SHONAN INSTITUTE OF TECHNOLOGY

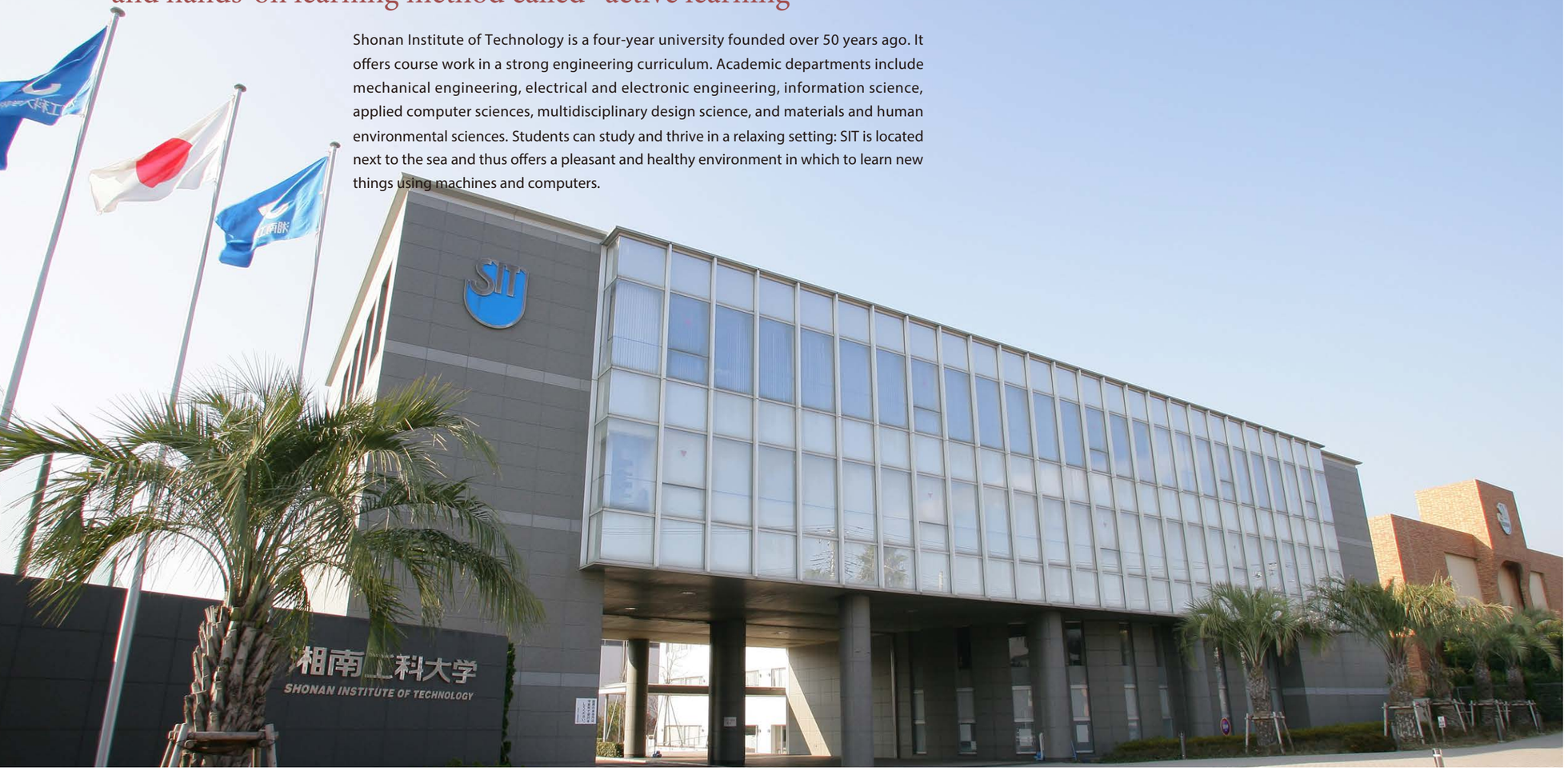
FACULTY OF ENGINEERING

- Mechanical Engineering
- Electrical and Electronic Engineering
- Information Science
- Applied Computer Sciences
- Multidisciplinary Design Science
- Materials and Human Environmental Sciences

湘南工科大学

Emphasis is placed upon gaining knowledge through a practical and hands-on learning method called “active learning”

Shonan Institute of Technology is a four-year university founded over 50 years ago. It offers course work in a strong engineering curriculum. Academic departments include mechanical engineering, electrical and electronic engineering, information science, applied computer sciences, multidisciplinary design science, and materials and human environmental sciences. Students can study and thrive in a relaxing setting: SIT is located next to the sea and thus offers a pleasant and healthy environment in which to learn new things using machines and computers.



