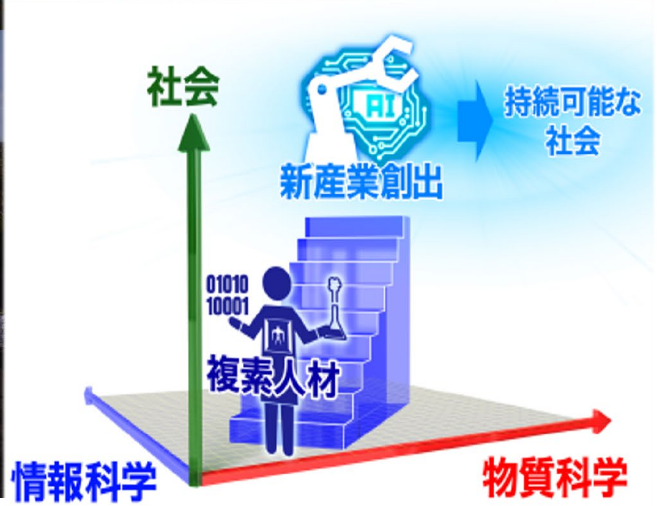
Tokyo Tech


社会
持続可能な社会
新産業創出
AI
01010
10001
複素人材
情報科学
物質科学

Creating sustainable societies through [Material×Information] multi-talented human resource development

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Tokyo Tech Academy for Convergence of Materials and Informatics (TAC-MI)

TAC-MI
Tokyo Tech Academy for Convergence of Materials and Informatics

物質・情報卓越教育院

Doctoral Program for World-leading Innovative & Smart Education in Tokyo Tech

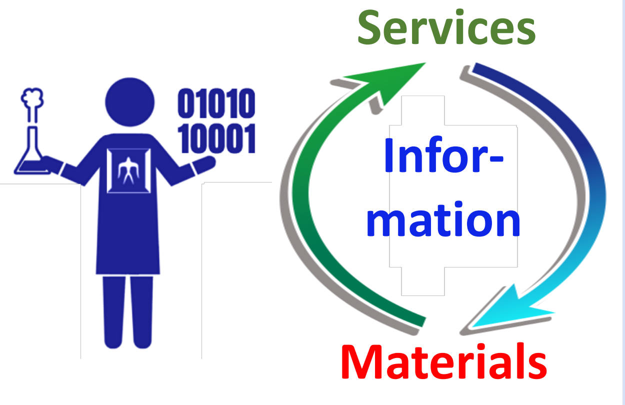
Tokyo Tech

Materials and devices — **Fusion** — **Information technologies**

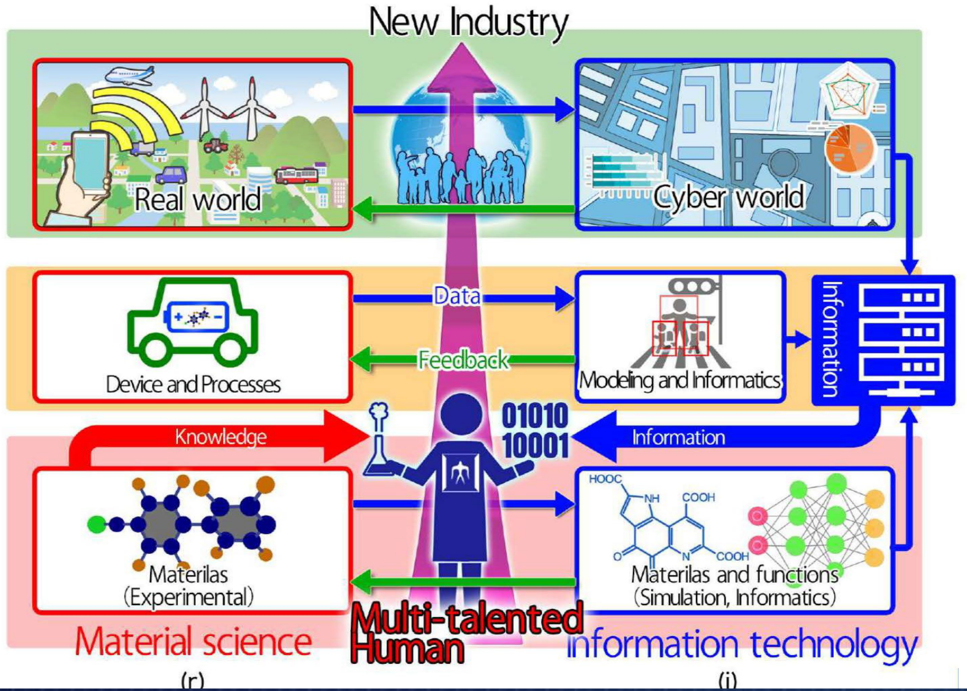
Fusion between material science and information technologies based on Tokyo Tech's own research centers, such as Center for Element Strategy and TSUBAME super computer

