

ADMISSIONS

	Examination Date	Application period
The 1st selection	July 5 and 6 , 2025	May 29 - June 5 , 2025
The 2nd selection	August 30 and 31 , 2025	August 1 - 7 , 2025
The 3rd selection	October 11 and 12 , 2025	September 12 - 19 , 2025
The 4th selection	January 24 , 2026	December 11 - 18 , 2025

※For interview and oral examinations will be conducted through the Internet.
 ※For the 1st, 2nd, and 3rd entrance examination, one of the two days will be respectively designated for the examination day by Graduate School of Life Science and Systems Engineering.

How to apply


Contact
1 Find a laboratory in your desired field and contact the faculty member.


Access
2 Access the online registration website and read the guidance.

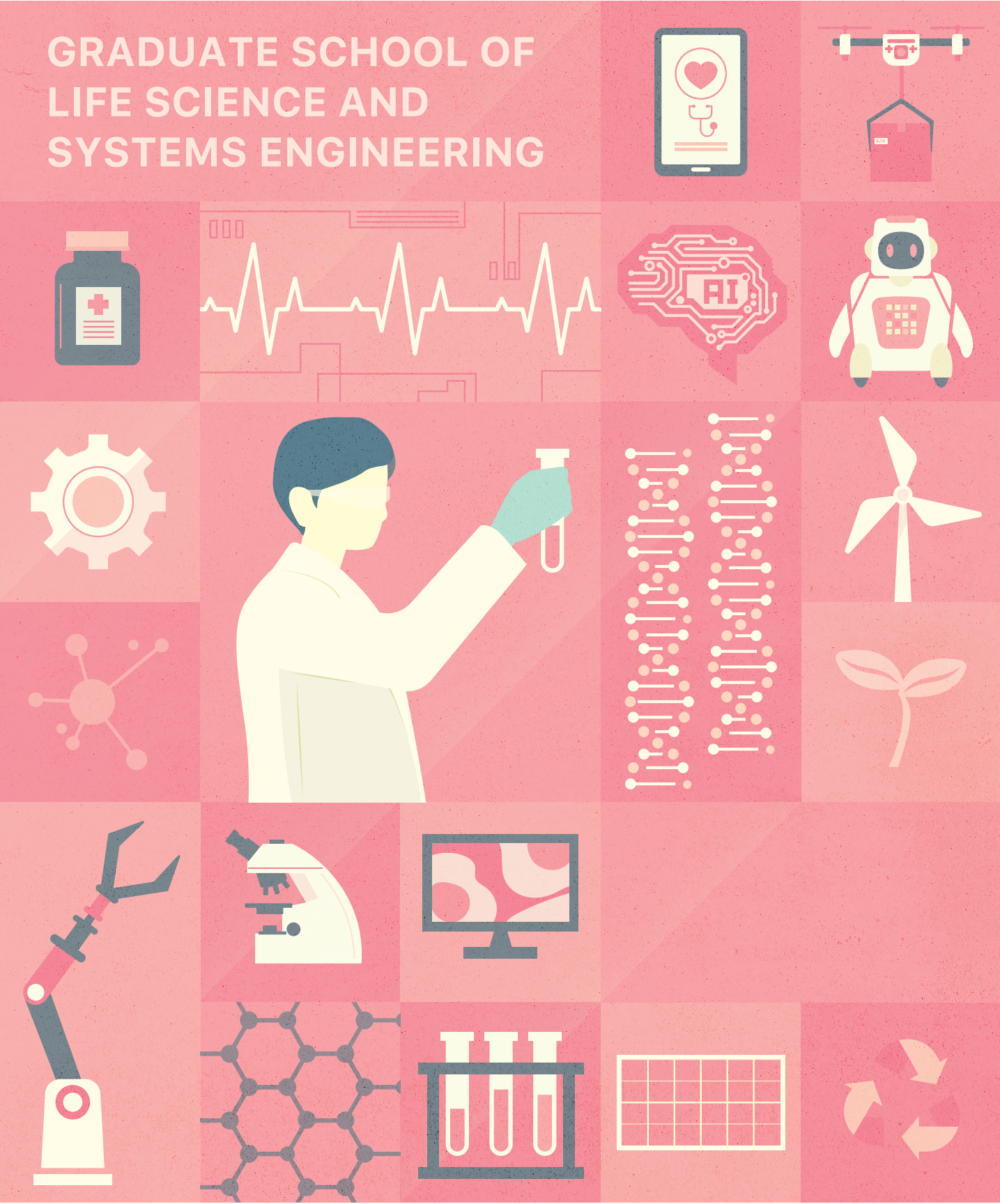
Password to apply
3 Send the requesting email to the admission section

Apply
4 Enter your information.

Submit
5 Print and mail the application documents.

Online Registration Website
<https://www.guide.52school.com/guidance/net-kyutech-g/eng/>


Admission Application Guidance
<https://www.lsse.kyutech.ac.jp/english/admission/information.html>




Kyushu Institute of Technology
Graduate School of
Life Science and Systems Engineering 2025

Invitation to Life Science and Systems Engineering



Dean
Chikamune WADA

Graduate School of Life Science and Systems Engineering (LSSE) was established in 2000 at Kitakyushu Science and Research Park to promote advanced research based on superior biological functions and implement them into practical engineering technology. LSSE has succeeded in creating frontier technologies for meeting social needs in broad technical fields related to environment/energy, robot/artificial intelligence, medical application, etc.

Diversity in students is a big feature of LSSE. In addition to students from two undergraduate schools of Kyushu Institute of Technology, many students gather from domestic universities and colleges of technology throughout Japan and from various overseas universities. Collaborative works among these students with different experiences and values generate fresh ideas leading to technical innovation as well as fostering communication ability with recognition of diversity.

LSSE has educational programs and research projects in collaboration with universities and companies within Kitakyushu Science and Research Park. Also, LSSE is offering study abroad programs with overseas partner universities, and conducting many international joint research projects with them. Through these programs and projects students can strongly enhance their global perspectives.

We sincerely invite you to LSSE to immerse yourself in a cutting-edge education and research environment and to launch your promising career on an international stage.

CONTENTS

Message from Dean

General Features

Special courses for International students

Main Activities

Department of Biological Functions Engineering

Faculty Member (Department of Biological Functions Engineering)

Department of Human Intelligence Systems

Faculty Member (Department of Human Intelligence Systems)