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Admission Policy

At Shonan Institute of Technology, our mission is to educate students so that they can become successful engineers and professionals in related fields. Equally important is that an SIT education should benefit the greater society as well. A talented individual who possesses engineering knowledge but also has the ability to successfully interact with others has excellent potential to support and improve the society in which he or she lives. This will be especially important in the future when technical ability and human interaction will play such crucial roles.
We believe that a talented individual who possesses engineering knowledge along with the ability to successfully interact with others has excellent potential to support and improve society.

SIT accepts prospective students from a variety of backgrounds and interests who possess such qualities as the following:

- A student with a good basic educational background. An applicant may have some basic knowledge that can serve as a solid base of learning which he or she can build upon as they progress through the years.
- A student who understands and embraces the educational philosophy of our school and strives to be an independent thinker with the passion and spirit of self-advancement.
- A student who is interested in technology and eager to develop new knowledge and acquire technological skills.

Curriculum Policy

Students are required to take courses from the three subject groups shown below so that students can develop skills in these three areas. The major goal is to achieve a good balance of learning from these subject areas during a four-year course of study. In these courses, the primary teaching method called “active learning” is implemented so that students can enhance their general-purpose abilities and develop abilities to utilize their knowledge and skills in technology. The three subject areas are the following:

- “Common ground subject” area: To establish an independent approach to education so that students can motivate themselves to learn new things.
- “Member of society basics subject” area: To acquire a basic practical skill in order to become a competent and successful member of modern society.
- “Subject major specialty” area: To acquire and master specialized knowledge in a field of engineering. Such specialized knowledge should lay the foundation for a student’ s own personal growth as well as help him or her contribute to society as a whole.

Curriculum Policy

Shonan Institute of Technology authorizes degrees in bachelor of science（in engineering） to students who show ability in three areas: S（Sense）, I（Intelligence）, and T（Teamwork）and who have acquired a predetermined number of units.

- Sense
  Learning a great variety of information, followed by using good judgment and analysis to discover a problem. Once a problem is discovered, the successful student should be able to think of a solutions to the problem.
- Intelligence
  The ability to improve one’ s mind through the process of utilizing the knowledge and skill of a specialized field in order to find solutions to a problems.
- Teamwork
  The ability to collaborate with others through active communication supported by good social skills and being kind and decent to others.

Mechanical Engineering

Students learn industrial engineering and mechanical design, fabrication, assembly and management of mechanical systems. As they learn new things, new ideas and points of view are introduced and assimilated.

Students learn fundamental technologies in order to create mechanical systems, and in the learning process, deepen and extend their technological sense and awareness. Through learning of a variety of experience-based subjects and related lectures, students acquire about wide-ranging technologies. These include electrical devices for the household electrical appliances, precision mechanical equipment, automobiles and other vehicles, robots, aviation, and aerospace machine technologies.

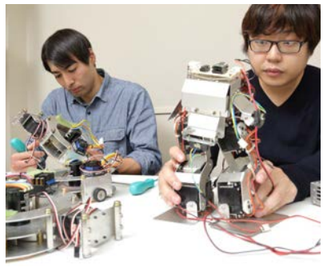
Fields of learning

- Fundamentals of processing, production and materials
- Fundamentals of mechanism for mechanical systems and its driving method
- Fundamentals of control of mechanical systems and robotics
- Fundamentals of energy usage which can benefit the environment

Feature of learning

Potential careers for mechanical engineering students are of great variety. Students can contribute their practical knowledge to such things as electrical devices for the home, precision mechanical equipment, automobiles and other vehicles, robots, and devices and machines related to aviation and outer space.

Careers in these fields include researcher, design engineer, production engineer and quality control engineer. The curriculum applied to various levels of proficiency aims to educate students to become mechanical engineers by means of acquiring a variety of knowledge.



40 per cent of majored subjects are learned via experience-based subjects, especially in a laboratory setting. Such course work includes machining technology, mechanical drafting, CAD, basic and application experiments and mechanical experiments. These courses serve to enrich and broaden the student's technological sense and awareness.

