Institute of Integrated Science and Technology

法政大学
HOSEI University

Contents

- About HOSEI University
- Institute of Integrated Science and Technology (IIST)… English based graduate program

Hosei Univ. in Tokyo, Japan

Hosei University's
Boissonade Tower
(Ichigaya Campus)

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About HOSEI University

Founded in 1880

- One of the oldest and the most popular/competitive universities.
  - The number of applicants is ranked #2 in Japan > 120,000 in 2018
- Global Policy:
  - Fostering global citizens
  - Promoting campus globalization (Study Abroad, International Students)
  - Achieving global standard research and educational program
  - Extending global alumni network
- Funding from MEXT as top global university (2014-)
  - 37 universities are appointed
- 200+ partner universities in 34 countries

Figures

- 30,000 students
- 15 undergraduate faculties, 14 graduate schools, 18 research centers and 3 affiliated junior-high and high schools
- Three campuses (Ichigaya, Tama and Koganei)

Ichigaya :

■Law ■ Letters ■ Business Administration ■ Intercultural Communication ■ Humanity and Environment ■ Lifelong Learning and Career Studies■ Engineering and Design ■ Global and Interdisciplinary Studies

Tama :

■Economics ■Social Sciences ■Social Policy and Administration ■Sports and Health Studies

Koganei :

■Computer and Information Sciences ■ Science and Engineering ■Biosciences and Applied Chemistry

Science and Engineering Programs (Koganei)

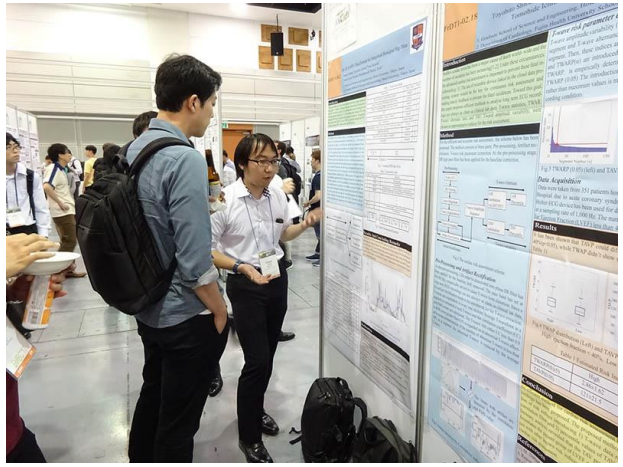
College of Engineering: Founded in 1950

- Faculty of Science and Engineering
  - Mechanical Eng., Electronics and Electrical Eng. , Applied Informatics, Industrial and Systems Eng. , Advanced Sciences (Liberal Arts and Sciences)
- Faculty of Bioscience and Applied Chemistry
  - Frontier Bioscience, Chemical Science and Technology, Clinical Plant Science
- Faculty of Computer and Information Sciences
  - Computer Science, Digital Media

All faculties offer high standard MEXT accredited educational program

Academic Activities

- Outstanding professors including a Thomson Reuters Highly Cited Researcher 2014 and IEEE Life Fellow, IEEE Fellows
- Conduct high standard researches collaborating with prestigious research institutions such as NTT, Hitachi or JAXA
- Graduate students are encouraged to present their research work at international conferences



Cell Reprogramming in Plant

Toshiyuki Nagata
Professor emeritus, Hosei University

This Week's Citation Classic® CC/NUMBER 7 FEBRUARY 15, 1988

Nagata T & Takebe I. Cell wall regeneration and cell division in isolated tobacco mesophyll protoplasts. *Planta* 92:301-8, 1970.
[Institute for Plant Virus Research, Chiba, Japan]

This study showed that protoplasts isolated enzymatically from tobacco leaves regenerated cell walls and divided to form cell clusters under suitable conditions. Consequently, the use of protoplasts as a means of somatic cell genetics and genetic engineering became realistic. [The *SCI*® indicates that this paper has been cited in over 280 publications.]

