COLABS - IRTLab Research Theme

Graduate School	Department	Research Theme	Academic Year		Academic Advisor
Science	Astronomy	Measuring wavefront distortions with focal plane images for a tomographic adaptive optics system for astronomy	2017-2018	Prof.	AKIYAMA Masayuki
		Antarctic Infra-Red Camera	2016-2017	Prof.	ICHIKAWA Takashi
		Comparison of fundamental properties of observed and simulated cluster galaxies	2018-2019	Prof.	KODAMA Tadayuki
	Chemistry	Exploring asymmetric cascade sequence of domino Michael reactions enabled by diphenylprolinol silyl ether	2019-2020	Prof.	HAYASHI Yujiro
		Cu-catalyzed Peptide Formation from alpha-Substituted Malononitriles and Amines using Molecular Oxygen	2019-2020		
		ADSORPTION OF LI@C60 ON AU(111): A STUDY BY STM AND RAMAN SPECTROSCOPY	2016-2017	Prof.	SHIBATA Yutaka
		Study on synthesis of alkenyl aryl ethers through SNAr reaction utilizing [1,2]-phospha-Brook rearrangement	2017-2018	Prof.	TERADA Masahiro
		Synthesis of lanthanide double-deckers for single molecule magnetism	2018-2019	Prof.	YAMASHITA Masahiro
	Earth Science	The Impact of Urban Rail Transit on Urban Area -A Case Study of Tsukuba Express	2016-2017	Assoc. Prof.	ISODA Yuzuru
	Mathematics	random algorithm	2019-2020	Prof.	TANAKA Kazuyuki
	Physics	Fission Mechanism of a Model System of Self-Reproducing Vesicles	2016-2017	Prof.	IMAI Masayuki
		Very Long Baseline Analysis for Neutrino Oscillation at KamLAND using Korean Reactors	2019-2020	Prof.	INOUE Kunio
		Topological Spin Textures in the Nonequilibrium Dynamics of the Double Exchange Model	2019-2020	Prof.	ISHIHARA Sumio
		Primary dynamics of photoinduced phase transition in V2O3	2016-2017	Prof.	IWAI Shinichiro
		Studies about the Possibilities of using the KamLand-Zen Outer Detector for Fitting Muon Tracks	2016-2017	Assoc. Prof.	MITSUI Tadao
		Enhancement of the electric field and diminishment of the velocity of light in dielectric multilayer systems	2017-2018	Prof.	SAITO Riichiro
		Fundamental properties of materials based on hexagonal lattice	2016-2017		
		Spectral functions of hadrons from lattice QCD	2019-2020	Assoc. Prof.	SHOICHI Sasaki
		Magnetic monopoles and topology	2017-2018	Assoc. Prof.	SUMINO Yukinari
		NMR studies of a Frustrated Magnetic System	2016-2017	Assoc. Prof.	TAKAGI Shigeru
		Study of Higgs coupling to electron by energy scan at the International	2016-2017	Prof.	YAMAMOTO Hitoshi
		Femtosecond measurement of Fucoxanthin for several pump energies	2018-2019	Prof.	YOSHIZAWA Masayuki
		Ultrafast Photodynamics of Fucoxanthin	2017-2018		
Medicine	Biomedical Engineering	Assessment for body image and body schema	2018-2019	Prof.	IZUMI Shinichi

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Graduate School	Department	Research Theme	Academic Year		Academic Advisor
Pharmaceutical Sciences	Life and Pharmaceutical Science	Blood-brain-barrier functional protein groups are downregulated by melanoma cell-erived exosomes: the potential mechanisms for brain metastasis of melanoma	2016-2017	Prof.	TERASAKI Tetsuya
	Molecular Pharmaceutical Chemistry	Synthesis of natural and synthetic drug candidates for SAR studies	2016-2017	Prof.	DOI Takayuki
		Synthetic Studies on Isobatzelline B by Ring Expansion of Oxime Sulfonate	2017-2018	Prof.	TOKUYAMA Hidetoshi
	Pharmacy	Elucidation of the mechanism of resistance to cancer chemotherapy in different cell lines using high performance LC/MS	2016-2017	Prof.	TOMIOKA Yoshihisa
