 1-1 - PD 1-4
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- Andrew Kirk, Tomohira Tabata, Takayuki Ishida, and Masatoshi Ishikawa: Optoelectronic parallel processing system with reconfigurable diffractive interconnections, Int. Conf. on Optical Computing (Edinburgh, 1994.8.25) / Technical Digest, pp.85-86
- Masatoshi Ishikawa: Massively Parallel Processing System with Reconfigurable Diffractive Interconnects, Int. Symp. on Ultrafast and UltraParallel Optoelectronics (Makuhari, 1994.7.12) / Proceedings, pp.203-206
- Masatoshi Ishikawa: High speed vision system with massively parallel processing architecture for integration into one chip, Workshop on Computer Architectures for Machine Perception (CAMP'93) (New Orleans, 1993.12.15)
- A.G.Kirk, M.Ishikawa, S.Jamieson and T.J.Hall: The Design and Fabrication of Queisi- Periodic Computer Generated Holograms, Fourth Int. Conf. on Holographic Systems, Components and Applications (Switzerland, 1993.9.13-15)
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- Akihiko Takahashi, Masatoshi Ishikawa: Signal Processing Architecture with Bidirectional Network Topology for Flexible Sensor Data Integration, 1993 IEEE/RSJ Int. Conf. on Intelligent Robots and Systems IROS '93) (Yokohama, 1993.7.27) / Proceedings, pp.407-413
- Toshiharu Mukai, Takashi Mori, and Masatoshi Ishikawa: A Sensor Fusion System Using Mapping Learning Method, 1993 IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS '93) (Yokohama, 1993.7.27) / Proceedings, pp.391-396

- Makoto Shimojo and Masatoshi Ishikawa: An Active Touch Sensing Method Using a Spatial Filtering Tactile Sensor, IEEE Int. Conf. Robotics and Automation (Atlanta, 1993.5.3-5) / Proc., pp.948-954
- Masatoshi Ishikawa, Akira Morita, and Nobuo Takayanagi: Massively Parallel Processing System with an Architecture for Optical Computing, Optical Computing Topical Meeting (Palm Springs, California, 1993.3.18) / 1993 Technical Digest Series, Vol. 7, pp.272-275
- Andrew Kirk, Tomohira Tabata, and Masatoshi Ishikawa: Cellular processing with diffractive optical elements, Optical Computing Topical Meeting (Palm Springs, California, 1993.3.18) / 1993 Technical Digest Series, Vol. 7, pp.272-275
- Haruyoshi Toyoda and Masatoshi Ishikawa: Sparse Encording Algorithm for Optical Associative Memory Using Bistable Spatial Light Modulator, Japan Display '92 (Kobe, 1992.9.19) / Proceedings, pp.371-374
- Toshihiro Aono and Masatoshi Ishikawa: Auditory-Visual Fusion Using Multi-Input Hidden Markov Model, IMACS/SICE Int. Symp. on Robotics, Mechatronics and Manufacturing Systems '92 (Kobe, 1992.9.19) / Proceedings, pp.1085-1090
- Masatoshi Ishikawa, Akira Morita and Nobuo Takayanagi: High Speed Vision System Using Massively Parallel Processing, 1992 IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS'92) (Raleigh, North Carolina, USA, 1992.7.8) / Proceedings, pp.373- 377
- Masatoshi Ishikawa: Robot Sensor Technology for Medical, Ergonomical and Physiological Applications, Colloquium on Medical and Neurological Applications in Robotics : New Trends, IROS'92 (1992 IEEE/RSJ Int. Conf. on Intelligent Robots and Systems) (Raleigh, 1992.7.8) / Proceedings, pp.1-7
- Kikuo Kanaya, Masatoshi Ishikawa and Makoto Shimojo: Tactile Imaging System for Body Pressure Distribution, 11th Congress of Int. Ergonomics Association (Paris, 1991.7.15-20) / Proceedings (Designing for Everyone), Vol.2, pp.1495-1497 (1991)
- Makoto Shimojo, Masatoshi Ishikawa and Kikuo Kanaya: A Flexible High Resolution Tactile Imager with Video Signal Output, IEEE Int. Conf. Robotics and Automation (Sacramento, 1991.4.9-11) / Proc., pp.384-391
- Masatoshi Ishikawa, Haruyoshi Toyoda, Naohisa Mukohzaka, and Yoshiji Suzuki: Optical Associative Memory Combining with Optical Preprocessing, OPTICAL COMPUTING '90 (Kobe, 1990.4.10) / Technical Digest, pp.160-161 (1990)
- Masatoshi Ishikawa, Naohisa Mukohzaka, Haruyoshi Toyoda, and Yoshiji Suzuki : Experimental studies on adaptive optical associative memory, OPTICAL COMPUTING '88 (Touron, 1988.9.1) / Proc. SPIE, Vol.963, pp.527-536 (1988)

7. Academic Activities (Membership / Domestic / International / Editorial Board / Other Activities)

Membership

Membership

- Society of Instrument and Control Engineers
- Virtual Reality Society of Japan
- Japanese Society of Applied Physics
- Japanese Society of Mechanical Engineering
- Information Processing Society of Japan
- Engineering Academy of Japan
- Robotics Society of Japan
- Institute of Image Information and Television Engineers
- Optical Society of Japan
- Institute of Electronics, Information, Communication Engineers
- Institute of Electrical Engineers of Japan

Fellow

- Society of Instrument and Control Engineers
- Institute of Electrical Engineers of Japan
- Japan Federation of Engineering Societies
- Robotics Society of Japan
- Japan Society of Mechanical Engineers

Honorary Member

- Society of Instrument and Control Engineers

Domestic Academic Society

- President of Society of Instrument and Control Engineers (SICE) (2011)
- Vice President of Society of Instrument and Control Engineers (SICE) (2010)
- IEICE Technical Committee on Ubiquitous Sensor Network, Adviser (2007-)
- IEICE Technical Committee on Optical Interconnection and Information Processing, Vice Chair (1997-1999)
- Advanced Robotics, Focused Section on Electronic Hardware and Systems for Robotics, Guest Editor (1999)
- Trans. IEICE, Special Issue on Multisensor Fusion and Integration, Guest Editor (1998)
- Director of Society of Instrumentation and Control Engineers (1995-1996)

International Academic Society

- IMEKO (International Measurement Confederation), President (2018.9-2021.9)
- IMEKO (International Measurement Confederation), President Elect, Chairman of the Technical Board (2015.9-2018.9)
- 2009 Fifth Asia-Pacific Computing and Philosophy Conference, Conference Chair
- 2001 International Conference on Electronic Measurement and Instruments, Vice Chair
- 1999 International Conference on Electronic Measurement and Instruments, Vice Chair
- IEEE LEOS technical committee member (Optical Interconnects and Processing Systems subcommittee) (1996-1998, 1998-2000)
- IEEE Tokyo Chapter Program Committee, Vice Chairman (1995-1996)
- the IAPR technical committee TC6, "Special Hardware and Software Environments", Chair
- 1996 IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems, General Chair
- 1996 Optical Computing, Steering Committee, Vice Chair
- 1994 IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems, Program Co-Chair
- International Conference Program Committee Member
  IROS93, ICRA95, IROS96, FUSION98, MFI2006, MFI2010, ECVW2009, ECVW2010, ECVW2012
  Transducer97, IMEKO-XV
  Intelligent Vehicles 2000, ICPR2002
  OC96, OC98, OC99, OC2000, OC2001, MPPOI97, LEOS96, LEOS97, LEOS98, LEOS99, LEOS2000
  Smart PIXEL98, Optical Interconnects 2001, Photonic VLSI for Image and Information Processing 2001
- Other Activities
  OC96 Steering Committee Vice Chair, Transducer99 Planning Committee

Editorial Board

- Journal of Robotics and Mechatronics, Vol.34, No.5 (2022): Special Issue on High-Speed Vision and its Applications, Guest Editor
- Cyberpsychology, Behavior, and Social Networking, Editorial Board (2010-2017)
- Applied Optics, Vol.39, No.5 (2000): Special Issue on Optics in Computing, Feature Editor

Activity at Tokyo University of Science

- President (2022.1-)

Activity at the University of Tokyo

- Professor Emeritus (2020.6-)

