

Tokyo Metropolitan Public University Corporation

Digest Guide 2021



TOKYO
METROPOLITAN
UNIVERSITY



ADVANCED INSTITUTE OF
INDUSTRIAL TECHNOLOGY



Tokyo Metropolitan College
of Industrial Technology



Helping to Build a Society Capable of Sustainable Development

-Confronting the Climate and Environmental Emergency-

The Tokyo Metropolitan Public University Corporation operates two universities (Tokyo Metropolitan University and the Advanced Institute of Industrial Technology) and one college (the Tokyo Metropolitan College of Industrial Technology). The former corporation, the Public University Corporation Tokyo Metropolitan University, was established when Tokyo Metropolitan University opened in 2005. In April 2020, to mark a new direction, it was renamed the Tokyo Metropolitan Public University Corporation.

As you are aware, the COVID-19 pandemic is taking a significant social and economic toll around the world. At the same time, the massive human-generated emission of greenhouse gases is accelerating global warming and causing extreme weather events almost every year. Since viruses and carbon dioxide do not recognize international borders, a global response is essential to resolving both issues. With the world at a historic turning point, and global society being shaken to its foundations, our corporation will do its utmost to confront challenges such as the climate and environmental emergency. More specifically, we have set the goal of achieving carbon neutrality by 2050, and plan to incorporate this goal into our operations, education and research, campus life, and other areas. With this in mind, we seek to attract talented students and researchers from Japan and abroad and to confront the common issues for all humanity from a global perspective.

In addition, we will play an ever-expanding role as a think tank for the Tokyo Metropolitan Government—the governmental body responsible for establishing our corporation. As an academic institution with roots in Tokyo but open to the world, we will help to build a society capable of sustainable development.

YAMAMOTO Ryoichi

Chairperson
Tokyo Metropolitan Public University Corporation

■ Corporation Profile

Name: Tokyo Metropolitan Public University Corporation

Establishment date: April 1, 2005

Address: 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo

Officers: (As of May 1, 2021)

Chairperson of the Board of Trustees

- YAMAMOTO Ryoichi

Vice Chairpersons of the Board of Trustees

- OHASHI Takaya (President, Tokyo Metropolitan University)
- KAWATA Seiichi (President, Advanced Institute of Industrial Technology)
- KOYAMA Akiko (Director of Administration, Tokyo Metropolitan Public University Corporation)

Trustees

- WATANABE Kazuto (President, Tokyo Metropolitan College of Industrial Technology)
- NISHIMURA Kazuo (Executive Advisor to the President, Tokyo Metropolitan University)
- YAMASHITA Hideaki (Vice President, Tokyo Metropolitan University)

Auditors

- YAMADA Yoichi (Part-time Auditor)
- NOMURA Hiroko (Part-time Auditor)

Number of employees (as of May 1, 2021): 594



■ Midterm Goals (the third term, 2017 to 2022)

Tokyo Metropolitan Public University Corporation Basic Goal

All three educational institutions the university corporation operates need to remain intensely aware of the roles that metropolitan educational institutions are expected to fulfill, and approach education and research each day in ways that will be of value to Tokyo residents.

Making the best use of the distinctive features of our three educational institutions that other national and municipal university corporations do not possess, the three will coordinate and cooperate with each other to efficiently drive the overall corporation's operations to achieve our mission of discovering the ideal forms of human society in large cities.

Along with this basic goal, we have the following three overall priority goals.

Priority goals

1. Training and producing the talented people the world needs to resolve big-city issues in the midst of ongoing globalization, and promoting outstanding research
2. Developing appropriate solutions to the requirements of a society that is continually changing, and building stronger foundations to support those solutions
3. Contributing to Tokyo's future by promoting education and research unique to an institution of higher learning established by the city of Tokyo



Tokyo Metropolitan University

A Virtuous Cycle of Research and Education

TMU is a medium-sized comprehensive university that covers a wide range of academic disciplines yet still maintains a scale that ensures faculty, staff and students know each other's faces. Research and education are conducted with relatively low barriers between faculty and students. Our environment also makes it easy for students and faculty from different fields of expertise to learn from and engage in discussions with one another. Taking advantage of our location in Tokyo—which provides many opportunities to meet with excellent researchers—we promote collaborative research and incorporate those research results into our educational mix.

