UTokyo-IIS Guide



Institute of Industrial Science, The University of Tokyo

> Website of UTokyo-IIS

What is IIS?

The University of Tokyo's Institute of Industrial Science (IIS), based in Komaba, Meguro-ku, Tokyo, is a research institute that mainly covers engineering disciplines.

More than 120 faculty members – professors, associate professors and lecturers – each have their own laboratory for pursuing research. IIS is fostering and supporting young researchers by equally distributing research resources to these laboratories, including those headed by young researchers. More than 1,000 researchers from Japan and other countries are carrying out various types

of research – from fundamental research to applications – which opens the door to our future life.

Laboratories belong to one of five research departments. About half of them also belong to research centers or research platforms. Some laboratories join and form a research group, a study group or a research unit with the common purpose of research. Sometimes they develop into research centers with their own budget and space.

The IIS research field is very crossdisciplinary and covers almost all engineering disciplines, from micro and nano scales such as the quantum level, to large-scale ones such as the global level and space. IIS is one of the largest university-attached research institutions in Japan.

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Scope

Research Areas and Their Scope

Creating new technology is IIS' fundamental principle, with two driving forces: basic research aiming at creation of intellectual value and systematization of scientific scholarship on one hand, and applied research aimed at contributing to society and industry by making use of the latest and most comprehensive approach on the other. Our mission is to communicate and integrate our intellectual products to the society, industry, and the world. We are actively engaged in various activities, as a hub to develop human resources that can generate such research. The research pursued by our labs can be roughly divided into the areas described at right.

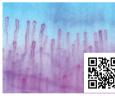
We aim to attain these goals in scope by fusing the five following research departments.

Research Departments



Department of Fundamental Engineering

This department covers a wide range of research, from microscale to macroscale, to evaluate and establish models for the properties/ mechanical properties of solid and liquid objects, which are fundamental issues for engineering and science.



Department of Mechanical and Biofunctional Systems

This department conducts research and development involving new machines, devices and systems based on knowledge from a wide range of fields, including mechanical engineering, precision engineering, ocean engineering and bioengineering.



Department of Informatics and Electronics

This department aims to help realize an affluent future society with the power of informatization by pursuing research in the energy/regulation, device/properties and information/ communication fields.



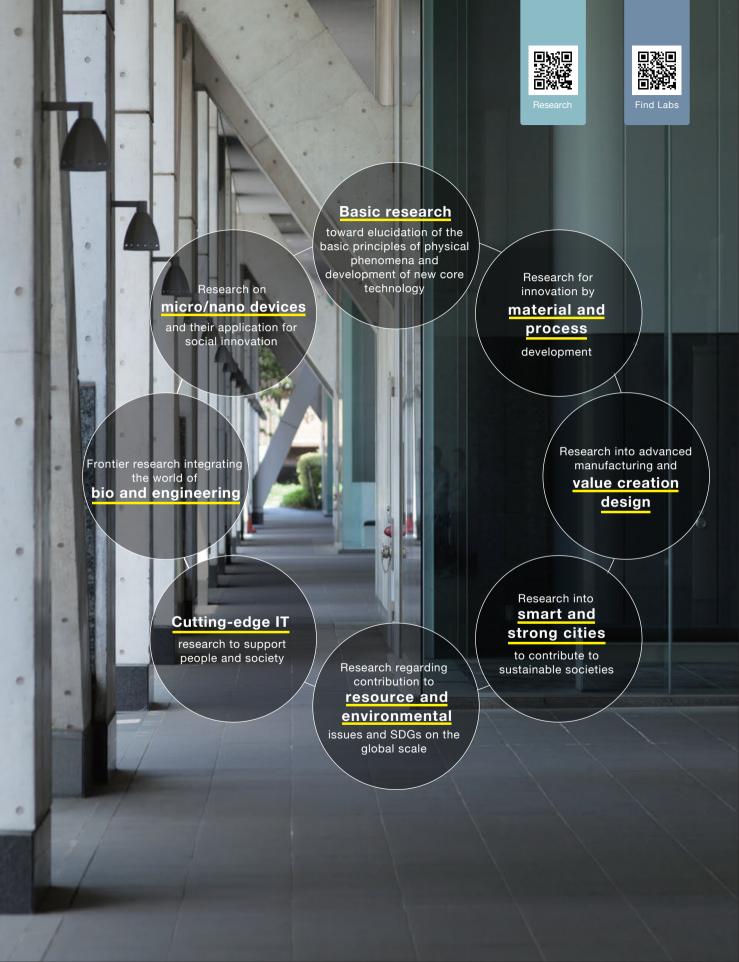
Department of Materials and Environmental Science

This department conducts extensive research ranging from fundamental studies on substances/materials, including organic and inorganic compounds and metals, to engineering designing and research into advanced applications.



