

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

Tokyo Tech **A**cademy for **C**onvergence
of **M**aterials and **I**nformatics (TAC-MI)



物質・情報卓越教育院

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

**Materials
and devices**

Fusion

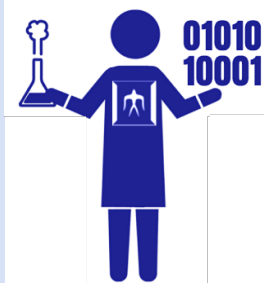
**Information
technologies**

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

Services

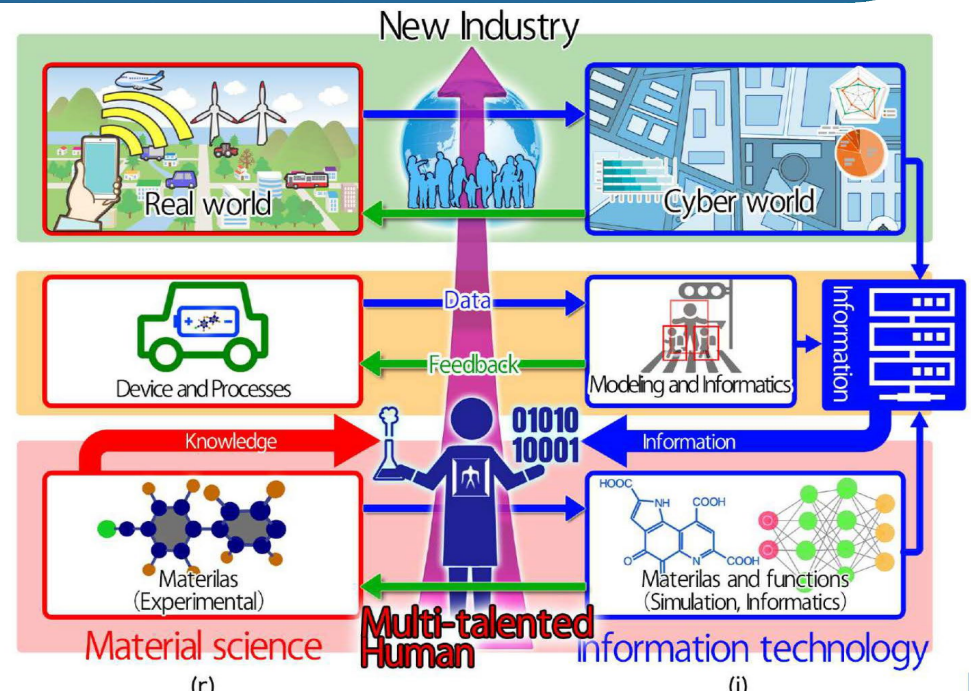


Information

Materials

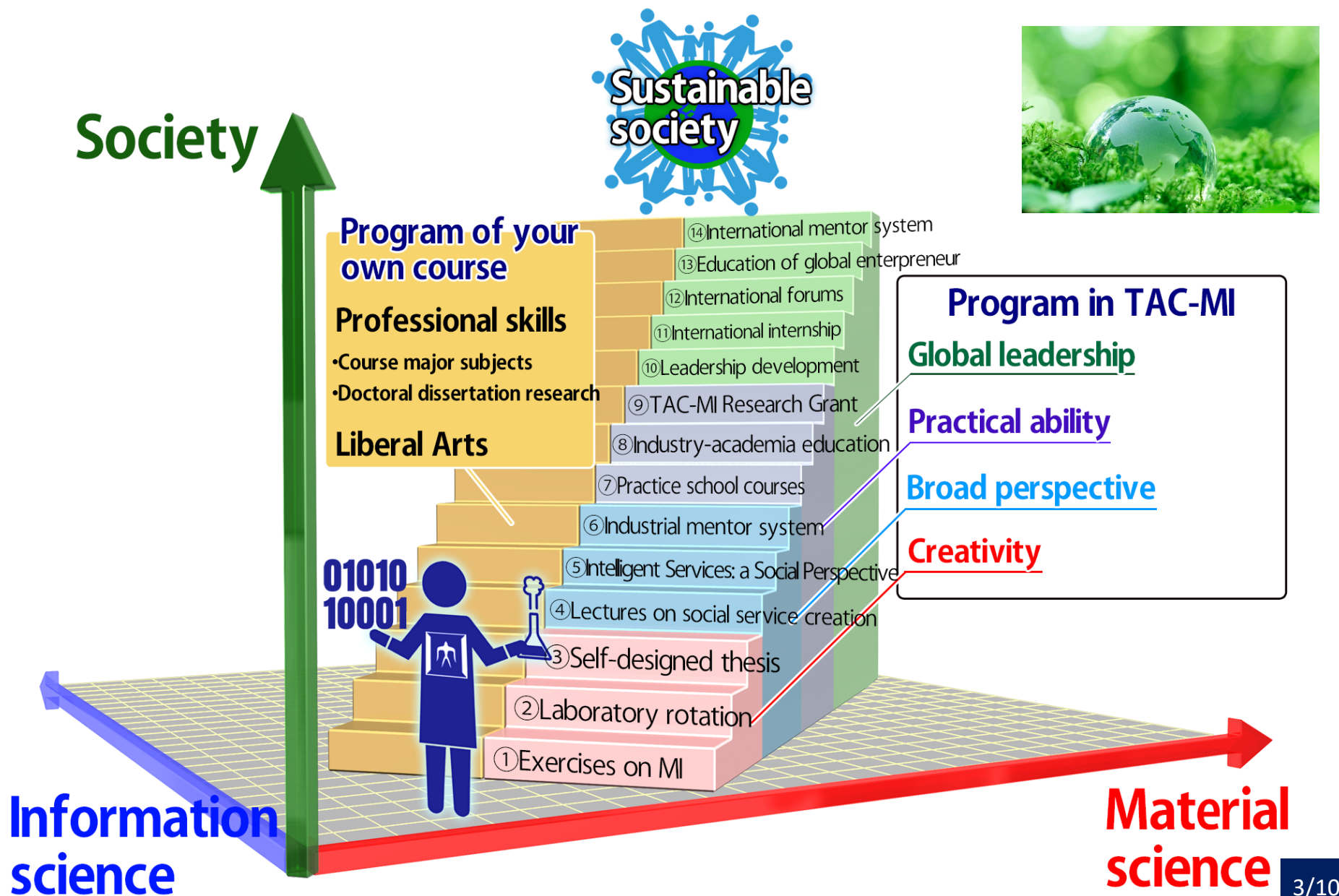