We have stellar research capabilities, even by international standards, and work in cooperation with the Tokyo Metropolitan Government to both invigorate our research and expand our education in a wide range of fields from basic to applied. In recent years we've been promoting various initiatives to strengthen research and education at TMU as a whole, including supporting the activities of young researchers, conducting research using the local 5G environment, expanding our interdisciplinary graduate programs, and launching undergraduate and graduate data science minors.

The Globalization of Education and Research

We are also actively pursuing globalization. TMU's singular initiative, the Global Education Program, helps students acquire the ability to succeed on the global stage while also intensively examining their own chosen specialty/major. The program, which four of our faculties offer, combines study abroad with the university's distinctive education to produce talented students who can debate and present their positions on the international stage. In addition, the Tokyo Human Resources Fund for City Diplomacy Scholarship Program

Advanced Research Program is contributing greatly to the generation of research results and strengthening international cooperation by inviting graduate students from overseas and guiding them through the process of obtaining their degrees. This collaboration with the Tokyo Metropolitan Government is now in its sixth year.

Promotion of Lifelong Learning

In April 2021, Tokyo Metropolitan University Premium College established a research course that allows students to continue their studies beyond their third year. TMU Premium College provides a place for systematic learning and exchange for seniors. Its highly motivated students enthusiastically engage in seminars, lectures and fieldwork, demonstrating that life is all about continuous learning. We will continue to promote lifelong learning through TMU Premium College and our Open University public presentations.



OHASHI Takaya

President
Tokyo Metropolitan University



■ Faculties

Faculty of Humanities and Social Sciences	Department of Human and Social Sciences, Department of Humanities
Faculty of Law	Department of Law
Faculty of Economics and Business Administration	Department of Economics and Business Administration
Faculty of Science	Department of Mathematical Sciences, Department of Physics, Department of Chemistry, Department of Biological Sciences
Faculty of Urban Environmental Sciences	Department of Geography, Department of Civil and Environmental Engineering, Department of Architecture, Department of Applied Chemistry for Environment, Department of Tourism Science, Department of Urban Science and Policy
Faculty of Systems Design	Department of Computer Science, Department of Electrical Engineering and Computer Science, Department of Mechanical Systems Engineering, Department of Aeronautics and Astronautics, Department of Industrial Art
Faculty of Health Sciences	Department of Nursing Sciences, Department of Physical Therapy, Department of Occupational Therapy, Department of Radiological Sciences

■ Graduate Program

Graduate Program of Midwifery

■ Graduate Schools

Graduate School of Humanities	Department of Behavioral Social Sciences, Department of Human Sciences, Department of Philosophy, History and Cultural Studies, Department of Intercultural Studies
Graduate School of Law and Politics	Department of Law and Politics, Law School
Graduate School of Management	Department of Management
Graduate School of Science	Department of Mathematical Sciences, Department of Physics, Department of Chemistry, Department of Biological Sciences
Graduate School of Urban Environmental Sciences	Department of Geography, Department of Civil and Environmental Engineering, Department of Architecture and Building Engineering, Department of Applied Chemistry for Environment, Department of Tourism Science, Department of Urban Science and Policy
Graduate School of Systems Design	Department of Computer Science, Department of Electrical Engineering and Computer Science, Department of Mechanical Systems Engineering, Department of Aeronautics and Astronautics, Department of Industrial Art
Graduate School of Human Health Sciences	Department of Nursing Sciences, Department of Physical Therapy, Department of Occupational Therapy, Department of Radiological Sciences, Department of Frontier Health Sciences, Department of Health Promotion Sciences

■ Number of Students (as of May 1, 2021)

Undergraduate: 6,803; Graduate Program: 10; Graduate School: 2,246

■ Number of Faculty (as of May 1, 2021)

Professors: 282; Associate Professors: 228; Assistant Professors: 135; Research Associates: 2

Topics

TMU Launches Cutting-Edge Research Program That Will Utilize Its Massive Local 5G Network

In January 2021, TMU launched a cutting-edge research program that will take advantage of our local 5G network as part of an initiative related to the Tokyo Metropolitan Government's long-term "Future Tokyo" strategy.