International Exchanges

LSSE Students

Access

1

2

3

4

6

7

11

12

16

17

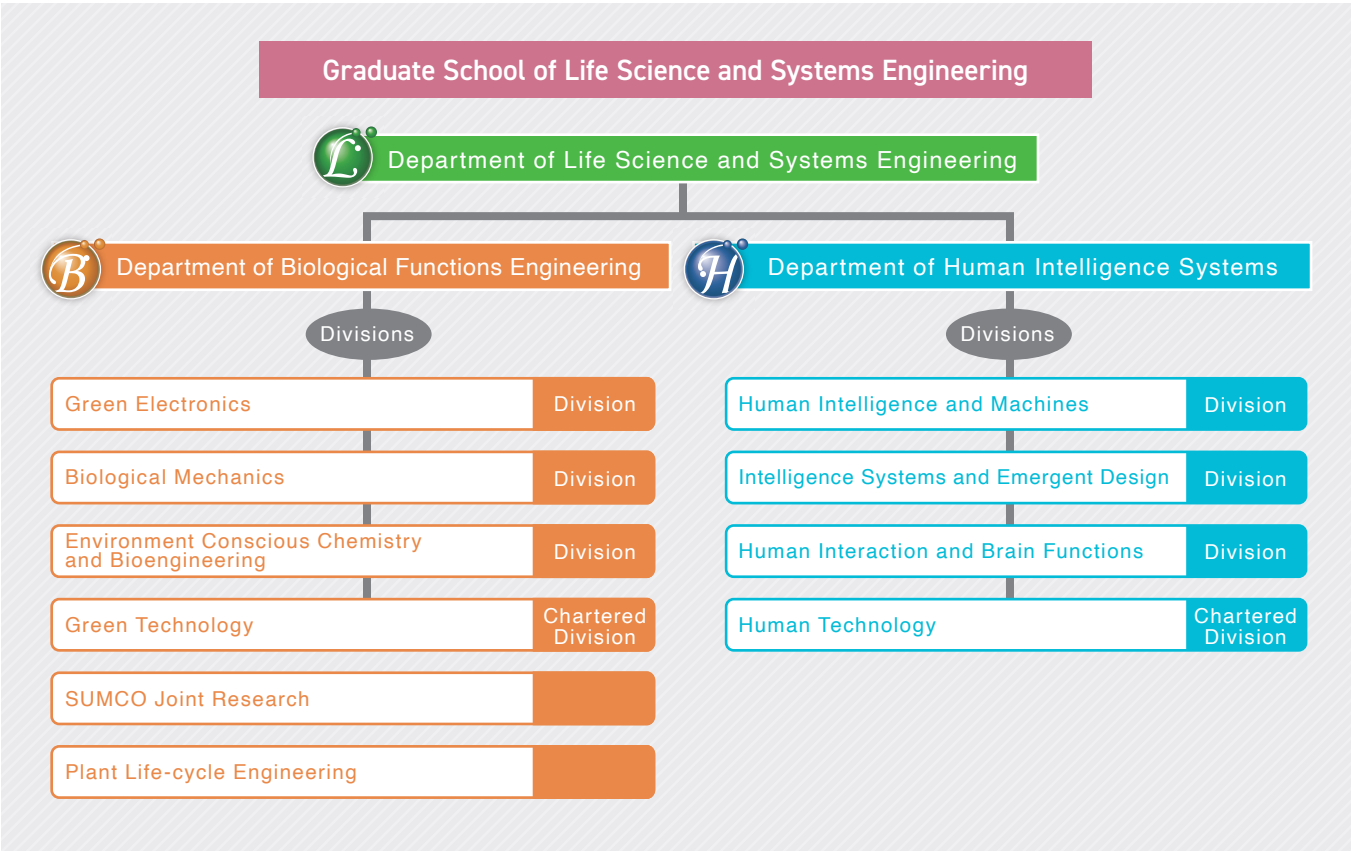
18

CHARACTERISTICS of the graduate course

Utilizing Life in Engineering Applying Engineering to Life

Distinguishing Features of the Graduate School

The primary mission of this graduate school is to educate and train engineers and researchers who can elucidate the structures and functions of living organisms to advance resource and energy conservation, environmental harmony, and human-friendly technologies. To achieve this mission, LSSE offers master's programs in two departments, and a doctoral program in one department. The master's program of the Department of Biological Functions Engineering focuses on applying superior biological functions to address societal challenges and needs. The Department of Human Intelligence Systems develops the skills required to design and maintain optimal societies that integrate complex intelligence, human physiology, and environmental systems. The doctoral program of the Department of Life Science and Systems Engineering emphasizes specialization in life science and systems engineering while promoting cross-disciplinary education and global perspectives. The Department is committed to nurturing professionals who stay ahead of emerging research and technological trends, driving innovation and progress. In summary, LSSE aims to cultivate globally minded professionals who collaborate with society to address contemporary challenges and contribute to a sustainable and harmonious future.



SPECIAL COURSE

Global Advanced Assistive Robotics (Global AAR) Course

This international course has been offered by our institute since 2015. It includes both Japanese and international students from the Department of Human Intelligence Systems (Master's Program) and the Department of Life Science and Systems Engineering. The course attracts students from diverse fields such as integrated circuits, control systems, sensing, nano-systems, artificial intelligence, IoT systems, behavioral science, and neuroscience.

The course is specifically designed to accommodate international students by using English for slide presentations and Q&A sessions. It also provides valuable opportunities for training in English presentation and communication skills. For example, students participate in journal clubs where they read and analyze the latest research papers. In addition, AAR seminars feature top-tier lecturers who share their expertise. The program also includes practical training such as the practicum in Robot Operating Systems and the practicum in Care and Medical DX.

This comprehensive program fosters cross-disciplinary learning and equips students with the skills needed for advanced research and global collaboration.



Kyushu Institute of Technology
Global AAR Course

Website URL: https://www.brain.kyutech.ac.jp/global_aar/



ABOUT



Journal Club group photo



Practicum in Care and Medical DX

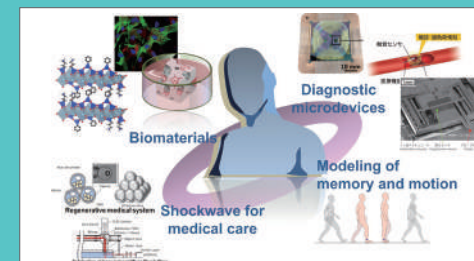
SPECIAL COURSE

Leading Southeast Asia Cooperative Program for the Development of Advanced Medical and Diagnostic Technologies (DAMD program)

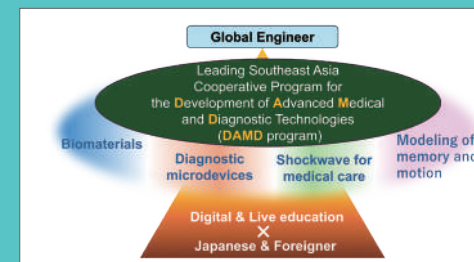
The "Leading Southeast Asia Cooperative Program for the Development of Advanced Medical and Diagnostic Technologies (DAMD program)" is a program that trains students to become innovative leaders in healthcare and welfare. This program is a part of the educational programs in the Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology. The DAMD program will offer students from Southeast Asian countries the chance to learn advanced engineering skills. These skills include creating new materials for healing injuries, making devices to diagnose diseases, developing new ways to deliver medicine, and making systems to support welfare of patients, disabled and elderly people. The goal of DAMD program is to train global engineers who can help create a sustainable society.



ABOUT



Advanced research fields related to the DAMD program



Four educational fields related to advanced medicine and diagnostics

SPECIAL COURSE

Global Education of Green Energy and Green Environment (GE³) Course

This course provides an integrated program of education and research related to "green energy/green electronics technology" and "carbon-neutral technology", with a view to the future of energy and environmental cooperation across a wide area of Asian countries, including Japan. It is also an innovative program to develop 21st-century global engineers who can maintain a sustainable socio-economy and lead the world through global seminars and collaborative projects. Education and research on these green technology will not only contribute to the development of peaceful, safe, and secure societies but also step forward towards achieving the Sustainable Development Goals (SDGs). Lectures are also designed for international students, and it is possible to complete the master's and Doctoral course in English only. "GE³ Seminar" provides state-of-the-art technologies and research topics inviting lecturers from academics and Japanese companies.

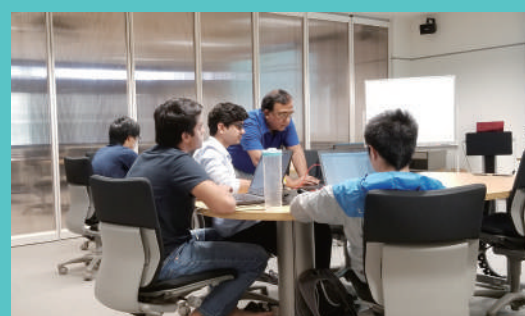
- Printable photovoltaic cells
- Biomolecular Engineering
- Functional materials and their electrochemical devices
- Organic electronic devices
- Motor-drive system
- Highly efficient and flexible energy-conversion
- Environmental-Benign Functional Materials
- Next-generation power semiconductor devices and their applications

Website URL: <http://www.life.kyutech.ac.jp/~ge3/en/>



GE³ Course
Global Education of Green Energy and Green Environment

ABOUT



Exercises on Measurement Control Systems



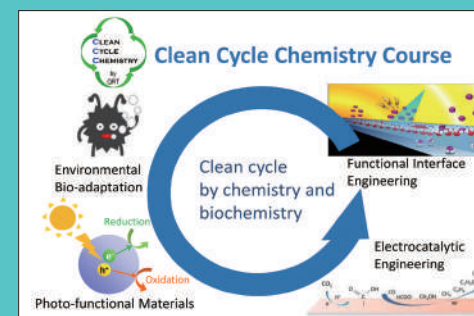
Seminar

01 ACTIVITY

Clean Cycle Chemistry Course to learn SDGs realized by chemistry

The SDGs are the "17 goals set by 193 UN member states to achieve in the 15 years from 2016 to 2030" adopted at the 2015 UN Summit. The "Clean Cycle Chemistry Course" is an active learning program with the theme of research and development aiming at the goals that can be achieved by chemical technology among the 17 goals and the establishment of the chemical technology. Professors in charge of this course are advanced researchers who promotes green chemistry research and green biogeochemical research to make elements a recyclable resource. The professors not only gives lectures, but also conducts active learning as a FACILITATOR of "cultivation of creativity". In one of the compulsory subjects, students will plan and present concept and chemical methods that students can contribute to achieving their goals in their respective research fields. Excellent Presentation Prize will be awarded to excellent proposal, and in addition, feasible collaboration proposals will be developed into cross-disciplinary cyclical chemistry research by conducting collaboration demonstration experiments between the students and professors in charge of this course. This course is intended for graduate students in the master's program to take the designated 5 compulsory subjects. (The language used for all curriculums is Japanese.) Those who complete the course will be awarded a "Certificate of Completion of the Clean Cycle Chemistry Course".

ABOUT



Research fields of Clean Cycle Chemistry Course



Experimental room for collaboration research

MAIN ACTIVITIES

Join Robot Competitions!!

02

ACTIVITY

Hibikino-Musashi@Home

Hibikino-Musashi@Home is the student project team to develop a home service robot that helps our daily lives in a home. Through active participation in the RoboCup@Home league and six times wins in worldwide competitions, they demonstrate their outcomes to realize the future of robots and also focus on robot AI education.

