

*This is a current plan of the university of Tsukuba. There is a possibility that it will change.

Degree Programs in Systems and Information Engineering Graduate School of Science and Technology

Faculty member list (5-year doctoral program)

<Ph.D. Program in Empowerment Informatics>

Research Field	Fuculty Members	Detailed Description of Research Field
Supplementation	AIYAMA Yasumichi	Human-like Dexterous Robot Manipulation, Advanced Industrial Robot.
	UTSURO Takehito	Natural Language Processing, Web Mining, Information Retrieval, Human-Machine Communication by Speech and Language, Understanding and Creating Entertainment and Educational Contents, Language Processing by Deep Learning, Artificial Intelligence.
	KURODA Yoshihiro	Interactive Biological Media, Medical Artificial Intelligence, Medical System
	SUZUKI Kenji	Artificial Intelligence, Autonomous Humanoid Robot, Human Assistive Technology, Music & Sound Media Technology, Kansei Research.
	MORITA Masahiko	Brain-like Computing, Neural Networks, Modeling Brain Functions.
	YANO Hiroaki	Cooperative VR Environment, Virtual Reality, Assistive Technology.
	IZAWA Jun	Computational Neuroscience, Motor Control and Learning, Neural Decoding, VR Rehabilitation Robot, Stroke Simulator, Decision Making
	KAWASAKI Masahiro	Neuroscience, Cognitive Science, Psychology, Communication, Signal Processing.
	KAWAMOTO Hiroaki	Integration of Human and Robot, Biological Control Systems, Biological Motion & Physiology Analysis, Robot Therapy, Robot Safety.
	TANAKA Fumihide	Social Robotics, Feel Safe AI, Feel Safe Technologies, Human-Robot Interaction, Education Support, Development and Learning, Active Seniors.
	SHOJI Gaku	Earthquake engineering and structural dynamics. Clarification on nonlinear seismic response of infrastructure subjected to extreme ground motions, development of seismic retrofit technologies, structural reliability assessment
	★Kikue HIDAHA	Rehabilitation Nursing

H a r m o n y	<p>KOGA Hiroki TSUBOUCHI Takashi MARUYAMA Tsutomu YABUNO Hiroshi</p> <p>EBIHARA Tadashi</p> <p>SAKAINO Sho DATE Hisashi</p> <p>HASEGAWA Manabu WAKATSUKI Naoto</p> <p>ITOH Makoto</p> <p>SAKAI Ko</p> <p>FUKUI Kazuhiro</p> <p>★SARUWATARI Yasufumi ★NISHIO Chizuru ★YANAGA Masao ★MORISHIMA Atsuyuki</p>	<p>Information Theory, Information Security. Self-Contained Autonomous Mobile Robots, Outdoor Autonomous Mobile Vehicles. Reconfigurable Computer Systems, Adaptive Complex System. Nonlinear Mechanical Systems, Nonlinear Control of Nano-Micro Machines, Bifurcation Control and its Applications. Communication and Information Engineering, Oceanic Engineering, Network Engineering. Mechatronics, Haptics, Manipulation Model Predictive Control for Nonlinear Systems, Autonomous Mobile Robot, Self-Driving System, Snake-Like Robot and Mechanical System Design. System Modeling.</p> <p>Simulation based Visualization, Vibration Sensors and Actuators, Acoustical Engineering, Musical Acoustics, Inverse Problems. Systems safety: mutual trust and cooperation in human-machine systems, cognition, inference, and decision making under uncertainty or gray zone, perception and acceptance of risk. Computational vision: representation of shape, perception of 3D structure, figure-ground segregation, cortical representation, cognitive neuroscience, and psychophysics. Pattern recognition and computer vision: Face recognition, 3D object recognition, human sensing, robot vision. Operations Research</p> <p>Marketing Management Law Crowdsourcing, Data Engineering, Database Systems</p>
E x t e n s i o n	<p>KAMEDA Yoshinari</p> <p>NAKAUCHI Yasushi</p> <p>HOSHINO Kiyoshi</p>	<p>Massive Sensing, Intelligent Image Understanding / Processing, Multimedia Understanding, Model based Vision, Mixed Reality. Human-Robot Interaction, Intelligent Environments, Sensor Network. Biomedical Measurement and Analysis, Mathematical Models for Biological System, Brain Science.</p>

	KAKEYA Hideki	3D Imaging, Information Display, Geometric Optics, Computer Aided Surgery, Media Technology, Natural Language Processing
	KITAHARA Itaru	Real World Imaging, Free-Viewpoint Video, Mixed-Reality, Augmented Reality.
	NOBUHARA Hajime	Computational Intelligence, Multimedia Processing, Advanced Sensing by UAV.
	HOSHINO Junichi	Entertainment Computing, Game Technologies, Storytelling Technologies.
	MOCHIYAMA Hiromi	Soft Robotics, Haptics Technology.
	KATO Kazuhiko	System software: Distributed system, cloud computing, operating system, cyber-physical system, software security
	MITANI Jun	CG and CAD: Geometric modeling, Human computer interface, Computational origami.
	★AYABE-KANAMURA Saho	Perception and Cognitive Psychology
	★TANAKA Sayoko	Science Visualization

(Note)

The faculty member marked "★" will conduct research guidance with the support of the faculty member without the "★" mark.