Three research projects were selected for the program. One project fit into the Social Implementation Research category—which is for applied research expected to benefit society—and is designed to improve the quality of life for Tokyo residents by proposing new lifestyles and creating social and public value and in the process make Society 5.0 a reality.

The other two projects were selected for the Challenging Research category, meaning basic research that the private sector is hesitant to tackle but has the potential to contribute to solutions and become the core of innovation that advances and transforms science and technology.

In the future, we will offer the results of our demonstration-based experiments and research to the public. At the same time, we will help bring the Tokyo Metropolitan Government's vision for a "Smart Tokyo" to fruition through industry-academia-government collaboration with government agencies, the private sector and other entities.



Advanced Institute of Industrial Technology

Reorganizing Graduate Schools to Promote Novel Recurrent Education

Around 80 percent of the students at the Advanced Institute of Industrial Technology are adults. The institute is a center of recurrent education, including training the highly specialized professionals responsible for industrial development in the capital city of Tokyo (graduate school for professionals). When we restructured our graduate schools in April 2020, we also reorganized programs, and now only offer the master's program of technology.

Three courses were created for the new master of technology degree. One is the business systems design engineering course, which trains personnel who will be creating new industries by starting up, establishing, and continuing ventures. The second is the information systems architecture course, which trains various types of highly specialized IT technicians who will be developing IT systems used in IT systems development sites. The third—the innovation for design and engineering course—trains designers to integrate design and function to come up with innovations.

Training to Help Seniors Establish Startups

We have been running the AIIT Senior Startup Program since 2018 with the assistance of the Tokyo Metropolitan Government.

This program's goal is to train senior citizens to excel at management so that they can employ IT and design engineering to start up and develop enterprises that increase productivity and add value. We are implementing projects in the Tama region and the Tokyo Islands. During 2020, we remotely conducted PBL (project-based learning) that helped seniors develop and propose new business plans.

Global Activities

We train global talent in our capacity as the secretariat of the Asia Professional Education Network (APEN), which encompasses universities from ten ASEAN member countries and Japan, China, South Korea and India.

In 2020, APEN conducted workshops and board meetings remotely. In addition, we held an online international exchange workshop in February 2021 with Asialink, a think tank affiliated with the University of Melbourne in Australia, to promote collaboration.

■ Graduate school

Industrial Technology Graduate Course

Master's program of technology

Business systems design engineering course

Information systems architecture course

Innovation for design and engineering course

■ Number of students (as of May 1, 2021)

256

■ Number of faculty (as of May 1, 2021)

Professors: 15

Associate Professors: 5

Assistant Professors: 9



KAWATA Seiichi

President

Advanced Institute of Industrial Technology



Topics

AIIT Selected for MEXT's Program to Enhance Education at Universities and Colleges of Technology Using Digital Technology

AIIT was the only public university to have a program proposal selected for Initiative 2—"Improving the Quality of Education"—for the fiscal 2020 Ministry of Education, Culture, Sports, Science and Technology (MEXT) Program to enhance education at universities and colleges of technology using digital technology, a grant program with the goal of improving university education. The AIIT program, entitled "Construction of a Co-Creative Skills Learning Platform for the Advancement of Skills Education," will run until March 31, 2022. Through this program, we are collaborating with the Tokyo Metropolitan College of Industrial Technology and other universities to build a platform that enables the effective digitization of course content and cross-referencing of said content between institutions. The goal is to develop efficient distance learning methods for technical training.