Electrical and Electronic Engineering

Electrical and electronic engineering is a fundamental area of interests and essential for the daily lives of people today. Our department deals with electrical energy and IT communication technology.

The education of electrical and electronic engineers includes limiting class size to a small number so that students may receive personal attention and care. Hands-on learning in experiment is also emphasized, along with supporting students acquire the national qualifications necessary in their fields of training. These future engineers can work in a variety of fields including getting and conference of apparatus, development and design of electric and electronic devices. Success in chosen fields of engineering is crucial, but also important is for trained engineers to play an active role in society.

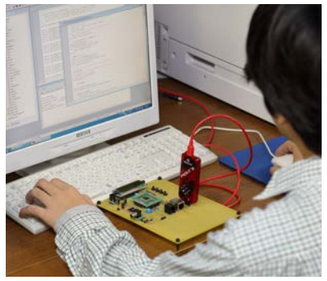
Fields of learning

- Electric energy
- Electronics
- IT communication

Feature of learning

Our role is to educate electric and electronic engineers for society. Therefore, development of renewable energies, the creation of power saving electric and electronic devices, and the growth and expansion of a "smart grid" are all crucial elements as we look forward to a more productive and efficient world in the future.

We offer an opportunity for students to learn about electrical systems and IT, which are needed in modern society. Students learn about communication technologies particular to electrics and electronics in order to be come successful engineers who support modern industrial development.



Basic subjects are learned in classes of small size. While performing experiments, students work in groups of four members each. Students work intensely on certain topics and thus enhance their knowledge needed to improve society in the future.

Information Science

In the world of Information Science, everything begins with programming. Students who will become successful engineers must develop and produce good programs.

Students will learn ICT (Information and communications technology) and how it relates to computers, software, the internet, 3DCG, VR, AR and games. We train engineers to become problem solvers in these areas. In addition,we teach highly specialized programming skills and nurture engineers who can plan and develop software.

Fields of learning

- Software-development technology
- Computer-design technique
- Basics of information dealt with by computers

Feature of learning

We educate future ICT engineers who are active in industry as well as in society. Students will learn not only about the structure of computers and the foundation of the internet but also about games, artificial intelligence and virtual reality.

Students will learn programming for 3DCG, VR,AR as well as programming for games. They will also produce objects by way of 3DCG,VR,AR software and images after learning game programming. Through designing, creating, and producing students will increase their knowledge and refine their skills.

We offer many practical classes for those seeking careers as ICT engineers. Students mainly learn about software,hardware and networks. Furthermore, students may also acquire the proper license for IT passport and for the position of information engineer.

Applied Computer Sciences

This department promotes holistic learning through specialized "Team Project Learning" (TPL) classes in which students are encouraged to actively participate and develop intellectually, personally and socially while acquiring technical skills.

Utilizing the strength of group dynamics, students create, design, develop and test theories relevant to various fields of computer technology, such as smartphone applications and other web-related platforms. Students also develop social awareness and communication skills by producing and presenting ideas in an encouraging and nurturing environment.

Fields of learning

- Production of CGs, games and animation
- Advanced interactional design
- Creation and development of smartphone and web applications
- Social management skills
- Mechatronics technologies

Feature of learning

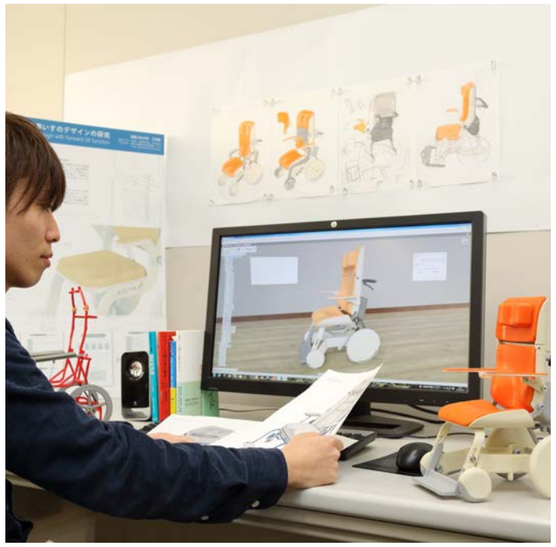
In the TPL approach, there are ten people or less per project. Individuals regularly make progress reports to the group, developing cooperative skills through collaborative learning. This helps students to develop reflective research skills as they grow better equipped to meet the needs of a global society.

