

Admission

Application procedure for regular applicants

For regular applicants, the Department of Precision Engineering offers two types of selection both for the master's and PhD programs, which are *regular selection* based on written exams and *document-based selection*.

Applicants for these selections must obtain and submit the application form to the *Graduate School of Engineering Office*.

Application procedure for MEXT (Monbukagakusho) scholarship applicants

The applications from *MEXT scholarship* applicants are directly handled by the *Graduate School of Engineering Office*, not by the *Department of Precision Engineering*.

For further information:

Admissions Information, School of Engineering:

<https://www.t.u-tokyo.ac.jp/en/soe/admission>

Admissions Information, Department of Precision Engineering:

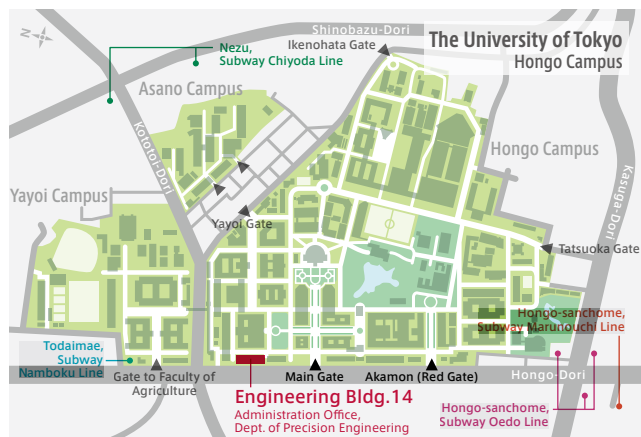
<https://www.pe.t.u-tokyo.ac.jp/en/admission/>

E-mail shiken@pe.t.u-tokyo.ac.jp

Department of Precision Engineering

School of Engineering, The University of Tokyo

2025



Administration Office

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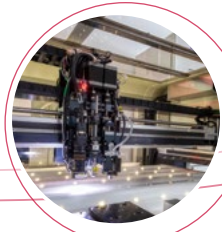
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Dept. of Precision Engineering
The University of Tokyo

Be precise, be flexible

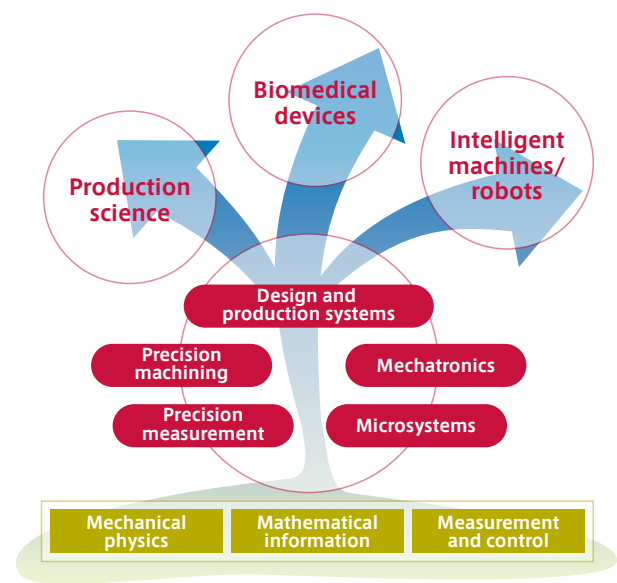


The Department of Precision Engineering, The University of Tokyo has a long and remarkable history since 1886. Leading cutting-edge education and research related to precision engineering are carried out, while international academics consisting of students and researchers are brought together and honed to create an expanding network of sought-after experts.



Mission

Precision Engineering discusses methodologies on the approach to targets rather than the physical objects themselves. The department handles an extensive range of advanced technology from information devices to manufacturing technology and services in order to create a sustainable society based on harmony between man, resources, and the environment. Founded on the basic disciplines of mechanical physics, mathematical information, and measurement and control, the department promotes education and research on production science and the synthesis of products and services, as well as intelligent and robotic systems and biomedical devices.



Research fields:

- 1) The development of fundamental technology for production science, such as precision measurement, precision machining, microsystems, biomedical devices, mechatronics, and design and production systems.
- 2) Research into methodologies on the synthesis of intelligent machines, information and knowledge systematization for products, services, and their production processes.
- 3) Application of the above to manufacturing, biomedical fields, and service systems.

Curriculum

Biomedical precision engineering	
Medical precision engineering	Tomii
Computer assisted surgery and therapy	Kobayashi
Mechanobiology and tissue engineering	Imashiro
Fabrication technology and Sensing technology	
DLX Additive manufacturing science	Niino
Ultra-precision machining	Hosobata
Jointing manufacturing	Kajihara
Optical measurement	Takahashi
Precision dimensional metrology	Michihata
Theory of high-precision machine design	Mimura
Microsystems	
Applied microfluidic systems	Kim S.
MEMS/NEMS process	Kim B.
Advanced IoT devices packaging and integration	Itoh
Nano-micro mechanical systems	Kawakatsu, Takahashi, Kajihara, Michihata
Robotics and mechatronics	
Mechatronics for human and engineered environments	Yamamoto A., Yamashita, An, Kotani, Shimba
Dynamic agent	Ota, Wang
Vibration of elastic continuum	Morita
Design and production systems	
Society and design methodology	Umeda
Sustainable design methodology	Kishita
Service Engineering	Hara
Engineering foundation for synthesis of artifacts I	Kondo, Ota, Umeda
Engineering foundation for synthesis of artifacts II	Ota, Umeda
Geometry data processing	Ohtake
Special lecture on i-Construction Systems for infrastructure projects	Yamashita, Louhi Kasahara
DLX Design×Engineering	Niino
Visual Communication	Higaki
Global communication	
Scientific writing and presentation skills	Kawakatsu
Practice in international workshop on precision engineering	
Practice and project based learning	
Advanced practice of precision engineering	
Special seminar of precision engineering	
Advanced lectures on precision engineering I-IV	
Precision engineering production factory tour	
Special lecture on decommissioning and dismantling	
Special seminar on i-Construction systems for infrastructure projects	



Faculty members

A to Z



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