

National Institute of Technology (KOSEN), Yonago College

We foster creative, highly skilled and professional engineers!

5-year Associate Degree Programs

Department of Integrated Engineering
Mechanical Systems Program
Electrical and Electronic Engineering Program
Computer Science and Systems Engineering Program
Chemistry and Biochemistry Program
Architecture and Architectural Engineering Program

7-year Bachelor's Degree Programs

Production Systems Engineering
Materials Science
Architecture

KOSEN
National Institute of Technology

National Institute of Technology (KOSEN), Yonago College

History

National Institute of Technology (KOSEN), Yonago College ("Yonago KOSEN" as abbreviated in Japanese) was established in 1964 by the Japanese Government for the purpose of fostering highly skilled engineers. An organizational change in 2004 resulted in Yonago KOSEN being placed under the jurisdiction of National Institute of Technology (KOSEN), which is an independent agency administering 51 KOSEN campuses and about 50,000 students. The KOSEN educational system is very unique, admitting junior high school graduates into 5-year associate degree or 7-year bachelor's degree programs.

Yonago KOSEN started out as a college with three departments: Mechanical Engineering, Electrical Engineering, and Industrial Chemistry. The Department of Architecture was added in 1969, and the Department of Electrical Control Engineering in 1985. The Department of Industrial Chemistry was reorganized into the Department of Materials Science in 1994, and the Department of Electrical Engineering into the Department of Electrical and Computer Engineering in 2004. In addition, we saw the establishment of our 2-year Advanced Engineering Courses in 2004, commencing 7-year bachelor's degree programs in Production Systems Engineering, Materials Science, and Architecture. Yonago KOSEN is therefore currently composed of five departments and three advanced engineering courses, with about 1,100 students enrolled.

School Emblem



The name "Yonago", the city where Yonago KOSEN is located, is said to come from "Yonau no Sato", meaning 'the village where rice grows in abundance'. This later changed to "Yonau-go", and then, to "Yonago". Our school emblem was made by stylizing the kanji *J, read in Japanese as "yona", together with 高専 read in Japanese as "kousen" (which is a Japanese abbreviation of the phrase 'college of technology'). Japan's National Institute of Technology schools are commonly known as "KOSEN".



Department of Integrated Engineering

The Department of Integrated Engineering's curriculum guides lower-grade students in acquiring basic knowledge of cross-disciplinary engineering common to all programs. In this way, they deepen their understanding of what is included in each program and gain insight into any future studies after graduation.

Students can see their career paths branching out in front of them and prepare for the specialized program selection in higher grades. At the same time, they learn the basics of mathematics and data science, as well as experience data processing and analysis through classroom lectures, experiments, practical training, and graduation research.

After laying the groundwork for learning general engineering, students are then divided into specialized programs from the latter half of the second grade. From the roots that have been seeded, the students will sprout and grow into their specialized fields. The techniques that are learned, form the roots and the chosen program is the trunk, which continues to be nurtured and grows steadily thicker.

In the upper grades medical engineering and human design education are taught. Targeting medical care, welfare, and nursing care, the foundations to apply learned expertise and technology to the field of medical engineering are sown, meeting the needs of the region. In addition to the specialized subjects of each program, common specialized core subjects are offered. Students from different fields of study can thus obtain the same knowledge.

Furthermore, in PBL education (project-based learning), teams are organized across grades and majors. This group work aids in developing active learners. As a result, students can further improve their communication skills and acquire a multi-faceted perspective that combines technology and knowledge from various specialized fields.

In addition, practical liberal arts education is provided in all grades to acquire generic skills for utilizing learned knowledge and skills to benefit society. In other words, this is the fertilizer for growth that organically links specialized education, understanding of the local community, gaining an international perspective, and developing ethics and communication skills.



Contests (Extracurricular Activities)

The Japan Federation of Kosen Association holds a variety of contests and competitions, such as the Robot Contest, Programming Contest, Design Competition, English Presentation Contest, Deep Learning Contest, and many more. Our students have actively participated in them and achieved excellent results.