Headquarter

- Executive Vice-President (2005.4-2006.3)
  CTO and Director of University Corporate Relations (2005.4-2006.3)
- Vice-President (2004.4-2005.3)
  Director of University Corporate Relations (2004.4-2005.3)
- Executive Advisor to the President (2002.4-2004.3)
  Charge of University Corporate Relations (2002.4-2004.3), Director of Planning Office on University Corporate Relations (2002.4-2002.9), Director of University Coporate Relations (2002.9-2004.3)
- Director, Division of Public Relations (2001.4-2002.3)
- Member, Committee for Preparation of Graduate School of Information Science and Technology (2000.9-2001.3)
- Member, Liaison Office for Promotion of Information Science and Technology (1998.4-1999.3)

Graduate School of Information Science and Tecnology

- Dean (2016.4-2020.3)
- Director, Department of Creative Informatics (2008.4-2010.3)
- Vice Dean (2006.4-2007.3)
- Member, Committee of Planning (2002.4-2004.3)
- Director, Department of Information Physics and Computing (2001.4-2002.3)

Faculty of Engineering

- Chair, Committee of Curriculum (2001.11-2003.3)
- Vice Chair, Committee of Education (2000.4-2002.3)
- Director, Department of Mathematical Engineering and Information Physics (2001.4-2002.3)

Graduate School of Engineering

- Director, Department of Mathematical Engineering and Information Physics (2001.4-2002.3)
- Member, Committee for Planning (2000.4-2002.3)
- Director, Research Office (1999.10-2000.3)

Other Activities

Research Projects

Project Leader

- Japan Society for the Promotion of Science (JSPS), Grants-inAid for Scientific Research (S)
  "Development of Next Generation Information Environment Systems Using High-speed Vision and Tracking Technology", Project Leader (2020-2024)
- Japan Science and Technology Agency (JST), MIRAI Program:
  "Multidimensional Digital Twin Sensing and Reconstraction Based on High-speed Vision", Project Leader (2021-2023)
- New Energy and Industrial Technology Development Organization, Crosscutting Technology Development Project to Promote IoT
  "Development of Realtime IoT System and Applications Using High-speed Vision Network", Project Leader (2017-2021)
- Japan Science and Technology Agency (JST), ACCEL:
  "Applications of Intelligent Systems Using Hgh-speed Image Processing", Project Leader (2016-2021)
- New Energy and Industrial Technology Development Organization, Clean Device Promotion Project
  "Development of Large Scale High-speed Sensing System and Its Applications", Project Leader (2016)
- New Energy and Industrial Technology Development Organization, Clean Device Promotion Project
  "Practical Applications of High-speed Image Processing Using High-sensitivity, High-speed, and Low Noise CMOS Imager", Project Leader (2014-2016)
- Japan Society for the Promotion of Science (JSPS), Grants-inAid for Scientific Research (S)
  "High Speed Intelligent Robots Using Ultra High Speed Vision", Project Leader (2012-2016)
- Japan Science and Technology Agency (JST), Core Research for Evolutional Science and Technology (CREST):
  "Dynamic Information Space based on High-speed Sensor Technology", Project Leader (2009-2014)
- Japan Society for the Promotion of Science (JSPS), Grants-inAid for Scientific Research (S)
  "Expansion of Vision Chip Applications", Project Leader (2007-2011)
- Japan Science and Technology Agency (JST), Solution Oriented Research for Science and Technology (SORST):
  "Synthetic Realization of Hand-Eye System Based on Sensory-Motor Integration Theory", Project Leader (2004-2009)
- Japan Society for the Promotion of Science (JSPS), Grants-inAid for Scientific Research (S)
  "Ultra High Speed Recognition and Behavior System with Distributed Network Architecture", Project Leader (2002-2006)
- Japan Science and Technology Agency (JST), Core Research for Evolutional Science and Technology (CREST):
  "Synthetic Realization of Hand-Eye System Based on Sensory-Motor Integration Theory", Project Leader (1999-2004)
- Sensor Fusion Project Chair, Science and Technology Agency (1991-1995)

Project Adviser

- Japan Science and Technology Agency(JST), Core Research for Evolutional Science and Technology (CREST):
  "Creating Innovative Optics and Photonics Based on Creative Principles", Adviser (2019-)
- Japan Science and Technology Agency(JST), Core Research for Evolutional Science and Technology (CREST):
  "Technology of Dependable VLSI System", Adviser (2007-2014)

- Japan Science and Technology Agency(JST), Precursory Research for Embryonic Science and Technology (Sakigake) "Cooperation and Control", Adviser (2000-2005)

Technical Committee Member

- New Energy and Industrial Technology Development Organization: Technical Committee Member (2003.5.16-2005.3.31, 2006.10.31-2008.3.31)

Other Universities and Public Research Institutes

- Advisor, National Research Institute of Police Science (2014.4-)
- Academic Adviser, Hiroshima University (2020.4-2022.3)
- Research Advisor, The National Institute of Advanced Industrial Science and Technology (AIST) (2011.4-2017.3)
- Member, Subcommittee for Validation and Examination of Degrees, The National Institution for Academic Degrees and University Evaluation (NIAD-UE) (2010.4-2014.3)
- Guest Professor, Kanazawa Institute of Tecnology (2008.4-20010.3)
- Visiting Professor, Harbin Institute of Technology (1999)
- Joint Research Fellow, The National Institute for Fusion Science (NIFS) (1996.4-1998.3)
- Visiting Researcher, National Institute of Bioscience and Human-Technorogy, Agency of Industrial Science and Technology (AIST), Ministry of International Trade and Industry (MITI) (1996)
- Visiting Researcher, Electrotechnical Laboratory (ETL), Agency of Industrial Science and Technology (AIST), Ministry of International Trade and Industry (MITI) (1996)
- Senior Researcher as an additional post, Industrial Products Institute (IPRI), Agency of Industrial Science and Technology (AIST), Ministry of International Trade and Industry (MITI) (1989.4-1991.3)

Japanese Government

- Ibaraki Ambassador, Ibaraki Prefecture (2013.4-)
- Headquarters for Japan's Economic Revitalization, Cabinet Secretariat, Government of Japan
  - Member, Council on Promotion of Human Resource Development for the Fourth Industrial Revolution (2016.12.9-2017.12.8)
- Council for Science and Technology, Cabinet Office, Government of Japan
  - Member, Working Group of Information Communication Technology (2013.11.20-2014.9.30, 2014.12.2-2015.9.30)
  - Member, Working Group of Human Life in Local Area (2015.11.26-2016.9.30, 2016.12.1-2017.9.30
- Member, Council for Science and Technology, The Ministry of Education, Culture, Sports, Science and Technology (MEXT)
  - Member, Committee of Industry Relations and Community Support (2013.3.15-2015.2.14)
  - Member, Committee of Industry Relations and Community Support, and Chair, Working Group of Promotion of Interaction for Innovation (2015.4.13-2017.2.14)
- Member, Information and Communications Council, Ministry of Public Management, Home Affairs, Posts and Telecommunications
  - Member, Committee for Creation of Innovation (2013.2.12-2015.1.5)
- Member, Council for Science and Technology, The Ministry of Education, Culture, Sports, Science and Technology (MEXT)
  - Member, Committee of Industry Relations and Community Support, and Chair, Working Group of Promotion of Interaction for Innovation (2013.3.15-2015.2.14)
  - Member, Committee of Promotion of Industrial-Academic-Government Cooperation, Member, Committee of Promotion of Strategic Expansion of Industrial-Academic-Government Cooperation (2007.2.1-2008.1.31, 2009.2.1-2011.1.31, 2011.2.8-2013.1.31)
  - Member, Committee of Information Science and Technology (2003.2.1-2005.1.31)
- Member, Industrial Technology Council, Ministry of Economy, Trade and Industry (METI)
  - Member, Industrial-Academic Cooperation (2003.2.1-2004.1.31)
- Science Council of Japan (SCJ)
  - Collaborative Member (2006.8.20-2008.9.30, 2011.10.3-2015.10.2)
  - Member, Committee of Common Basis of Engineering (2000.10.21-2003.10.20)

Related Companies

- Representative Director and Vice President, The Japan Association of University Intellectual Property and Technology Management (UNITT) (2004.9.30-2006.6.28)
- Director, The University of Tokyo Edge Capital Co., Ltd. (UTEC) (2004.8.2-2005.6.29)
- Director, TODAI TLO, Ltd. (2004.7.13-2006.3.24)
- Derector, Foundation of Support of University-Industry Cooperation for the University of Tokyo (2004.3.8-2007.9.5)

Others

- Vice President, WINDS Network (2016.2.24-)
- President, Vision Chip Association (2001.9.1-)