Tokyo Metropolitan College of Industrial Technology

About Kosen (Technical Colleges)

The Tokyo Metropolitan College of Technology and Tokyo Metropolitan College of Aeronautical Engineering were established in December 1962 as public technical colleges alongside national technical colleges. This was in response to industry's insistent requests for trained technicians who could drive the greater scientific and technical progress Japan needed to sustain the remarkable economic growth the country began in the 1950s. Students who graduate after completing a five-year regular course at this school receive an associate degree, and those who complete the two-year advanced course after that can acquire a bachelor's degree by undergoing a National Institution for Academic Degrees and Quality Enhancement of Higher Education review.

Tokyo Metropolitan College of Industrial Technology Technician Training

The Tokyo Metropolitan College of Industrial Technology (TMCIT) was established in 2006 through the merger of the abovementioned two metropolitan technical colleges. This was a response to the increasing sophistication of scientific technology and the need to train highly specialized technicians with practical skills through eight distinctive educational courses. TMCIT's mission is to train *monozukuri* (manufacturing) specialists who will contribute to promoting Tokyo metropolitan industry and solving problems, and began earning high marks from industry for undertaking integrated practical technician training early on. *Monozukuri* has been the driving force behind Japan's economic growth and remains indispensable to the nation, which depends on imported resources. We believe our college has a significant role to play in ensuring that Japan has the technicians that are indispensable to *monozukuri*, so that the country can continue to build technology for high-added-value manufacturing and achieve sustained development.

Implementing Education That Inspires the Creation of Original *Monozukuri*

Society 5.0, a concept that both the public and private sectors strongly promote, is expected to leverage technological breakthroughs in the areas of the Internet of Things (IoT), big data, artificial intelligence (AI), robotics and sensors to unearth Japan's latent demand and overcome supply constraints created

by a declining population.

With that in mind, TMCIT launched an education program in 2021 designed to establish the core technical education needed to support Society 5.0.

As a way to proactively incorporate the latest core technologies that will support the creation of future industries, we are reorganizing the Electronics and Information Engineering Program and the Production Systems Engineering Program at the Shinagawa Campus into the Information Systems Engineering Program and the AI and Smart Engineering program, respectively. We also plan to implement cross-course medical-engineering collaborative education at our Arakawa Campus that actively incorporates AI, as well as recurrent education for medical development engineers.

■ Regular and advanced courses

Regular course (*Monozukuri* Engineering Department)
Advanced innovative engineering course

■ Number of students (as of May 1, 2021)

Regular courses: 1,574
Advanced courses: 74

■ Number of faculty (as of May 1, 2021)

Professors: 51
Associate Professors: 60
Assistant Professors: 13



WATANABE Kazuto

President

Tokyo Metropolitan College of Industrial Technology

Topics

Team That Includes TMCIT Student Places First in Programming Skill Category at *Kibo* Robot Programming Challenge!

The final round of the Asia-Pacific region's Robot Programming Competition, called *Kibo*, took place in October 2020. Hypernova, the team representing Japan, included a second-year student from the TMCIT Shinagawa Campus, IZUMI Satoshi. Hypernova beat out six other teams from the Asia-Pacific region in this contest, dominating the Programming Skill Category and receiving the Programming Skill Award.



History



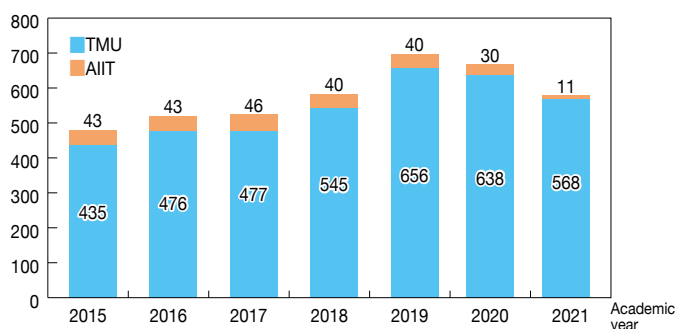
Data

Fiscal 2020 budget and financial results

(Unit: million yen)

