



Exploring the Frontiers of VR, IoT, and AI at Tokyo Tech

May 27, 2019

Dr. Susumu Kajiwara

Vice President, Tokyo Institute of Technology



Tokyo Tech

Tokyo Institute of Technology

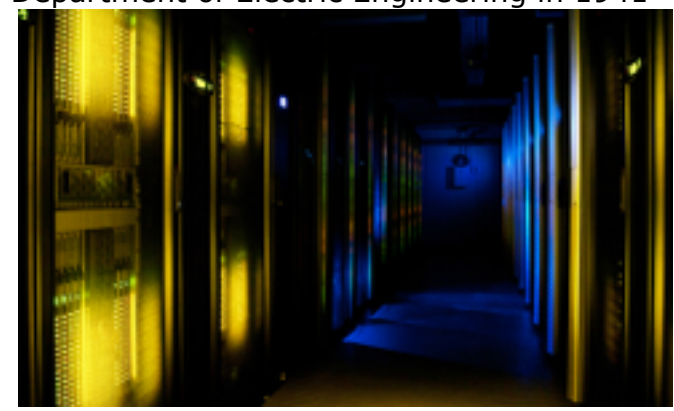
138 Years of technical innovation

1881 Founded as **Tokyo Vocational School**

2018 Selected as a **Designated National University Corporation**
(Cf. Exzellenzinitiative)



Department of Electric Engineering in 1941



TSUBAME Supercomputer (2010-)

Distinguished Researchers



Hideki Shirakawa
Chemical Engineering
Doctorate

- 2000 Nobel Prize in Chemistry



Yoshinori Ohsumi
Honorary Professor

- 2016 Nobel Prize in Physiology or Medicine
- 2016 Breakthrough Prize in Life Sciences

Academic organization & numbers

- School of Science
- School of Engineering
- School of Materials and Chemical Technology
- School of Computing
- School of Life Science and Technology
- School of Environment and Society
- Institute for Liberal Arts
- Institute of Innovative Research



Master's & Doctoral students (International)	5,384 <small>1,191</small>	Faculty	1,094
Bachelor's Students (International)	4,828 <small>249</small>	Administrative & technical staff	595

Tokyo Tech ANNEX



With the cooperation of strategic partners overseas, Tokyo Tech Annexes identify potential seeds for international collaborative research and educational programs, and promote the Institute's pioneering research and education

ANNEX-E (Education)

- *Recruit excellent students
- *Build alliances with universities and research institutions

ANNEX-I (Information)

- *Disseminate information from and about Tokyo Tech
- *Conduct public relations

ANNEX-R (Research)

- *Liaise with industry and promote research collaboration
- *Recruit outstanding researchers

Bringing Tokyo Tech Innovation to the World

Aachen
(2019.3)

Tokyo Tech ANNEX Aachen
Aachen, Germany (Located at RWTH Aachen)

Bangkok
(2018.3)

Tokyo Tech ANNEX Bangkok
Pathum Thani District, Thailand (Located at NSTDA)

ASPIRE Forum 2018



Student Exchange

Many activities based on the Agreement since 2007

Summer School 2018 @Aachen



Research Collaborations



Oct. 2016
Joint Seminar on Robotics and AI



Mar. 2017
Joint Workshop on Material and Chemical Technology and Life Science

March 2018
Joint Workshop on Intelligent Surfaces and Materials

AI & IoT Research at Tokyo Tech

Tokyo Tech Research:

Priority fields and Strategic areas

CPS² (Cyber Physical & Social Systems)

AI, security, social systems, sensing in social space, HMI/BMI, agents

Priority fields

Next-generation element

strategy: Realizing a society that effectively utilizes limited resources

Integrated energy science:

Realizing a sustainable energy society

SSI (Sustainable Social Infrastructure)

Architectural/structural mechanics, robotics, environmental/internal informatics, service/engineering design/management

HLS (Holistic Life Science)

Mathematical/Physical understanding and control of life phenomena, cell biology, bioinformatics, life science