8. Media Link

Media Link

General

General

- Image Sensors World "Assorted Videos: Omnivision, Omron, Polight, Wooptix, Senseeker, Ishikawa Lab, Bedabrata Pain" (2021.6)
- YouTube, ICRA 2021 - ONSVP Workshop Channel "Invited Talk 1 Masatoshi Ishikawa University of Tokyo" (2021.6)
- IEEE Spectrum "The Most Read Automaton Stories of the Last Decade - A decade on, we look back at our most popular robotics posts -,
  #14 Robot Hand Beats You at Rock, Paper, Scissors 100% Of The Time, #21 Superfast Scanner Lets You Digitize Book By Flipping Pages" (2020.1)
- JST ACCEL "Application field development of Dynamic intelligent systems by using high speed vision" (2018.7)
- NHK World - Japan, NEWS ROOM Tokyo "Projecting Images onto a Moving Object" (2018.6)
- Financial Times "Asia has learnt to love robots — the west should, too Automation is capable of creating jobs, not destroying them, a survey shows" (2018.4)
- BBC "High speed camera uses 1,000 frames per second" (BBC NEWS Technology, BBC WORLD NEWS Click, YouTube) (2017.10)
- YouTube (BBC Click) "Cameras, robots and virtual reality in Japan - BBC Click" (2017.10)
- Photon terrace "Exploring the future with ultra-high-speed, massively parallel image processing technology" (2017.8)
- Tokyo Industrial Location Navigator, FOCUS2016 (Bureau of Industrial and Labor Affairs, Tokyo Metropolitan Government) "Aiming for the “Smart Society” with a High-Speed Vision Sensor: Discovery of Underlying Needs Becoming Increasingly Important" (2017.6)
- Image Sensors World "High Speed Image Sensor Applications" (2016.8)
- Robotics Today "Ishikawa Watanabe Laboratory (Ishikawa Oku Lab)" (2014.9)
- IEEE Spectrum "Video Friday" (2014.7)
- EETimes "Jeff Bier: In Embedded Vision, Sensors Rule: Part Two" (2013.9)
- edge ai + vision ALLIANCE "“High Speed Vision and Its Applications,” a Presentation from Professor Masatoshi Ishikawa" (2013.8)
- Bloomberg Businessweek Design 2013 "Press Room / Video / Illustration-1 / Illustration-2 (2013.1)
- robohub "Ultra high-speed robot based on 1 kHz vision system" (2012.10)
- edge ai + vision ALLIANCE "Vision-Superior Robot Trumps Humans At Rock-Paper-Scissors, Ping Pong Balls" (2012.8)

High Speed Information Environment

- Reuters "Researchers project the future of smart phones" (2013.6)
- NewScientist "Tingly projections make beamed gadgets come alive" (2013.5)
- ABC NEWS "Very Smart Phone Reimagines ‘Talk to the Hand’" (2013.5)
- JDP (The Japan Daily Press) "Tokyo computer designers put a keyboard on the palm of your hand, literally" (2013.5)

Sensor Fusion, High Speed Robots

Towel Handling

- IEEE Spectrum "Video Friday" (2022.6)

Drone Control

- IEEE Spectrum "High-Speed Robot Arm Hands Off Package to Delivery Drone" (2020.5)
- Urban Air Mobility News "Japan: Laboratory creating way for drones to automatically grab package without slowing" (2020.9)

MagLinkage Robot Hand

- IEEE Spectrum "Video Friday" (2019.9)

Rubik's Cube Solving Robot

- GIZMODO "Imagine What This One-Handed, Rubik's Cube-Solving Robot Could Do With a Deck of Cards" (2018.10)
- IEEE Spectrum "Video Friday" (2018.9)
- Robotic Gizmos "High-Speed Robot Hand Manipulating a Rubik’s Cube" (2018.9)

Proximity Sensor and Its Applications for Robot Hands

- IEEE Spectrum "Video Friday" (2020.10)
- IEEE Spectrum "Video Friday" (2019.5)
- IEEE Spectrum "Video Friday" (2018.9)
- YouTube Ishikawa Group Lab Channel "High-speed, Non-deformation Catching with High-speed Vision and Proximity Feedback" (2018.8)

High-speed Running Robot Robust Running

- IEEE Spectrum "Video Friday" (2018.5)

- delStandard.at "Boston Dynamics: Roboter laufen auf zwei Beinen und schlagen Salti" (2018.5)
- Robotic Gizmos "ACHIRES High Speed Running Robot" (2018.5)
- alphr "This robot will keep running, even when poked with a stick - Obstacles aren't a problem for the ACHIRES robot legs" (2018.5)

High-speed Running Robot 2nd Version
- Duscovery Channel, Daily Planet "Daily Planet Meet ACHIRES" (2018.1)
- Nikkei Asian Review "Robot runs like a marathoner but is destined for the factory" (2017.12)
- IEEE Spectrum "Video Friday" (2017.12)

Human Robot Cooperation
- Vision Systems Design "High-Speed Vision System Used for Human-Robot Collaborative System" (2022.5)
- IEEE Spectrum "Video Friday" (2018.11)
- YouTube Ishikawa Group Lab Channel "Dynamic Human-Robot Interaction -Realizations of collaborative motion and peg-in-hole-" (2018.11)
- IEEE Spectrum "Video Friday" (2018.9)
- YouTube Ishikawa Group Lab Channel "Human-Robot Collaboration Based on Dynamic Compensation" (2018.8)
- NIKKEI Asian Review "Robot lends a literal helping hand" (2017.1)

Dynamic Compensation
- IEEE Spectrum "Video Friday" (2015.12)
- IEEE Spectrum "Video Friday" (2015.11)

Button Spinner
- IEEE Spectrum "Video Friday" (2015.11)

Janken (Rock-Paper-Scissors) Robot 3rd Version
- COMPUTER VISION ONLINE 「A robot that always wins at Rock-Paper-Scissors」 (2015.9)
- Wonderful Engineering 「This Robot Can Beat You In Rock-Paper-Scissors Every Time」 (2015.9)
- Robotic Business Review "This Rock-Paper-Scissors Robot Has Never Lost to a Human" (2015.9)
- NBC NEWS "Play Rock-Paper-Scissors Against This Robot and Prepare to Lose" (2015.9)
- Discavery NEWS "Rock-Paper-Scissors Robot Remains Undefeated" (2015.9)
- Discavery NEWS "This Robot Has Never Lost a Game of Rock-Paper-Scissors" (2015.9)
- International Bussiness Times "Meet the rock-paper-scissors robot that never loses" (2015.9)
- Digital Trends "Japanese scientists have developed a rock-paper-scissors robot that never loses" (2015.9)
- Extreme Tech "Rock Paper Scissors robot wins 100% of the time" (2015.9)
- Kotaku "Super Fast Rock-Paper-Scissors Robot Has 100% Winning Rate " (2015.9)
- boing boing "Robot wins at Rock-Paper-Scissors. Every time." (2015.9)
- reddit "Japanese scientists have developed a rock-paper-scissors robot that never loses" (2015.9)
- BGR "Watch: This amazing robot never loses at rock-paper-scissors" (2015.9)
- The Daily Dot "This robot will beat you at Rock, Paper, Scissors every single time" (2015.9)
- YAHOO TECH "Watch: This amazing robot never loses at rock-paper-scissors" (2015.9)
- IEEE Spectrum "Video Friday" (2015.9)

Baseball Robots
- Scientific American "Robot Athletes Got Game [Video]" (2014.11)
- CNET "Japan is building a robot that can play baseball" (2014.11)
- Übergizmo "Watch This Robot Attempt To Play Baseball" (2014.11)
- IEEE Specrtum "This Is How Close We Are to a Baseball-Playing Robot" (2014.11)

High-speed Running Robot 1st Version
- Duscovery Channel, Daily Planet "Daily Planet Meet ACHIRES" (2018.1)
- Nikkei Asian Review "Robot runs like a marathoner but is destined for the factory" (2017.12)
- IEEE Spectrum "Video Friday" (2017.12)
- Reuters "'Robotic eyes' helps Japan's bipedal bot run faster" (2014.10)
- YAHOO NEWS "'Robotic eyes' helps Japan's bipedal bot run faster" (2014.10)
- Robohub "Bipedal robot uses high-speed vision to run " (2014.10)
- IEEE Spectrum "Video Friday" (2014.10)
- Robotics Today "ACHIRES: Watch That Robot Run!" (2014.9)
- Yahoo News (UK & IRELAND) "Tokyo Scientists Invent Bipedal Robot That Runs and Backflips Like a Human" (2014.9)
- gearburn "ACHIRES the bipedal robot will somersault into your heart" (2014.9)
- TechXplore "Two-legged robot able to run without ZMP control (w/ Video)" (2014.9)
- International Business Times "Tokyo Scientists Invent Bipedal Robot That Runs and Backflips Like a Human" (2014.9)
- GEEK "ACHIRES biped robot runs at 2.6mph using 600fps vision system" (2014.9)
- Nikkei Technology online "2-legged Robot Runs at High Speed" (2014.9)
- Phys.org "Two-legged robot able to run without ZMP control (w/ Video)", "Facebook page" (2014.9)
- engadget "This tiny, bipedal robot can somersault and run faster than a toddler" (2014.9)
- Übergizmo "Japanese Bipedal Robot Hits 2.6mph Speed" (2014.9)