<https://www.brain.kyutech.ac.jp/~hma/>



ACHIEVEMENT

- 1st RoboCup 2024 Eindhoven @Home DSPL 1st place
- 1st WRS FCSC Convenience Store Innovation Task (Demonstration)
- 1st WRS FCSC in CyberSpace
- 2nd RoboCup JapanOpen 2024, @Home DSPL 2nd place OPL 2nd place S-OPL 2nd place
- 2nd RoboCup 2023 Bordeaux, @Home DSPL 2nd place
- 2nd RoboCup JapanOpen 2023, @Home DSPL 3rd place, @Home OPL 2nd place
- 3rd RoboCup 2022 Bangkok, @Home DSPL 3rd place
- 1st RoboCup Asia-Pacific 2021, @Home OPL 1st place, DSPL 1st place, S-OPL 1st place
- 2nd RoboCup 2021 Online, @Home DSPL 2nd place
- 1st World Robot Challenge 2018, 2020, Real Space 1st place



TEAM INTRODUCTION

Team KUROSHIO, the allied team of 8 institutions including Kyutech, won the second place and 1 million US dollars in Shell Ocean Discovery XPRIZE, the international competition of autonomous ocean exploration technologies.



Kyutech Underwater Team won in the AUV League of Underwater Robotics Competition in Okinawa URC in 2020-2022. As the URC is held in the sea, AUVs are required to be highly autonomous and hold completeness.



Hibikino-Toms, agricultural robots must work in the actual field and need AI, gentle mechanism to living things. Kyutech "Tomatoers" join the Tomato-Harvesting-Robot competition and show good results (Winner in 2019, 3rd in 2020, 2nd in 2021).

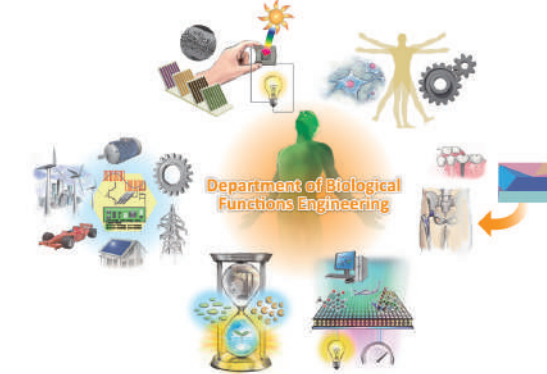


Hibikino-Musashi, the Kyutech RoboCup MSL team Hibikino-Musashi won the championship more than 10 times in Japan Open and one of experienced teams in World Cup. Each team joins with 5 soccer robots which act autonomously with mounted sensors only.

DEPARTMENT OF BIOLOGICAL FUNCTIONS ENGINEERING

Graduate School of Life Science and Systems Engineering

Division Overview



The research and education in this department deals with the realization of materials, structures and energy conversion functionalities of nature/organisms along with their utilization in engineering. The main objective of this department lies in discovering solutions to social issues like the global environment and human health to promote the creation of new industries, by integrating the fields of the environment, energy, materials, and bioengineering. Apart from this, global education such as international internship has been performed at our international research bases.

Divisions



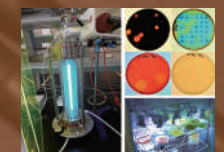
Division of Green Electronics

This division is devoted to the investigation of "green electronics technology," such as the fabrication and evaluation of printable solar cells, new functional materials, and their application to electrochemical devices, organic photo-electronic devices, construction of flexible and efficient power conversion and motor control systems, development of energy production systems utilizing renewable energies and environmentally friendly devices with carbon materials. The teaching curriculum is provided under the research themes outlined above.



Division of Biological Mechanics


The research and education in this division are conducted based on mechanical engineering such as the mechanics of materials, fluid and thermodynamics, the dynamics of machinery and micromachining, and the materials science of metals and ceramics. These activities contribute to the following area of industrial/medical applications: (i) the maintenance and recovery of bio-functions, (ii) medical and welfare support, (iii) development of biocompatible materials and medical devices, and (iv) design and development of biomimetic materials and intelligent machines.



Division of Environment Conscious Chemistry and Bioengineering

The goal of this division is to re-vitalize the engineering technologies responsible for the sustainable development of industries and society with environmental consciousness. The academic field of this division includes chemical and biological research and technologies that are learned from the highly efficient reactions of biological systems. Environmentally conscious chemistry and bioengineering may lead to innovations in chemical and biological technologies. This division strives to globalize our graduate program through the development of frontier research in environmentally conscious chemistry and bioengineering.

Division of Green Electronics



Research Area

Power Electronics

Professor, Ph.D

Tsuyoshi HANAMOTO

Study on power electronics and its application. Development of motor controls and power conversion systems

E-mail

hanamoto@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~hanamoto/

Keywords

Research Overview

● Power electronics
● Motor control
● Hardware control
● High efficiency power conversion
● Environmentally friendly control

Development of human-friendly and environmentally friendly electrical power conversion systems and application for motor control systems.

Division of Green Electronics



Research Area

Power Semiconductors, Power Electronics

Professor, Dr. Eng.

Ichiro OMURA

Power semiconductors, Power electronics and systems

E-mail

omura@life.kyutech.ac.jp

URL

https://power.kyutech.ac.jp/


Keywords

Research Overview

● Power Semiconductor Device
● Power Electronics
● Carbon Neutral
● Silicon Wefer
● Condition Monitoring

Development of ultimate power semiconductor devices to atcheve carbon neutral. Power semiconductors are key device for xEVs, PVs and wind firm for the energy efficiency.

Division of Biological Mechanics



Research Area

Functional Biomaterials

Professor, Ph.D.

Toshiki MIYAZAKI

Development of novel biomaterials for tissue repair

E-mail

tmiya@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~tmiya/


Keywords

Research Overview

● Biomaterial
● Biocompatible material
● Ceramics
● Hybrid material
● Artificial bone
● Artificial joint
● Cancer treatment

Development of biocompatible materials for repair and regeneration of bone, tooth and nerve
Development of ceramic processing with low energy consumption inspired by biological system
Development of microparticles for cancer treatment

Division of Biological Mechanics



Research Area

Intelligent machine

Associate Professor, Ph.D. (Eng.)

Kazuto TAKASHIMA

Study on soft sensors and actuators, and applications to medical, welfare and industrial technologies

E-mail

ktakashima@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~ktakashima/english/index-e.html

Keywords

Research Overview

● Smart soft materials
● Soft actuator
● Endovascular treatment
● Tactile sensor
● Surgical simulator
● Stiffness control
● Biomimetics
● Biotribology

Applications of shape-memory materials and artificial muscle to human-interactive robot. Development of soft tactile sensor. Development of device placement simulator for endovascular treatment.

Division of Green Electronics



Research Area

Nanomaterials,solar cells, Metal ion batteries

Professor, Ph.D.

Tingli MA

Development of nanomaterials and application for solar cell,metal ion batteries, metal air batteries

E-mail

tinglima@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~tinglima/

Keywords

Research Overview

● Design and synthesis of Nano material
● Li ion battery
● Na ion Battery
● Metal air battery
● Perovskite solar cell
● High performance
● Low cost
● Application

Design and sytheses of nanomaterials and their characterization. Development of new materials for stable perovskite solar cells. Development electrode materials with high performance and low cost for application to Li-ion batteries and Na-ion batteries, as well as metal-air batteries.

Division of Green Electronics



Research Area

Functional Materials and Devices

Professor, Ph.D.

Shyam S.PANDEY

Synthesis and Characterization of Photo-functional Materials for Advanced Device Applications

E-mail

shyam@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~shyam/


Keywords

Research Overview

● Molecular design
● Solar cells
● Organic semiconductors
● Organic devices
● Photo-functional materials
● Smart sensing materials

Design and development of photo-functional materials for energy harvesting and organic electronic devices.

Division of Biological Mechanics



Research Area

MEMS-based biomedical engineering

Associate Professor, Dr. Sci.

Momoko KUMEMURA

MEMS,Microfluidics for oncological studies

E-mail

momo@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~momo/

Keywords

Research Overview

● MEMS
● Micro Total Analysis Systems
● Micromachining
● Mechanical characterization
● Real-time measurement
● DNA
● Tumor cell
● On-chip analysis

Applying MEMS (Micro Electro Mechanical Systems) technology to biological research at the molecular, cellular, and tissue level. Development and characteriza-tion of novel microfluidics for mechanical, chemical, and genetic assays for oncological studies.

Division of Biological Mechanics



Research Area

Harmonic Functional Materials

Associate Professor, Ph.D.

Jin NAKAMURA

Development of harmonic functional materials towards medical and environmental applications

E-mail

jinn@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~jin


Keywords

Research Overview

● Functional materials
● Ceramics
● Metals
● Organic molecules
● Tissue regenerative medicine
● Environmental purification

Development of composite materials (ceramics, metals, and organic molecules) that exhibit multifunctions in response to stimuli emitted by living organisms.
Development of synthetic processes for composite materials with controlled structures at molecular order. Development of materials for tissue regeneration medicine and environmental purification.

Division of Green Electronics



Research Area

Power semiconductor, Semiconductoer material

Associate Professor, Dr. Eng.