Students create, design and complete their TPL projects within the expanding fields of ICT- CG, games, animation, movie-making, interactive interfaces, and other web-based media content.

Communication skills are developed and exercised, not only between the teacher and individual students, but also among students through collaborative learning. Meeting the needs of a global society as a whole, individual and group presentations at various stages of each project are also integral parts of the process.

Multidisciplinary Design Science

We seek innovation through the hybrid thought of design and technology to help build a future rich in creativity.



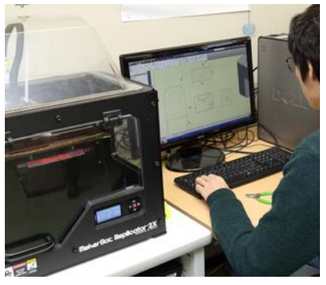
We foster designers and engineers who will be able to create human and nature friendly design ranges from product to space with high functionality and sensibility. Students perform design research, planning, designing and making works actually using various advanced equipments through many practical design projects.

Fields of learning

- Product design
- Spatial design

Feature of learning

Hybrid learning of product and spatial design. In our unique curriculum, students can study the basic but practical knowledge and skills of both design and technology and also both product and spatial design at the same time.



Collaboration work from planning to making. From the first year, students are involved in the practical design project which are driven by group work through the design making process, from concept creation to idea development and final presentation.

Developing creativity as a professional. In the final year, our studio system fosters professionals which possess advanced creativity as designers and engineers who will be responsible for the local society and the global one.

Materials and Human Environmental Sciences

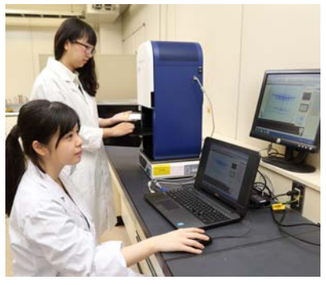
By examining and analyzing people and the environment, successful students will be able to develop devices and products that are both practical and compatible with nature and human life.

Students learn about health, the environment, medicine, and energy, as well as develop their integrated technological skills - all of which can contribute to supporting and improving human life. Our goal is to train engineers that cannot only create unique ideas but can also integrate knowledge from a variety of disciplines to develop new and innovative products.

Fields of learning

- Environmental Science
- Sports Engineering
- Medical Science

Feature of learning

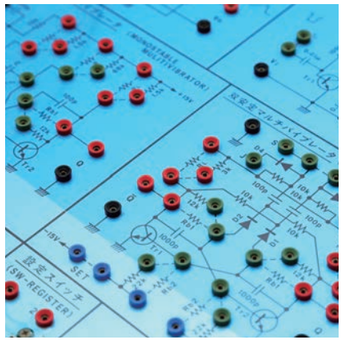


A variety of experimental facilities and devices help students acquire field-oriented knowledge and practical skills in using sophisticated equipment. Students also learn essential measuring and analogical skills.

Students learn various technological skills in order to create products that utilize a basic knowledge in chemistry, physics, and biology. Our aim is to train talented engineers who have the flexibility necessary to create goods that meet the needs of modern society.

Students develop science-related communication skills so that they can communicate via written reports or through collaborating directly with experts across disciplines. All students are required to develop their technical writing skills in addition to learning how to give oral presentations.

The pursuit of technology and theories



The graduate program includes two majors: mechanical engineering and electric information engineering. Each major is linked to undergraduate departments. Students who belong to other departments can also apply for graduate program.
A master's degree will be conferred to those who have completed a two-year period of study. A doctoral degree will be conferred to those who have completed a three-year period of study.

FACULTY OF ENGINEERING

Mechanical Engineering
Electrical and Electronic Engineering
Information Science
Applied Computer Sciences
Multidisciplinary Design Science
Materials and Human Environmental Sciences

GRADUATE SCHOOL
Engineering Postgraduate Course
Doctoral first term course (2 year system)

Mechanical Engineering
Electrical and Infotmation Engineering

Doctorate acquisition

GRADUATE SCHOOL
Engineering Postgraduate Course
Doctorate acquisition (3 year system)

Mechanical Engineering
Electrical and Infotmation Engineering

Doctoral latter period course

Mechanical Engineering

The application area of mechanical engineering is growing as the level of feasible mechanical technology is increasing with advancements in information technology and material engineering technology. This department fosters professional engineers and researchers who have the practical ability to confront and solve engineering problems in the real world. Therefore, this graduate school program is composed of educational and research areas that have relevant applications in the business community.