- stern "Japanischer Roboter joggt wie ein Mensch" (2014.9)
- NBC NEWS "Robot Runs and Somersaults Using High-Speed Camera as Its Eyes" (2014.9)
- Mail Online "Robo-gymnastics! Watch the incredible running robot that can reach speeds of 2.6mph - and even do a backflip" (2014.9)
- The Wall Street Journal "University of Tokyo Biped Robot Can Hit Speeds of 2.6 mph" (2014.9)
- The Wall Street Journal Japan "University of Tokyo Biped Robot Can Hit Speeds of 4.2 km/h" (2014.9)
- IEEE Spectrum "Video Friday", "Facebook Page" (2014.9)
- YouTube Ishikawa Group Lab Channel "ACHIRES: Bipedal Running Using High-speed Visual Feedback" (2014.9)

Batting and Throwing Robots

- IEEE Spectrum "Video Friday" (2014.3)
- DigInfo TV "Throwing and batting robot system" (2009.12)
- TIME "Top 10 Japanese Robots, A Home Run?" (2009.8)
- Hizook "High-Speed Robot Hand Demonstrates Dexterity and Skillful Manipulation" (2009.8)
- ESPN "Japanese man invents robot players" (2009.7)
- Phys.org "Japanese professor creates baseball-playing robots" (2009.7)
- engadget "Japanese researchers develop baseball playing robots, Mark Buehrle reportedly unimpressed" (2009.7)
- YouTube pinktentacle3 Channel "Baseball robots" (2009.7)
- USA Today "Japanese professor creates baseball-playing robots" (2009.7)
- Daily News "University of Tokyo professor Masatoshi Ishikawa creates baseball-playing robots" (2009.7)

Janken (Rock-Paper-Scissors) Robot 2nd Version

- Gigazine 「Janken (rock-paper-scissors) Robot with 100% winning rate: 3rd version」 (2014.10)
- The Wall Street Journal Japan "Janken Robot Faster, Smarter, Better Than Before" (2014.5)
- NHK World "International Robot Exhibition" (2013.12)
- NBC News "This robot ALWAYS will beat you at Rock-Paper-Scissors" (2013.11)
- News24 「Robot wins every time」 (2013.11)
- Zeit Online "Roboter schlägt Mensch bei Schere, Stein, Papier" (2013.11)
- NBC Bay Area "WATCH: This Robot Can Beat You at Rock, Paper, Scissors" (2013.11)
- Communications of the ACM "Superfast Rock-Paper-Scissors Robot 'Wins' Every Time" (2013.11)
- CNET (AU) "Robot hand always wins at rock-paper-scissors" (2013.11)
- The Register "Japanese boffins unveil INVINCIBLE robot rock, paper, scissors 'bot" (2013.11)
- Design Engineering 「Japanese robot wins Rock, Paper, Scissors every time」 (2013.11)
- The Guardian "Japanese Janken robot wins rock-paper-scissors every time - video" (2013.11)
- Vision Systems Design "Rock paper scissors with a robot" (2013.11)
- YAHOO NEWS (UK & IRELAND) "Japanese robot is invincible - at Rock, Paper, Scissors" (2013.11)
- techradar "You will never beat this robot at rock-paper-scissors" (2013.11)
- PC Magazine (PCMAG) "Japanese Rock-Paper-Scissors Robot Never Loses" (2013.11)
- DailyMail "Rise of the rock, paper, scissors machines: Japanese robot's reflexes are so fast it ca NEVER be beaten (... but is it cheating?)" (2013.11)
- boingboing "Robot will beat you at Rock Paper Scissors even faster now" (2013.11)
- gizmag "Unbeatable rock-paper-scissors robot gets even faster" (2013.11)
- FOX31 Denver KDVR-TV "VIDEO: Robot cannot be beaten at rock-paper-scissors" (2013.11)
- Slashdot (US) "Japanese Researchers Build Rock-paper-scissors Robot That Wins 100% of the Time" (2013.11)
- BBC "Superfast rock-paper-scissors robot 'wins' every time" (2013.11)
- UPI "Robot wins rock-paper-scissors using split-second reaction time" (2013.11)
- Huffington Post (UK) "Janken Rock-Paper-Scissors Robot Simply Can't Lose (VIDEO)" (2013.11)
- Huffington Post (US) "How This Robot Wins Rock-Paper-Scissors Every Single Time (It Cheats) " (2013.11)
- IEEE Spectrum "Video Friday" (2013.11)
- YouTube Ishikawa Group Lab Channel "Janken (rock-paper-scissors) Robot with 100% winning rate: 2nd version" (2013.11)

Janken (Rock-Paper-Scissors) Robot 2nd Version Video in Press

- NHK World "International Robot Exhibition" (2013.12)
- NBC News "This robot ALWAYS will beat you at Rock-Paper-Scissors" (2013.11)
- KEYC TV "Robot a Champ at Rock-Paper-Scissors" (2013.11)
- YAHOO news (The Sideshow) "You'll never ride shotgun against this robot" (2013.11)
- BBC "Robot 'wins' rock-paper-scissors" (2013.11), "Robot Wins Rock, Paper Scissors Every-Time - BBC NEWS" (YouTube) (2013.11)
- TVNEWS Search・Borrow "News Archives and News Video Clips on Janken robots in US" 1st version, 2nd version, and iREX (2012-)

Janken (Rock-Paper-Scissors) Robot 1st Version

- CNBC "Game-playing robots and other cool stuff" (2013.12)
- The Japan Times "'Cheating' robot poses tech and ethical issues" (2012.9)
- Bloomberg Businessweek "The Robots Have Already Won (at Roshambo)" (2012.7)

- Forbes "Japanese Robot Can Beat Humans At Rock-Paper-Scissors Every Single Time" (2012.7)
- Voice of America "Japanese Robots Besting Humans at Games" (2012.7)
- Popular Mechanics "What the Rock-Paper-Scissors Bot Says About Human-Robotics Interactions" (2012.7)
- Science 2.0 "Janken Robot Wins At Rock, Paper, Scissors Every Single Time" (2012.7)
- Vision Systems Design "Computer vision system plays rock, paper, scissors" (2012.7)
- Bloomberg TV "Could You Beat a Robot in Rock-Paper-Scissors?" (2012.7)
- International Bussiness Times "Scientists Create Robot Which Wins Rock, Paper, Scissors Every Time [VIDEO]" (2012.6)
- REUTERS (VIDEO) "Video Gallery Robot is unbeatable at Rock Paper Scissors game. (0:53)" (2012.6)
- Huffington Post (US) "Rock Paper Scissors Robot Built In Japanese Lab Cannot Lose (VIDEO)" (2012.6)
- The Verge "Tokyo University's unbeatable Rock, Paper, Scissors robot crushes all challengers" (2012.6)
- Geek.com "Rock, paper, scissors robot cheats using computer visio" (2012.6)
- Daily Mail "Rock, paper, scissors, ROBOT!! The mechanical hand that will ALWAYS beat you" (2012.6)
- PC World "This Cheating Robot Is Unbeatable at Rock-Paper-Scissors" (2012.6)
- engadet "Japanese robot trolls humans at rock-paper-scissors, sadly wasn't named the UMADBRO 9000 (video)" (2012.6)
- BBC Technology "Scissors Paper Stone robot always wins against humans" (2012.6)
- Popular Science "Video: Robot Hand Beats Humans at Rock-Paper-Scissors One Hundred Percent of the Time" (2012.6)
- Telegraph.co.uk Science "Scissors, Paper, Stone: unbeatable robot wins every hand" (2012.6)
- ZME Science "Robot hand can beat any human player at rock-paper-scissors every time [VIDEO] " (2012.6)
- Übergizmo "Robot hand can beat any human player at rock-paper-scissors every time [VIDEO]" (2012.6)
- Gizmag "Robot hand wins rock, paper, scissors every time" (2012.6)
- Newscientist "Robot beats humans at rock-paper-scissors every time" (2012.6)
- Phys.org "Robot hand wins at rock, paper, scissors every time (w/ Video)" (2012.6)
- CNET "Rock, paper, scissors robot can't be beaten" (2012.6)
- The Sun "Scientists develop 'undefeatable' robot ... for games of rock, paper, scissors " (2012.6)
- New York Daily News "FUNNY VIDEO: Scientists build robot hand that's really, really good at rock-paper-scissors" (2012.6)
- Time "Think You're Good at Rock-Paper-Scissors? This Robot Always Wins" (2012.6)
- Christian Science Monitor "Robot beats human at rock, paper, scissors. Every time. " (2012.6)
- Boston.com "Rock, Paper, Robot" (2012.6)
- Seattle Post Intelligencer "Robot shows up humans at rock, paper, scissors" (2012.6)
- The Atlantic (Technology) "This Robot Will Beat You at Rock-Paper-Scissors 100 Percent of the Time" (2012.6)
- Herald Sun "The unbeatable Japanese robot" (2012.6)
- ABC News "Japanese Robot Never Loses Rock-Paper-Scissors" (2012.6)
- CBS News "Ultimate "rock-paper-scissor" robot will win every time" (2012.6)
- gizmodo "This Robot Never Loses at Rock, Paper, Scissors Because It's a Damn Cheater" (2012.6)
- Wired "Rock Paper Robot: You Lose, Every Time" (2012.6)
- Slashdot (US) "Robot Hand Beats You At Rock, Paper, Scissors 100% of the Time" (2012.6)
- IEEE Spectrum "Robot Hand Beats You at Rock, Paper, Scissors 100% Of The Time" (2012.6)
- YouTube Ishikawa Group Lab Channel "Janken (rock-paper-scissors) Robot with 100% winning rate" (2012.6)