Akihiko WATANABE

Development of diamond power devices to realize the next generation power society

E-mail

watanabe@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~watanabe/


Keywords

Research Overview

● Diamond
● Power semiconductor
● Ultra high voltage power device

Research on ultra-high performance power devices based on the superior semiconductor properties of diamond. The realization of diamond power devices will contribute to the realization of a decarbonized society by enabling the highly efficient use of electrical energy and the construction of energy grids with the direct current transmission.

Division of Biological Mechanics



Research Area

Biomechanics

Professor, Dr. Eng.

Hiroshi YAMADA

Biomedical Engineering and Biomechanics for Life-Sustaining Technologies

E-mail

yamada@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~yamada/


Keywords

Research Overview

● Biomedical engineering
● Microbiomechanics
● Mechanical testing
● Finite element method
● Sensor device development
● Vascular diseases
● Pressure injury
● Endodontic instruments

Medical diagnosis assistance and prevention of diseases and injuries through measurement-device development, mechanical testing, constitutive modeling and computational analysis, focusing on mechanics of diseased arteries, endodontic treatments, prevention of pressure injury

Division of Environment Conscious Chemistry and Bioengineering



Research Area

Functional Interface Engineering

Professor, Dr. Eng.

Tetsuya HARUYAMA

Establishing technology from elucidation of interface functions: leading to solutions to social issues

E-mail

haruyama@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~haruyama/


Keywords

Research Overview

● Functional interface
● New energy
● CO₂ fixation
● Radical chemical process
● Phases and Interfaces

We are developing research to realize various functional interfaces (reaction fields) by elucidating the functions of heterogeneous interfaces. "Chemical resource conversion of nitrogen, oxygen, and water (phase interface reaction technology) ", "interface that converts CO₂ into resources", "process technology with low environmental load", "safe decomposition of harmful substances", etc.

Division of Environment Conscious Chemistry and Bioengineering



Research Area

Microbial Biotechnology

Professor, Ph. D.

Toshinari MAEDA

Advanced Biotechnologies using Unique Microbial Functions

E-mail

toshi.maeda@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~toshi.maeda/


Keywords

Research Overview

● Metabolic Engineering
● Protein Engineering
● Genetic Engineering
● Environmental Biotechnology
● White Biotechnology
● Bioremediation
● Environmental Bio-adaptation
● Bacterial interaction

Unique microbial functions can be elucidated and improved using biotechnologically-engineered approaches to construct an innovative technology which should be useful to the environment and human society.

Division of Biological Mechanics



Research Area

Biofluid Engineering

Professor, Dr.Eng.

Masaaki TAMAGAWA

Biofluid Engineering for Advanced Medicine and Development of Medical Devices

E-mail

tama@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~tama/


Keywords

Research Overview

● Computational Fluid Dynamics (CFD)
● Flow visualization
● Blood flows
● Hemolysis and Thrombus formation
● Shock wave drug delivery systems
● Micromachine with concentration Marangoni effect engine
● Fractal analysis and network of arterials
● Biomechanical Analysis of Brain Injury by Fall

1.Computational and experimental studies of Hemolysis and Thrombus formation in blood flows, 2. Application of Shock Waves and Ultrasonic to Drug Delivery Systems, Water treatment, Tissue Engineer-ing, 3.Development of driving force of micromachines by investigating chemotaxis of neutrophile, Keyword:Bio-fluid dynamics, Bio Medical Engineer-ing,CFD, Shock Wave

Division of Biological Mechanics



Research Area

Bio-microdevices

Professor, Ph.D.

Takashi YASUDA

Study on Bio-microdevices for Medical Research and Drug Discovery

E-mail

yasuda@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~yasuda/


Keywords

Research Overview

● Semiconductor processing
● MEMS (Micro Electro Mechanical Systems)
● Microfluidic device
● MPS (Microphysiological systems)
● Cell culture
● Cell analysis
● Nerve cell
● iPS cell

Using techniques of semiconductor processing and cell culture, we are developing microdevices for medical and drug discovery applications, including devices for analyzing human iPS cell-derived neurons, microelectrode array devices for measuring electrical signals from neurons, and microfluidic devices with reconstructed brain structure.

Division of Environment Conscious Chemistry and Bioengineering



Research Area

Analytical Physical Chemistry

Professor, Ph.D.

Naoya MURAKAMI

Spectroscopic analysis on semiconductor photocatalyst and development of photocatalytic system for light-energy conversion

E-mail

murakami@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~murakami/


Keywords

Research Overview

● Photocatalyst
● Photoacoustic spectroscopy
● Nanomaterial
● Photoelectrode

Analysis of photofunctional material using photoacoustic spectroscopy, Development of photocatalytic system for light-energy conversion.

Division of Environment Conscious Chemistry and Bioengineering



Research Area

Biopolymers, Structure and Function

Associate Professor, Ph. D.

Tamaki KATO

Design, synthesis, and conformational analysis of functional biomolecules.

E-mail

tmkato@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~tmkato/


Keywords

Research Overview

● Peptide
● Protein
● Enzyme
● Amino acids
● Molecular design
● Organic Synthesis
● SAR

Design, synthesis, and conformational analysis of peptide-based artificial functional molecules (Peptide nanostructures, peptide-based drug design etc) .

Division of Environment Conscious Chemistry and Bioengineering



Research Area

Biomolecular Engineering

Associate Professor, Ph.D.

Shinya IKENO

Development and application of functionalized nanomaterials using biomolecular

E-mail

ikeno@life.kyutech.ac.jp

URL

<https://www.life.kyutech.ac.jp/~ikeno/index-e.html>


Keywords

Research Overview

● Functionalized peptide
● Genetic engineering
● Recombinant protein
● Biopesticide
● Drug screening
● Biostimulants
● Biosensor
● Nanoparticle

I have been studying development of functionalized nanomaterial combined with biomolecule and nanoparticle, and application of functionalized biomolecular to bioprocess such as production of recombinant protein.

Division of Environment Conscious Chemistry and Bioengineering



Research Area

Catalyst Electrolytic Engineering

Associate Professor, Ph.D.

Yoshiyuki TAKATSUJI

Efficient and selective electrochemical conversion of substances

E-mail

takatsuji@life.kyutech.ac.jp

Keywords

Research Overview

● Catalytic metal electrode
● Plating technology
● CO₂ fixation
● Energy and environment
● Electrochemistry

Our research has committed to solving to environmental and energy problems with the catalytic a metal electrode that can produce the efficiency substance. The catalytic metal electrodes have been developing and also analyzing the reaction mechanism and the produced substance. We will pursue research in the field of clean cycle chemistry (Tri-C) and achieve the goals of the SDGs.

Division of Green Technology



Research Area

Mechatronics

Visiting Professor, Doctor of Engineering

Hideki HONDA

YASKAWA Electric corporation
<https://www.yaskawa.co.jp/>
Mechatronics Control to fit in human society

E-mail

honda@life.kyutech.ac.jp

URL

<https://www.life.kyutech.ac.jp/~honda/>


Keywords

Research Overview

● Mechatronics
● Control Theory
● Motion Control

As robots are good examples, mechatronic devices are now used in various fields as well as in the industry. Therefore, in addition to research on the high-speed and high-accuracy performance required by the industry, we also study mechatronics technology that is kind to people and supports them.

Next Generation Power Electronics Research Center



Research Area

Power Electronics, Power semiconductor

Assistant Professor, Dr. Eng.

Tripathi Ravi Nath

Power electronic system control and power semiconductor control

E-mail

tripathi.ravi-nath639@mail.kyutech.jp

URL

<https://power.kyutech.ac.jp/>

Keywords

Research Overview

● Power Electronics
● Power Semiconductor Device
● Gate Driving Control
● Power Converter Control
● Hardware-in-the-loop (HIL)
● Model based design (MBD)

Power electronics systems can utilize green energy by efficiently converting electrical energy. We are conducting research on power semiconductor converters and control technology for environmentally friendly technologies, and virtual prototyping using model-based development and design (MBD). "

Division of Environment Conscious Chemistry and Bioengineering



Research Area

Environmental-Benign Functional Materials

Associate Professor, Ph.D. in Engineering

Yoshito ANDO

Design and evaluation of high-value functional materials from biomass and waste for a circular economy

E-mail

yando@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~yando/wp/?page_id=34

Keywords

Research Overview

● Biomass
● Sustainable Society
● Additional value
● Cellulose
● Agricultural waste
● Global Issue
● Polymer Materials
● Organic Synthesis

We aim to pursue environmental conservation and sustainable science by focusing on environmentally friendly materials and processes. Our research involves identifying the properties of biomass and natural materials, including underutilized agricultural waste, and designing and evaluating high-value functional materials that leverage these properties.

Division of Green Technology



Research Area

Micro-Technology

Visiting Professor, Ph.D.

Iwao SASAKI

YASKAWA Electric corporation
<https://www.yaskawa.co.jp/>
The research on the upgrading of the materials for Mechatronics equipments

E-mail

sasaki@life.kyutech.ac.jp

URL

https://www.life.kyutech.ac.jp/~sasaki/sasaki_j.htm


Keywords

Research Overview

● Functional Thin Film
● Solid Lubrication Bearing
● Vapor Deposition
● Magnetic Material
● Sensor

Research on functional materials utilizing the unique phenomena, which are prominent in a micro/nanometer scale.