Creating new industries

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



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

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



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)

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.

**Materials-
Informatics
Interdisciplinary
Research Skills**

M1~M2



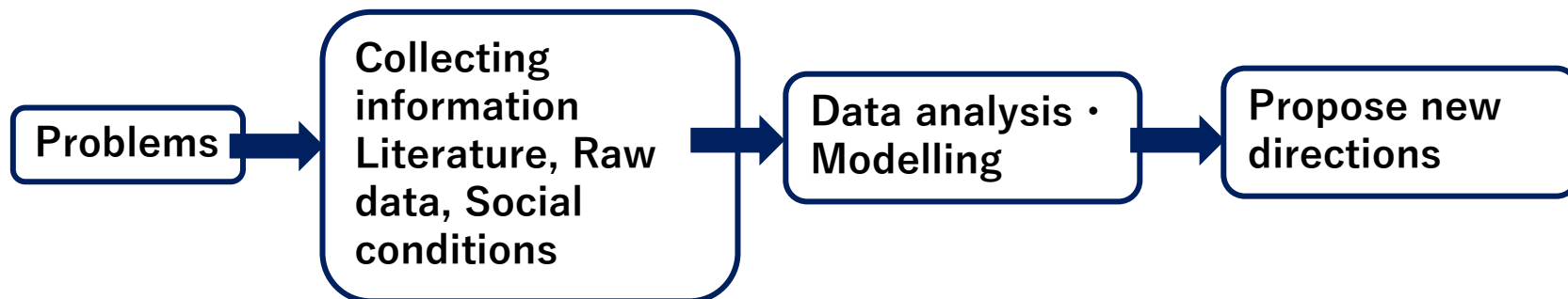
**Self-Designed
Thesis D2~**

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.