Biology
ijicho

er 28, 1987

We later learned that physiological conditions of the initial cultivar Bright Yellow, which is a common tobacco cultivar in Japan, showed seasonal fluctuation, and I had conducted experiments during rather bad seasons. Still, this paper became the first reproducible report on the high-frequency cell division of plant protoplasts. We soon found more suitable conditions for protoplast culture and regenerated whole plants from the mesophyll protoplasts of tobacco that we prepared.[2]

In 1982, when protoplasts became realistic weapons for somatic hybridization and genetic engineering of plants, I had an unusual experience. One day a journalist called me and explained that he had found an interesting article in a newly arrived issue of *Current Contents*®. The paper dealt with the informational analysis of the field of plant protoplasts and mentioned our article as one of the core pa-

Also known as Ig Nobel Prize winner in 2013
"An onion enzyme that makes tears"
(Nature, Vol. 419, No. 6908, pp. 685, 17 October, 2002

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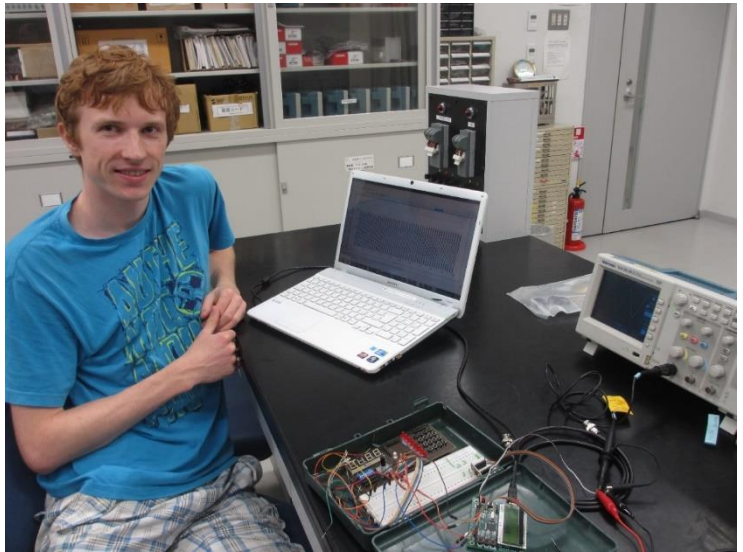
QR-code

Hosei Alumnus, Masahiro Hara invented QR code (1994)

Graduated from Hosei University

International Students



- Double Degree Program in Computer and Information Sciences collaborating with 37 Chinese Universities*
- IIST (Institute of Integrated Science and Engineering): English-based graduate program in science and engineering.
- Accepting exchange students from France, Czech Republic, Slovakia, Egipt, Morocco, China, Vietnam…
- Accepting internship students

4/2004-3/2006 Dr. Jindrich Giegehheim
Postdoctoral Fellow, Research Center for Micro-nano Technology

Program for Faculties

HIF Foreign Scholars Fellowship

- Invites young scholars (Junior faculty or PhD student) from abroad to apply to the HIF Fellowship program to carry out research at Hosei University.

Vising Professorship

Invites distinguished professors. Shared office, accommodation and salary will be provided.

Class A: Equivalent to a fulltime professor (1/2, 1 or 3 years)

Class B: Teaching duty: 1 class/week (1-3 months)

English Programs
(Liberal Arts, Humanities and Social Sciences)

- Faculty of Global and Interdisciplinary Studies
  - Provides a curriculum of liberal arts courses in English
- Exchange Students from Overseas Program (ESOP)
  - Courses on Japanese Society and Related Topics

    Modern and Contemporary History of Japan, Japanese Literature,
    Japanese Youth and Popular Culture, Discover Japan, Marketing in Japan,
    Cultural Diversity in Japan, "Cool Japan"- Japan's Nation Brand,
    Japanese Thought, Japanese Management Systems,
    International Cooperation of Japan, etc.
  - Japanese Language Classes
- MBA (Sept. 2015-)
- Global Business Program (GBP) (Sept. 2016-)
- Sustainability Co-Creation Program(SCOPE) (Sept.2016-)