Educational research field

- Engineering design and manufacturing
- Energy conversion engineering
- Machine control engineering
- Material engineering
- Applied design

Electrical and Information Engineering

With a goal to deepen the students' expertise in the field of electrical and Information engineering, we conduct advanced research on software and hardware systems, including electrical and electronics, fundamental of information system, advanced information system and electronic materials and information engineering. We foster students who can play a versatile role in the field of electrical and information engineering with extensive, specialized knowledge and ability to solve real-world technical issues.

Educational research field

- Electrical and electronic engineering
- Information system foundation layer
- Information system dominance layer
- Electronic information materials engineering

FACILITIES

The campus offers a pleasant atmosphere for advanced study. It is a positive and invigorating environment for learning new ideas and putting them into practice.

The various facilities at S.I.T. help support a quality education as well as assists students who are seeking employment and obtaining career guidance. Professors as well as the office staff contribute to this support system. An elite IT environment and ample equipment exist inside the various departments of engineering. Such facilities include a professional CAD classroom where programming and multimedia facilities are available. The most advanced computer software and hardware are available for study and research.

A PC study room complete with PCs and printers aids students in writing reports and other projects. Other facilities include a kind of training factory where machine tools and wood processors are available.A trained and specialized staff helps and advises students. Students learn material characteristics and processing methods through actual experiments.

The campus itself is located very near the Pacific Ocean. A large cafeteria is located on campus. A convenience store is located on campus, too, and it carries a variety of goods that can be purchased. A wide variety of club activities are also available. These include clubs dedicated to marine sports, such as surfing and scuba diving, along with clubs oriented around music, foreign languages and other fields of interest.

LOCATION

The campus is located in a coastal area located about 50 kilometers from Tokyo in the city of Fujisawa. The climate is mild and pleasant. The campus is situated not far from the major city of Yokohama and the historic town of Kamakura. There is a large shopping mall and a hospital located near the university. Rents and prices in the vicinity of the campus are relatively inexpensive compared with those in Tokyo. Therefore, SIT is not only ideal for pleasant living but also for gaining easy access to Japan's two largest cities.

Many temples, shrines and other historic sites are located in and around Kamakura where a samurai-based culture emerged in the 12th century.

Yokohama, the second most populous city in Japan, is located only about 25 minutes from campus by train. It contains the largest Chinatown in all of East Asia.

A beautiful beach is only about a five minute walk away from campus. The pleasant views that can be seen include Enoshima on the immediate left-hand side and historic Mt. Fuji a bit further away on the right-hand side.

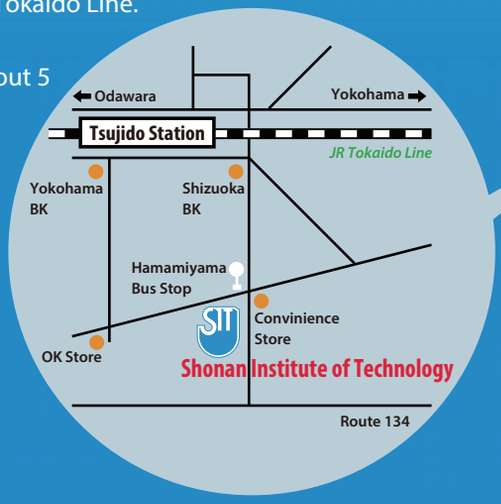
ACCESS

Shonan Institute of Technology

1-1-25 Tsujidonishikaigan Fujisawa-shi
Kanagawa 251-8511 JAPAN
Tel:0466-30-0200
E-mail:nyushika@center.shona-it.ac.jp

By foot, it takes about 15 minutes from JR Tsujido Station on the Tokaido Line.

By bus, it takes only about 5 minutes from Tsujido Station.
One should get off at the Hamamiyama stop.



Travel times to Tsujido station by train:

- From Yokohama station, about 23 minutes.
- From Kamakura station, about 20 minutes.
- From Tokyo station, about 50 minutes.
- From Tokyo (Haneda) International Airport, about 1 hour.