Janken (Rock-Paper-Scissors) Robot 1 st Version Video in Press

- Discovery News "This Robot Will Always Beat You at Rock-Paper-Scissors" (2012.7)
- Forbes Video "A 'Cheating' Robot: For Real?" (2012.6)
- Bloomberg "Could You Beat a Robot in Rock-Paper-Scissors?" (2012.6)
- Mashable "This Robot Is Better at Rock-Paper-Scissors Than You" (2012.6)
- CNN "Robot plays rock, paper, scissors?" (2012.6), "'Rock, paper, scissors' robot cheats"(YouTube) (2012.6)
- VOA "Japanese Robots Besting Humans at Games" (2012.6)
- WVTT News Channel 25 "WVTT News Channel 25; Segment 3, June 28th; 6:00 News" (2012.6)
- PhotonicsMedia "Rock, Paper, Scissors, ROBOT! - LIGHT MATTERS 7/11/12" (2012.6)
- TVNEWS Search・Borrow "News Archives and News Video Clips on Janken robots in US" 1st version, 2nd version, and iREX (2012-)

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- gizmodo "Every House Should Come Equipped With a Towel-Folding Robot" (2011.5)
- IEEE Spectrum "High-Speed Robot Hands Fold a Towel in 0.4 Second" (2011.5)
- engadget "Video: Robot hand shows off amazing dexterity, speed" (2009.8)
- Gizmag "Video: the state of the art in robot perception and dexterity" (2009.9)
- Slashdot (US) "High-Speed Robot Hand Shows Dexterity and Speed" (2009.8)
- Hizook "High-Speed Robot Hand Demonstrates Dexterity and Skillful Manipulation" (2009.8)
- Popular Science "Video: The Fastest Robot Hands in the East" (2009.8)
- YouTube Hizook Channel "High-Speed Robot Hand" (2009.8)
- IEEE Spectrum "High Speed Robot Hands Easily Outpace Humans" (2009.7)
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- Slashdot (US) "Robot Catches High Speed Objects" (2005.8)
- Slashdot (US) "On the Gripping Hand" (2014.9)

Dynamic Vision System / High Speed Image Tracking System

Dynamic Projection Mapping

- Digital Journal "Real-time Tracking Projection Mapping System Market Region Wise Analysis of Top Players and Changing Growth Factor in Industry, Forecast by 2023-2030" (2021.4)

VarioLight, VarioLight 2

- IEEE Spectrum "Video Friday" (2021.4)
- IEEE Spectrum "Video Friday" (2020.7)
- Projection Mapping Central "VarioLight: Dynamic Projection Mapping for a Wide Range Performance" (2018.5)

3D Head-Up-Display

- Konica Minolta News Releases "Konica Minolta Develops the World's First Automotive 3D Augmented Reality Head-up Display" (2017.2)

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- IEEE Spectrum "Video Friday" (2015.9)
- IEEE Spectrum "Video Friday" (2015.3)
- Projection Mapping Central "OMFG: Researchers create magic" (2015.3)
- Projection Mapping Central "Lumipen - The Fastest Projection Mapping In The West" (2013.11)

High Speed Variable Focus Lens, Dynamorph Lens

- Vision Systems Design "Actuator enables fast focusing of liquid lens" (2010.1)
- SPIE Newsroom "A rapidly deformable liquid lens" (2009.12)

1ms Auto Pan/Tilt

- IEEE Spectrum "Video Friday: Unstoppable Drones, Rock-Paper-Scissors Robot, and Nao Is a Chatterbox" (2013.11)
- robohub "Dynamic target tracking camera system keeps its eye on the ball" (2013.6)
- Reuters "Researchers project the future of smart phones"(US), (UK) (2013.6)
- Phys.org "Ultra high-speed camera ball-tracker at Japan lab uses mirrors" (2013.6)
- engadget "University of Tokyo's fast-tracking camera system could revolutionize sports coverage" (2013.6)
- GIZMODO "This High-Speed Tracking Camera Could Snap the Flash's Family Portrait" (2013.6)
- YouTube ikinamo Channel "Dynamic target tracking camera system keeps its eye on the ball" (2009.7)
- DigInfo TV "Dynamic target tracking camera system keeps its eye on the ball" (2013.6)
- REUTERS "Camera system brings new focus to ball sports (1:39)" (2012.7)
- IEEE Spectrum "Robot Eyes Track Ping Pong Balls" (2012.7)
- Popular Science "Video: Camera Uses Ultra-Fast Mirrors to Perfectly Track a Ping-Pong Ball in Play" (2012.7)
- NewScientist "Superfast mirrors track a ping-pong ball in flight" (2012.7)
- UPI.com "Camera can keep its eye on the ball" (2012.7)
- The Verge "Super-fast motion tracking camera uses rotating mirrors to stay locked on target" (2012.7)
- Phys.org "1ms pan-tilt camera system tracks the flying balls (w/ Video)" (2012.7)
- Gizmag "Camera system automatically keeps fast-moving subjects centered in the shot" (2012.7)
- Übergizmo "Japanese researchers working on a camera that can track fast-moving objects in real-time" (2012.7)
- YouTube Ishikawa Group Lab Channel "1ms Auto Pan-Tilt for perfect recentering" (2012.7)

System Vision Design / Massively Parallel and Ultra High Speed Vision Systems

High-speed Color Projector

- IEEE Spectrum "Video Friday: Shadow Plays Jenga, and More" (2021.3)

Dynamic Projection Mapping on Face

- boing boing "Watch an astonishing demonstration of face-mapping art" (2017.7)
- boing boing "Gorgeous Japanese performance art combines dance and high-speed face mapping" (2017.4)
- THE VERGE "Watch a dance performance change in real time with facial projection mapping" (2017.3)
- CNET "High-speed face mapping turns dancers into masked marvels" (2017.3)
- GIZMODE UK "Dancers Instantly Swap Freaky Face Masks Using A Face-Tracking Projector" (2017.3)
- GIZMODE AU "Dancers Instantly Swap Freaky Face Masks Using A Face-Tracking Projector" (2017.3)
- engadget "Motion-tracking projector puts a laser show on moving faces" (2017.3)
- WOW "INORI - PRAYER-" (2017.3)

Dynamic Projection Mapping

- NHK WORLD-JAPAN 「The Leading Edge: Projection Mapping Evolving to New Heights」 (2019.12)
- boingboing "Projector throws stable 1000fps image on a rough or moving surface" (2019.11)
- UpShed "1000fps image projection on deforming non-rigid surface" (2019.11)
- boing boing "Projection mapping on a moving surface with a high-speed projector" (2016.10)
- fx guide "Dynamic Projection Mapping" (2016.10)
- BT "Clothing of the future? Scientists can project smooth images onto moving fabric" (2016.10)
- Projection Mapping Central "Real-time dynamic projection mapping" (2016.10)
- MailOnline "Watch as a smooth image is projected onto MOVING fabric: System could lead the way to 'interactive clothing'" (2016.10)
- gizmode "This Real-Time Image Warping Projector Will Blow Your Mind" (2016.10)

