

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, Department of Precision Engineering:

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

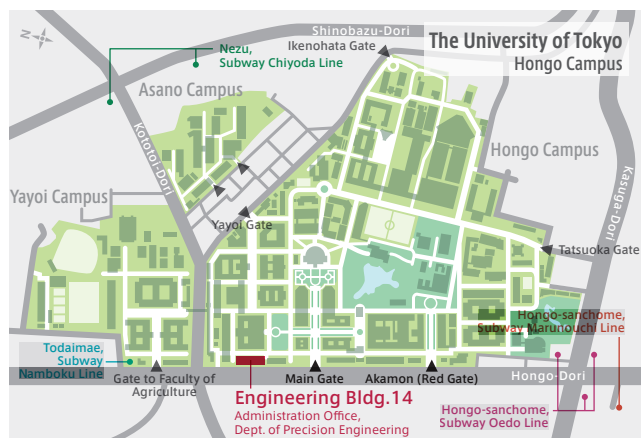
Admissions Information, School of Engineering:

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

Department of Precision Engineering

School of Engineering, The University of Tokyo

2021



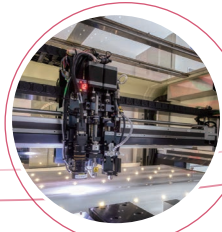
Administration Office Department of Precision Engineering, School of Engineering, The University of Tokyo

Hongo 7-3-1, Bunkyo, Tokyo 113-8656, JAPAN
Phone: +81(0)-3-5841-6445 Fax: +81(0)-3-5841-8556
Website: <http://www.pe.t.u-tokyo.ac.jp>



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.

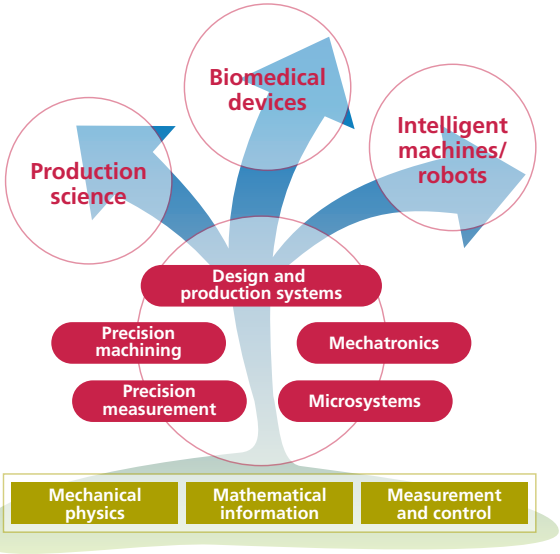


Mission

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.

Curriculum

Biomedical precision engineering	
Medical precision engineering	I. Sakuma
Neuroengineering	Y. Jimbo
Theory of measurement and analysis of biomedical signals	K. Kotani
Introduction to cognitive science in engineering	W. Wen
Computer assisted surgery and therapy	E. Kobayashi
Rehabilitation engineering	A. Yozu
Fabrication technology and Sensing technology	
Advances in micromachining	M. Kunieda
Additive manufacturing science	T. Niino
Ultra-precision machining	H. Mimura
Joining manufacturing	Y. Kajihara
Optical measurement	S. Takahashi
Precision dimensional metrology	M. Michihata
Microsystems	
Applied microfluidic systems	S. Kim
MEMS/NEMS process	B. Kim
Advanced IoT devices packaging and integration	T. Itoh
Advanced flexible electronic device integration technology	S. Takamatsu
Nano-micro mechanical systems	Kawakatsu, Takahashi, Kajihara, Michihata
Robotics and mechatronics	
Mechatronics for human and engineered environments	Hosaka, Sasaki, Morita, Yamamoto, Yoshimoto
Cooperative artificial systems	H. Asama
Dynamic agent	J. Ota
Advanced robotics	A. Yamashita
Special lecture on intelligent construction system	Asama, Nagatani, Yamashita
Design and production systems	
Society and design methodology	Y. Umeda
Sustainable design methodology	Y. Kishita
Engineering foundation for synthesis of artifacts I-II	Ota, Umeda
Geometry data processing	Y. Ohtake
Special lecture on i-Construction Systems for infrastructure projects	A. Yamashita
DLX Design thinking	T. Niino
Practice and project based learning	
Special lecture on decommissioning and dismantling	
Special seminar on i-Construction systems for infrastructure projects	
Practice in international workshop on precision engineering	
Advanced practice of precision engineering	
Advanced lectures on precision engineering I-V	
Precision engineering production factory tour	