IIST: Institute of Integrated Science and Technology

launched in Sep. 2016

- Graduate program focusing on “Integrated Science and Engineering”
- All classes and researches are conducted in English.
- Standard terms required to complete the programs:

  2 years for the master’s program, 3 years for the doctoral program
- Major：✓…Offered, Blank…Not offered（taught only in Japanese）

Major	Meng, MSc	Ph.D.
Mechanical Eng.		✓
Electronics and Electrical Eng.	✓	✓
Applied Informatics	✓	✓
Systems Engineering and Science (Advanced Science Track)*		✓
Systems Engineering and Science (Management Science Track)*	✓	✓
Applied Chemistry	✓	✓
Frontier Bioscience	✓	✓
Computer and Information Sciences	✓	✓

*Name to be changed in April 2016

Professors and research areas (master's and doctoral program)

Wide range of research areas

Robotics

Intelligent Assistive Robots
Guide robot for visually impaired people
Surveillanc robot, BCI

Mechanical Engineering
Profs. Capi, Ishikawa
Electrocal Engineering
Profs. Ito, Nakamura
Applied Infomatics +
Prof. Wada, Kobayashi

Hosted IEEE-IRIS2016

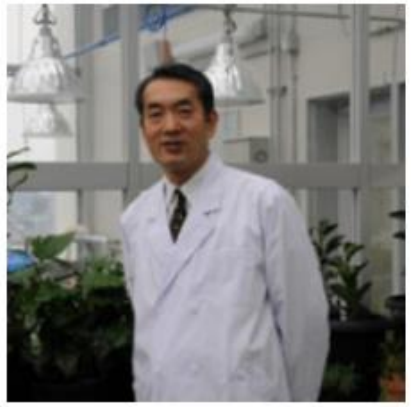
Professors and research areas (master's and doctoral program)

Wide range of research areas

Major in Frontier Bioscience (Clinical Plant Science Field)

Faculty of Bioscience and Applied Chemistry

Department of Clinical Plant Science



Takeshi NISHIO

- Botanical medicine
- Plant virology, Epidemiology

Botanical Medicine

Hiroshi HAMAMOTO

- Plant pathology, Botanical medicine
- Plant pathogenic bacteria, molecular diagnostic of plant

Plant Pathology

http://iist.hosei.ac.jp/faculties/

Clinical Plant Science Center, Hosei University

Clinical practice of plant disease and environmental preservation

Prof. Iyatomi Developed AI based Plants Viral Diagnosis---Image classification of the leaf image

Establishing Clinical Plant Science Center

The Clinical Plant Science Center was established to not only publicly announce the educational study results from the Department of Clinical Plant Science but also aid in learning the practices of diagnosis/treatment/control of plant disease in order to develop applicable capabilities in using the latest technology and knowledge of life science and environment science in the field.

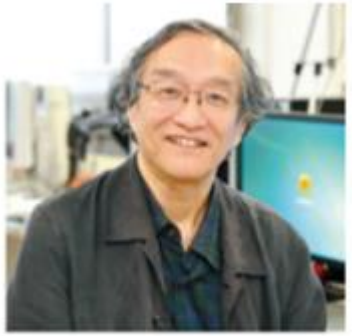
Transmission type electron microscope

Professors and research areas (master's and doctoral program)

Wide range of research areas

- Please refer to the following web site: http://iist.hosei.ac.jp/faculties/
- Applied informatics

Developed AI based plant disease detection system



Shigeru AKAMATSU

Human information processing, Man machine Interface
facial image analysis and synthesis