- Popular Science "Japanese Projector Displays Smooth Video On A Wriggling, Dancing Surface" (2016.10)
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- CG Press "ZoeMatrope: a system for physical material design" (2016.8)

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- Display Daily "1000 fps Projection System" (2015.8)
- Popular Mechanics "This Intense Projector Can Beam Images that Look Painted On" (2015.8)
- gizmode "This 1,000 FPS Projector Perfectly Matches the Movements of Any Surface" (2015.8)
- Phys.org "DynaFlash is a high-speed projector with 3ms delay" (2015.8)
- Übergizmo "DynaFlash: 3D-Projektor kann 1000 Bilder pro Sekunde erzeugen" (2015.8)
- NIKKEI TECHNOLOGY online "1,000fps Projector Combined With High-speed Camera" (2015.8)
- engadget "Super-fast projector may be key to holodeck-like rooms" (2015.8)
- reddit "Super-fast projector may be key to holodeck-like rooms" (2015.8)

BFS-Auto
- IEEE Spectrum "Video Friday: IROS 2013 Special Edition" / "Automatic Page Turner Machine" (2013.11)
- IEEE Spectrum "Video Friday" (2012.11)
- gizmag "BFS-Auto robot can read 250 pages per minute" (2012.11)
- Newscientist "Book-riffling robot scans one page at a time" (2012.11)
- gizmodo "Watch This Page-Scanning Robot Read Faster Than You Could Ever Dream To" (2012.11)
- gizmodo "Watch This Page-Scanning Robot Read Faster Than You Could Ever Dream Of" (2012.11)
- CNET "3D book scanner eyes novels at 250 pages per minute" (2012.11)
- engadet "3D book scanner blows through tomes at 250 pages per minute" (2012.11)
- The Verge "Robot book scanner perfectly captures 250 pages every minute" (2012.11)
- The Sun "New robot can read 250-page book in 60 seconds" (2012.11)
- Übergizmo "3D Book Scanner Does 250 Pages Each Minute" (2012.11)
- YouTube Ishikawa Group Lab Channel "BFS-Auto: High Speed Book Scanner at over 250 pages/min " (2012.7)

Book Flipping Scanning
- Phys.org "Japan rapid scanning system can digitise book in one minute" (2010.9)
- Reuters "Speedy scanner re-writes book on publishing technology" (2010.4)
- Reuters (VIDEO) "Scanning entire books in minutes" (2010.4)
- Phys.org "Scanner scans a 200 page book in one minute" (2010.3)
- Popular Science "Video: Fastest Book Scanner Ever Captures Flipping Pages with High-Speed Camera " (2010.3)
- Seattle Post Intelligencer "Book Flipping Scanning" (2010.3)
- WIRED "Swift, canny book scanner bodes publishing mischief a-plenty" (2010.3)
- Wired Vision "High-Speed Camera Scans Books in Seconds" (2010.3)
- Übergizmo "Super fast book scanner" (2010.3)
- Slashdot (US) " Japanese Researchers Develop World's Fastest Book Scanner" (2010.3)
- IEEE Spectrum "Superfast Scanner Lets You Digitize a Book By Rapidly Flipping Pages" (2010.3)
- YouTube IEEE Spectrum Channel "Book Flipping Scanning"(2010.3)
- engadget "Book scanning gets a 1,000 fps turbo mode" (2009.8)

3D Input Interface in the Air
- Technology Review "Gesture Control for Devices" (2010.4)
- Slashdot (US) "Project-Natal-Style Interface For Mobile Phones" (2010.4)
- Popular Science High-Speed Camera Enables Touchless Gesture Control of Smartphones" (2010.4)
- Phys.org "Cell Phones Using Gesture Control (w/ Video)" (2010.4)
- YouTube Ishikawa Group Lab Channel "3D Input Interface for Mobile Devices" (2009.11)
- YouTube IntoMobile Channel "New Input Interface by Tokyo University" (2009.7)

Vision Chip
- Sony Corporate Info ""Spinal reflex" enables rapid feedback and response Real-time Image Data Analysis" (2020.2)
- Sony Design "A(i)R Hockey" (2018.5)
- News Release "Sony Releases a High-Speed Vision Sensor that Makes Detection and Tracking of Objects at 1,000 fps Possible Stacked CMOS Image Sensor that Combines High-Frame-Rate Imaging and High-Speed Sensing" (2017.5)
- Image Sensors World "Sony Announces 1000fps Sensor Stacked on Top of Vision Processor" (2017.5)
- I4U NEWS "NEW SONY IMX382 CMOS SENSOR TRACKS OBJECTS AT 1,000 FRAMES PER SECOND" (2017.5)
- YouTube Sony Channel "High speed vision sensor creats "High Speed Vision Sensing" world." (2017.5)
- Image Sensors World "Vision Chips at Ishikawa Watanabe Lab" (2017.3)
- EETimes "Vision chip blends detection with image processing" (1999.8)

Gesture UI
- gizmag "Kinect for Xbox demos in Tokyo, we talk with a skeptical expert. By Rick Martin" (2010.9)

Meta Parception

Optical Illusion

- Image Sensor World "Ishikawa Lab's Optical Illusion Killer" (2020.9)

High Speed Gesture UI for zSpace
- medGadget "Real-Time Touch-Free Gesture Control System for Image Browsing in The OR (VIDEO)" (2014.5)
- Polygon "High-speed 3D hand gesture interface allows users to interact with 3D holographic displays" (2014.5)
- gizmodo "Every Gestural Interface Should Be This Responsive and Snappy" (2014.5)
- Bloomberg "University of Tokyo Partners with zSpace, Inc. to Deliver Immersive Sensor and Gesture Technology" (2014.5)
- zSpace Press Release "University of Tokyo Partners with zSpace, Inc. to Deliver Immersive Sensor and Gesture Technology" (2014.5)

AIRR Tablet
- THE BRIDGE "AIRR Tablet brings us a step closer to Minority Report UI" (2014.4)
- Wall Street Daily "Japan's New Floating Touchscreen Magic Trick" (2014.4)
- Scientific American ""Floating" Screens Could Prevent Spread of Germs" (2014.4)
- Reuters "Floating" screens bring new paradigm to interactive gesture technology" (2014.4)

Invoked Computing
- CNET "New concept turns pizza boxes, bananas into computers" (2011.11)
- Popular Science "Video: An Augmented-Reality Bananaphone, With a Real Banana (or Anything Else)" (2011.11)
- Phys.org "Invoked computing: Pizza box is too loud! I can't hear the banana" (2011.11)
- Übergizmo "Invoked computing turns your pizza box into a computer, and a banana into a phone" (2011.11)
- Gizmag "New concept turns pizza boxes, bananas into computers" (2011.11)

scoreLight / Sticky Light
- Übergizmo "Sticky Light lets users interact with a laser beam" (2011.4)
- DigInfo TV "scoreLight" (2009.11)
- Übergizmo "Sticky Light project" (2009.12)
- Gizmag "scoreLight musical instrument turns drawings into sound" (2009.12)
- YouTube "Crazy Weird Lazer" (2009.8)
- YouTube "Laser + Sound test-0" (2009.8)

Volume Slicing Display
- CNET "Volume Slicing Display affords untethered 3D views" (2009.12)

Haptic Rader
- Übergizmo "Haptic Radar Project" (2008.8)
- engadet "Haptic radar system has got your back" (2006.10)

Tokyo University of Science

Office of the President
- "Message from the President" (2022.1)

University of Tokyo page

UTokyo Research
- "Starting a second decade of innovation and entrepreneurship" (2015.5)

9. Affiliated Laboratories (Universities and National Institutes / Companies)

Affiliated Laboratories (Universities and National Institutes)