Tokyo Tech Academy for Convergence of Materials and Informatics (TAC-MI) Start!

Multi-talented Individuals

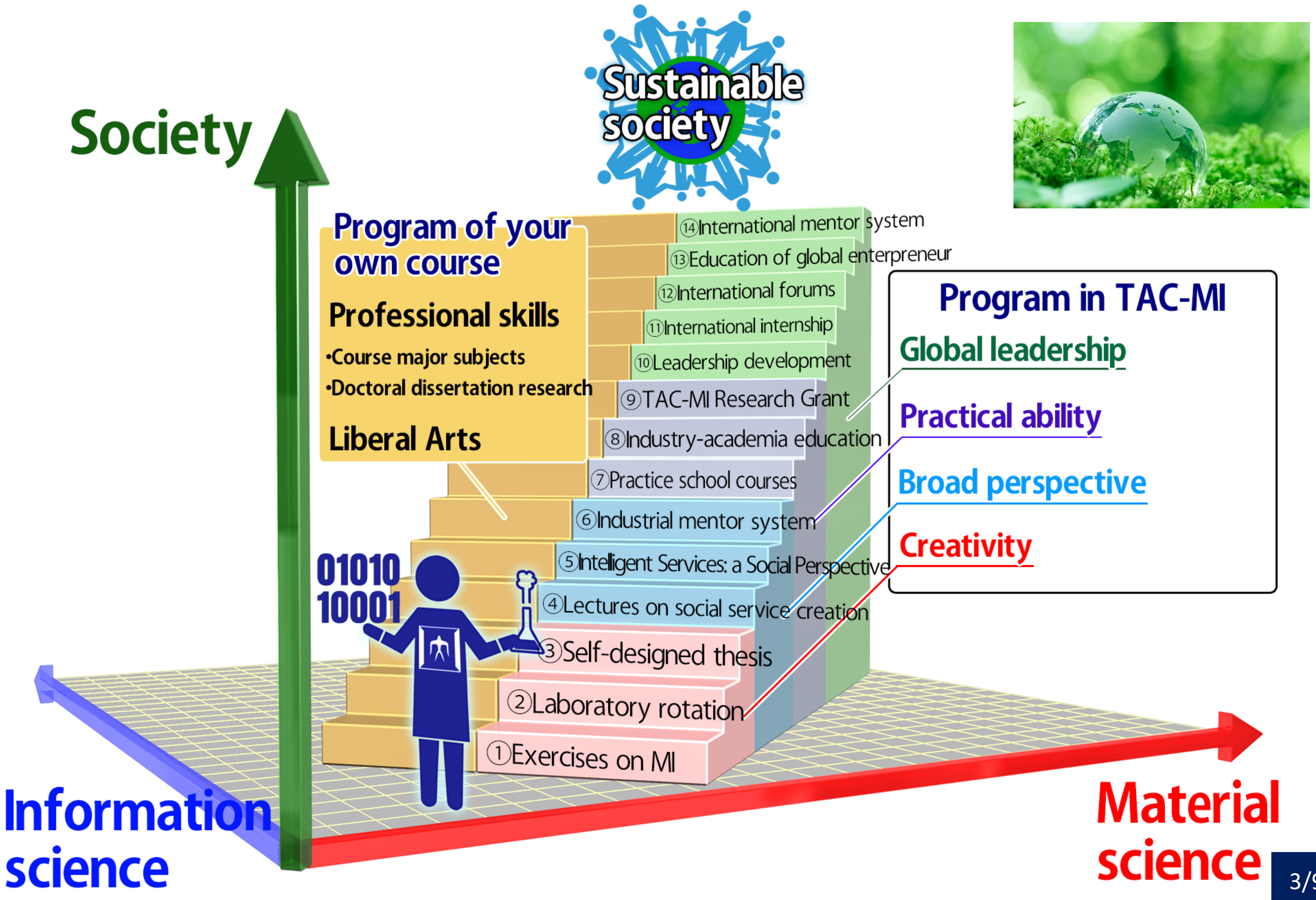

01010
10001
Services
Infor-
mation
Materials

Creating **new industries** by connecting "**materials**", which is Japan's strengths, to "**services**" by utilizing **information science & technologies**.


New Industry
Real world
Cyber world
Data
Feedback
Device and Processes
Modeling and Informatics
Information
Knowledge
01010
10001
Information
HOOC
NH
COOH
N
COOH
O
Materilas
(Experimental)
Materilas and functions
(Simulation, Informatics)
Material science
Multi-talented
Human
Information technology
(r)
(i)

Produce leaders who create new industries as advanced professionals in materials science and informatics

Creating Sustainable Societies through [Material × Information] Multitalented Individuals Development



Sustainable society

Society

Program of your own course

Professional skills

- **Course major subjects**
- **Doctoral dissertation research**

Liberal Arts

⑭International mentor system

⑬Education of global enterpreneur

⑫International forums

⑪International internship

⑩Leadership development

⑨TAC-MI Research Grant

⑧Industry-academia education

⑦Practice school courses

⑥Industrial mentor system

⑤Intelligent Services: a Social Perspective

④Lectures on social service creation

