

Technological Directory - Graduate School and Faculty of Robotics and Design (2020)

Department of Robotics

Discipline	Field	Expertise	Keyword 1	Keyword 2	Keyword 3	Open to consultations on	Lab	Researcher	Related researchers
General	Ergonomics, human machine interaction	Psychophysiological measurement	Human sensing	Human robot interaction	Wellness system	Estimation of human mental states or intension by making use of physiological measurements, and its application for human robot interaction or development of wellness system	Wellness Lab	Mieko OHSUGA, Professor	
Engineering	Mechanical Engineering	Intelligent mechanics / mechanical system	Robotics	Mechatronics	Man-machine system	Life support, application of robot technology to caregiving and welfare fields	Life Support Robot System Lab	Yutaka HIROI, Associate Professor	
Engineering	Mechanical engineering	Intelligent mechanics and mechanical systems, Biomedical engineering	Mechatronics	Human-machine systems	Manipulator	Surgery support system; multi-DOFs manipulator, Operation interface, Image processing and Elasticity sensing	Medical Robotics Lab	Toshikazu KAWAI, Professor	
Engineering	Mechanical engineering	Computational Mechanics	Numerical simulation	Finite element method	Parallel processing	Computer simulation of robot and structure using finite element analysis	Robotics Simulation Lab	Hiroyuki KURAMAE, Professor	
Engineering	Mechanical engineering	Actuator, Mechanical system	Robotics	Mechatronics	Actuator	Soft robotics, Soft actuator (Pneumatic, SMA, Artificial muscle), Medical and Welfare devices	Flexible Robotics Lab	Hironari TANIGUCHI, Associate Professor	
General	information science and technology	media informatics	Virtual reality	Human interface	Ultra-realistic communications	Wide-angle images, haptic interfaces, locomotion interface	Virtual Reality Lab	Fumitaka NAKAIZUMI, Associate Professor	Wataru HASHIMOTO, Associate Professor

Mathematical and physical science	Mathematics	Algebra	Number theory	Zeta function	Bernoulli numbers	Analytic properties of multiple zeta functions and combinatorial properties of Bernoulli numbers	Mathematics Lab	Ken KAMANO, Associate Professor	Tsuneo ISHIKAWA, Professor Ichiro TAKADA, Professor
Information systems	Robotics	Autonomous mobile robot, 3D visualization	Robot Control	3D Medical imaging	Cooperative computer surgery	Medical imaging processing, remote control technology, increasing the flexibility of robot manipulator motion	Network & Communication Robot Lab	Yuki INOUE, Professor	
Engineering	Mechanical engineering	Intelligence for Mechanical Systems	Algorithms	System Design and Integration	Autonomous System	Industrial Robotic Systems and Other Automated Systems	Industrial Robot Lab	Akio NODA, Professor	
Engineering	Mechanical engineering, Control engineering	Actuator, Control theory	Actuator	Control theory	Robotics	Smart material actuator (Piezo, SMA, DEA), Nonlinear control system	Smart Material Actuator Lab	Changan JIANG Associate Professor	