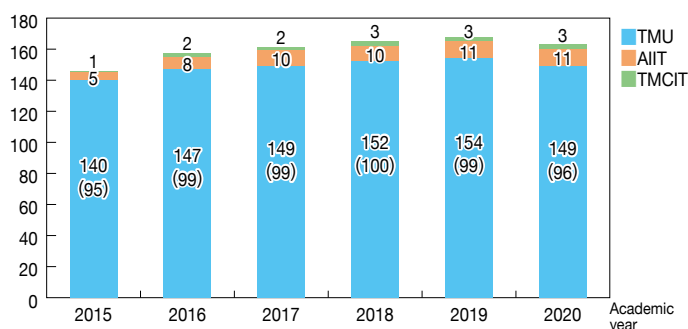
Category	Budget	Actual	Difference (actual - budget)
Income			
Operating expense grants	20,408	20,404	-4
Facilities expense subsidies	2,996	2,881	-115
Self-generated income	5,860	5,578	-283
Income from tuition and admission and entrance exam fees	5,522	5,380	-142
Other income	338	198	-140
External funds	1,470	1,823	353
Liquidation of appropriated surplus	165	113	-51
Liquidation of reserve fund for efficiency promotion expenses	500	0	-500
Total	31,398	30,799	-599
Expenditures			
Operating expenses	26,933	24,032	-2,901
Education and research expenses	20,392	18,142	-2,250
Administrative expenses	6,541	5,889	-651
Facilities maintenance expenses	2,996	2,881	-115
Externally funded research expenses	1,470	1,468	-2
Total	31,398	28,381	-3,018
Income - expenditures	0	2,418	2,418

Number of international students



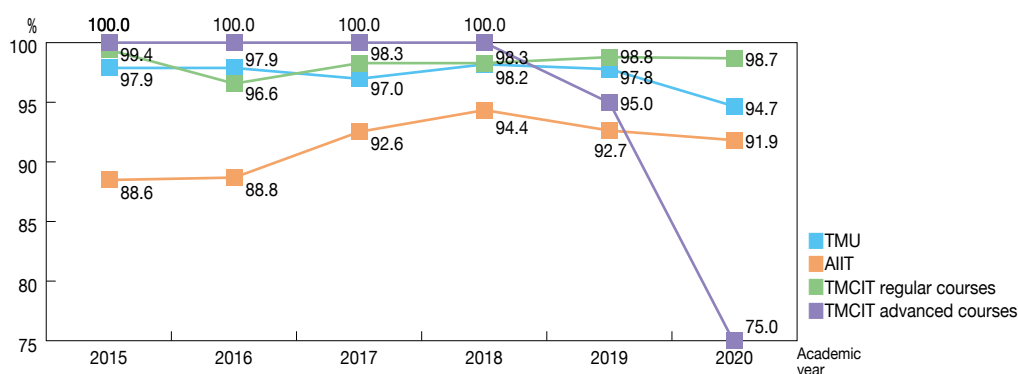
Note: As of May 1 for each academic year

Number of international agreements (entire university)

