

Teaching Staff and Main Research Theme

Course	Position	Advisor	A Main Research Theme
Environmental Systems Course	Professor	Tsutomu SHIRAGAMI	Studies on Development of Novel Photofunctional Materials by Using Metal Complexes
	Professor	Yoh-ichi MATSUSHITA	Studies on Separation, Chemical Transformation, and Chemical Utilization of Components of Wood and Herbage Biomass
	Professor	Haruhiko YOKOI	Studies on Production of Useful Substances Using Microbial Function
	Professor	Toshifumi YUI	Three Dimensional Structure Studies of Biopolymers and Their Functional Properties
	Professor	Koichiro SHIOMORI	Development of Functional Materials using Phase Separation Phenomena for Environmentally Benign Chemical Processes
	Professor	Hiroshi KANEKO	Solar Thermochemistry for Fuel Production and Heat Storage Materials
	Associate Professor	Tatsuya OSHIMA	Studies on Separation Techniques and Formulation Techniques Based on Solubility and Distribution Property of Materials
	Associate Professor	Kazuhiro SUGAMOTO	Synthesis and Evaluation of Bioactive Natural Products
	Associate Professor	Jun HIROSE	Biotransformation of Aromatic Compounds by Environmental Microbes
	Associate Professor	Yu NABETANI	Studies on Photochemistry and Photofunctional Materials of Molecular Assemblies Coupled with Microenvironments
	Associate Professor	Jin MATSUMOTO	Study on Synthesis and Self-assembly of Photofunctional Amphiphiles
	Assistant Professor	Kaoru OHE	Studies on Separation Process and Environmental Protection Technology by Functional Materials
	Assistant Professor	Munetoshi MIYATAKE	Studies on Bioremediation Using Microbial Functions
	Professor	Takeshi KAMEI	Studies on the Contribution to Building a Sustainable Society by Recycling of Industrial Wastes, Geotechnical Engineering for Ground Disaster Mitigation and Rehabilitation
	Professor	Yoshihiro SUZUKI	Conservation of Water Quality and Development of Restoration Technology on Water Environment
	Professor	Yutaka DOTE	Recycle of Livestock Excrement
	Professor	Takanori HARADA	Diagnosis of Seismic Performance of Civil and Industrial Infrastructures and Their Mitigation Methods, Estimation of Subsurface Ground Structure Using Seismic Waves and Its Application to Seismic Hazard Map
	Professor	Mitsuteru IRIE	Management of Water Resource, Water Environment and Flooding
	Professor	Chihiro MORITA	Study on Structural Analysis and Soundness Evaluation of Steel Bridges
	Professor	Keisuke MURAKAMI	Study on Coastal Disaster Mitigation Against Sea Waves
	Professor	Chikashi DEGUCHI	Project Management for Regional and Transportation Planning
	Professor	Minoru KUMANO	Research on Revitalization Methods of Central Urban Area in Regional and City planning
	Associate Professor	Hiroshi SHIMAMOTO	Research on Evaluation Methods for Sustainable Transportation System
	Associate Professor	Tomoo SEKITO	Recycling and Environmental Effect of Residue from Solid Waste Management
Associate Professor	Chunhe LI	Studies on the Development and Evaluation of High Performance Concrete	
Associate Professor	Kosuke TOSHIKI	Research on Regional Environmental Problems; Heavy metal pollution caused by motorization and automobile recycling, Evaluation method of municipal solid waste management	
Assistant Professor	Kei NUKAZAWA	Development of an Assessment Technique for Conserving Riverine Environments and Biodiversity	
Energy and Electronics Course	Professor	Akihiko OHSAKI	Atomic and Molecular Processes in Plasmas
	Professor	Kouji MAEDA	Optical Properties of Semiconductor Materials and Phosphors
	Professor	Makoto YAMAUCHI	Observational Study of High Energy Astrophysics
	Professor	Atsushi YOKOTANI	Research and Development of Application of High Energy and High Intensity Light Source