Department of Human and Social Systems

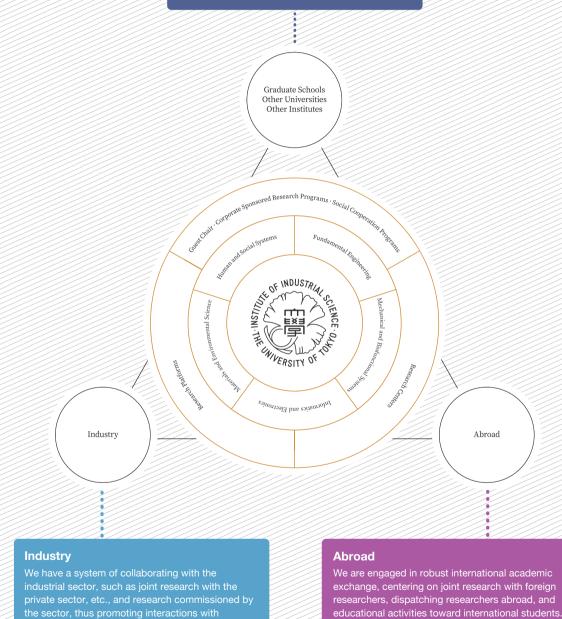
This department is engaged in multifaceted research into urban areas, regions and global environments, which are dynamic "places" supporting life forms, including humans, as well as their interactions with human behaviors and activities.





Graduate schools/other universities/ other research institutions

We are collaborating with many University of Tokyo graduate schools and undergraduate faculties, while also cooperating in various aspects with other domestic and international institutions.



Organization

IIS comprises research departments, guest chairs, corporate sponsored research programs, social cooperation programs, research centers, research platforms, common facilities, and administrative offices. All of our laboratories belong to either of the five research departments, categorized according to their academic fields and industrial domains. Also, in project research, which is considered to be strategically important, researchers in multiple fields join forces to establish a research center pivoting around results gained in the project research. The aim of such a research center will be to solve key issues that must be addressed.





Industrial-Academic Collaboration

It is increasingly necessary for universities to conduct joint research with the industry and government at a time when science and technology is becoming more specialized and sophisticated. To ensure seamless collaboration with engineering and industry, we are utilizing various frameworks such as joint research with the private sector, etc., commissioned research, corporate sponsored research programs (to be established by inviting project professors, etc. from outside the university) and social cooperation programs.







How to begin

 Example of Collaborative Research with Industries
 Example of Entrusted Research

 Nickel, lithium, and cobalt resources - from recycling to
 Localization method of AUVs for swarming



application in active materials

Example of Corporate Sponsored Research Programs Nikon Optics and Precision Frontiers



Example of Social Cooperation Programs Big Data Value Co-creation Platform Engineering



International Exchange

Our researchers are engaged in active exchange with their international counterparts through various frameworks, including exchanges with research institutions abroad in accordance with research cooperation agreements, exchange of academic information at symposiums held by IIS, systems to dispatch researchers abroad and invite foreign researchers to our institute, and academic lectures delivered by foreign researchers. We are also building a global network of collaborative research hubs with research institutions abroad.

International





Graduate School Education

The teaching staff at IIS is grouped into engineering-related, science-related and other departments. They give lecturers to graduate students and instruct students to conduct research for writing masters or doctoral theses.



Education not Limited to Graduate Students/Social Contribution

IIS is focusing on education to working members of society, mainly engineers in the private sector, to foster researchers and advanced engineers. It also promotes international education by accepting international students and researchers, and widely disseminates research results to society through lectures and seminars. IIS also takes advantage of its characteristics to provide education in unique ways, such as its research-based science education provided to young people.





Slogan / Statement

'Institute for a Possible Future'

We are 100.

From nanoscale to cosmic phenomena, Exploring unknown principles with curiosity as a guide Chaos, with 100 laboratories.

We are 1.

A swell of intelligence that happily engulfs The voices of society, different fields, objections and even coincidences. A movement that is independent and interconnected.

We are innumerable.

The many possibilities that the world has yet to discover

We find out earlier than the future

And continuously propose outstanding values.

Institute for a Possible Future.

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Komaba Research Campus (Komaba II Campus)

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ax. +01-5-545

Komaba II Campus Access



Kashiwa Campus

5-1-5 KASHIWANOHA KASHIWA-SHI, CHIBA 277-8574, JAPAN (Kashiwa Campus) 6-2-3 KASHIWANOHA KASHIWA-SHI, CHIBA 277-0882, JAPAN (Kashiwa II Campus) E-mail: kashiwa.iis@gs.mail.u-tokyo.ac.jp Phone: +81-4-7136-6971 (Kashiwa Office) Fax: +81-4-7136-6972

> Kashiwa Campus Access