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.



Faculty members



ASAMA, Hajime

Professor, Hongo

Service robotics, Embodied-brain system, Cognitive ergonomics

Website: <http://www.robot.t.u-tokyo.ac.jp/asamalab/en/>

E-mail: asama@robot.t.u-tokyo.ac.jp



ITOH, Toshihiro

Professor, Hongo

IoT device, Wireless sensor system, Microsystem packaging

Website: <http://impe.t.u-tokyo.ac.jp/>

E-mail: itoh@pe.t.u-tokyo.ac.jp



JIMBO, Yasuhiko

Professor, Hongo

Biomedical engineering, Biological information processing, Neuroengineering

Website: <http://neuron.t.u-tokyo.ac.jp/>

E-mail: jimbo@neuron.t.u-tokyo.ac.jp



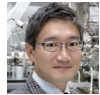
KAJIHARA, Yusuke

Associate Professor, IIS

Metal-polymer joining, Terahertz microscopy, Internal property evaluation

Website: <http://www.snolab.iis.u-tokyo.ac.jp/>

E-mail: kajihara@iis.u-tokyo.ac.jp



KAWAKATSU, Hideki

Professor, IIS

Scanning probe microscopy, Nanomechanics

Website: <http://www.inventio.iis.u-tokyo.ac.jp/>

E-mail: kawakatu@iis.u-tokyo.ac.jp



KIM, Beomjoon

Professor, IIS

Micro components and system, Bio-MEMS

Website: <http://www.kimlab.iis.u-tokyo.ac.jp/>

E-mail: bjoonkim@iis.u-tokyo.ac.jp



KIM, Soo Hyeon

Lecturer, IIS

Bioanalysis, Micro total analysis system, Microfluidics

Website: <http://www.shkimlab.iis.u-tokyo.ac.jp/>

E-mail: shkim@iis.u-tokyo.ac.jp



KISHITA, Yusuke

Associate Professor, Hongo

Scenario design, Life cycle engineering, Design engineering, EcoDesign

Website: <http://www.susdesign.t.u-tokyo.ac.jp/>

E-mail: kishita@pe.t.u-tokyo.ac.jp



KOBAYASHI, Etsuko

Professor, Hongo

Biomedical engineering, Computer assisted surgery

Website: <http://www.bmpe.t.u-tokyo.ac.jp/>

E-mail: etsuko@bmpe.t.u-tokyo.ac.jp



KONDO, Shinsuke

Professor, RACE

Manufacturing system, Design engineering, Life cycle engineering

Website: <http://humancentric.race.t.u-tokyo.ac.jp/>

E-mail: kondoh@race.t.u-tokyo.ac.jp



KOTANI, Kiyoshi

Associate Professor, RCAST

Biomedical signal processing, Nonlinear dynamics, Human interface

Website: <http://neuron.t.u-tokyo.ac.jp/>

E-mail: kotani@neuron.t.u-tokyo.ac.jp



KUNIEDA, Masanori

Professor, Hongo

Non-traditional machining, Micromachining, Die and mold technologies

Website: <http://www.edm.t.u-tokyo.ac.jp/>

E-mail: kunieda@edm.t.u-tokyo.ac.jp



MICHIHATA, Masaki

Associate Professor, Hongo

3-dimensional metrology, In-process measurement, Optical metrology

Website: <http://www.photon.rcast.u-tokyo.ac.jp/>

E-mail: michihata@nanolab.t.u-tokyo.ac.jp



MIMURA, Hidekazu

Associate Professor, Hongo

Ultra-precision machining, X-ray optics

Website: <http://www.edm.t.u-tokyo.ac.jp/>

