

教員紹介 / Teaching Staff

職位 / Title	氏名 / Name	学位 / Education	研究内容 / Research
Professor	ANAZAWA Masahiro	Doctor of Science	The concern about the effect of human activity on ecosystems is growing today. Ecosystems are very complex systems consisting of many biological species. It is critical to understand mechanisms that retain biodiversity and stability of ecological communities and ecosystems. Through mathematical models and computer simulations, I explore fundamental properties of ecological communities and ecosystems.
Professor	UCHIDA Miho	Doctor of Engineering	We perform research on how to assess environmental risks, such as the effects of chemical substances on the basis of their physico-chemical properties. We are creating chemical exposure assessment methods that make use of environmental models and monitoring data obtained from various environmental measurement technologies.
Professor	KATO Zenta	Doctor of Engineering	In order to supply abundant renewable energy and to avoid global warming, we are proposing global CO ₂ recycling. The global CO ₂ recycling consists of electricity generation by solar cells in the deserts, hydrogen production by seawater electrolysis and methane production by the reaction of hydrogen with carbon dioxide at the nearby desert coasts, and methane combustion and carbon dioxide recovery in energy consuming districts. For global CO ₂ recycling, we have researched oxygen evolution anodes for seawater electrolysis and catalysis for CO ₂ methanation.
Professor	SATO Yoshiyuki	Doctor of Engineering	We are conducting researches on plasticization of polymers using supercritical fluid and on equilibrium and transport properties of gas-expanded liquids composed of polymer solutions. These are related to the development of energy saving processes and environmentally friendly processes.
Professor	MARUO YAMADA Yasuko	Doctor of Engineering	We investigate on nano-technology and its application to CO ₂ photochemical conversion and simple analysis method of chemical materials. Nanotechnology is the key technology for achieving sustainable society. Our research focuses on especially three fields as followings. (1) CO ₂ photoreduction catalyst including nanoparticles. (2) Simple and easy analysis method of volatile organic compounds using a combination of nanoporous material and chemical reaction. (3) Application of our developed analytical chips for environmental measurement and environmental evaluation.
Professor	YAMADA Kazuhiro	Doctor of Engineering	The main themes are as follows, 1) Study of management of aquatic ecosystems by ecological engineering ex. Study of effect of reed cutting on reed biomass and reed warbler 2) Study of efficient use of biomass ex. Study of improvement of harvey acid soil using marine wastes 3) Proposal of programs and teaching materials on environmental education for aquatic ecosystems ex. Study of water pollution and purification on environmental education
Associate Professor	SANO Tetsuya	Doctor of Environment Science	Renewable energy: sustainable use of forest biomass for energy and recycling the residue from biomass energy plant. Vegetation and soil science: evaluation of site quality on land ecosystems for conservation and sustainable management.
Associate Professor	TADA Mika	Doctor of Engineering	Reduction and oxidation (redox) are extremely important for life support. I have studied redox pathways related to free radical or reactive oxygen species (ROS) generations, oxidative stress, and anti-oxidative functions in vivo. In our latest studies, biological defense mechanisms by blood cells or by natural pigments have been investigated through redox reactions.
Research Associate	NOZAWA Toshikazu	Doctor of Engineering	It is my desire to create technology which can contribute to the well-being and general quality of life for all. My research focusses on bringing these ideas to fruition.