③Self-designed thesis

②Laboratory rotation

①Exercises on MI

Program in TAC-MI

Global leadership

Practical ability

Broad perspective

Creativity

Information science

Material science

Cultivate Creativity

Common fundamental course M1～M2

Basic Materials Informatics (1C) 3Q

Students for Materials and Information

Materials Simulation (2C) 3Q

Materials Informatics (2C) 4Q

Exercise class using TSUBAME

If you have taken Materials Simulation and Materials Informatics, the course will be counted as a "Major Courses" in some courses. (Refer to the study guide for details)

Materials-Informatics Interdisciplinary Research Skills M1～M2

Short term research

Laboratory for Material

Laboratory for Information

To a laboratory different from your specialty **Laboratory rotation**

＊including **NIMS** at Tsukuba as an Information lab.

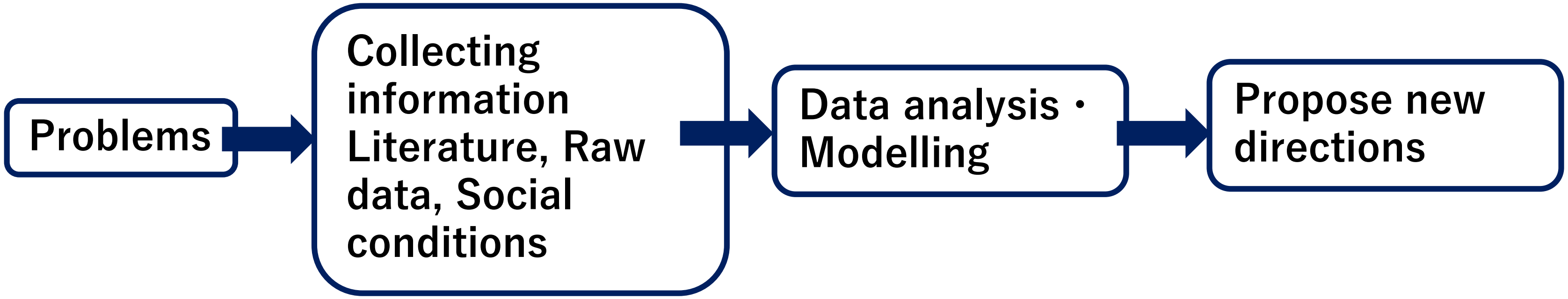
Self-Designed Thesis D2～

Students are encouraged to set up self-finding topics in between Material and Information, such as different ones from the doctoral research of your Major.

Cultivate Practical ability

Tokyo Tech original Practice School in Materials Informatics

A team including the Institute faculties and students stays at a company for 6 weeks. We provide technical consulting utilizing material & information science on important issues of companies.