Engineering	Aerospace Engineering	Conceptual Study of the Mars Vertical Hole Exploration Mission	2018-2019	Prof.	NAGAI Hiroki
		Calculation of aerodynamic characteristics of a flat plate using the MATLAB code Tornado	2017-2018		
		Calculation of aerodynamic characteristics of the Mars Airplane deployable wings	2017-2018		
		Conceptual Study of Mars Vertical Hole Exploration	2017-2018		
		Numerical Analysis and Modelling of Rotorcraft for Mars Exploration	2017-2018		
		Calculation of Aerodynamic Characteristics of Reentry Capsule	2017-2018		
		Investigation of the characteristic performances of a deformable membrane wing deformed autonomously by a turbulent flow field generated by a propeller	2018-2019		
		XY-plane movement control of tethered object using propellers as actuators	2016-2017	Assoc. Prof.	NAGATANI Keiji
		Control system and navigation of the CLOVER robot	2016-2017		
		Development of a 4-legged climbing robot for lunar cave exploration	2018-2019	Prof.	YOSHIDA Kazuya
		Multi-rover relative mutual localization	2018-2019		
		Gait and path planning on uneven terrain	2018-2019		
		Numerical simulation based on Finite Elements Method	2018-2019		
		Computer Modeling and Simulation of ALEe Micro Satellite’s Orbit Decay	2017-2018		
		RGBD Mapping for micro-rover in remote environment	2017-2018		
		RGBD-SLAM for micro-rover in remote environment	2017-2018		
		A stitching pipeline for 360 degrees panoramic images with a multiple-center-of-projection camera system	2017-2018		
		Computer Modeling and Simulation of ALE Micro Satellite’s Orbit Decay	2017-2018		
		Wireless mesh sensor network	2017-2018		
		Different Approaches for Rover Yaw Estimation using the Sun in Lunar Exploration	2017-2018		

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COLABS - IRTLab Research Theme

Graduate School	Department	Research Theme	Academic Year		Academic Advisor
Engineering	Aerospace Engineering	A novel SLAM approach based on the results of environmental segmentation for planetary exploration applications	2017-2018	Prof.	YOSHIDA Kazuya
		Usage of Sun Sensing Photodiodes for Rover Yaw Estimation in Lunar Exploration	2017-2018		
		Hazard Detection and Avoidance in Lunar Conditions through the use of Time of Flight camera	2016-2017		
		Framework for obstacle avoidance with TOF camera on a micro rover	2016-2017		
		Creation of a Path-Planning simulator within the Unity 3D Software	2016-2017		
		Codename Moonraker: working on a lunar exploration rover project	2016-2017		
		Hydrogenolysis of glycerol into 1,2-propanediol over Pt-modified Ir-ReOx/SiO2	2016-2017	Prof.	TOMISHIGE Keiichi
	Applied Chemistry Chemical Engineering and Biomolecular	Direct copolymerization of CO2 and Diols in presence of CeO2 and a dehydration agent	2018-2019		
		Study of direct copolymerization of CO2 and diols in presence of CeO2 and 2-cyanopyridine	2018-2019		
		Numerical Simulation of the flow behavior inside a packed bed reactor	2018-2019	Prof.	TSUKADA Takao
	Applied Physics	Effects of V/III ratio on the phase purity of semipolar (1122) GaN on (1010) sapphire substrate grown by metalorganic vapor phase epitaxy	2016-2017	Prof.	MATSUOKA Takashi
	Architecture and Building Science	The physical and psychological landscape of the city Exploring the interrelation between our inner and outer world through a Situationist practice	2016-2017	Assoc. Prof.	HIGAYA Junichiro