Division of Plant Life-cycle Engineering



Research Area

Plant Life Cycle Engineering

Special Appointment Associate Professor

Masahiro NAKANO

Plant Life Cycle Engineering

E-mail

nakano.masa@life.kyutech.ac.jp

Keywords

Research Overview

● Plant Life Cycle
● Robot welding
● Image analysis
● Thermal elasto-plastic analysis
● AI
● Equipment diagnosis
● Welding repair

Plant Life Cycle Engineering (Research on autonomously controlled robot welding, and Research on thermal elasto-plastic analysis of welds and optimization of welding order)

Collaborative Research Centre for Green Materials on Environmental Technology



Research Area

Biomass Materials Engineering

Assistance Professor, Ph.D

Jacqueline LEASE

Biomass Utilization in Sustainable Material Development

E-mail

lease.jacqueline285@mail.kyutech.jp

URL

https://www.life.kyutech.ac.jp/~green_material/wp/

Keywords

Research Overview

● Biomass
● Green Chemistry
● Cellulose
● Composite

Focusing on wood-based biomass as a sustainable resource, the goal is to develop materials that do not rely on petroleum-derived raw materials. Wood biomass contains natural polymer materials such as cellulose, lignin, oligosaccharides, and lipids. By utilizing these components, new materials are designed and explored to help address issues such as plastic pollution and resource depletion.

Department of Biological Functions Engineering



DEPARTMENT OF HUMAN INTELLIGENCE SYSTEMS

Graduate School of Life Science and Systems Engineering

Division Overview



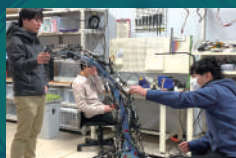
Department of Human Intelligence Systems aims to incorporate the principles of human intelligence into intelligent information processing platforms and artificial intelligent systems, as well as to actively contribute to the development in the industry. The research and education in this department covers but is not limited to (i) advanced development of mechanical systems and devices such as intelligent autonomous robots, (ii) intelligent information system development and artificial intelligence algorithms design that incorporates the principles of human reasoning, (iii) scientific analysis of social activities and human intelligence by using mathematical modeling, brain science and cognitive science in general.

Divisions



Division of Human Intelligence and Machines

Division of Human Intelligence and Machines is teaching and researching in the fields of robotics and devices, which could realize human-like intelligence by utilizing rational and significant structures as well as functions of biological organisms to achieve low-energy consumption, harmony with the environment, and human-friendly behavior. Through the teaching and research, we will bring students up to be persons and professionals who are actively involved in the global world with to create new public services, new business, and new social value.



Division of Intelligence Systems and Emergent Design

The division is engaged in the design of new technologies and theories that are inspired by human intelligence. It is a form of societal engineering focusing not only on cognitive functions of recognition, learning, and reasoning, but also on social abilities with emotions, Kansei, and communications. This field requires the study of mathematical modeling, informatics, and systems engineering toward a comprehensive understanding of computation in brain-body environment interaction and an advanced development of intelligent partners and platforms.



Division of Human Interaction and Brain Functions

It is important to study the relationship between the function of the brain and the nature of society made by humans to clarify human intelligence. In this division, we study the characteristics of neurons of which the brain consists, the information processing in which many neurons are involved, behaviors as results of the processing, and the communication mechanism of humans in a society.

Division of Human Intelligence and Machines



Research Area Field Robotics

Professor, Ph.D. Kazuo ISHII
Research on field robotics and their applications

E-mail ishii@brain.kyutech.ac.jp

URL <https://www.brain.kyutech.ac.jp/~ishii/>

Keywords

- Field robot
- Underwater robot
- Agricultural robot
- Soccer robot
- Inspection robot
- Motion control system
- Neural networks

Research Overview

Development of field robots such as underwater robot, agricultural robot, inspection robot, and research on related topics, environment recognition system, self-localization system, adaptive learning system, motion control system, bio-inspired information processing, etc.

Division of Human Intelligence and Machines



Research Area Human function substitution systems

Professor, Ph.D. (Eng.) Chikamune WADA
Research on developing functional substitution system for the disabled/the elderly people based on human sensory/motor characteristics

E-mail wada@brain.kyutech.ac.jp

URL <https://www.brain.kyutech.ac.jp/~wada/>

Keywords

- Human interface
- Assistive technology
- Functional substitution
- Biological information
- Biological data measurement
- Rehabilitation engineering

Research Overview

Research on developing human-friendly assistive device/substitution system for the disabled/the elderly people based on psychophysical analysis of human sensory-motor systems.

Division of Human Intelligence and Machines



Research Area Bio-inspired artificial vision

Associate Professor, Ph.D. Shinsuke YASUKAWA
Information processing in biological sensory systems and their applications in field robotics

E-mail s-yasukawa@brain.kyutech.ac.jp

URL <http://www.brain.kyutech.ac.jp/~s-yasukawa/>

Keywords

- Bio-inspired system
- Visual information processing
- Robot vision
- Embedded system

Research Overview

Development of living creature observation/manipulation technique using robot, Simulation of the visual nervous system, Development of Bio-inspired robot vision system, Trials of their techniques in field, etc...

Division of Human Intelligence and Machines



Research Area Brain-inspired integrated system

Associate professor, Ph.D. Yuichiro TANAKA
Development of brain-inspired artificial intelligence and its application for robots

Email tanaka-yuichiro@brain.kyutech.ac.jp

Keywords

- Soft computing
- Computer systems
- Hippocampus
- Amygdala
- Prefrontal cortex
- FPGA
- Home service robot

Research Overview

Aiming for a future in which home service robots work as human partners, I develop artificial intelligence models that mimic the functions of the brain, especially those of the hippocampus, amygdala, and prefrontal cortex, and hardware that operates them with low power consumption.

Division of Human Intelligence and Machines



Research Area Intelligence Emerging Nanosystems

Professor, Dr. Eng. Hirofumi TANAKA
Design, development, and integration of nanodevices for artificial intelligence hardware devices

E-mail tanaka@brain.kyutech.ac.jp

URL <https://www.brain.kyutech.ac.jp/~tanaka/>

Keywords

- Intelligent information processing nanodevices
- Artificial intelligence nanodevices
- Neuromorphic nanodevices
- Integrated circuits for nonlinear dynamical nanosystems, and nanostructure device designing

Research Overview

Research and development of electric nanodevices for artificial intelligence hardware, whose target is to generate new electrical functionalities by using the circuit of the nanodevices.

Division of Human Intelligence and Machines



Research Area Brain-like Computer System

Professor, Ph.D. Hakaru TAMUKOH
Realization of a brain-like computer system and its application to human-friendly systems

E-mail tamukoh@brain.kyutech.ac.jp

URL <https://www.brain.kyutech.ac.jp/~tamukoh/>

Keywords

- Brain-like computer
- Softcomputing
- hw/sw complex system
- Digital hardware design
- Home service robotics

Research Overview

A brain-like computer system laboratory aims to realize a brain-like computer based on a hardware/-software complex system and its application to embedded systems on home-service robots.

Division of Human Intelligence and Machines



Research Area Field Robotics

Associate Professor, Dr.Eng. Yuya NISHIDA
Development of control system and technology for field robot

E-mail y-nishida@brain.kyutech.ac.jp

Keywords

- Field robot
- Autonomous underwater robot
- Motion control
- Motion analysis

Research Overview

To reliably accomplish the mission, our laboratory develops robot that robustly navigates in actual environment, and its elemental technology. We survey actual environment using developed robot and system to benefit society.

Division of Human Intelligence and Machines



Research Area Nano device and brain-like integrated system

Associate Professor, Dr. Eng. Sumito TSUNEGI
Construction and Application of Brain-Like Integrated System Utilizing Nanodevices

E-mail s_tsunegi@brain.kyutech.ac.jp

Keywords

- Intelligent information processing nanodevices
- Neuromorphic nanodevices
- Spiking neural network
- Integrated circuits for nano device
- Application of spintronics
- CMOS technology and its application

Research Overview

With the limitations of semiconductor miniaturization, nanodevices utilizing novel physical properties have attract much attention. We study spiking neural networks (SNNs) that mimic the behavior of synapses and neurons using nanodevices, including spintronic devices, aiming for applications such as robotic recognition processing.

Division of Human Intelligence and Machines



Research Area Nanomaterial Intelligence

Assistant Prof, Dr. Sci. Yuki USAMI

Creation for brain-inspired information processing system by nanomaterial

E-mail usami@brain.kyutech.ac.jp

Keywords	Research Overview
<ul style="list-style-type: none"> ● Nanomaterial ● Hybrid material ● Mesoscopic physics ● Neuromorphic computing ● Nanostructure analysis ● Molecular electronics ● In-materio reservoir 	Research and development of nanoscale various basic physical properties of organic/inorganic materials for extracting flexible bio-inspired function. Creation of unconventional nanodevices by circuitization and deviceization from nanomaterial function.

