

National Institute of Technology, Tokyo College

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- Keio Line •5-minute walk from Hazama Station (served by Keio Line semi-special express train)
- •15-minute walk or five-minute taxi ride from Mejirodai Sta.
- JR Chuo Line 25-minute walk from Takao Sta.
- Keio Bus •17-minute ride on bus bound for Mejirodai Sta. from south exit of Hachioji Sta., alighting at Tokyo Kosen-mae bus stop and walking for 1 minute



National Institute of

TOKYO KOSEN AT A GLANCE

History

Established in 1965

Motto

Be innovative

Campus

98,000 m² in Hachioji City about 50 km west of the center of Tokyo There is a lot of green in the campus, and Mt.Takao (rated as three-stars by Michelin) can be seen

Faculty and Staff as of April 2018

Professors (all ranks): 75 Technicians: 14 Non-teaching Staff: 36

Students as of April 2018

Total: 1,079 Regular Course: 1,028 Advanced Course: 51 International Students: 10

Number of Graduates of the 2017 academic year

Regular Course: 189 Advanced Course: 27

Alumni as of April 2018

Regular Course: 7,412 Advanced Course: 356

Degrees Offered

Regular Course: Diploma of Engineering Advanced Course: Bachelor of Engineering

Library

80,660 volumes

Academic Calendar

First Semester: April \sim September Second Semester: October \sim March

Accreditation

Accredited by the National Institution for Academic Degrees and Quality Enhancement of Higher Education (NIAD) and the Japan Accreditation Board for Engineering Education (JABEE)





MISSION

The mission of Tokyo Kosen is to foster creative, practical and professional engineers who will contribute to the development of the nation and the world in the 21st century.

OVERVIEW

The main characteristic of a Kosen is its 5 years of consistent engineering education starting when the students are 15 years old. With the addition of the 2-year advanced course, 7 years of consistent education is conducted. This is the first of its kind in the world. Tokyo Kosen believes the best way to learn engineering is hands-on education effectively linked with classroom education. Laboratories are an important part of the education, and are used from the 1st year of regular course to the 2nd year of advanced course. Furthermore, special emphasis is placed on internship, graduation research, and special research. Advanced course students can also participate in the international internship in overseas companies and universities. Fifth-year students of the regular course do 1 year of graduation research, and the advanced course students do special research during their 2 years, in which all students are required to complete a thesis. Through internship and research, students face real world problems and acquire valuable engineering knowledge and skills. Tokyo Kosen encourages students to participate in domestic and international competitions such as the robot contest, programming contest, and the Microsoft Imagine Cup.

KOSEN's unique education system

Students with strong interest in Engineering share 5 or 7 years on concentrative-learning and can have different career path.



TOKYO KOSEN's Educational System

NIAD(Nat.Inst.Academic Degree)Beachelor degree



Student and Faculty Data (2018)

Students in Regular Course	j=number of remaies							
Department	capacity	1 st	2 nd	3 rd	4 th	5 th	Total	
Mechanical Engineering	200	40(2)	41(7)	42(5)	43(9)	44(4)	210(27)	
Electrical Engineering	200	40(2)	42(6)	43(9)	39(2)	39(6)	203(25)	
Electronic Engineering	200	43(5)	43(4)	35(6)	38(3)	41(9)	200(27)	
Computer Science	200	41(9)	41(4)	41(8)	47(5)	40(5)	210(31)	
Chemical Science and Engineering	200	43(18)	41(15)	46(17)	38(10)	37(9)	205(69)	
Total	1000	207(36)	208(36)	207(45)	205(29)	201(33)	1028(179)	

Students in Advnaced Course (number of females)

Overview

Department	capacity	1 st	2 nd	Total
Mechanical Information System Engineering	16	11(0)	12(1)	23(1)
Electrical and Electronic Engineering	16	9(2)	8(0)	17(2)
Chemical Science and Engineering	8	5(0)	6(2)	11(2)
Total	40	25(2)	26(3)	51(5)

Carrier path after graduation from regular courses (2017)

Graduataa			Entering to	Others				
	Job hunting			Employment offering			graduate	(Self-
Graduates	Applicants (=A)	Employed (=B)	Ratio B/A	Companies	Jobs (=C)	Ratio (=C/A)	courses of universities	employed, etc)
189	98	98	1	1931	2112	21.6	83	8

Main universities graduates of regular courses progress to:Tokyo Kosen Advanced Courses, Nagaoka University of Technology, Toyohashi University of Technology, Hokkaido University, Tohoku University, University of Tsukuba, Chiba University, Tokyo University of Agriculture and Technology, University of Electro-Communications, Yokohama National University, Nagoya University, Kyushu University, etc. Main companies where graduates of regular courses find employment:Ikegami Tsushinki Co., Ltd., Idemitsu Kosan Co., Ltd., Canon Inc., Komatsu Ltd., Daikin Industries, Ltd., Toray Industries, Inc., Nissan Automotive Technology Co., Ltd., Microtech Laboratory Inc., Yahoo Japan Corporation, Yokogawa Electric Corporation, etc.