		The origines and signification of windowless facade house in Japan.	2016-2017	Prof.	IGARASHI Taro
		Architecture for multilayered village	2019-2020	Prof.	ISHIDA Toshikazu
		GIS-based Analysis of Sendai City Park Green Space Service Range	2017-2018		
		The hierarchical and sensitive architectural principles from the traditional Japanese house to the vertical contemporary house.	2016-2017		
		Research on Safety Evaluation of Campus Space Based on Crime Prevention Through Environmental Design（CPTED）Theory	2018-2019	Prof.	IWATA Tsukasa
		A comparative study on the enclosing tradition of residential areas in China and Japan	2016-2017		
		The landscape design of the modern burial garden	2018-2019	Assoc. Prof.	MOTOE Masashige
		Landscape design	2018-2019		
		Real-time Ground Motion Prediction based on Radiative Energy Transfer using Front-site Waveform Information and Data Assimilation for the Application to Local Earthquake Early Warning	2016-2017	Prof.	MOTOSAKA Masato
		Urban Post-Disaster Resettlement Spaces in Kathmandu	2016-2017	Prof.	MURAO Osamu
		Mechanical and Ecological Properties of Ultra High Performance-Fiber Reinforced Cementitious Composites	2017-2018	Assoc. Prof.	NISHIWAKI Tomoya
		The behavior of concrete confined by Ultra High Performance – Fiber Reinforced Cementitious Composite	2016-2017		

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Graduate School	Department	Research Theme	Academic Year		Academic Advisor
Engineering	Architecture and Building Science	Evaluating Ecological and Mechanical Properties of Ultra-High Performance Fiber-Reinforced Cementitious Composites (UHP-FRCC) Containing High Volume Fly Ash	2016-2017	Assoc. Prof.	NISHIWAKI Tomoya
	Biomolecular Engineering	Cytotoxicity of bispecific antibodies is dependent on their T-cell activation ability	2016-2017	Prof.	UMETSU Mitsuo
		Arabidopsis K+ transporter: AtKUP1 and AtKUP6 transport activity in Escherichia coli	2016-2017	Prof.	UOZUMI Nobuyuki
	Chemical Engineering	Simulating Contributions of Electrical Energy Storage on an Island Grid: A Tanegashima Case Study	2016-2017	Assoc. Prof.	FUKUSHIMA Yasuhiro
		Colloids control	2017-2018	Prof.	NAGAO Daisuke
		The effect of various steam curing patterns on the diffusion and the mechanical properties of concrete with blast furnace slag sand as fine aggregate	2016-2017	Assoc. Prof.	MINAGAWA Hiroshi
		The application of bifurcation buckling analysis in computer-assisted shell structures design	2017-2018	Assoc. Prof.	SAIKI Isao
	Civil and Environmental Engineering	The study of power wave generation in the coastal zone of Thailand by using computational fluid dynamics(CFD)	2016-2017	Prof.	TANAKA Hitoshi
		Chloride Ion Diffusion Coefficient	2018-2019	Prof.	HISADA Makoto
		Testing Methods and Comparability of the Chloride Ion Diffusion Coefficient	2018-2019	Assoc. Prof.	MINAGAWA Hiroshi
		Applying System Dynamics Approach To Improve Port Resilience	2018-2019	Prof.	OKUMURA Makoto
		APPLICATION OF FLOOD INUNDATION MODEL TO ASSESS FLOOD RISK IN DIR VALLEY, KHYBER PAKHTUNKHWA, PAKISTAN	2018-2019	Assoc. Prof.	UDO Keiko
		A Wireless Power Transfer Method for Human Body With Focus Characteristic by Using Fresnel Zone Plate	2017-2018	Prof.	CHEN Qiang
		A Design of Composite Dual-band High Gain Antenna with Fresnel Lens Inserted in EBG Surface	2016-2017		
		Autonomous RC car utilizing Convolutional Neural Network on a Raspberry PI	2016-2017	Prof.	OMACHI Shinichiro