- 1, <Dezacon>Winner of the Grand Prize in the Structural Design Category for the seventh consecutive year
- 2, <Robocon>Runner-up twice in the past at the National College of Technology Tournament
- 3, <Procon>Participated in the National College of Technology Tournamen
- 4, <Regeneron ISEF2024>Received the 4th Prize of Excellence in the Physics and Astronomy Division.
- 5, <The Grand Prize for Advanced Technology that Pioneers Originality>Honorable Mentions
- 6, <Wireless IoT Contest (WiCON)>Wireless Value Award Winner

Dormitories



Studying in the dormitory

Dormitory room

Dormitory cafeteria

Dormitory Festival

Yonago KOSEN has both male (Takazuna-ryo) and female (Shiratori-ryo) student dormitories, available to Japanese and international students. It is recommended that international students make use of the dormitories on campus, not only for the sake of convenience but also to promote friendship, self-reliance and a cooperative spirit between students. Each dormitory has a student dormitory council, which falls under the guidance and authority of Yonago KOSEN's administrative body.



Mechanical Systems Program

In the Mechanical Systems Program, students learn practical skills to design and develop human-friendly mechanical systems by incorporating elements of electrical and electronic engineering, information processing, computers, and ergonomics. The health, safety, and welfare of the public, guide the engineering, knowledge, and technology related to motion and mechanics such as mechanism, structure, and materials.

The program aims to cultivate creative engineers. To effectively train skilled engineers, the subjects necessary for mechanical engineering such as drafting, material mechanics, machine materials, mechanical working, design engineering, fluid engineering, thermal engineering, and mechanics are covered.

At the same time, all grades undertake experiments and practical training courses to gain valuable hands-on experience. Additionally, some subjects are integrated such as Mechatronics and Measurement, and Control Engineering. In the fifth and final grade, graduation research is arranged as a comprehensive subject to showcase all the knowledge and techniques learned.



Bone model creation using a 3D printer



Robocon



Electrical and Electronic Engineering Program

The Electrical and Electronic Engineering Program aims to equip students with a basic understanding of technologies related to the generation, transportation, and conversion of electrical energy, electronics, and information and communication.

They become familiar with peripheral technologies such as system design and new material development for efficient use of these technologies to benefit all people. The goal is to train practical and creative engineers who can utilize a wide range of electrical technologies to help build a sustainable society.

Training engineers to benefit society requires a broad skillset and students learn electrical and electronic engineering such as electrical circuitry, electromagnetic science, electrical measurement, electrical equipment, electrical engineering, electronic devices, electronic circuitry, and communication engineering.

Complementary to the core learning, experimental and practical training tasks are undertaken. Additionally, subjects such as programming and computer engineering are integrated and interdisciplinary. Furthermore, in the 4th and 5th grades, electives such as electric power and control systems, and information and communication systems become specialized. In the fifth and final grade, graduation research is arranged as a comprehensive subject to showcase all the knowledge and techniques learned.



Robocon 2020 6th place in Japan



Drone Programming and Control Practice



Programming Exercises



Computer Science and Systems Engineering Program

The Computer Science and Systems Engineering Program is focused on developing both practical skills and cultivating creativity. Students can propose and build information systems to advance a technologically integrated society with medical care and welfare in mind. Students learn basic technologies such as computer hardware and software that support an advanced information-based society and embed the systems into people's lives.

This course is organized with the goal of training proactive engineers. To train the target engineers, the subjects necessary for information engineering such as programming, digital circuitry, computer architecture, algorithm and data structure, software engineering, artificial intelligence, and computer networking are provided.

Furthermore, across all grades, level-appropriate experiments and practical training courses are arranged. Some subjects are integrated and interdisciplinary such as those related to Electrical and Electronic Engineering and Mechanical Engineering. In the fifth and final grade, graduation research is arranged as a comprehensive subject to showcase all the knowledge and techniques learned.



Participated in the Robocon National Tournament





Chemistry and Biochemistry Program

With a basic knowledge of physical chemistry, inorganic chemistry, organic chemistry, analytical chemistry, biochemistry, and chemical engineering, to name some, students acquire new material development techniques and learn technology to apply to biological functions, the environment, food, energy medicine, and health and welfare.

The course is designed with the goal of training practical, creative, and flexible thinking engineers who can work on solving problems in a variety of fields. To nurture the target engineers, applied chemistry such as physical chemistry, inorganic chemistry, organic chemistry, analytical chemistry, biological chemistry, chemical engineering, biological engineering, and material chemistry are covered.