- Shimojo Laboratory, The University of Electro-Communications (Prof. Makoto Shimojo)
  Shimojo Laboratory YouTube Channel
- McGill University Prof. Andrew Kirk
- Mukai Laboratory, Meijo University (Prof. Toshiharu Mukai)
- Smart Robotics Laboratory, Hiroshima University (Prof. Idaku Ishii)
- Yamamoto Laboratory, Utsunomiya University (Prof. Hirotsugu Yamamoto)
  Yamamoto Laboratory YouTube Channel
- Namiki Laboratory, Chiba University (Prof. Akio Namiki)
  Namiki Laboratory YouTube Channel
- Komuro Laboratory, Saitama University (Prof. Takashi Komuro)
  Komuro Laboratory YouTube Channel
- The University of Hong Kong (Graziano Chesi)
- Oku Laboratory, Gunma University (Prof. Hiromasa Oku)
  Oku Laboratory YouTube Channel
- Kagami Laboratory, Tohoku University (Prof. Shingo Kagami)
  Shingo Kagami YouTube Channel
- Soochow University, China (Prof. Lihui Wang)
- Extended Reality Lab, City University of Hong Kong (Assoc. Prof. Alvaro Cassinelli)
  Cassinelli Alvaro YouTube Channel
- Watanabe Laboratory, Tokyo Institute of Technology (Assoc. Prof. Yoshihiro Watanabe)
  Watanabe Laboratory YouTube Channel
- Yamakawa Laboratory, University of Tokyo
  (Assoc. Prof. Yuji Yamakawa, Asst. Prof. Masahiro Hirano, Project Asst. Prof. Hyuno Kim, Project Researcher Kenichi Murakami)
  Yamakawa Laboratory YouTube Channel
- Intelligent Robots and Systems Laboratory, Hokkaido University (Assoc. Prof. Taku Senoo)
- Harada Laboratory, Osaka University (Asst. Prof. Keisuke Koyama)
  Keisuke Koyama YouTube Channel
- Nakato Laboratory, University of Tokyo (Project Asst. Prof. Seohyun Lee)
- Hashimoto Laboratory, Tohoku University (Prof. Koishi Hashimoto)
- Dependable Systems Research Group, National Institute of Advanced Industrial Science and Technology (Yoshihiro Nakabo)
- Ishikawa Group Laboratory, Tokyo University of Science
  (Assoc. Prof. Tomohiko Hayakawa, Assoc. Prof. Leo Miyashita, Junior Assoc. Shouren Huang, Junior Assoc. Tomohiro Sueishi,
  Asst. Prof. Satoshi Tabata, Engineer Yushi Moko)
  Ishikawa Group Laboratory YouTube Channel

Affiliated Companies (Commercialization and Practical Applications)

- NEDO Project (Project Leader: Masatoshi Ishikawa, Project Member: The University of Tokyo, Sony Corp, Nissan Motor Co., Ltd, Exvision Inc.)
  - Image Sensors World "Sony Sees Bright Future for 1,000fps Sensor" (2015.9)
  - The Japan Times "Sony developing 1,000-pictures-a-second sensor" (2015.9)
  - Bussiness Finance News "Sony Corp (ADR) May Become The Pioneer Of Affordable High-End Image Sensors" (2015.9)
  - Bloomberg Bussiness "Why Sony Sees Its Next Big Hit at 1,000 Photos a Second" (2015.9)
- Exvision Inc.

Platform for High-speed Computer Vision

- Exvision News "Establishing a platform for developing high-speed computer vision solutions」 (2017.2)

ZKOO

- Embedded Vision Alliance "ExVision Demonstration of a High Speed Gesture Interface System" (2016.2)
- ZKOO by exvision "THE WORLD'S MOST RESPONSIVE AND ACCURATE GESTURE-TRACKING CAMERA" (2015.12)

High Speed Gesture UI

- KICKSTARTER "ZKOO - The World's Most Advanced Gesture Tracking Camera" (2015.12)
- VentureBeat "Exvision hopes to bring your favorite mobile games to your TV" (2015.5)
- Games In Asia "This cheap, Kinect-like gadget lets the whole family play mobile games on the living room TV" (2015.4)
- PRWeb "BlueStacks' GamePop Introduces New Game Controller, Also Announces Gesture-based Games on TV and AiO PC" (2014.9)
- NIKKEI TECHNOLOGY online "Venture Firm Realizes High-speed, Low-delay Gesture-based UI" (2014.9)

- zSpace

- zSpace Press Release "University of Tokyo Partners with zSpace, Inc. to Deliver Immersive Sensor and Gesture Technology" (2014.5)

- Tokyo Electron Device Limited (TED)
  - Tokyo Electron Device Limited (TED) News "High-speed projector "DynaFlash" at the fastest level in the world is jointly developed by University of Tokyo and Tokyo Electron Device Limited – 8-bit image projection up to 1,000fps –" (2015.7)
- Texas Instrument
  - TI E2E Community "There's more than meets the eye when designing for industrial projection" (2016.5)
- Sony
  - Sony Corporate Info ""Spinal reflex" enables rapid feedback and response Real-time Image Data Analysis" (2020.2)
  - Sony Design "A(i)R Hockey" (2018.5)
  - News Release "Sony Releases a High-Speed Vision Sensor that Makes Detection and Tracking of Objects at 1,000 fps Possible Stacked CMOS Image Sensor that Combines High-Frame-Rate Imaging and High-Speed Sensing" (2017.5)
  - Image Sensors World "Sony Announces 1000fps Sensor Stacked on Top of Vision Processor" (2017.5)
  - I4U NEWS "NEW SONY IMX382 CMOS SENSOR TRACKS OBJECTS AT 1,000 FRAMES PER SECOND" (2017.5)
  - YouTube Sony Channel "High speed vision sensor creats "High Speed Vision Sensing" world." (2017.5)
- Tawazun Holding
  - biz Today "Tawazun Holding and University of Tokyo sign agreement" (2017.7)
  - NEWS "Tawazun Holding and University of Tokyo sign agreement for cooperation in science and technology" (2017.7)
- Dai Nippon Printing Co., Ltd.
- Harmonic Drive Systems, Inc.
- Hamamatsu Photonics K.K.
- Barrett Technology Inc., "Sports & Game Play"
- WOW Inc. "INORI - PRAYER-"
- Central Nippon Expressway Company Limited
- Oz Creative Room Limited
- Seiko NPC Corporation
- Vision Chip Association

Companies by Fomer Members

- Lucida Science Communications, Inc. (Neil McArdle)
- Emma Consulting Co., Ltd. (Dirk Ebert)

10. SNS (Facebook etc. / YouTube Channel)

SNS: Facebook, Twitter, LinkedIn

Laboratory

Facebook
Ishikawa Group Laboratory Page
(English)

Facebook
Ishikawa Group Laboratory Page
(Japanese)

Tokyo University of Science

YouTube Facebook Twitter Instagram LinkedIn LINE

Personal

Facebook
Japanese English

YouTube

Laboratory Sensor Fusion Dynamic Vision System System Vision Design Active Perception

Ishikawa Group Laboratory Channel

YouTube
Ishikawa Group Laboratory Channel
(2023.2.28) Videos: 119, Subscribers: 8,540
Video Views: over 9,606,000

YouTube II
Ishikawa Group Laboratory II Channel
(2023.2.28) Videos: 148, Subscribers: 292
Video Views: over 34,004

Movies on our laboratory

- Labo Video 2020 (Japanese) (2021.6)
- Labo Video 2020 (English) (2021.6)
- Lab Video 2014 short (2014.7)
- High Frame Rate Videos (2014.7)
- Overview of Ishikawa Lab 1 (2012.12)
- Overview of Ishikawa Lab 2 (2012.12)
- Ishikawa Lab Video (2010.3)

Sensor Fusion: High-speed robot, Visual feedback

High-Speed Feedback with Visual, Tactile and Proximity Sensing

- Proximity Sensor Applications (2020.10)
- UAV non-stop parcel handove (2020.5)
- Marshmallow catch (2018.9)
- Paper Balloon Catch (2018.5)
- Pen Spinning (2009.11)

Throwing Batting Robot

- Dream of a Baseball Android (2014.11)
- Throwing & Batting (full ver.) (2010.1)
- Directional Hitting (2009.11)
- Throwing & Batting Robot (2009.11)
- Throwing Motion (2009.11)
- Batting Motion (2009.11)

High Speed Running Robot

- ACHIRES: Robust Running (2018.5)
- ACHIRES Ver.2 (2017.11)
- History of Project ACHIRES (2014.10)
- ACHIRES: Running Robot (2014.9)
- ACHIRES (no naration) (2014.9)

Janken (rock-paper-scissors) Robot

- Janken Robot 3rd Ver. (2015.9)
- Janken Robot 2nd Ver. (2013.11)
- Janken Robot (2012.6)