Division of Human Intelligence and Machines



Research Area Brain-like Integrated Systems

Specially Appointed Professor, Dr.Eng. Takashi MORIE

Design and development of integrated circuits, devices and systems for brain-like artificial intelligence

E-mail morie@brain.kyutech.ac.jp

URL https://www.brain.kyutech.ac.jp/~morie/

Keywords	Research Overview
<ul style="list-style-type: none"> ● Brain-like artificial intelligence ● Vision and image recognition model ● Integrated systems for robots ● Integrated circuit for nonlinear dynamical system ● Analog integrated system 	Research and development of brain-like processing models, new functional devices and digital/analog integrated circuits (VLSI) and systems mainly targeted to service robots toward achieving brain-like artificial intelligence.

Division of Intelligence Systems and Emergent Design



Research Area Learning theory of brain-like artificial intelligence

Professor, Ph.D. Tetsuo FURUKAWA

Learning theories of brain-like artificial intelligence and embodied knowledge discovery from complex data network

E-mail furukawa@brain.kyutech.ac.jp

URL https://www.brain.kyutech.ac.jp/~furukawa/

Keywords	Research Overview
<ul style="list-style-type: none"> ● Brain-like artificial intelligence ● Learning theory of meta-modeling ● Emergence of intelligence ● Visual analytics ● Embodied knowledge discovery 	Our destination is to develop the learning theory and its algorithms, which enable us to discover general rules and intrinsic information underlying the given datasets. Typical themes are higher-order modeling through meta-learning and multi-task learning. We also challenge to develop embodied knowledge discovery systems from complex data network.

Division of Intelligence Systems and Emergent Design



Research Area Human and Social Intelligence Systems

Professor, Ph.D. Tomohiro SHIBATA

Science and Engineering Understanding of Humans and Societies, Assistive System Development for Nursing and Medical Care, and Welfare, and Social Implementation

E-mail tom@brain.kyutech.ac.jp

URL https://www.brain.kyutech.ac.jp/~tom/

Keywords	Research Overview
<ul style="list-style-type: none"> ● Robotics ● Artificial intelligence ● Biomechanics ● Biological Signal Processing ● Mixed Reality/Metaverse ● Brain Science ● Nursing and Medical, Care, Welfare ● Social Implementation 	We are researching and developing assistive technologies to apply various knowledge and technologies, such as robotics, artificial intelligence, biomechanics, and biological signal processing, to the medical, nursing, and welfare fields. We are also promoting the social implementation of these technologies in collaboration with various players, including the elderly, people with disabilities, medical, nursing, and nursing care professionals, private companies, and governments.

Division of Intelligence Systems and Emergent Design



Research Area Intelligent Information Processing Systems

Professor, Ph.D. Keiichi HORIO

Development of fundamental technology of intelligent information processing system aiming at modeling and analyzing behavior of human beings

E-mail horio@brain.kyutech.ac.jp

URL https://www.brain.kyutech.ac.jp/~horio/

Keywords	Research Overview
<ul style="list-style-type: none"> ● Behavior analysis ● Communication analysis ● Estimation of personality ● Intelligent data analysis ● Intelligent image processing ● Learning system 	The Research aimed at estimating and classifying individual characteristics by measuring and analyzing human behavior. Besides, we pursue optimization of the intervention method based on analysis results and aim to apply it to real-world society, especially data analysis involving humans.

Division of Intelligence Systems and Emergent Design



Research Area IoT / Big Data

Professor, Doctor of Engineering Sozo INOUE

Human Activity Recognition and Application to Elderly and Nursing Care

E-mail sozo@brain.kyutech.ac.jp

URL https://sozolab.jp

Keywords	Research Overview
<ul style="list-style-type: none"> ● Human Activity Recognition ● Web / Ubiquitous ● Application of Machine Learning ● Big Data ● Application for Healthcare / Nursing ● Behavior Change 	We develop human activity recognition from smartphones and sensors, and their services. We also cultivate AI by collecting medical and nursing care big data.

Division of Intelligence Systems and Emergent Design



Research Area Brain-Inspired Robotics and Intelligence Dynamics

Professor, Ph.D. Hiroaki WAGATSUMA

Investigating principles of neural dynamics, body kinetics/morphology and societal abilities to understand biological intelligence

E-mail waga@brain.kyutech.ac.jp

URL https://www.brain.kyutech.ac.jp/~waga/

Keywords	Research Overview
<ul style="list-style-type: none"> ● Nonlinear dynamics ● Emergent intelligence ● Episodic memory and emotion ● Societal robot ● Computational neuroscience ● Neuroinformatics ● Sport biomechanics ● Rehabilitation support 	We explore systems design inspired by biological emergent intelligence, through an understanding of what makes us human (intelligence), how we are embodied in the environment (body kinetics/morphology), why emotional and social aspects are so important to us (sociality). Our mathematical modeling and investigation are applied to the design of an artificial intelligence, robot development, and rehabilitation tools.

Division of Intelligence Systems and Emergent Design



Research Area Human and Social Intelligence Systems

Professor, Ph.D. Hiroki OBATA

Research on neuro-rehabilitation and motor learning

E-mail obata@dhs.kyutech.ac.jp

Keywords	Research Overview
<ul style="list-style-type: none"> ● Neuroscience ● Sports Science ● Medical and Welfare Engineering ● Sports for the Disabled ● Biological Signal Processing ● Biomechanics ● Neurorehabilitation ● Neuromodulation 	The objective of the research is to develop new neurophysiological methods or assistive devices which promote gait rehabilitation and motor skill training by approaching both sides of neuroscience and engineering.

Division of Intelligence Systems and Emergent Design



Research Area Kansei Information Processing, Soft Computing

Associate Professor, Dr. (Eng.) Kaori YOSHIDA

Designing information system based on Kansei Information Processing

E-mail kaori@brain.kyutech.ac.jp

URL https://www.brain.kyutech.ac.jp/~kaori/

Keywords	Research Overview
<ul style="list-style-type: none"> ● Kansei Information Processing ● Human-Computer Interaction ● Soft Computing ● Cognitive Psychology ● Intelligent Image Processing ● Information System Design 	We study Kansei Information Processing as one of Human-Computer Interaction research. The research aims to design appropriate information systems based on psychological, social, and technical analysis. Research topics include human-centered design, soft computing, usability, conceptual models, interface metaphors, human cognitive models, implicit behavior analysis, and interactivity structures.

Division of Intelligence Systems and Emergent Design



Research Area Statistical learning theory

Assistant Professor, Ph.D. Hideaki ISHIBASHI

Information geometry based meta-modeling

E-mail ishibashi@brain.kyutech.ac.jp

Keywords	Research Overview
<ul style="list-style-type: none"> ● Meta-modeling ● Multi-task learning ● Meta-learning ● Bayesian inference ● Information geometry ● Friston's free energy principle ● Active inference 	The aim of our research is to develop the learning theory and its algorithms for meta-modeling, which enables to discover meta-knowledge by modeling a set of knowledges or models. We also aim to construct universal framework for actively modeling of meta-knowledge by connecting the Friston's free energy principle.

Division of Human Interaction and Brain Functions



Research Area Team Management

Professor, Ph.D. Doosub JAHNG

A Story of diverse individuals becoming one as a team

E-mail jahng@brain.kyutech.ac.jp

URL https://www.brain.kyutech.ac.jp/~jahng/

Keywords	Research Overview
<ul style="list-style-type: none"> ● Team Communication ● Occupational Health Marketing ● Key Words Meeting* ● Versatile Educational Tools ● Comprehensive Health Resources Integrated Solution 	For diverse individuals to agree with each other and become one as a team, innate needs, learned knowledge/skills acquired needs from personal/environmental circumstances, self-action, health resources and communication become essential. We conduct research on the factors above by utilizing both people's conceptual needs and experimental/ statistical designs to further our study on team management.

Division of Human Interaction and Brain Functions



Research Area Neuroscience

Associate Professor, Ph.D. Yoshitaka OTSUBO

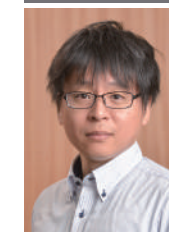
Taste transduction mechanisms

E-mail otsubo@brain.kyutech.ac.jp

URL https://www.brain.kyutech.ac.jp/~otsubo/

Keywords	Research Overview
<ul style="list-style-type: none"> ● Oscillating receptor potentials with action potentials ● Taste signal transduction ● Patch-clamp ● Ca²⁺-imaging ● Immunohistochemistry ● Single cell RT-PCR ● Confocal laser microscope 	We investigate the cellular and molecular mechanisms underlying the signal processing occurred in mammalian taste buds and we contribute to develop a new signal processing based on features of taste buds.

Division of Intelligence Systems and Emergent Design



Research Area Bioinspired Intelligence Systems

Associate Professor, Ph.D. Shuhei IKEMOTO

Robots/Algorithms inspired from biological systems

E-mail ikemoto@brain.kyutech.ac.jp

URL https://www.brain.kyutech.ac.jp/~ikemoto/index.html

Keywords	Research Overview
<ul style="list-style-type: none"> ● Bioinspired robot ● Bioinspired algorithm ● Learning control ● Stochastic resonance 	Behind sophisticated abilities of living organisms are the mechanisms that exploit demerits, e.g., complexity/flexibility of body and unignorable noise, as merits. Toward understanding and applying the mechanisms, academic studies about biologically inspired systems based on robotics have been conducted.