Koichi OGAWA

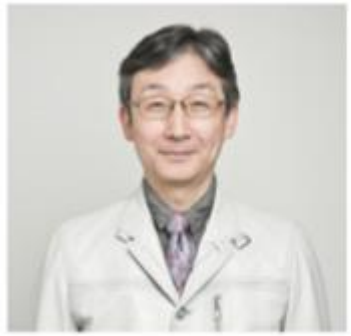
Image processing, Medical Imaging
High performance CT image processing medical imaging, x-ray detector,

Kazuo YANA

Biomedical signal processing
Ubiquitous health care system, biosignal big data processing

Hitoshi IYATOMI

Intelligent information processing
Image recognition, computer vision, machine learning, Medical engineering



Akihiro FUJII

Makoto HIRAHARA

Biological information processing
Vision, Memory, Neural networks, Machine learning

Multimedia and Image/Signal Processing

Professors and research areas (master's and doctoral program)

Wide range of research areas

- Please refer to the following web site: http://iist.hosei.ac.jp/faculties/
- Applied informatics

From NTT

Atsushi KANAI

Mitsuru SHINAGAWA

Network & Security

Data networks and security
Cyber security, Internet protocol, Web service, Privacy preserving

Ubiquitous networks, Wireless networks
IoT systems, Intra-body communication systems

Lei LI

Koichi WADA

Kenji MIYAMOTO

Computer Science

Intelligent information eng., Algorithms
Fast Algorithms, Parallel Algorithms, Soft Computing

Computer Sciences
Computation, Parallel/Distributed Algorithms, Computer Aided Education

Programming languages
User Interfaces, Software engineering

Professors and research areas (master's and doctoral program)

Wide range of research areas

- Please refer to the following web site: http://iist.hosei.ac.jp/faculties/
- Systems Engineering

Erdős (Erdesh) number 3 !

Tadashi URATANI

Financial engineering
Derivative pricing, Stock market analysis, Black-Scholes formulas

Toshiyuki KATSURA

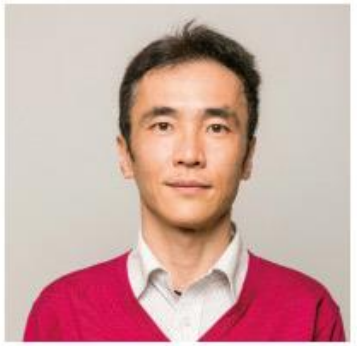
Algebraic geometry

Information Coding theory and practice

Network & Security

Hungarian Mathematician 1913-1996

Published more than 1500 papers



Hiroyuki GOTO

Operations research, igh-performance omputing
iscrete event systems, cheduling, geographic omputation

Yoichi NAKAMURA

Economic engineering
Economic statistics, System of national accounts

Professors and research areas (master's and doctoral program)

Wide range of research areas

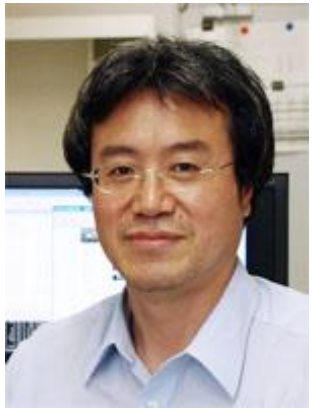
- Please refer to the following web site: http://iist.hosei.ac.jp/faculties/
- Computer and Information Sciences (Computer Sciences)

Mina AKAISHI
Research area:
•Narrativity based Information Access
•Management/Analysis/Visualization for Knowledge Media
•Historical Knowledge-Based Science

Kaoru UCHIDA
Pattern recognition and its real-world applications, Biometrics
Business innovation through computer and information sciences

Satoshi OBANA
Research area:
•Cryptography
•Information Security

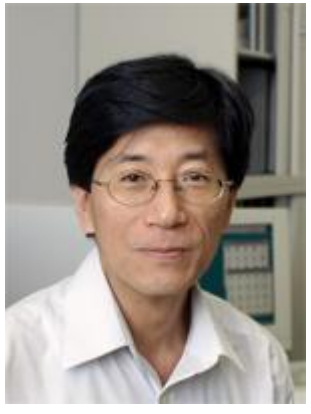
Network & Security



Yamin LI
Research area:
•Computer Architecture
•Parallel and Distributed Systems
•Mobile Ad Hoc Networks
•http://cis.k.hosei.ac.jp/~yamin/