In addition to the range of subjects, experimental and practical elements are undertaken across all grades. Integrated and interdisciplinary courses such as electrical and mechanical training and information engineering are arranged. The 4th and 5th grades see a shift towards specialization in materials and biotechnology. These are organized within the higher-grade subjects. In the fifth and final grade, graduation research is arranged as a comprehensive subject to showcase all the knowledge and techniques learned.



Architecture and Architectural Engineering Program

In addition to the fusion of technology and art from the conventional structural and design fields, the Architecture and Architectural Engineering Program combines information engineering, ergonomics, and welfare engineering. The course aims to cultivate practical and creative engineers who can utilize architectural design techniques and knowledge in response to natural disasters.

In order to train the target engineers, subjects such as structural dynamics, building construction, building materials, building environment, architectural planning, city planning, architectural history, and architectural design are taken. Concurrently, level-appropriate experimental and practical courses, accompanied by design and drawing courses are all studied.

Additionally, integrated and interdisciplinary subjects are offered such as CAD / CG, which are information engineering units. In the fifth and final grade, graduation research is arranged as a comprehensive subject to showcase all the knowledge and techniques learned.



Advanced Engineering Courses

The Advanced Engineering Courses are 2-year follow-up courses for students who wish to continue studying in their specialized fields after they have completed their regular 5-year course, conferring on them a Bachelor of Engineering degree upon completion and approval of the National Institute of Academic Degrees. The courses are aimed at training and developing highly skilled professional engineers, rich in creativity and capable of conducting outstanding research and development. Students who earn this degree can enter the workforce on the same footing as university graduates or continue on to graduate school.

Production System Engineering Course

As fusion between Information Technology and other various fields continues to progress further nowadays, we aim to train and foster practical and development-oriented engineers with flexible adaptability and a broad vision. Thus, they will be able to handle the latest technologies, such as electrical and electronic engineering or mechanical and control engineering, networked by highly sophisticated information systems.

Materials Science Course

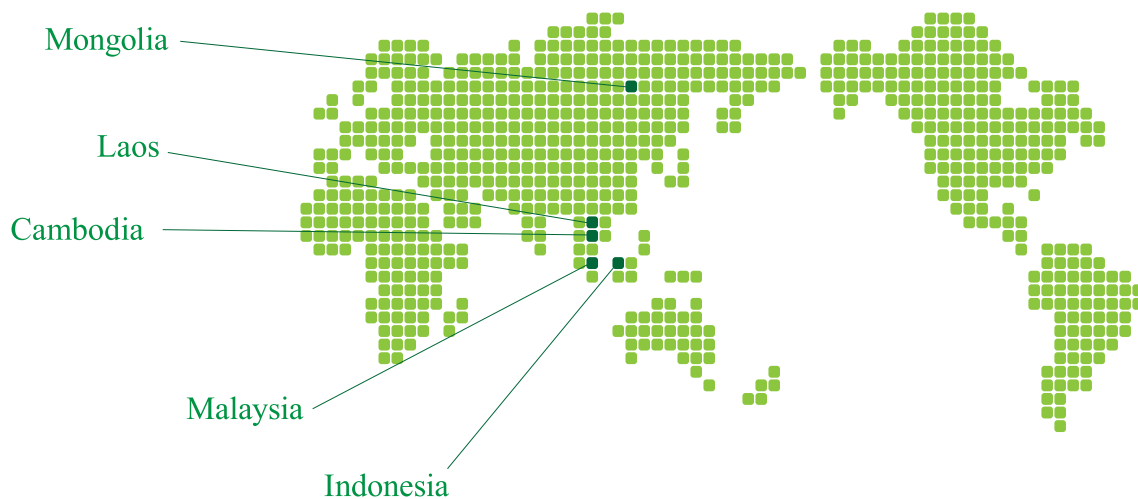
The Advanced Course in the Department of Materials Science is aimed at nurturing highly skilled and development-oriented engineers capable of solving a variety of problems from a broad perspective. To achieve these aims, our program is designed for students to acquire and develop the basic knowledge and skills in chemical, biochemical, and materials engineering, and learn to apply this expertise to specific problems.