Carrier path after graduation from advanced courses (2017)

(Overview								
				Entering to	Others				
	Graduates	Job hunting			Emp	loyment offe	graduate	(Self-	
	Graduates	Applicants (=A)	Employed (=B)	Ratio B/A	Companies	Jobs (=C)	Ratio (=C/A)	courses of universities	employed, etc)
	27	7	7	1	1039	1098	156.9	19	1

Main universities graduates of advanced courses progress to:Graduate School of University of Tsukuba, Graduate School of Nagaoka University of Technology, Graduate School of Tokyo Institute of Technology, Graduate School of the University of Tokyo, Graduate School of The University of Electro-Communications, Graduate School of Tokyo Medical and Dental University, Graduate School of Japan Advanced Institute of Science and Technology, Nara Institute of Science and Technology, Graduate School of Kyushu University, etc. Main companies where graduates of advanced courses find employment:NTT DATA Corporation, NTT Facilities Chuo, Inc., Seiko Epson Corporation, Somar Corporation, Toshiba Mitsubishi-Electric Industrial Systems Corporation, Fuji Electric Co., Ltd., Lecre Inc., etc.

KOSEN TOPICS

Tokyo Kosen Team Won the Prime Minister's Prize for the Seventh Monodzukuri Nippon Grand Award

The Prime Minister's Prize for the Monodzukuri Nippon Grand Award (universities and technical schools section) is given every other year with the recipients being chosen from student teams that have won the Ministry of Education, Culture,



Sports, Science, and Technology (MEXT) Minister's Award. Our college's Synchro Athlete Development Team, which won the MEXT Minister's Grand Award at the 2016 Kosen Programming Contest was chosen as the recipient of the Seventh Prime Minister's Prize for the Monodzukuri Nippon Grand Award. This is the second time that Tokyo Kosen has won the award following on from the Fifth Prime Minister's Prize for the Monodzukuri Nippon Grand Award in 2013, and makes us the first college to attain the magnificent achievement of winning the award twice. The awards ceremony and celebration were held at the Prime Minister's Official Office on January 22, 2018.

Social Implementation Education Project

The Social Implementation Education Project started with the Innovative Japan Project by KOSEN that utilizes the MEXT Program for Promoting Inter-University Collaborative Education, and from 2017 it has been newly positioned as the KOSEN 4.0 Initiative, and a lot of effort has been made to promote social implementation education.



Introduction of a New Curriculum as a Model Core Curriculum (MCC) Center College

Tokyo Kosen is serving as a core center college for the MCC (standardized curriculum specially designed for kosens to assure quality of education and enhance the characteristics of each college), which will serve as an MCC implementation model and a promotion demonstration model for other technical colleges.

Furthermore, a new curriculum has been constructed and introduced progressively from the 2016 academic year. The special features of the new curriculum are: 1) to clearly position the results of social implementation education projects; 2) to boost English language ability through improved English education; 3) to strengthen the cooperation between different fields and autonomous initiatives by increasing the variety of elective courses.





Under the new curriculum launched in the 2016 academic year a review of the content and improvements of the education methods were implemented to enhance students' autonmous learning.

Imagine Cup World Competition 2012

The Team "Coccolo" of Tokyo Kosen won the second place at Microsoft's Imagine Cup 2012 held in Sydney, Australia, the world's most prestigious student Technology competition for information technology. The team consisted of three Japanese students of the advanced course and a Malaysian student of the regular course.

Student Exchange Program

Tokyo Kosen has the student exchange program with Finland. Students from Helsinki Metropolia University of Applied Sciences (HUMAS) conduct their graduation research with Japanese students under faculty supervision for six months from September. On the other hand, Tokyo Kosen students take part in programs and projects of HUMAS in August-December, getting credits

Introduction of a System Enabling Overseas Study without Taking Leave from the College

A system will be available for new students from the 2017 academic year onwards which will recognize up to 30 credits obtained abroad by students studying overseas between the April of the 2nd grade and November of the 3rd grade as credits awarded by Tokyo Kosen, students will be able to graduate from their course without taking any leave from Tokyo Kosen. (Certain conditions such as the academic progress requirements of students before studying overseas and the academic ability screening upon their return will apply.)



Main international exchange activities

2010 Start of overseas internship system

- 2012 Start of practical courses for overseas students to be accepted as technical college transfers under a project commissioned by the Japan Student Services Organization (JASSO)
- 2013 Implementation of a summer school
- 2016 Officials' Country-Level Workshop on SEA-TVET in Japan hosted at Tokyo Kosen
- Sciences. Finland
- Co-operation and Development (OECD)







2017 Finalization of an academic cooperation agreement with the Helsinki Metropolia University of Applied

2017 Designation as a special cooperative school as a part of Tokyo Kosen's overseas development project Approximetely 10 visitation groups came to the college over the space of a year, including figures such as the Minister of Education of Thailand, and Andreas Schleicher, Director for Education and Skills, and Special Advisor on Education Policy to the Secretary-General at the Organisation for Economic

Department of Mechanical Engineering

Department of Electrical Engineering





This department fosters engineers who can design, develop, and manufacture machines and their related systems. The curriculum places special emphasis on Manufacturing Engineering, Mechanical Dynamics, and Mechatronics/Control Engineering. Representative subjects are Machine Design and Drowing, Fluid Dynamics, Thermodynamics, Mechatronics, and Measurement and Control Engineering. There are appropriate laboratories equipped to support the program.