Course	Position	Advisor	A Main Research Theme
Energy and Electronics Course	Professor	Atsuhiko FUKUYAMA	Studies on Optical Properties of Nano-Structured Semiconductors and Their Solar Cell Applications
	Professor	Kenji YOSHINO	Research on Low Cost High Efficiency Solar Cell
	Professor	Kensuke NISHIOKA	Fabrication of High Quality Semiconductor Devices
	Professor	Masato IIDA	Research of Population Dynamics Based on the Analysis of Partial Differential Equations
	Professor	Akinori IGARASHI	Theoretical Research for Atomic Collisions
	Professor	Tohru TSUJIKAWA	Research on the Reduced System of Reaction Diffusion Equations
	Professor	Tatsuro MATSUDA	Study of Hadron Structure and Spectroscopy
	Associate Professor	Masakazu ARAI	Studies on Optical Sensing Devices and Crystal Growth
	Associate Professor	Hidetoshi SUZUKI	Study on New Materials for Super High Efficiency Multi-junction Concentrator Photovoltaic
	Associate Professor	Koji MORI	Studies of the Energy Cycle in Our Galaxy with Multi-wavelength Observations
	Associate Professor	Hirofumi IZUHARA	Pattern Formation in Reaction-diffusion Systems
	Associate Professor	Morimichi UMEHARA	Mathematical Analysis of the Compressible Viscous Fluid Motion
	Associate Professor	Ryusuke KON	Study on Mathematical Modelling and Analysis of Biological Phenomena
	Associate Professor	Yukie MAEDA	Experimental Study of the Few-body Effects in the Nuclear Physics
	Associate Professor	Masahito KATTO	Development of High-intensity Lasers and Their Applications
	Associate Professor	Kentaro SAKAI	Fabrication and Characterization of Novel Functional Semiconductor Materials
	Assistant Professor	Akihiro KAMEYAMA	Fabrication of optical fiber sensors and its applications
	Assistant Professor	Tsubasa ITOH	Potential theory and fluid mechanics
	Professor	Tatsuya SAKODA	Studies on Effective Usage of Electric Energy
	Professor	Koichi TANNO	Research on High Performance Analog Integrated Circuits
	Professor	Noriyuki HAYASHI	Electric Power System Engineering
	Professor	Mitsuhiro YOKOTA	Study on Analysis and Design of Photonic Waveguides by Numerical Techniques
	Professor	Thi Thi Zin	Image Processing and Its Applications - Human Behavior Analysis and Monitoring Systems, Image Search Systems, Big Data Analysis -
Associate Professor	Amane TAKEI	Development of High-performance Electromagnetic Field Analysis Method and Effective Utilization Technique	
Associate Professor	Hiroki MATSUMOTO	Low Voltage Switched-capacitor Digital-to-analog Converter	
Associate Professor	Masanori KAKU	High photon energy light source using light-matter interactions and its applications	
Assistant Professor	Shoichiro NAGATA	Improvement of efficiencies of electrical apparatus	
Assistant Professor	Yasuyuki OTA	Development of technology for advanced utilization of solar power and light concentrating system	
Mechanical Systems and Informatics Course	Professor	Kikuhito KAWASUE	Three-Dimensional Measurement Using Computer Vision
	Professor	Go SAKAI	Development of Highly Active Electrocatalysts for Polymer Electrolyte Fuel Cells
	Professor	Osamu SATO	Study about Optimal Control of Manipulator
	Professor	Ichijo HODAKA	System and Control Theoretic Approach to Technology Applied to Renewable Energy

Course	Position	Advisor	A Main Research Theme
Mechanical Systems and Informatics Course	Professor	Hiroki TAMURA	Study on the Human Interface Using Biological Signals
	Associate Professor	Geunho LEE	Convergence of Robotics and IT
	Associate Professor	Naoki MATSUNAGA	Development of Electrocatalysts for Alkaline Fuel Cells
	Associate Professor	Masahiro YOKOMICHI	Research on Autonomous Mobile Robots and Computer Vision with Information Engineering Approach
	Associate Professor	Yuji OKUYAMA	Ionic Transport Properties of Oxides and its Application to Electrochemical Cells
	Assistant Professor	Nobuya TAKAHASHI	Application of control engineering
	Professor	Gang DENG	Fatigue Strength Evaluation for Machine Elements
	Professor	Shigehira OZONO	Flow Control
	Professor	Ryusuke KAWAMURA	Research of Methods of Thermal Stress Analysis and its Application to Clarification of Behaviors in Solid Mechanics and Assessment of Structural Integrity
	Professor	Byeongrog SHIN	Study on the Computational Fluid Dynamics and Fluid Engineering
	Associate Professor	Yoshinori NAGASE	Study on Heat Transfer on Combustion Chamber Wall of Engine
	Associate Professor	Osamu OHNISHI	Study on Micro and Precision Machining
	Associate Professor	Akira KAKAMI	Design and Performance Evaluation of Space Propulsion Devices and Their Smart Thrust-measurement System
	Associate Professor	Yasuhiro BONKOBARA	Development of a Mechanical System Using Nolinear Vibration Phenomena
	Associate Professor	Hiroyuki KINOSHITA	Development of Environmentally Conscious High-Strength-Porous Ceramic From Waste Glass Fiber Reinforced Plastic
	Assistant Professor	Shigeki TOMOMATSU	Study on Solar Thermal Power Generation using Beam-down Solar Concentrator
	Assistant Professor	Go YAMAOKO	Study on Orthopaedic and Sports Biomechanics
	Professor	Naonobu OKAZAKI	Research on Secure Networking
	Professor	Isamu HATSUKADE	Astronomical Data Analysis and Observational Study of Cosmic Thin Hot Plasma
	Professor	Masayuki MUKUNOKI	Computer Vision, Image Understanding and Video Media Processing
	Professor	Kunihito YAMAMORI	Parallel Processing and Applications on Neural Network and Evolutionary Computing
	Associate Professor	Satoshi IKEDA	Optimization of Probabilistic Algorithms
	Associate Professor	Tetsuro KATAYAMA	Study on Supporting Methods to Generate Software and Methods to Improve its Reliability
	Associate Professor	Makoto SAKAMOTO	Theoretical Computer Science and Visual Information Technology
	Associate Professor	Akira DATE	Research on Mathematical Models of Learning and Self-organization
	Associate Professor	Kentaro ABURADA	Bioinformatics and Systems Biology
	Associate Professor	Kenji AOKI	Research on Visual Information Processing Mechanism by Computational Science
Assistant Professor	Hisaaki YAMABA	Research on Computer Support Systems for Design and Operation of Production Systems	
Assistant Professor	Kentaro INOUE	Applied System in Computer Networking	