Division of Human Interaction and Brain Functions



Research Area Neuronal rhythm and Brain Machine Interface (BMI)

Professor, Ph.D. Kiyohisa NATSUME

The relationship between the generation of neuronal rhythm and memory process

E-mail natsume@brain.kyutech.ac.jp

URL https://www.brain.kyutech.ac.jp/~natsume/

Keywords	Research Overview
<ul style="list-style-type: none"> ● Neuronal rhythm ● EEG ● Circadian rhythm ● Hippocampus ● Brain machine interface ● L2 English learning ● Music rhythm ● esports 	We study experimentally on the generation of neuronal rhythm and compute the rhythm on the computer. We also developed the e-learning system for Japanese English learners using BMI technology.

Division of Human Interaction and Brain Functions



Research Area Mathematical Neural Network

Professor, Ph.D. Katsumi TATENO

Neural coding and Neurodynamics

E-mail tateno@brain.kyutech.ac.jp

URL https://www.brain.kyutech.ac.jp/~tateno/

Keywords	Research Overview
<ul style="list-style-type: none"> ● Neural coding ● Hippocampus ● Medial entorhinal cortex ● Memory ● Learning ● Glass catfish ● Electoreceptor 	Our interests are complex behavior of neural activity and theoretical investigation on neural coding in the brain. Specifically, we are currently researching neural network models of the medial temporal lobe.

Division of Human Technology



Research Area Systems Intelligence

Visiting Professor, Ph.D. OMRON CORPORATION Hiroshi NAKAJIMA

https://www.omron.com/jp/ja/technology/

Basic and applied research on intelligent system development

Keywords	Research Overview
<ul style="list-style-type: none"> ● Intelligent system ● Soft computing ● Computational intelligence ● Causal analysis ● Social intelligence ● Systems healthcare ● Health management ● Machine learning 	Research and development on algorithms of intelligent systems by studying soft computing, statistical analysis, and social intelligence in human-machine collaboration systems with application studies.

Division of Human Technology



Research Area

Vision Sensing

Visiting Professor,
Ph.D.
OMRON CORPORATION
<https://www.omron.com/jp/ja/technology/>
Basic and applied research on intelligent vision system

Masaki SUWA


Keywords

- Vision Sensing
- 3D Sensing
- Physics-based Vision
- Pattern Recognition

Research Overview

Research and development on vision sensing technologies such as object detection, 3D surface reconstruction and reflectance property analysis, for applications in factory automation or society's infrastructure.

Division of Human Technology



Research Area

Biomimetic Robot System

Visiting Professor,
Ph.D
National Institute of Technology,Kitakyushu College
Development of Robot Systems based on motion control and information processing system of animals

Takayuki MATSUO

Keywords

- Biomimetic robot
- Adaptive control
- Nonlinear oscillator
- Neural network

Research Overview

Development of mobile robot systems inspired by mechanisms of animals for irregular terrain, underwater and so on.

Care XDX Center



Research Area

Human-Centered AI / Ubiquitous Computing

Assistant Professor,
Doctor of Engineering
Ambient sensing and recognition systems for healthcare

GARCIA Christina

Email

garcia.christina-alvarez199@mail.kyutech.jp

Keywords

- Ambient Sensing
- Human-Centered AI
- Machine Learning for Healthcare
- Indoor Localization

Research Overview

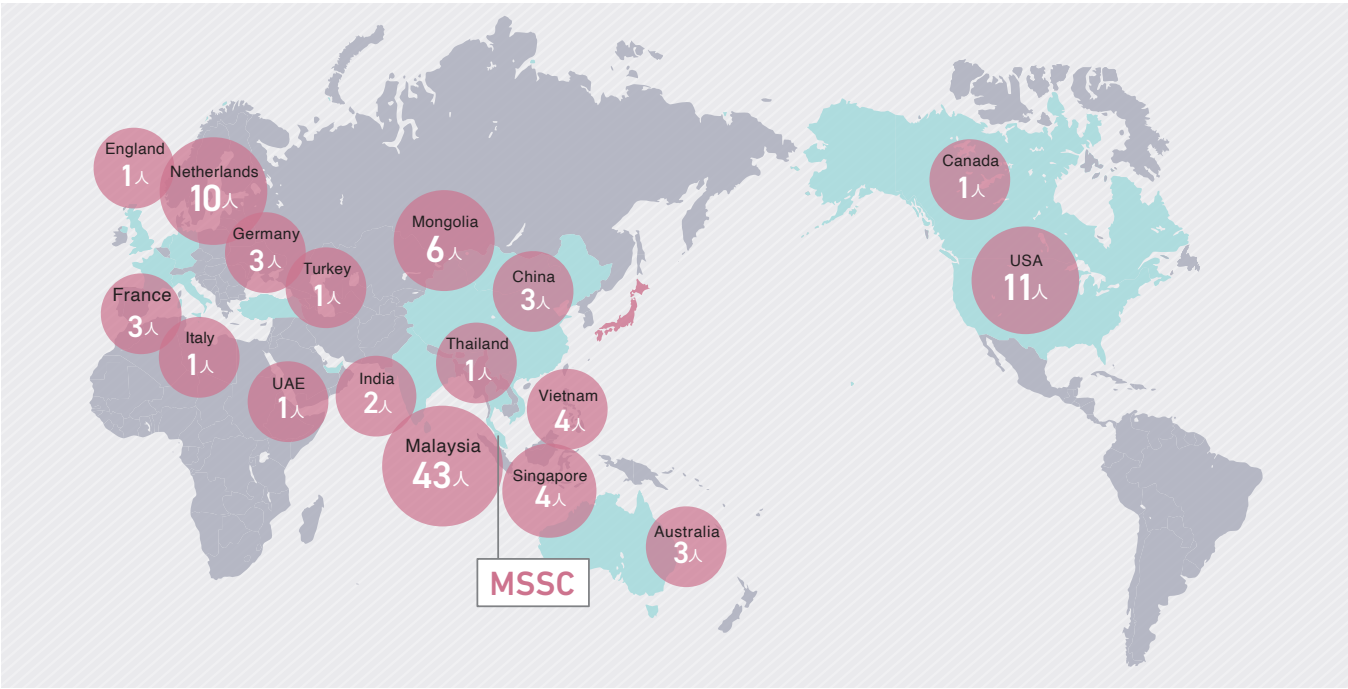
Developing ambient sensing and recognition systems merging multimodal data and context for healthcare application and human-centered AI. We deploy systems and collect real-field data from hospitals.


Department of Human Intelligence Systems

INTERNATIONAL EXCHANGES

List of overseas dispatched students in FY2024 (by country)

Since globalization is a priority at LSSE, we are striving to develop internationally competent human resources, by mutually sending students to partner schools. The "MSSC", which was established in 2013 on the campus of Universiti Putra Malaysia (UPM), one of our partner universities, supports students and faculty in their study and research activities in Malaysia, including study abroad programs, internships at Japanese companies in Malaysia, and joint research.



Tuition and Enrollment fee waiver, Research Assistant and Living cost	<p>Only a limited number of students can get exemption of full or half of fees through a selection procedure.</p> <ul style="list-style-type: none">▶ Application fee: ¥30,000▶ Enrollment fee: ¥282,000▶ Tuition fee: ¥267,900 per half year <p>Doctoral course students may get about ¥45,000 per month as a research assistant. The monthly cost of living in Kitakyushu city is approximately from ¥60,000 to ¥80,000 including house rent and utilities.</p>
Scholarship	<p>For a list of scholarships and details on each scholarship, please check the Kyutech website.</p> <p>https://bap.jimu.kyutech.ac.jp/publishes/11302/index</p> 
Accommodation	<p>Students can apply to stay in the international student housing (Sakura House) near Wakamatsu campus. However, as we have limited rooms available, not all students will be able to stay at Sakura House. The rent of Sakura House is ¥13,500 per month.</p>
Tutor	<p>A tutor, who is a current student in the laboratory, can help new students for their study and daily life in Japan. This tutor system is available for the first three months after enroll-</p>
Japanese language class	<p>Students can take Japanese language classes appropriate to their level.</p>

▼English Information for international students in our website is as follows.

Q <https://www.kyutech.ac.jp/english/>

01

Alif Syafiq Bin Kamarol Zaman

Life Science and Systems Engineering,
Human Intelligence Systems



My future dream

I would like to make use of the knowledge I've acquired here in Kyutech to work in the semiconductor industry in my home country (Malaysia). I aim to be a research and development engineer in this industry and as a way of giving back to my country. I enjoy working with machines and in the clean room as it gives a sense of peace because doing precision work with 100% focus allows me to relax in way. The research I'm involved in now (Neuromorphic Computing) has a bright future and I'm positive I could be the pioneer or the one who will be responsible to bring this technology to Malaysia. This could open opportunities for future collaboration between Malaysia and Japan in terms of trade and knowledge transfer. Ultimately, I aim to be a humble servant of God, acknowledging that all knowledge belongs to Him and striving to use my abilities in service to others.

