### **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*.

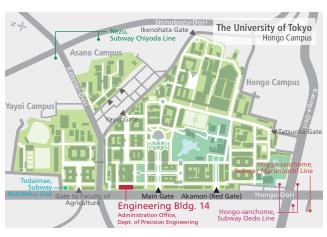
### Application procedure for MEXT (Monbukagakusho) scholarship applicants

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/admission/index\_e.html

Admissions Information, School of Engineering: http://www.t.u-tokyo.ac.jp/etpage/international\_applicants/



# 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

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# Department of Precision Engineering

School of Engineering, The University of Tokyo

2016



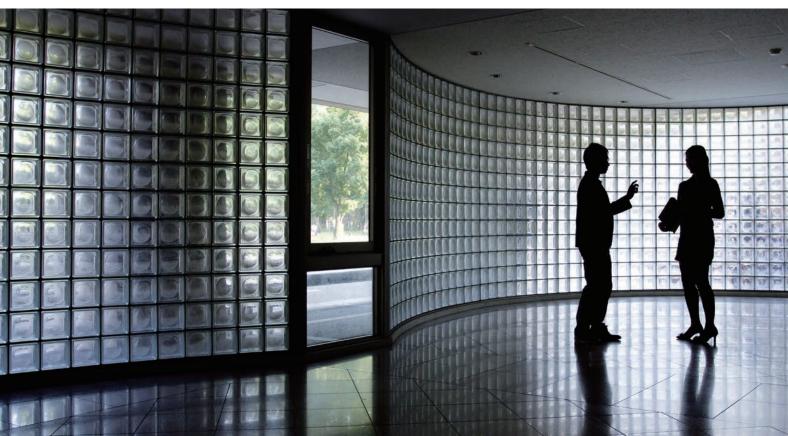


# Be precise, be flexible





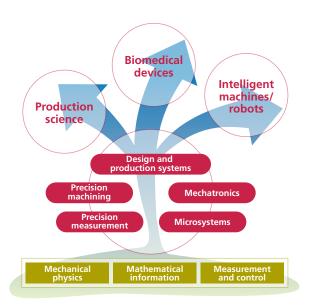
The Department of Precision Engineering, The University of Tokyo has a long and remarkable history since 1886. Leading cutting-edge education and research related to precision engineering are carried out, while international academics consisting of students and researchers are brought together and honed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

Sensing technology	
Optical measurement	S. Takahashi
Coordinate metrology	K. Takamasu
Biomedical precision engineering	
Medical precision engineering	I. Sakuma
Computer assisted surgery and therapy	E. Kobayashi
Neuroengineering	Y. Jimbo
Theory of measurement and analysis of biomedical signals	K. Kotani
Fabrication technology	
Polymer processing	H. Yokoi
System integration and packaging	T. Suga
Advances in micromachining	M. Kunieda
Ultra-precision machining	H. Mimura
Jointing manufacturing	Y. Kajihara
Microsystems	
Applied microfluidic systems	T. Fujii
Applied optical microsystems	E. Higurashi
Nano-micro mechanical systems K. Takamasu, H. Kawakatstu, S. Ta	kahashi, E. Higurashi
Robotics and mechatronics	
Electromechanical control systems	A. Yamamoto
Mechatronics for human and engineered environments	H. Hosaka
Cooperative artificial systems	H. Asama
Dynamic agent	J. Ota
Advanced robotics	A. Yamashita
Additive manufacturing science	T. Niino
Design and production systems	
Service engineering	T. Hara
Society and design methodology	Y. Umeda
Engineering Foundation for Synthesis of Artifacts I–II	T. Hara
Geometric modeling	H. Suzuki
Geometry data processing	Y. Ohtake
Practice and project based learning	
Prototyping technique for nano/micro systems I	H. Kawakatsu
Prototyping technique for nano/micro systems II	B. Kim
Special lecture on decommissioning and dismantling	
Practice in international workshop on precision engineering	
Advanced practice of precision engineering	
Advanced lectures on precision engineering I–V	
Precision engineering production factory tour	T. Niino



Experimental

facilities in the Hongo Campus.

Practice in international workshop on precision engineering: Practice classes acknowledge credits for international educational activities





## **Faculty members**







ASAMA, Hajime

Professor, Hongo

Associate Professor, IIS

Associate Professor, Hongo

Professor, IIS

Service robotics, Smart space, Mobiligence, Body representation in brain Website: http://www.robot.t.u-tokvo.ac.ip/asamalab/ E-mail: asama@robot.t.u-tokyo.ac.jp



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HOSODA, Naoe Professor, Hongo Biomimetics, Adhesion, Reversible interconnection

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Joining manufacturing, THz microscopy Website: http://www.snom.iis.u-tokyo.ac.jp E-mail: kajihara@iis.u-tokyo.ac.jp

KAWAKATSU, Hideki Professor, IIS Scanning probe microscopy, Nanomechanics

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KUNIEDA, Masanori Professor, Hongo Non-traditional machining, Micromachining, Die and mold technologies Website: http://www.edm.t.u-tokvo.ac.ip/ E-mail: kunieda@edm.t.u-tokyo.ac.jp

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NIINO, Toshiki

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Website: http://www.race.u-tokyo.ac.jp/otalab/

Professor, RACE Robotics, Embodied-brain systems science, Service engineering

Professor, IIS

Professor, Hongo

Professor, Hongo

Professor, Hongo

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SUGA, Tadatomo System integration and packaging, Interconnect ecodesign Website: http://www.su.t.u-tokyo.ac.jp/ E-mail: suga@pe.t.u-tokyo.ac.jp

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

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

4. RACE, Research into Artifacts, Center for Engineering, Kashiwa Campus.