

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>

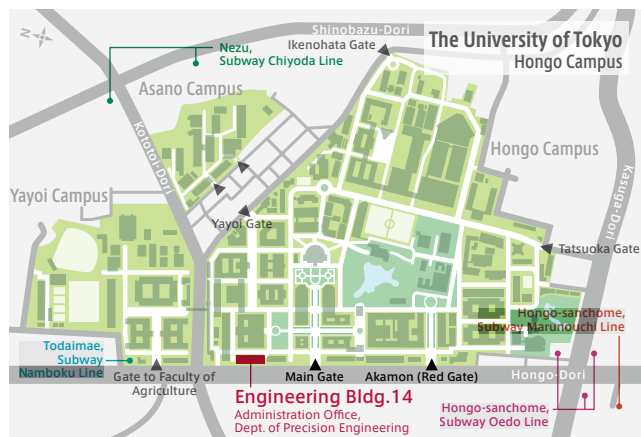
Admissions Information, Department of Precision Engineering:
<https://www.pe.t.u-tokyo.ac.jp/en/admission/>

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

Department of Precision Engineering

School of Engineering, The University of Tokyo

2024



Administration Office
Department of Precision Engineering,
School of Engineering, The University of Tokyo

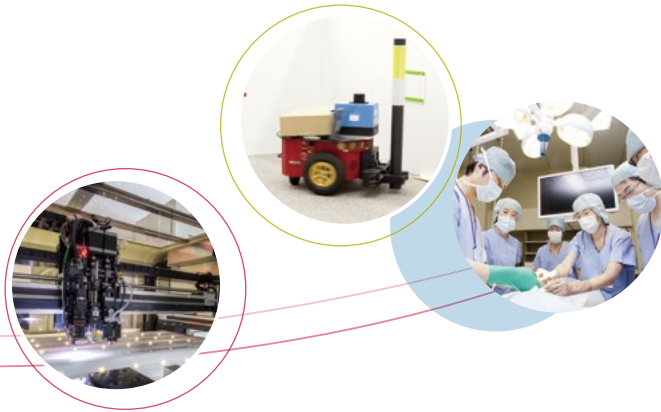
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Dept. of Precision Engineering
The University of Tokyo

Be precise, be flexible

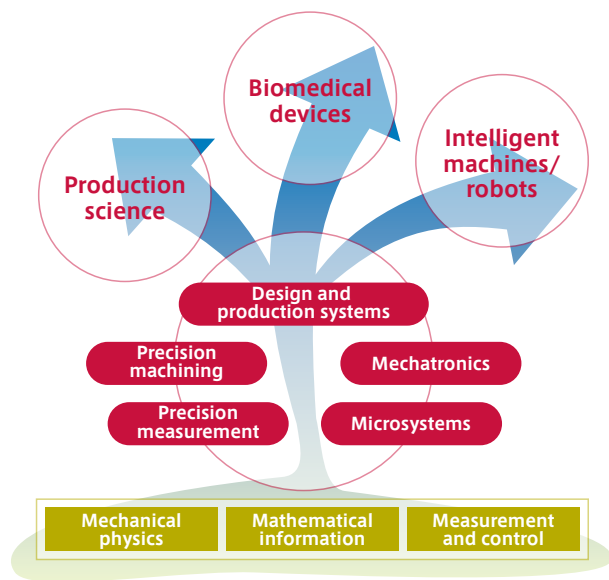


The Department of Precision Engineering, The University of Tokyo has a long and remarkable history since 1886. Leading cutting-edge education and research related to precision engineering are carried out, while international academics consisting of students and researchers are brought together and honed 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	<i>Sakuma, Tomii</i>
Theory of measurement and analysis of biomedical signals	<i>Kotani</i>
Computer assisted surgery and therapy	<i>Kobayashi</i>

Fabrication technology and Sensing technology

Additive manufacturing science	<i>Niino</i>
Ultra-precision machining	<i>Hosobata</i>
Joining manufacturing	<i>Kajihara</i>
Optical measurement	<i>Takahashi</i>
Precision dimensional metrology	<i>Michihata</i>

Microsystems

Applied microfluidic systems	<i>Kim S.</i>
MEMS/NEMS process	<i>Kim B.</i>
Advanced IoT devices packaging and integration	<i>Itoh</i>
Advanced flexible electronic device integration technology	<i>Takamatsu</i>
Nano-micro mechanical systems	<i>Kawakatsu, Takahashi, Kajihara, Michihata</i>

Robotics and mechatronics

Mechatronics for human and engineered environments	<i>Yamamoto, Yamashita, An</i>
Dynamic agent	<i>Ota</i>
Vibration of elastic continuum	<i>Morita</i>
Special lecture on intelligent construction system	<i>Nagatani, Yamashita</i>

Design and production systems

Society and design methodology	<i>Umeda</i>
Sustainable design methodology	<i>Kishita</i>
Service Engineering	<i>Hara</i>
Engineering foundation for synthesis of artifacts I	<i>Kondo, Ota, Umeda</i>
Engineering foundation for synthesis of artifacts II	<i>Ota, Umeda</i>
Geometry data processing	<i>Ohtake</i>
Special lecture on i-Construction Systems for infrastructure projects	<i>Yamashita</i>
DLX Design thinking	<i>Niino</i>

Global communication

Scientific writing and presentation skills	<i>Kawakatsu</i>
Practice in international workshop on precision engineering	

Practice and project based learning

Advanced lectures on precision engineering I-V
Advanced practice of precision engineering
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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4. IIS, Institute of Industrial Science, Komaba Research Campus.