Why Kyutech?

I chose Kyutech because it is a prestigious university renowned for its strong academic programs and innovative research. Additionally, Kyutech maintains an excellent relationship with my previous institution, Universiti Putra Malaysia (UPM), which made the transition smoother. I had heard a lot about Kyutech's welcoming environment for international students, especially through opportunities like the MEXT scholarship. The diverse range of research topics available here presented a fantastic opportunity for me to pursue my academic interests.

About Research

In my research, I focus on neuromorphic computing, an innovative area of artificial intelligence that aims to mimic the computational processes of the human brain. While AI is increasingly prevalent across various fields, its complexity often leads to high power consumption. Neuromorphic computing addresses this challenge by enabling complex task performance with significantly lower energy usage, around 20 watts. My work involves leveraging material science to design and develop devices that can perform intricate computations efficiently, thereby overcoming the limitations of traditional AI systems.

Best point of Kyutech

The best aspect of Kyutech is its dedication to accommodating both local and international students. The university goes above and beyond to create an inclusive and welcoming environment through various initiatives such as organized bus tours, mochi-making events, and other cultural activities. These efforts foster strong relationships

among students from diverse backgrounds, making Kyutech a truly international and supportive community.

My recommended place from Kyutech

I highly recommend visiting the pavement in front of Kyutech, where the sakura trees line up beautifully, especially during the spring season. It's a serene and picturesque spot that I often enjoy taking walks in whenever I have the chance. The cherry blossoms create a stunning backdrop, providing a perfect place to relax and appreciate the natural beauty around the campus.

What surprised me most in Japan

What surprised me most about Japan is the rich language, unique culture, diverse cuisine, and the distinct four seasons. Coming from Malaysia, where we primarily experience hot and rainy weather throughout the year, the clear seasonal changes in Japan were quite remarkable. The cultural nuances and the variety of traditional and modern foods also provided a fascinating and enriching experience.

What kind of life

I maintain a balanced lifestyle by dedicating the five working days to intensive research and academic pursuits. On weekends, I take the time to rest, reflect on life, and engage in activities that help me unwind, such as playing games. This balance allows me to stay productive during the week while also ensuring I have ample time to recharge and maintain my well-being.



Wakamatsu Campus in Kitakyushu Science and Research Park



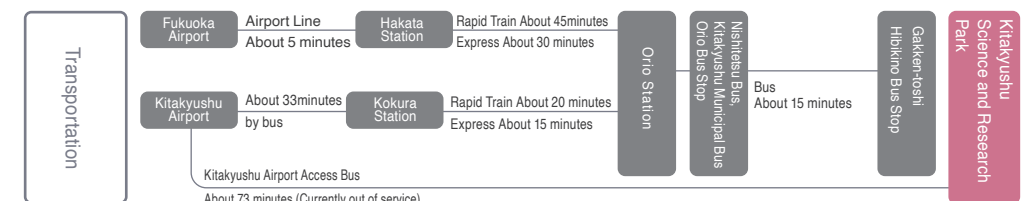
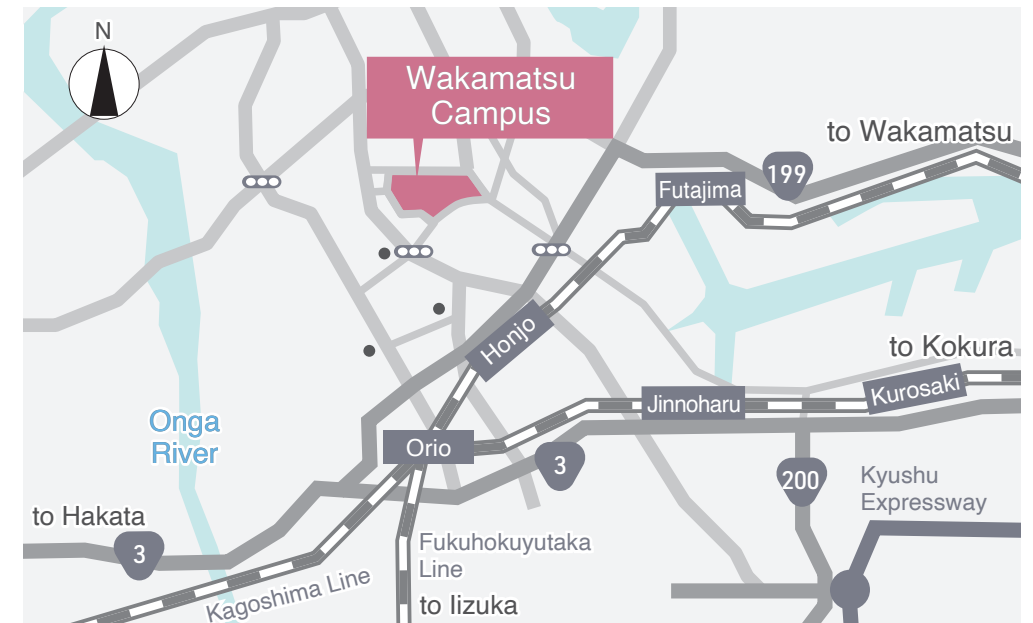
Graduate School of Life Science and Systems Engineering



Cafeteria



Kitakyushu Science and Research Park



Shinkansen (Nozomi)

Tokyo — Kokura About 4H45M
Shin Osaka — Kokura About 2H
Hakata — Kokura About 17M

Airline

Tokyo — Kitakyushu About 1H35M
Tokyo — Fukuoka About 1H40M
Seoul — Fukuoka About 1H10M
Beijing — Fukuoka About 2H15M
HongKong — Fukuoka About 2H50M

Car

From Kitakyushu Airport About 60M
From Fukuoka Airport About 70M
From Kokura Station About 35M
From Orio Station About 10M

Other Campuses of Kyushu Institute of Technology



Tobata Campus



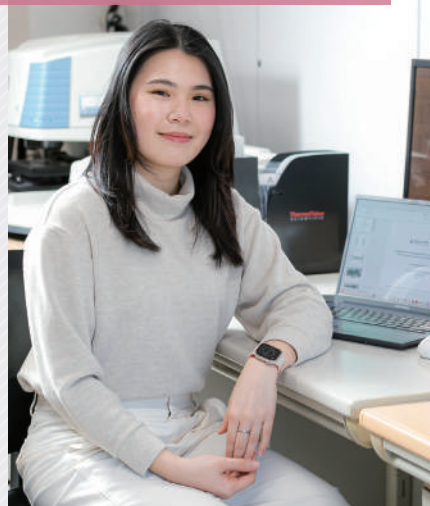
Iizuka Campus



02

Souwalauk Na Khampol

Graduate School of Life Science and Systems
Biological Functions Engineering



Why Kyutech?

First, I know several supervisors from Thailand who graduated from Kyutech, and when they talked about their activities, it sounded so interesting. Moreover, since January 2023 I have participated as an exchange student for 10 days in a PBL class with Kyutech Iizuka campus students, I also had an opportunity to visit the lab at both the Wakamatsu and the Iizuka campuses. After completing the project, I cannot stop thinking about Japan, and Fukuoka city—everything was so impressive. As a result, I set a new goal to return, and I decided to study for a Master's degree at Kyutech.

About Research

The enormous impact problem in the world is single-use plastic which requires solving. In our lab focus on the improvement of biomaterials can be instead of Petro based, then my research focus on biodegradation of biomaterials by superworms. Moreover, in this project have been studying how after superworms eat food fed for them, what is happening? When pass biodegradable is made it happens by superworms, also is it can be reused or not.

Best point of Kyutech

The best point of Kyutech is the people, there are several people who come from everywhere in the world. Then you can learn about their culture and languages, because of diversity. In addition, Kyutech is one of the best universities in Japan, so you can get various knowledge from here.

My recommended place from Kyutech

It's the first floor that has a table tennis table, also you can borrow table tennis stuff from the student section for free. I have found a lot of people there, it's a good sport for breaking the ice with your friends.

What surprised me most in Japan

I think about "Transportation" which is different from Thailand, Kitakyushu it's the southern part of Japan but there are many line trains you can use for travel, also buses. On the other hand, in Thailand if you are a person who lives outside Bangkok or the perimeter, quite hard to travel if you do not have your own car. Moreover, sometimes when you walk through children or someone, they will say "Konichiwa" to say hi to you this looks so kind.

What kind of life

I love to do activities, play games, do sports, and go to travel. In addition, I love watching Formula 1 and cars racing, then when I walk around the city I see a lot of cool cars, I am so happy. To be honest, I already paid for a Formula 1 ticket to the Suzuka circuit, but I do not have a friend to go with me, lol. Currently, I still find activities that I can do with friends, such as yakiniku or traveling somewhere, I am very enjoyable.



My future dream

In the future, I require work in research and development, either in the industrial or academic sectors, depending on the opportunity at that time. I plan to continue research that addresses reducing or eliminating single-use waste as much as possible. This will be quite challenging, both in terms of research and in making it a reality in the industrial sector.