E-mail: mimura@edm.t.u-tokyo.ac.jp



NAGATANI, Keiji

Professor, Hongo

Robotics, Field robotics

Website: <http://www.i-con.t.u-tokyo.ac.jp/en/>

E-mail: keiji@robot.t.u-tokyo.ac.jp



NIINO, Toshiki

Professor, IIS

3D printing, Molded interconnect device, Mechatronics

Website: <http://lams.iis.u-tokyo.ac.jp/>

E-mail: niino@iis.u-tokyo.ac.jp



OHTAKE, Yutaka

Associate Professor, RACE

Geometry processing, Computer graphics

Website: <http://www.den.t.u-tokyo.ac.jp/>

E-mail: yu-ohtake@den.t.u-tokyo.ac.jp



OTA, Jun

Professor, RACE

Robotics, Embodied-brain systems science, Production systems engineering

Website: <http://otalab.race.t.u-tokyo.ac.jp/>

E-mail: ota@race.t.u-tokyo.ac.jp



SAKUMA, Ichiro

Professor, Hongo

Biomedical engineering, Computer aided surgery, Biomedical instrumentation

Website: <http://www.bmpe.t.u-tokyo.ac.jp/en/>

E-mail: sakuma@bmpe.t.u-tokyo.ac.jp



SUZUKI, Hiromasa

Professor, Hongo

Digital engineering, CAD, CG, Geometric modeling

Website: <https://sites.google.com/site/fdenghome/>

E-mail: suzuki@den.t.u-tokyo.ac.jp



TAKAHASHI, Satoru

Professor, RCAST

Photon based advanced manufacturing science, Cell-in-micro-factory

Website: <http://www.photon.rcast.u-tokyo.ac.jp/english/index.html>

E-mail: takahashi@nanolab.t.u-tokyo.ac.jp



TAKAMATSU, Seiichi

Associate Professor, Hongo

MEMS, Wearable device integration, Electronic textile

Website: <http://impe.t.u-tokyo.ac.jp/>

E-mail: takamatsu@pe.t.u-tokyo.ac.jp



UMEDA, Yasushi

Professor, RACE

Design theory, Life cycle engineering, Intelligent manufacturing system

Website: <http://www.susdesign.t.u-tokyo.ac.jp/>

E-mail: umeda@race.t.u-tokyo.ac.jp



WEN, Wen

Associate Professor, Hongo

Neuroscience, Cognitive psychology

Website: <http://www.robot.t.u-tokyo.ac.jp/~wen/>

E-mail: wen@robot.t.u-tokyo.ac.jp



WOO, Hanwool

Lecturer, Hongo

Robotics, Machine learning

Website: <https://www.hanwoolwoo.com/>

E-mail: woo@robot.t.u-tokyo.ac.jp



YAMASHITA, Atsushi

Associate Professor, Hongo

Robotics, Computer vision, Image processing

Website: <http://www.robot.t.u-tokyo.ac.jp/yamalab/>

E-mail: yamashita@robot.t.u-tokyo.ac.jp



YOZU, Arito

Associate Professor, Hongo

Human support, Rehabilitation engineering

Website: <https://orcid.org/0000-0002-3211-2408>

E-mail: yken-koubo@life.t.u-tokyo.ac.jp

1. **Hongo**, Department of Precision Engineering, Eng. Bldg. 14, Hongo Campus.

RACE, Research into Artifacts, Center for Engineering, Hongo Campus.

2. **RCAST**, Research Center for Advanced Science and Technology, Komaba Research Campus.

3. **IIS**, Institute of Industrial Science, Komaba Research Campus.