Architecture Course

The Advanced Course in the Department of Architecture is composed of four semi-autonomous training programs: Architectural Planning, City and Regional Planning, Environmental Engineering, and Structural Engineering. We aim to train and foster practical and highly creative engineers capable of solving issues and problems from a broad perspective, by helping the students acquire a wide range of architectural education and expertise as well as a rich humanity.



International Exchange



On a study trip to Malaysia



Research Exchange at National Chung Hsing University(Taiwan)



Training in Penang(Malaysia)



Vermont Youth Exchange Program(USA)

At Yonago KOSEN,

We recognize the role and importance of Japan to the international community and aim to cultivate resilient citizens who can collaborate with others and demonstrate their own expertise as well as understand the differences in religion, culture, behavioral characteristics, and values of the recipient (host) country.

In order to achieve the former, we have engaged in approximately 40 years of collaboration with the community, •Contribution to internationalization • strengthening the international competitiveness of the region by utilizing regional collaboration • strengthening the international competitiveness of other technical colleges as a base and gateway for the Sea of Japan.

As a Global Citizen, Yonago KOSEN values,

1. Motivation; The ability to undertake projects actively and positively, and to achieve the goal with cooperation, flexibility, and a sense of responsibility.
2. Global Literacy; As a member of Japanese society, it is necessary to collaborate while understanding the differences in religion, culture, behavioral characteristics, and values of the recipient country.
3. Communication; As a global citizen, using language skills as a communication tool, and selecting the most effective words and phrases according to specific circumstances, as well as the ability to communicate concretely in our global society are valuable assets to have and develop. Self-expression and consensus-building abilities in the community are also highly valued.

In order to foster the above three viewpoints, we are carrying out various international exchange programs such as overseas study tours, language training, overseas internships, and academic exchanges. In addition, since 1986, Yonago KOSEN has accepted foreign students from 14 countries, and as part of international exchange activities, we are promoting regional exchange programs for foreign students.

International Exchange Support Office

In our school, we are actively implementing various international exchange programs aimed at developing global engineers who can play an active role in the global society. Participating in international training helps students understand different cultures and develop a global mindset.

A wide range of training jointly held with the Chugoku Region 8 National College of Technology is also available. The Ministry of Education, Culture, Sports, Science and Technology has set up a scholarship system that provides an exemption of fees (Tobitate! (Leap for Tomorrow) Study Abroad Initiative). Our school is also actively accepting international students from Southeast Asian countries such as Malaysia and Mongolia, and has accepted international students from 14 countries so far!



A Mt. Daisen



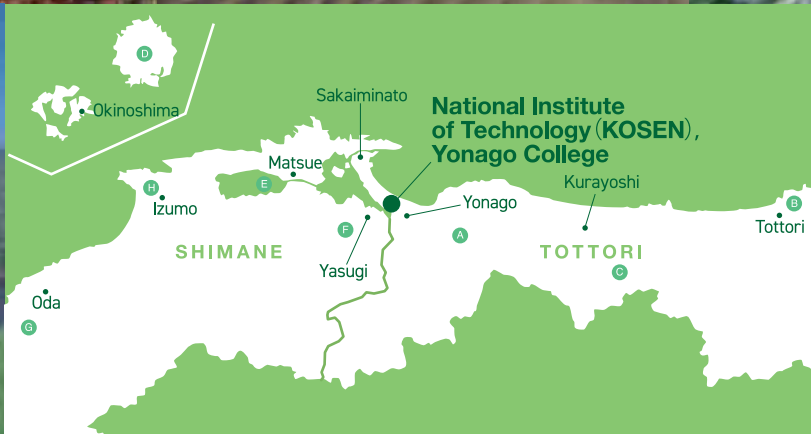
B Tottori Sand Dunes



C Mt. Mitoku



D Okinoshima



E Lake Shinji



F Adachi Museum of Art



G Iwami Ginzan Silver Mine



H Izumo Taisha Grand Shrine



Access

From Tokyo to Yonago Airport
About 80 min by airplane (ANA)

From Yonago Airport to
Yonago KOSEN
About 25 min by car

From Osaka (Namba / Umeda) to
Yonago Station
About 180 min by highway bus

From Yonago Station to
Yonago KOSEN
About 20 min by car



<https://www.yonago-k.ac.jp>

4448 Hikona-cho, Yonago City, Tottori Prefecture, 683-8502, JAPAN

TEL: +81-859-24-5000

FAX: +81-859-24-5009