		Design of an Output Buffer Amplifier in a 28 GHz S/H circuit for a Direct RF undersampling receiver	2017-2018	Prof.	SUEMATSU Noriharu
	Communications Engineering	Performance of Unannotated Speech Data in Neural Networks	2019-2020	Prof.	ITO Akinori
		A Non-Parallel Neural Voice Conversion Using Three-Step Disentanglement	2018-2019	Prof.	ITO Akinori
	Electrical Engineering	Analysis of Electric and Hydrogen Energy Storage System with Solar Power Fluctuation Compensation for Emergency Power Supply	2018-2019	Prof.	TSUDA Makoto
		A Method of Focusing for Wireless Powering to In-Body Medical Device by Using Fresnel Zone Plate	2018-2019	Prof.	CHEN Qiang
		Fast Real-Time Edge Detection Processing on a Raspberry Pi	2016-2017	Prof.	KAWAMATA Masayuki
		The effects of cis-diamminedichloroplatinum (II) (CDDP) on lymph node structure in a MXH10/Mo-lpr/lpr mouse model	2016-2017	Prof.	KODAMA Tetsuya
		Characterization of chemically synthesized iron-oxide nanoparticles for high magnetic loss hybrid material	2016-2017	Prof.	SAITO Shin
		Influence of O2 Introduction on Synthesis of ZnO Seed Layer for Solid-Phase Crystallization	2016-2017	Prof.	WASHIO Katsuyoshi

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COLABS - IRTLab Research Theme

Graduate School	Department	Research Theme	Academic Year		Academic Advisor
Engineering	Field Robotics Project for Unmanned Surveillance	Development of Autonomous Homing Rover for Volcano Monitoring Mission	2016-2017	Assoc. Prof.	NAGATANI Keiji
	Finemechanics	A study on CMM uncertainty	2018-2019	Prof.	GAO Wei
		Numerical simulation of the collective motion of microswimmers	2019-2020	Prof.	ISHIKAWA Takuji
	Management Science and Technology	SCRM in the Japanese automotive industry	2019-2020	Prof.	ISHIDA Shuichi
		Patent Search and Patent Analysis of Japanese Plant Factory Technology	2016-2017	Prof.	NAGAHIRA Akio
		Regional Spatial Analysis of the Offshore Wind Potential in Japan	2019-2020	Prof.	NAKATA Toshihiko
	Material Science and Engineering	Hydrogen Embrittlement of Stretch Formed TRIP-Steel	2018-2019	Prof.	AKIYAMA Eiji
		A study on the interaction between collagen I and carbon materials for the synthesis of gels with tumoral-tissues-like mechanical properties	2018-2019	Prof.	YAMAMOTO Masaya
		Tuning the stiffness of collagen hydrogels with graphene oxide to fabricate an in-vitro model for tumoral tissues	2018-2019		
	Materials Processing	A study on the interfacial formation between pure Sn and Co-Cr-Mo alloy	2019-2020	Prof.	CHIBA Akihiko
		Alloy design and effect of heat treatment on microstructure and mechanical properties of (CoCrFeNi)100-x ()x High Entropy Alloys	2017-2018		
		Research on particle size distribution and thermal conductivity of metal materials	2017-2018		
		Alloy design in Co-Cr-W-noble metal system for application as biomedical stent	2018-2019	Prof.	NARUSHIMA Takayuki
		Preparation of novel sulfobetaine polymers for antibiofouling properties	2017-2018	Prof.	YAMAMOTO Masaya
	Materials Science	Stress and strain influence of hydrogen induced martensitic aided TRIP steel	2018-2019	Prof.	AKIYAMA Eiji
		Effect of Temperature on Pit Initiation Processes at MnS Inclusions in Type 304 Stainless Steel: In Situ Observations on Change in Pit Morphology.	2017-2018	Prof.	MUTO Izumi
		Chocolate polytype determination by X-ray diffraction and Terahertz spectroscopy by using GaP crystal in the 2THz 3THz range.	2016-2017	Prof.	OYAMA Yutaka