– Professors and research areas (Computer Sciences)

Runhe HUANG
Research area:
•Artificial Intelligence
•Machine Learning
•http://cis.k.hosei.ac.jp/~rhuang/



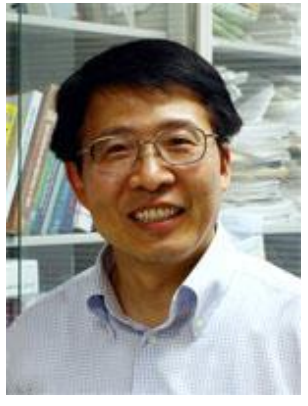
Ai & Machine Learning

Yuji SATO
Research area:
•Evolutionary Computation
•Machine Learning

Akira SASAKI
Research area:
•Programming Languages
•Domain Specific Languages
•Attribute Grammars

Nobuhiko KOIKE
Research area:
•Software Engineering

Toshio HIROTSU
Research area:
•Internet
•Operating System
•Distributed Computing
•Ubiquitous Computing



Shaoying LIU
Research area:
•Software Engineering
•Formal Engineering Methods
•Intelligent Software Engineering
•http://cis.k.hosei.ac.jp/~sliu/

– Professors and research areas(Media Sciences)

Katunobu ITOU
Research area:
•Speech Recognition
•Multi-Modal Dialog System
•Speech Interface

Multimedia and AR

Takafumi KOIKE
•Media technologies connected between real world and cyber world
•Real-time computer graphics
•Augmented reality
•Computational photography
•3D imaging

Vladimir SAVCHENKO
Research area:
•Geometric Modeling
•CG
•Animation
http://www.k.hosei.ac.jp/~vsavchen/

Yasunari ZEMPO
Research area:
•Computational materials science
•Development of computational techniques for material design and property prediction
•Large-scale parallel computing

Hiroshi HANAIZUMI
Research area:
•Image Processing
Related site:

Toshihisa NISHIJIMA
•Doctor (Engineering)
Research area:
•Coding Theory
•Information Theory

– Professors and research areas(Media Sciences)

Satoru FUJITA

Research Areas
•Multi-agent systems
•Human probing, IoT
•Web services

Hiroshi HOSOBE
Research area:
•User Interfaces
•Information Visualization
•Computer Graphics
•Constraint Programming

Jianhua MA
•Ubiquitous Network and Computing
•Smart Object, Space and Service
•Autonomic and Trusted System
•http://cis.k.hosei.ac.jp/~jianhua/

Shuichi YUKITA
Research area:
•Cellular Automata Theory
•Algorithmic Mathematics
•Mathematical Visualization

Toru WAKAHARA
Research area:
•Intelligent Image Processing
•Pattern Recognition

Ubiquitous System/ IoT

Study Abroad Programs for Japanese Students

- **Undergraduate:**
  - Scholarship Study Abroad program for 1 year
  - Short term study abroad program in summer and spring
    - Train English presentation skill at University of California, Davis and Limerick University, Ireland
  - Encourage students to apply for funded Internship program such as MEXT “Tobitate (Leap for Tomorrow) study abroad program or Internship program hosted by EU-Japan Centre for Industrial Cooperation
- **Graduate Schools:**
  - Encourage students to present their research at International Conferences giving financial support 70-80 cases/year
  - Promote international research collaboration