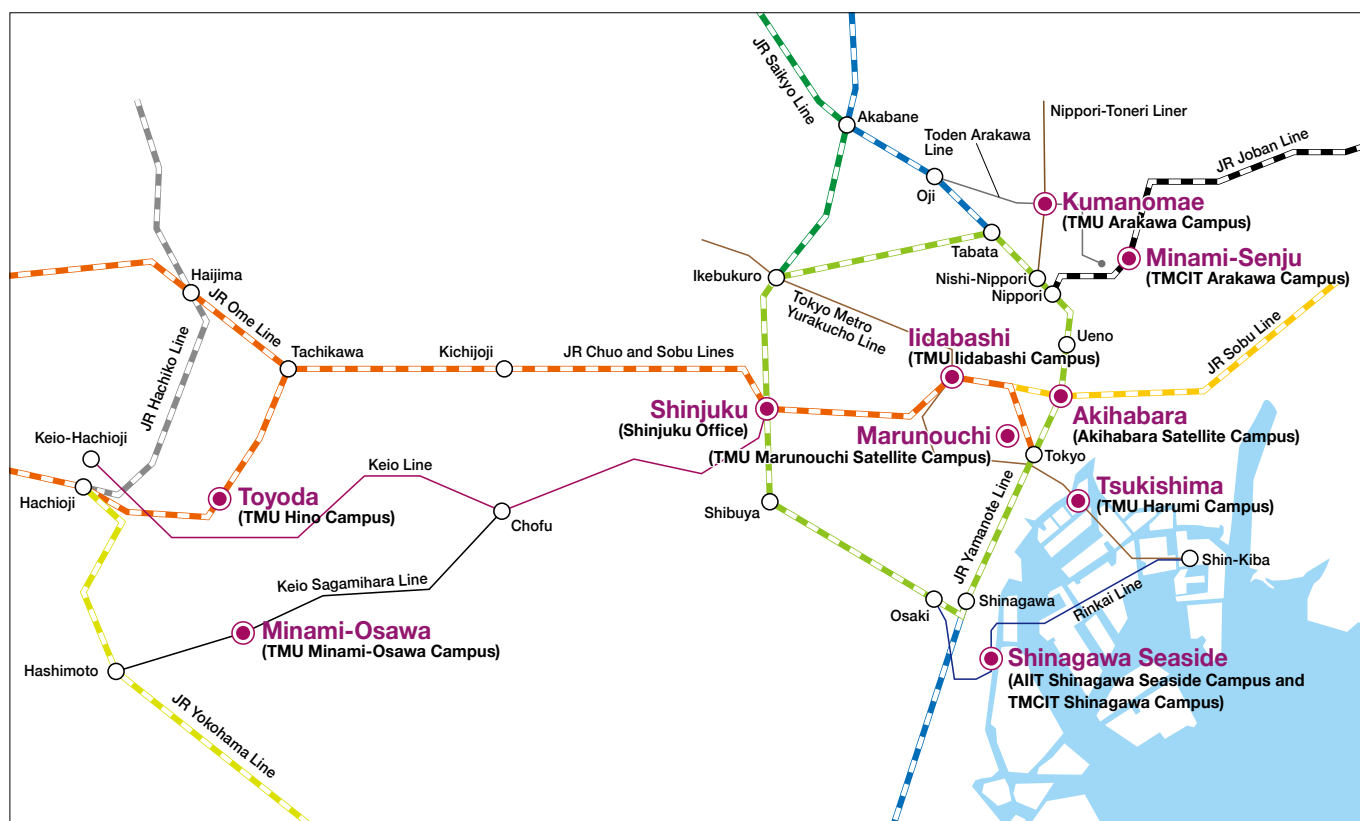


Notes: 1. As of March 31 for each academic year
 2. The numbers in parentheses for TMU are the numbers of schools

Employment rate (TMU, AIIT, TMCIT)



Access guide



For more information

Section	Contact number	Remarks
Management & Planning Office	03-5990-5389	General information about Tokyo Metropolitan Public University Corporation
Tokyo Metropolitan University		
Minami-Osawa Campus	042-677-1111 (main switchboard)	Information about TMU's Faculty of Humanities and Social Sciences, Faculty of Law, Faculty of Economics and Business Administration, Faculty of Science, and Faculty of Urban Environmental Sciences, and TMU Premium College
Hino Campus	042-585-8606 (main switchboard)	Information about TMU's Faculty of Systems Design
Arakawa Campus	03-3819-1211 (main switchboard)	Information about TMU's Faculty of Health Sciences
Harumi Campus	03-3536-7756	Information about TMU's Graduate School of Law and Politics
Marunouchi Satellite Campus	03-6268-0521	Information about TMU's Graduate School of Management
Open University	03-3288-1050	Information about TMU's Open University
Advanced Institute of Industrial Technology		
Shinagawa Seaside Campus	03-3472-7831	Information about the Advanced Institute of Industrial Technology
Tokyo Metropolitan College of Industrial Technology		
Shinagawa Campus	03-3471-6331	Information about Tokyo Metropolitan College of Industrial Technology
Arakawa Campus	03-3801-0145	Information about Tokyo Metropolitan College of Industrial Technology
Liaison Office	042-677-2729	Information about industry-academia-public sector liaisons
Akihabara Satellite Campus	03-5294-0250	Information about using the Akihabara Satellite Campus