		Magnetic and Electric Transport Properties of CoFeB/(Ta,Ru) layers	2017-2018	Prof.	SUGIMOTO Satoshi
		LiFePO4 cathode for all-solid state lithium secondary batteries	2017-2018	Prof.	TAKAMURA Hitoshi
	Mechanical and Aerospace Engineering	Human Gait Monitoring and correction	2018-2019	Prof.	HIRATA Yasuhisa
		Nitrogen Vacancy Colour Centres in Nano-diamonds and Magnetic Gradient Imaging	2018-2019	Prof.	ONO Takahito
		High vacuum packaging for MEMS applications	2018-2019	Prof.	TANAKA Shuji
	Mechanical Systems Engineering	Measurement of Unsteady Characteristics of Cavitation on a Hydrofoil	2018-2019	Assoc. Prof.	IGA Yuka
		Imaging Nitrogen-Vacancy Centre for Quantum Sensing	2019-2020	Assoc. Prof.	TODA Masaya

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Graduate School	Department	Research Theme	Academic Year		Academic Advisor
Engineering	Mechanical Systems Engineering	Feasibility study on extracting crack indication from ECT data using SIAT	2017-2018	Prof.	UCHIMOTO Tetsuya
	Metallurgy	Ordering and Curie temperature of Ni-Al-Mn-Cu Heusler Alloys	2018-2019	Prof.	KAINUMA Ryosuke
		Investigation of Aluminum Deoxidation Equilibrium in Molten Fe-Cr-Ni Alloys	2019-2020	Prof.	NAGASAKA Testuya
	New Industry Creation Hatchery Center	Toward Robust Indoor Navigation for a Mobile Robot with a LIDAR	2017-2018	Assoc. Prof.	NAGATANI Keiji
	Research Institute of Electrical Communication	Study on Coherent Terahertz Light Amplification and Emission Using Plasmon Instabilities in Graphene	2017-2018	Prof.	OTSUJI Taiichi
	Robotics	Intelligent Passive Walker	2019-2020	Prof.	HIRATA Yasuhisa
		Development of a passive type Intelligent Walking Aid using modern robot technology	2019-2020		
		Creation of a Haptic Device	2018-2019		
		Privacy by design in healthcare robotics	2018-2019		
		Privacy by Design: Biomedical data protection	2018-2019		
		Collaborative manipulator safety analysis	2018-2019	Prof.	KOSUGE Kazuhiro
		Designing a linear, two finger parallel moving grasping mechanism for robotic grasping hand use	2018-2019		
		Visual Servo utilizing convolutional neural network - Optimization of direct joint control	2017-2018		
		A Robot Dance Teacher: Guidance Force Profile based on Error Patterns for conveying Robot Intentions	2016-2017		
Agricultural Science	Applied Bioorganic Chemistry	Squalene Peroxidation and its Effect on Cell Viability of HaCaT Keratinocytes	2018-2019	Prof.	NAKAGAWA Kiyotaka
	Applied Plant Science	Identification of DNA polymorphisms in the Waxy gene of Indonesian foxtail millet [Seteria italica (L.) Beauv.] genotypes associated with amylose content	2018-2019	Assoc. Prof.	KITASHIBA Hiroyasu
		Detection of SNP Polymorphism Associated With Dehydration and Salinty Tolerance in Foxtail Millet using Dot-Blot SNP Analysis and Allele Specific PCR	2016-2017	Prof.	NISHIO Takeshi
	Biological Resource Science	Trials to develop experimental design of UAV monitoring for wheat and barley in a small-scale field	2019-2020	Prof.	HOMMA Koki
	Bioscience and Biotechnology for Future Bioindustries	The influence of heterocyclic selenium-containing compounds on fungal signaling pathways and gene expression.	2016-2017	Prof.	GOMI Katsuya
	Environmental Bioscience	Larval development of Boccardia proboscidean (Spionidae, Annelida) inhabiting oyster beds in Sasuhama, northeastern Japan	2018-2019	Prof.	SATO-OKOSHI Waka