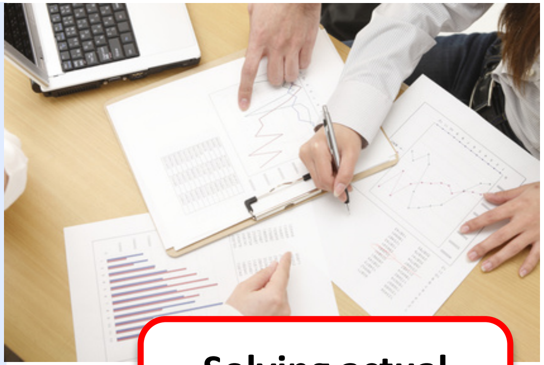

Problems → Collecting information Literature, Raw data, Social conditions → Data analysis・Modelling → Propose new directions

Practice School in Materials Informatics I

- Do modelling of target systems
- Held as an intensive course (in the Tokyo Tech)

Practice School in Materials Informatics II

- Solve the problems at the assigned company by teams
- Propose new directions at the final report


Solving actual problems

History & Future Plan

2019 World’s first Practice School for Material and Information at Asahi KASEI
2020 Practice School was held at Asahi Kasei and TDK.
2021 Practice School was held at Asahi Kasei and AIST.
2022～ Scheduled to be held at 2 sites every year

Cultivate Broad Perspective and Global Leadership

Intelligent Services: a Social Perspective

(Until 2019, "Business Model Training Camp ")

D1 & D2

Develop Broad Perspective and Leadership

- **Propose services for future society by the Teams**

Material / Information Field Students & Overseas Students Hybrid Team (Doctoral Research / Knowledge → Connect to Society)

→ **Award prizes**

International Forum

D1 & D2

Improve international communication skills

- D1 students give presentations.