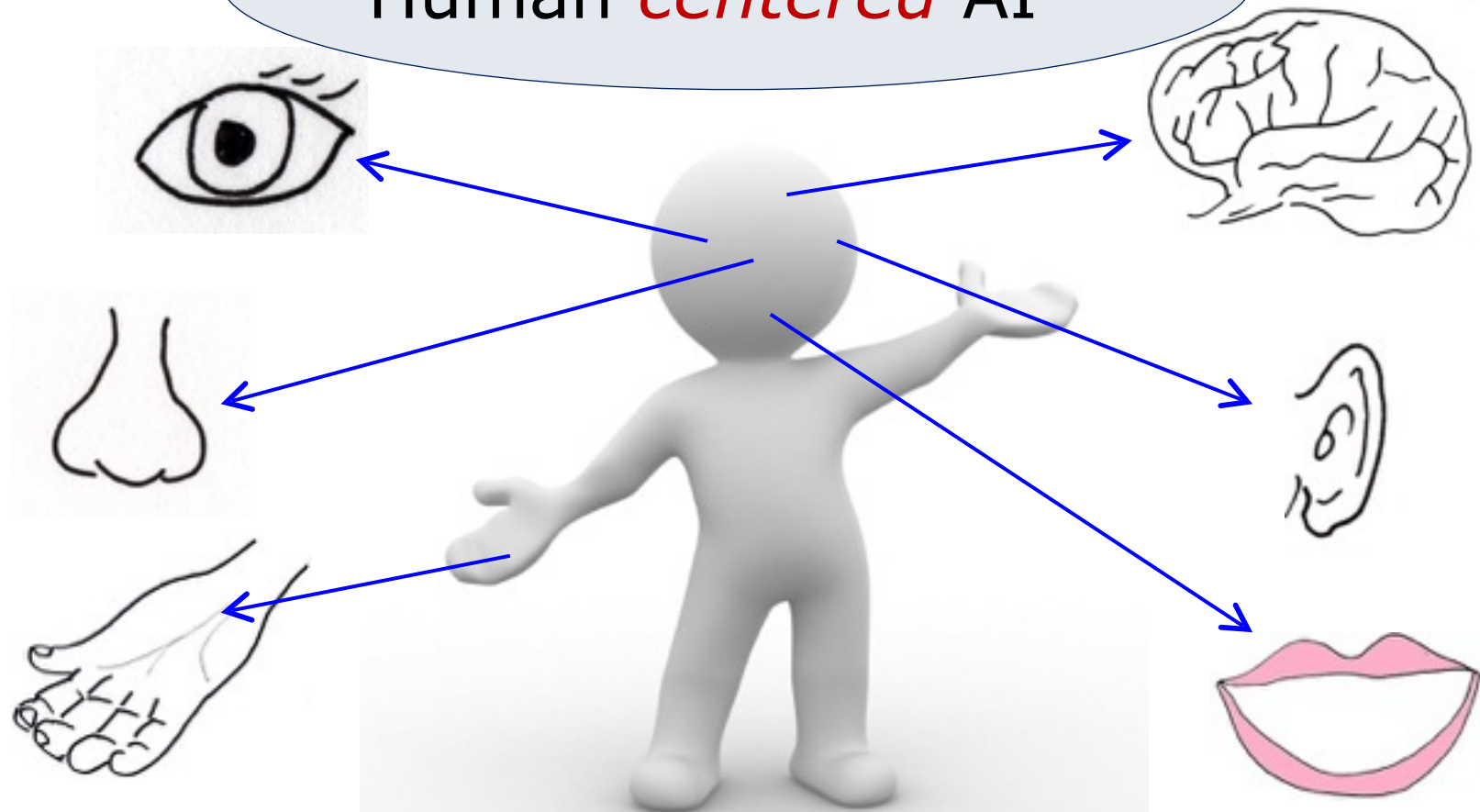
Digital society device & system:

Creating infrastructure that fuses hardware and software

AI & IoT Research at Tokyo Tech

Our Vision

Human *centered* AI



Enhance human abilities
in a human centered way

Just a Few Examples of AI & IoT Research at Tokyo Tech



尖らせる 共鳴する 実装する
Pursue. Engage. Transfer.

Tokyo Tech

President: Kazuya Masu
学長：益 一哉