Information Sciences	Applied Information Sciences	Prediction of Network Traffic Load on High Variability Data Based on Distance Correlation	2019-2020	Prof.	KATO Nei
		Computation Analysis of Deep Learning based Networking Applications	2019-2020		
		Investigating Graph Neural Networks in Network Routing	2019-2020		
		Investigating the Augmentation of Deep Learning and Network Communications for the Future of Network Routing and Monitoring	2017-2018		

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Graduate School	Department	Research Theme	Academic Year		Academic Advisor
Information Sciences	Applied Information Sciences	Study of the correlation between daily activity and subjective quality of sleep using a neural network	2019-2020	Prof.	NAKAO Mitsuyuki
		CNN based Framework for Analyzing Traffic Scenes from Autonomous Vehicle Visual Data	2018-2019	Assoc. Prof.	OHNO Kazunori
		Scene Understanding using a Neural Network	2018-2019		
		User Experience Design in Enhancing Motivational Experiences in a Mobile Language Learning Application	2019-2020	Prof.	SUGANUMA Takuo
		Applying Generative Adversarial Networks to Medical Imaging	2019-2020	Prof.	TANAKA Kazuyuki
		Deep Learning on Fingerprints Defective Region Detection	2016-2017		
	Computer and Mathematical Sciences	A Study of 3D Reconstruction from Multi-View Images	2018-2019	Prof.	AOKI Takafumi
		3D Reconstruction in Stereovision	2017-2018		
		Implementation of a Large-Scale Single-Source Shortest-Path-Search Accelerator on FPGA	2019-2020	Prof.	HARIYAMA Masanori
		Multi-agent based Cooperative Simultaneous Localization and Mapping for Disaster Aid	2016-2017	Prof.	KINOSHITA Tetsuo
		Data Visualization in Virtual Reality	2018-2019	Prof.	KITAMURA Yoshifumi
		Mathematical Ecology	2019-2020	Prof.	SENO Hiromi
		A Java implementation to solve the discrete logarithm problem for prime-field elliptic curves	2019-2020	Prof.	SHIZUYA Hiroki
		Supersingular Isogeny-based Cryptography	2017-2018	Prof.	SHIZUYA Hiroki
		Implementation of a Clang-tooling-based pipeline for user-defined code transformations.	2019-2020	Prof.	TAKIZAWA Hiroyuki
		A Peer-to-Peer Framework for Distributed Rendering Services	2016-2017	Assoc. Prof.	TAKIZAWA Hiroyuki
		Image Sequence Memorisation using Quantum Boltzmann Machines	2018-2019	Prof.	TANAKA Kazuyuki
		Influence of a transonic moist air flow on a two-dimensional compressor cascade	2016-2017	Prof.	YAMAMOTO Satoru
	Human-Social Information Sciences	A GIS-based decision support system for the analysis of natural hazards and their impact on transportation networks	2018-2019	Prof.	KUWAHARA Masao
		Gaze Direction In NPO Ads, How Direction of Gaze Affect Viewers Impression of Charity Ads: A Study Using Questionnaires and Eye-Tracking	2019-2020	Assoc. Prof.	WADA Yuichi
		Interaction Design and Visual Cognition	2018-2019		
	Research Institute of Electrical Communication	An Agent-based Smart Home System for Hearing Impaired People	2017-2018	Prof.	KINOSHITA Tetsuo
		Interactive Houseplant System using IoT devices	2017-2018		
	System Information Sciences	Storytelling System Based on Deep Learning	2018-2019	Prof.	INUI Kentaro

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Graduate School	Department	Research Theme	Academic Year		Academic Advisor
Information Sciences	System Information Sciences	Storytelling System Based on Deep Learning	2017-2018		
		Supporting Interaction with Spatial Data Using a Height-Adjusting Touch Surface in Virtual Reality	2018-2019	Prof.	KITAMURA Yoshifumi