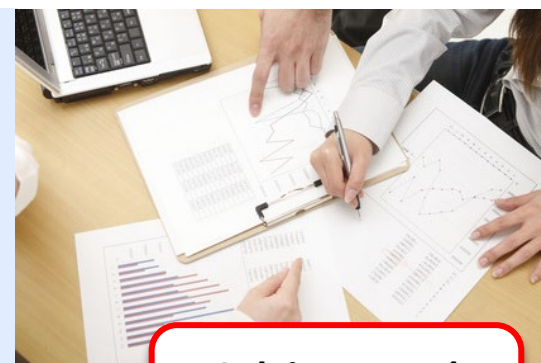


Practice School in Materials Informatics I

- 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 a company.
2020 Practice School was held at 2 companies.
2021 Practice School was held at 1 company 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.**

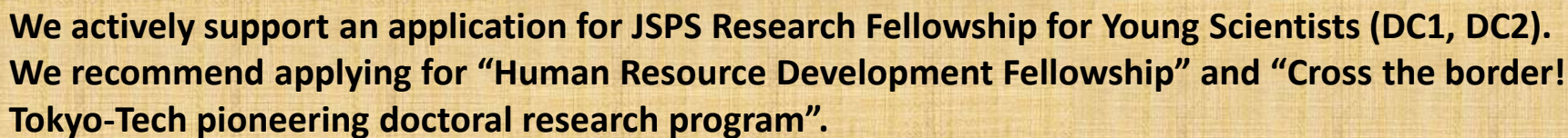


Award prizes

- **Face-to-face meeting with overseas advisors**



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



- 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.**

Industrial Partners (31companies)



A G C 株式会社
AGC Inc.

旭化成株式会社
ASAHI KASEI CORPORATION

E N E O S 株式会社
ENEOS Corporation

浜松ホトニクス株式会社
Hamamatsu Photonics K.K.

出光興産株式会社
Idemitsu Kosan Co., Ltd.

J F E スチール株式会社
JFE Steel Corporation

J X 金属株式会社
JX Nippon Mining & Metals Corporation

株式会社 カネカ
KANEKA CORPORATION

花王株式会社
Kao Corporation

京セラ株式会社
KYOCERA Corporation

三菱ケミカル株式会社
Mitsubishi Chemical Corporation

三菱ガス化学株式会社
MITSUBISHI GAS CHEMICAL COMPANY, INC.

三井金属鉱業株式会社
MITSUI MINING & SMELTING CO., LTD.

長瀬産業株式会社
NAGASE & CO., LTD.

日本電子株式会社
JEOL Ltd.

日本ガイシ株式会社
NGK INSULATORS, LTD.

日本特殊陶業株式会社
NGK SPARK PLUG CO., LTD.

日本ゼオン株式会社
ZEON CORPORATION

日産自動車株式会社
Nissan Motor Co., Ltd.

パナソニック インダストリー株式会社
Panasonic Industry Co., Ltd.

セイコーエプソン株式会社
Seiko Epson Corporation

昭和電工株式会社
SHOWA DENKO K.K.

住友電気工業株式会社
Sumitomo Electric Industries, Ltd.

住友化学株式会社
SUMITOMO CHEMICAL Co., Ltd.

太陽誘電株式会社
TAIYO YUDEN CO., LTD.

T D K 株式会社
TDK Corporation

戸田工業株式会社
TODA KOGYO CORP.

株式会社 東芝
Toshiba Corporation

東ソー株式会社
TOSOH CORPORATION

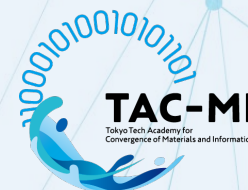
東洋製罐グループ
ホールディングス株式会社
Toyo Seikan Group Holdings, Ltd.

トヨタ自動車株式会社
TOYOTA MOTOR CORPORATION

AY2023 Spring Semester Student Recruitment Briefing

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

Schedule **Wednesday, October 26, 2022**



- ① 17:40~18:25 Explanation in Japanese
- ② 18:25~19:10 Explanation in English

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.



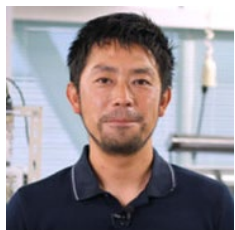
<https://www.tac-mi.titech.ac.jp/en/event/ay2023spring-briefing/>

Join TAC-MI !

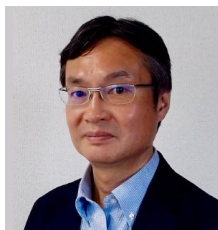
Director
Takeo YAMAGUCHI
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**Please feel free to
contact these professors!**



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