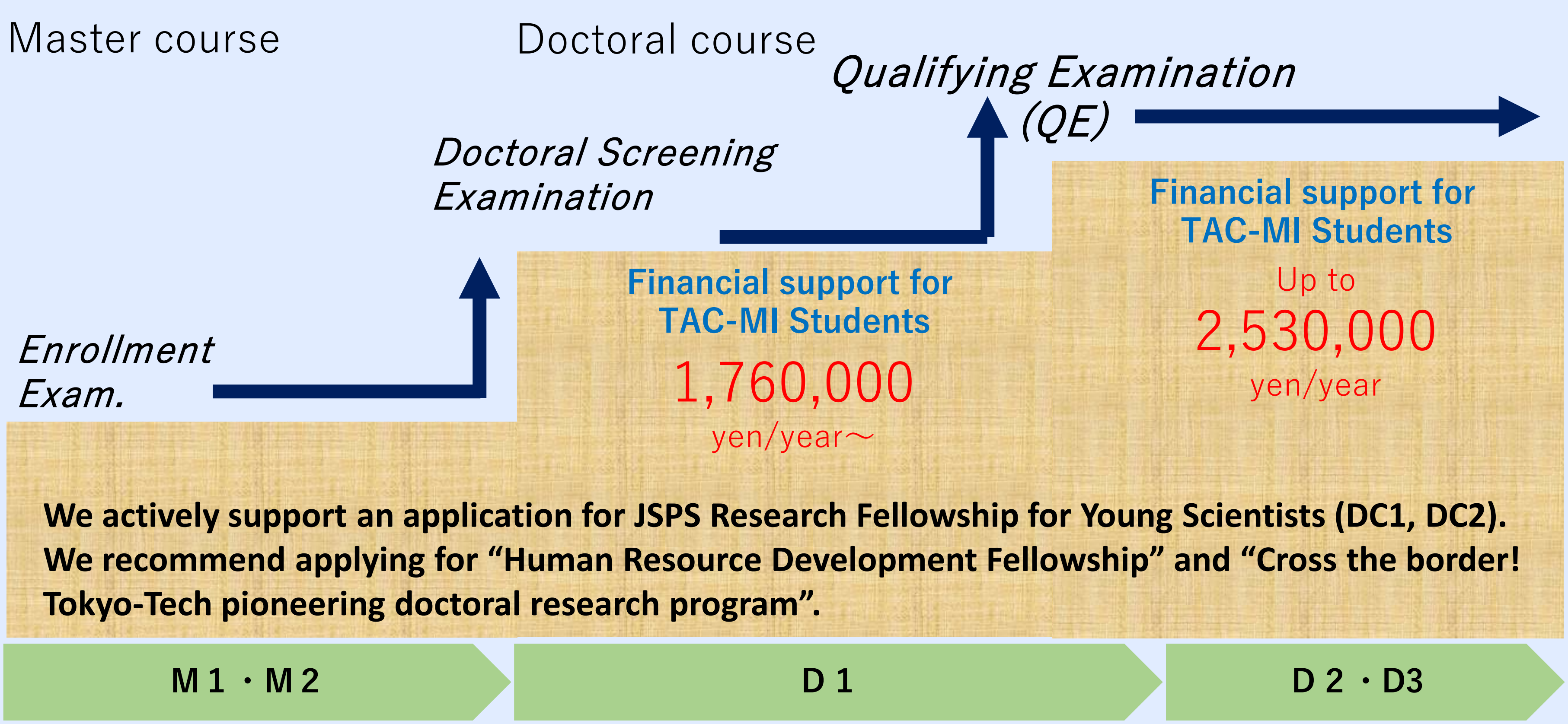
→ Award prizes

- Face-to-face meeting with overseas advisors

TAC-MI
Tokyo Tech Academy for Convergence of Materials and Informatics
1st International Forum

Financial support for TAC-MI students

Financial support and 3 Examinations for quality assurance in TAC-MI



Master course

Doctoral course

Enrollment Exam.

Doctoral Screening Examination

Qualifying Examination (QE)

Financial support for TAC-MI Students
1,760,000
yen/year～

Financial support for TAC-MI Students
Up to
2,530,000
yen/year

We actively support an application for JSPS Research Fellowship for Young Scientists (DC1, DC2). We recommend applying for "Human Resource Development Fellowship" and "Cross the border! Tokyo-Tech pioneering doctoral research program".

M１・M２

D１

D２・D3

- The above amount is the total amount of the financial support for TAC-MI students, including TAC-MI scholarship, Tokyo Tech Tsubame Scholarship for Doctoral Students(480,000 yen/year) and the RA salary from the lab, etc.

TAC-MI will pay RA salary for JSPS DC1/DC2, MEXT Scholarship foreign students, students selected for "Human Resource Development Fellowship" or "Cross the border! Tokyo-Tech pioneering doctoral research program" addition to those financial support.

AY2022 Fall Semester
Student Recruitment Briefing

If you are interested in TAC-MI program, please participate in the briefing session.

TAC-MI
Tokyo Tech Academy for Convergence of Materials and Informatics

Schedule

Wednesday, April 27,2022

① 16:30～17:15 Explanation in English
② 17:15～18:00 Explanation in Japanese
③ 18:00～19:00 Exchange Meeting with TAC-MI Students

To be live-streamed using Zoom

How to register

If you wish to participate in the briefing session, please register from the TAC-MI website.

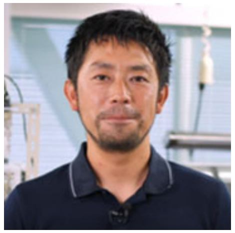
※It is posted as a questionnaire on the Web Services for Students and Faculty. You can also register from there.

https://www.tac-mi.titech.ac.jp/en/event/ay2022fall-briefing/

Join TAC-MI !

Director
Takeo YAMAGUCHI
Institute of Innovative Research

Please feel free to contact these professors!



Yusuke SHIMOYAMA
Chair, Committee of Public Relations
School of Materials and Chemical Technology

Masaki AZUMA
Chair, Committee of Collaboration with Industry
Institute of Innovative Research

Kei GOTO
Chair, Committee of Education
School of Science

Susumu SAITO
Chair, Committee of Admission and Examination
School of Science

Masakazu SEKIJIMA
Chair, Committee of Planning and Events
School of Computing

TAC-MI HP：**https://www.tac-mi.titech.ac.jp/en/**
Contact：TAC-MI Office (S6 Bldg., Rm 402) tac-mi@jim.titech.ac.jp