Curriculum Vitae

Kenji Kawashima

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Biography

Kenji Kawashima received the Ph.D. degree in engineering from the Department of Control Engineering, Tokyo Institute of Technology, Tokyo, Japan, in 1997. From 1997 to 2000, he was a Research Assistant with the Tokyo Metropolitan College of Industrial Technology. He was an Associate Professor with the Precision and Intelligence Laboratory, Tokyo Institute of Technology. From 2013 to 2020, he was a Professor with Tokyo Medical and Dental University. In 2014, funded University Start-up Riverfield Inc. Since April 2020, he has been a Professor with The University of Tokyo. His research interests include bio-robotic control, soft actuator, medical imaging and measurement and control of fluid system.

Educational History

B.S.   Tokyo Institute of Technology, Department of Control Engineering (1992)
M.S.   Tokyo Institute of Technology, Department of Control Engineering (1994)
Ph.D   Tokyo Institute of Technology, Department of Control Engineering (1997)

Professional Experience

1997-2000 Research Assistant, Tokyo Metropolitan College of Technology
2000-2013 Associate Professor, Precision and Intelligence Laboratory, Tokyo Institute of Technology
2007 Visiting Scholar, Bio robotics Lab. Department of Electrical Engineering, University of Washington
2013- 2020 Professor, Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University
2014 Funded University Start-up Riverfield Inc.
2020- Professor, Department of Information Physics and Computing,
School of Information Science and Technology, The University of Tokyo

Research Interest

Bio-Robotic Control, Soft Actuator, Medical imaging, Measurement and Control of Fluid System

Membership in Learned Societies

IEEE,   The Japan Society of Mechanical Engineers (JSME), The Robotics Society of Japan (RSJ)
The Japan Society of Instrumentation and Control Engineers (SICE), The Japan Society for Precision Engineering
Japan Society for Endoscopic Surgery, Japan Society of Computer Aided Surgery (Director since 2022)
The Japan Fluid Power System Society (Director since 2013)

Awards

Hasunuma Best Paper Award, The Japan Society of Instrumentation and Control Engineers, 1998, 2006
Best Paper Award, Japan Fluid Power Technology Promotion Foundation, 1998, 2004
Tokyo Tech Award for Challenging Research,2006
Best Paper Award, The Japan Fluid Power System Society, 2007
Best Paper Award, Japan Society of Computer Aided Surgery, 2014
Kuramae Venture Award, 2023

Journal Editorships

IEEE IROS (International Conference on Intelligent Robots and systems) Associate Editor (2017-2022)
IEEE ICRA (International Conference on Robotics and Automation) Associate Editor (2018-2022)
Sensors and Materials, Guest Editor, Special Issues on Sensing in Medical Robots (2019)
Journal of Robotics and Mechatronics, Guest Editor (2022)

Recent Publication

Junyi Shen Tetsuro Miyazaki, Swaninda Ghosh, Toshihiro Kawase, Kenji Kawashima, Gait Perception via Actual and Estimated Pneumatic Physical Reservoir Output, Advanced Intelligent Systems, 2400278, pp.1-15, 2024

Junyi Shen, Tetsuro Miyazaki, Shingo Ohno, Maina Sogabe, Kenji Kawashima, Trajectory Tracking Control of Dual-PAM Soft Actuator with Hysteresis Compensator, IEEE Robotics and Automation Letters (RA-L), Vol.9, No.1, pp.335-342, 2024

Maina Sogabe, Florian Christoffer Uetrecht, Takahiro Kanno, Tetsuro Miyazaki, Kenji Kawashima, A Quick Response Soft Actuator by Miniaturized Liquid-to-Gas Phase Change Mechanism with environmental thermal source, Sensors and Actuators: A. Physical, Vol. 361, 114587, 2023

Kenji Kawashima, Takahiro Kanno, Kotaro Tadano, Robots in laparoscopic surgery: Current and future status, BMC Biomedical Engineering, 1:12, pp.1-6, 2019

As of the end of December 2024, 113 English papers, 53 Japanese papers, and 205 international conference papers.