Applications of High Speed Robot Hand

- MagLinkage (2019.9)
- Dynamic Human-Robot Interaction (2018.11)
- Rubik's Cube Manipulation (2018.9)
- Thread-Rotor Manipulation (2015.11)
- 3D Catching with Tweezers (2010.1)
- High-Speed Hand (2009.11)
- Dynamic Cloth Folding (2011.5)
- Grasping with Tweezers (2009.11)
- High-Speed Catching System (2009.11)
- Active Catching (2009.11)
- Egg Catching (2009.11)
- High-speed Dribbling (2009.11)
- Knotting of a Rope (2009.11)
- Dynamic Regrasping (2009.11)

Dynamic Compensation

- Towel-like object manipulation system (2022.6)
- Dynamic Observable Contact Hand (2019.5)

Dynamic Compensation

- Human-Robot Collaboration with Dynamic Compensatios (2018.8)
- Accurate Pick-and-Place (2018.2)
- Active Assistant Robot (2017.11)
- Micro Manipulation (2015.11)
- Dynamic Compensation (2015.11)
- Dynamic Compensation Robot with a Vision Chip (2017.2)
- Line Tracing (2016.6)
- Peg-in-Hole (2016.6)

Dynamic Vision System: High-speed imaging control, adaptive optics

3D HUD

- 3D HUD (2017.3)

Dynamic projection mapping

- VarioLight 2: Rhythmic Gymnastics (2021.4)
- VarioLight 2 (2020.7)
- VarioLight (2018.5)
- Lumipen 2 (2015.3)
- Tracking Projection Mosaicing (2020.12)
- Golf Swing Training (2020.3)
- Dynamic Projection Mapping (2017.3)
- Lumipen (2013.6)
- High-Speed Focal Tracking Projection (2020.8)
- Dynamic Depth-of-Field Projection Mapping (2019.4)
- Lumipen 2 (2015.9)
- High-Speed Interaction (2013.5)

High-Speed Tracking System

- Swimming Fish Tracking (2020.9)
- 1ms Auto Pan-Tilt; Yo-yo Ver. (2013.10)
- Shock-wave by Tracking BOS (2017.5)
- 1ms Auto Pan-Tilt (2012.7)
- VibroTracker (Revised Video) (2014.7)
- Saccade Mirror (2011.10)

High-Speed Variable Focus Lens, Focus Stacked Movie

- Variable Focus Lens (2015.3)
- Dynamorph Lens (2010.4)
- A high-speed liquid lens (2010.9)
- Focus Stacked Movie (2010.4)

Micro Visual Feedback

- 3D Tracking of a Paramecium (2010.4)
- Tracking of a Spermatozoon (2010.4)

System Vision Design: High-speed image processing and its application

Vision Chip

- History of Vision Chip (2017.3)
- ISSCC 2017 Vision Chip Demo (2017.2)

Input/Output interface / High-speed Display / Dynamic projection mapping

- 1000fps 24bit color projector (2021.4)
- Brobdingnagian Glass (2019.11)
- DynaFlash v2 (2018.3)
- Phyxel (2016.8)
- 3D motion sensing (2015.10)
- 3D Input for Mobile Devices (2009.11)
- ElaMorph Projection (2020.11)
- MIDAS Projection (2018.11)
- SENSECASE (2017.4)
- ZoeMatrope (2016.7)
- DynaFlash (2015.7)
- Deformable Workspace (2009.11)
- Dynamic Viewpoint (2020.3)
- Portable Lumipen (2018.7)
- Dynamic Projection Mapping (2016.10)
- Occlusion-Robust 3D Sensing (2016.5)
- Anywhere Surface Touch (2014.4)

Book Flipping Scanning

- BFS-Solo (2013.1)
- BFS-Auto (2012.11)
- Book Flipping Scanning (2010.3)

High-Speed Image Sensing

- High-speed 3D Sensing (2016.8)
- Human Gait Estimation (2012.3)
- High-speed roll camera (2016.5)
- Shape Measurement (2009.11)
- Rapid SVBRDF Measurement (2015.5)

Active Perception: Interactive interface, Media control

Active Perception & its application

- Tunnel inspection system (2017.4)

High-Speed Gesture UI

- Latency Limits (2020.2)
- High Speed Gesture UI (2013.9)
- Gesture UI for zSpace (2014.5)
- AIRR Tablet (2014.3)

Smart Laser Scanner and Its Applications

- 3D Smart Laser Scanner (2010.9)
- Human Computer Interface (2010.9)
- Sensing Display (2010.9)
- Map browsing (2010.9)
- Video browsing (2010.9)

Meta Display

- Bilateral Motion Display (2020.9)
- Volume Slicing Display (2010.9)
- Optical Illusions Compensator (2020.9)
- Haptic Radar (2010.9)
- scoreLight (2010.9)
- The Khronos Projector (2010.9)

Our Videos introduced in the IEEE Spectrum Channel

- High-speed, Small-deformation Catching of Soft Objects (2019.6)
- Automatic Page Turner Machine (2019.6)
- Book Flipping Scanning (2010.3)

YouTube Pages where our researches are introduced. (2023.2.28)

Our movies in the Ishikawa Group Laboratory channel --> "Popular uploads" page in the laboratory channel

• Janken Robot (2012.6)	4,285,000	• BFS-Auto (2012.11)	1,276,000	• Dynamic Projection Mapping (2016.10)	988,000
• Janken Robot 2nd Ver. (2013.11)	859,000	• Janken Robot 3rd Ver. (2015.9)	307,000	• Running Robot (2014.9)	243,000
• 1ms Auto Pan-Tilt (2012.7)	169,000	• Book Flipping Scanning (2010.3)	165,000	• 3D Input Interface (2009.11)	94,000
• DynaFlash (2015.7)	90,000	• DynaFlash v2 (2018.3)	72,000	• Lumipen 2 (2015.3)	71,000
• BFS-Solo (2013.1)	69,000	• Gesture UI for zSpace (2014.5)	66,000	• AIRR Tablet (2014.3)	52,000
• Lumipen (2013.6)	44,000	• Rubik's Cube Robot (2018.9)	38,000	• MIDAS Projection (2018.11)	29,000
• High-Speed Interaction (2013.5)	27,000	• scoreLight (2010.9)	26,000	• MagLinkage (2019.9)	25,000

• Auto Pan-Tilt; Yo-yo (2013.10)	21,000	• Baseball Android (2014.11)	21,000	• ZoeMatrope (2016.7)	21,000
• ACHIRES Ver.3 (2018.5)	20,000	• Portable Lumipen (2018.7)	18,000	• ACHIRES Ver.2 (2017.11)	16,000
• Batting Motion (2009.11)	15,000	• ACHIRES (no narration) (2014.9)	12,000	• Smart Laser Projector (2010.9)	11,000
• The Khronos Projector (2010.9)	11,000	• Focus Stacked Movie (2010.4)	10,000	• Anywhere Surface Touch (2014.4)	10,000

Our movies in other channels

• High-Speed Robot Hand (2009.8)	4,010,000	• High-Speed Robot Hand (2009.7)	1,027,000	• Laser + Sound test-0 (2009.8)	1,001,000
• Crazy Weird Lazer (2009.8)	852,000	• New Input Interface (2009.7)	212,000	• Baseball Robots (2009.7)	95,000
• High-speed Hand (2009.4)	86,000	• Ultra High-speed Robot (2012.10)	46,000	• Baseball Robots (2009.7)	33,000
• Batting & Throwing (2009.7)	28,000	• Highspeed-Scanner (2010.3)	27,000	• Book Scanning System (2009.8)	27,000
• Janken Robot (2012.6)	23,000	• Folding Cloth Robot (2011.5)	23,000	• High Speed Robot (2009.8)	12,000
• High Speed Robot Hand (2009.8)	11,000				

Videos on our Researches Introduced in Other Channels

• Tracking & Lumipen (2013.6)	511,000	• Invoked Computing (2011.11)	76,000	• Janken robot 2nd Ver. (2013.11)	63,000
• Janken Robot 2nd Ver. (2013.11)	54,000	• scoreLight (2009.11)	29,000	• Invoked Computing (2011.11)	21,000
• Janken robot (2013.11)	17,000	• Janken robot (2012.6)	14,000	• scoreLight (2009.11)	12,000
• Janken Robot (2014.10)	11,000				

Total views in this list **17,502**,000 (2023.2.28)

<reference> Application Systems Developed by Others Using Our Technology

• INORI - PRAYER- (2017.3)	1,564,000	• INORI - PRAYER- (2017.3)	128,000	• Making of INORI (2017.3)	68,000
• Sony IMX382 (2017.5)	59,000				

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Tokyo University of Science