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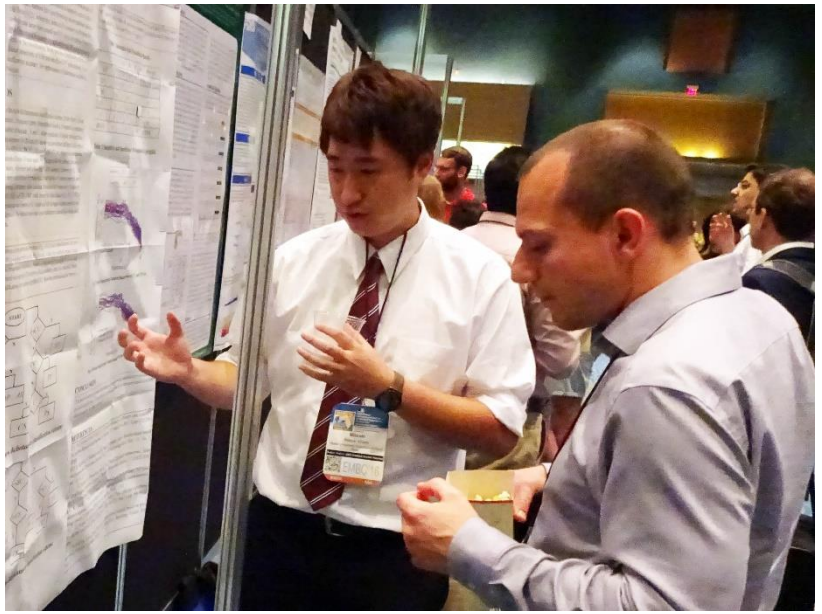

Scholarship & Tuition Reduction

We can support you to apply for some scholarships.

1. Hosei Univesity Daisei Kensetsu Vietnum Friendship Scholarship-
   Full Tuition Support
2. JASSO Study Insentive Fund: 48,000JPY 6month
3. Monbukagakusho Honors Scholarship for Privately-Financed International
   Students: 65,000 yen per month
   http://www.jasso.go.jp/en/index.html
4. Scholarship for Self-Supporting Students (funded by Sato Yo International
   Scholarship Foundation)
   180,000 yen per month http://sisf.or.jp/eng/

20% tuition reduction is applied to all self-supported international students

Financial Planning- Example

First Year

	amount to be paied (JPY)	Support (JPY)	Case 1 (100% sure)	Case 2	Case 3	Case 4	
Admission Fee	200,000						
Annual Tuition	600,000						
Tuition Reduction		120,000	120,000	120,000	120,000	120,000	reimbursement (100%)
Facility Fee	100,000						
Laboratory Fee	80,000						140,000 for Clinical Plant Science
JASSO Scholarship (*It is highly probable in your case.*)		288,000	288,000	288,000	288,000	288,000	48,000/month Oct.2018-Mar. 2019
Research Grant A		300,000	300,000	300,000	300,000	300,000	100% accepted
Research Grant B		300,000			300,000	300,000	acceptance ratio 20-30%
Hosei University Graduate School Scholarship		200,000		200,000	200,000		acceptance rate (2015) 120/327
Hosei University Centennial Graduate Scholarship		450,000				450,000	acceptance rate (2015) (37/342)
Total	980,000		708,000	908,000	1,208,000	1,458,000	
Payment Balance (First Year) (amount you gain) minus (amount you pay)			-272,000	-72,000	228,000	478,000	In case 3 and 4, Balance will be plus.

TA (Teaching Assistant)	4,200JPY/1 Class hour (90 Min); 12 class hours/semester
RA (Research Assistant)	2,000JPY/60 minutes; Typically 40 hours/year

Part time work opportunities

We can support you to apply for some scholarships.

1. Teaching Assistant (TA) 4200 yen/100min
   class assistance, teaching material preparation
2. Research Assistant (RA)2000 yen/60min
   technical assistance of experiment or system development
3. Tutor for international students 4200 yen/100min
   learning assistant for new international students

SUMMARY

- **Hosei University is one of the oldest and finest universities in Japan**
- **Selected as a Top Global University Project members**
- **Promoting globalization under the global policy launched in 2014**
  - **Seeking for partner Universities around the world.**
- **English Program named IIST (Institute of Integrated Science and Engineering) will be launched in Sept. 2016**