		Exploring interaction techniques using Smartphone as a Controller in Virtual Reality	2016-2017		
		Paradigmatic Differences of Software Metrics	2019-2020	Prof.	OHORI Atsushi
		Improving CNN robustness to image distortions	2018-2019	Prof.	OKATANI Takayuki
		How can more advanced CNNs learn a task with a smaller dataset?	2018-2019		
		Single-output Multi-task Image Restoration	2018-2019		
		Facial Expression Recognition and Convolutional Neural Networks	2017-2018		
		Outfit Recommendation System Based on Deep Learning	2016-2017		
		Application of Self-Play Reinforcement Learning to Settlers of Catan	2019-2020	Prof.	SHINOHARA Ayumi
		Creating a Minecraft AI using Human Demonstrations	2018-2019		
		Deep Reinforcement Learning Algorithms	2017-2018		
	Applied Information Sciences	Comparison between the gene expression profiles of cancer cells grown in 2D and 3D cultures, in relation to Chromosomal instability	2018-2019	Prof.	KINOSHITA Kengo
Life Sciences	Cancer Biology	Aurora-A dependent ubiquitination of OLA1 in the regulation of centrosome number	2018-2019	Prof.	CHIBA Natsuko
	Developmental Biology and Neurosciences	Manipulation of mitochondrial energy production by light	2017-2018	Prof.	YAWO Hiromu
	Molecular and Chemical Life Sciences	Host range of pBBR1MSC-2 derivatives in various proteobacterial taxa	2019-2020	Prof.	TSUDA Masataka
Environmental Studies	Environmental Studies for Advanced Society	Biodegradation of carbon tetrachloride	2018-2019	Prof.	INOUE Chihiro
	Frontier Sciences for Advanced Environment	Spatially and temporally resolved two-dimensional imaging of laser-induced plasma copper emission under the aspect of several plasma gases and pressure levels	2019-2020	Prof.	WAGATSUMA Kazuaki
		Chemical Reycyling of Sugarcane Bagasse with Mix Plastics on Pyrolysis	2017-2018	Prof.	YOSHIOKA Toshiaki
	Molecular and Chemical Life Sciences	Isolation and Colonization of Methylobacterium from Soybean Pod	2016-2017	Prof.	MINAMISAWA Kiwamu
		Identify the regulatory cascade of Rho family small GTPase activation upon hyperosmotic stress	2018-2019	Prof.	OHASHI Kazumasa
Biomedical Engineering	Biomedical Engineering	Numerical Analysis of Blood Flow in Aorta	2017-2018	Prof.	HAYASE Toshiyuki
		Effect of growth factor on the bone regenerative properties of octa-calcium phosphate and collagen composite material	2019-2020	Prof.	KAMAKURA Shinji
		Synthesis of Iron Nitride Microparticles for Hyperthermia Treatment of Tumors	2018-2019	Assoc. Prof.	KAWASHITA Masakazu

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Graduate School	Department	Research Theme	Academic Year		Academic Advisor
Biomedical Engineering	Biomedical Engineering	Computational fluid dynamics for perfusion MRI simulation	2018-2019	Prof.	OHTA Makoto
		Development of an improved bone model for surgical training and medical device evaluation	2017-2018		
		Differentiation of cod fish gender using deep learning	2019-2020	Prof.	SAIJO Yoshifumi
		Displacement Measurement and Visualisation in a Magnetically Labelled PVA-H Liver Phantom for Magnetomotive Ultrasound Imaging	2018-2019		
		Development of a sensor to detect prostate cancer	2017-2018	Prof.	TANAKA Mami
		PVDF polymer sensor system for reading Braille	2016-2017		
		Development and Testing of a 2-channel system for controlling a antagonistic mucsle pair of the wrist	2019-2020	Prof.	WATANABE Takashi

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