This department fosters engineers who can contribute to the development of broad fields such as energy conversion, robotics, information technology and nanotechnology. The curriculum is built up with the policy of deeper basics and broader applications. Representative subjects are Digital Signal Processing, Information and Communication Engineering, Electric Properties of Solids, and Electrical Measurement. There are appropriate laboratories equipped to support the program.

Department of Electronic Engineering

Department of Computer Science





This department fosters engineers who have the wide range of knowledge and skills related to electronic circuits, data processing and solid state devices. The curriculum places special emphasis on the training of practical manufacturing skill on hardware circuits as well. Representative subjects are Electromagnetics, Erectronic Circuits, Electronic Measurements, Digital Circuits, Solid-state Devices and Circuit Analysis. There are appropriate laboratories equipped to support the program.







This department provides students with the education related to computer-aided technologies to control robots and machines, to make systems for the internet and mobile phones, and to develop systems with artificial intelligence. Representative subjects are Digital Signal Processing, Programming Languages, Control Engineering, and Knowledge Engineering. There are appropriate laboratories equipped to support the program.

Department of Chemical Science and Engineering

Advanced Course





The mission of this department is to provide high quality engineering education related to the three core fields desired to be developed in the 21st century; materials, biotechnology, and the environment. This department maintains an environment that enables students to pursue their professional goals within an innovative program that is challenging as well as supportive, providing students the breadth of educational opportunities in the chemical sciences and engineering that will enable them to pursue productive careers.





The Advanced Course has been established for the regular course graduates who desire to receive advanced education to acquire creativity, interdisciplinary thinking, and a global persepective. Students can recieve the Bachelor of Engineering degree from the National Institution for Academic Degrees and Quality Enhancement of Higher Education.

Advanced Course of Mechanical and Computer Systems Engineering This course provides the students with comprehensive knowledge and skills for designing, developing, and manufacturing machines and computer systems.

Advanced Course of Electrical and Electronic Engineering This course provides the students with the comprehensive knowledge and skills for designing, developing, and manufacturing devices and electrical/electronic systems.

Advanced Course of Chemical Science and Engineering This course provides the students with comprehensive knowledge and skills for designing and developing new materials, bioprocesses, and environment cleaning devices.





Department of Liberal Arts





The department of liberal arts provides students with opportunities to learn the following subjects: mathematics, physics, English, Japanese, social studies, and PE. No matter which major a student is in, all students at Tokyo Kosen have to take the classes above to broaden their knowledge on basic science and liberal arts and to get ready to become global engineers in the future. All faculty members in the department are eager to teach these subjects enthusiastically and support the students to fulfill their future dreams.

AFTER GRADUATION

Fifty percent of regular course graduates got jobs.Fifty percent went on to the advanced course of Tokyo Kosen or the third year of prestigious universities such as Tokyo University, Tokyo Institute of Technology, Tokyo University of Agriculture And Technology, Tsukuba University, etc.

Fifty percent of the advanced course graduates went on to graduate schools of the prestigious universities mentioned above.Fifty percent got jobs.

There are 20-40 job offers for each regular Andadvanced course student every year.

FACULTY

Professors: 34, Associate Professors: 30, Lectures: 5, Assistant Professors: 6, About eighty percent of the faculty has a Ph.D. Thirty percent of the faculty teaching specialized subjects has business experience in companies. The student-faculty ratio is 14:1

INTERNATIONAL STUDENTS

There were 10 international students enrolled in the regular course during the 2018 academic year. The number and nationalities are as follows: 4 from Malaysia, 4 from Mongolia, one each from Indonesia and Turkey. They start their study from the third year of the regular course.

International students in Tokyo Kosen (2009-2018)

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Malaysia	9(2)	7(3)	6(3)	6(2)	4(1)	4(1)	4(2)	3(2)	5(4)	4(2)
Indonesia	1(0)	1(0)	2(1)	1(1)	1(1)	1(0)	1(0)	2(1)	1(1)	1(1)
Vietnam			2(0)	3(0)	3(0)	1(0)	1(0)	1(0)	1(0)	
Myanmar					1(1)	1(1)	1(1)			
Mongolia					3(0)	4(0)	2(0)	1(1)	3(1)	4(1)
China				1(0)	1(0)	1(0)				
Lao PDR	1(1)	1(1)		1(1)	1(1)	1(1)	1(0)	1(0)	1(0)	
Cambodia	1(0)									
Senegal	1(0)									
Kenya	2(0)	2(0)	1(0)							
Uganda		1(0)	2(0)	2(0)	1(0)	1(0)				
Colombia										
Turkey									1(0)	1(0)
Total	15(3)	12(4)	13(4)	14(4)	15(4)	14(3)	10(3)	8(4)	12(6)	10(4)
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()=number of females