

PRESS RELEASE

Sources:

Tokyo Institute of Technology

DENSO IT Laboratory, Inc

For immediate release: April 1, 2020

Subject line: **Tokyo Tech and DENSO IT LAB form AI tech platform for future mobility**

(Tokyo, April 1) **Tokyo Institute of Technology (Tokyo Tech) and DENSO IT LABORATORY, INC. have established an innovative AI technology platform for collaboration in future mobility development.**

Background and Purpose

The industrial world has traditionally considered vehicles simply as automobiles; however, this thinking has changed to a broad range of transportation through the concept of mobility, and we are now embarking upon a revolution in autonomous driving, motorization, and Mobility as a Service (MaaS)^[1].

Meanwhile, the current trend in academia is AI and deep learning, and this has generated innovative breakthroughs. Expanding on this progress requires input from the mathematical and computing sciences, areas that will lead to designs for future society.

DENSO IT LAB is developing technology capable of changing the concept of next generation mobility, concepts such as autonomous driving and advanced safety vehicles as well as other onboard systems and services. In addition, Tokyo Tech established [the Data Science & Artificial Intelligence Research Group for Social Good](#), headed by Haruo Yokota, Dean, [School of Computing](#), to work on solutions for social issues by leveraging data science, AI, and interdisciplinary collaboration among faculty members and industry.

The rapid implementation of AI as a basic technology in all industries has generated fierce competition among universities and the private sector. Recognizing the need for strong industry and university cooperation, Tokyo Tech and DENSO IT LAB have partnered to work on the acceleration of machine learning via super computers as well as other areas.

Tokyo Tech and DENSO IT LAB are further enhancing collaboration through a joint research agreement, led by School of Computing professor Koichi Shinoda, and have established the [DENSO IT LAB Recognition and Learning Algorithm Collaborative Research Chair](#). The integration of Tokyo Tech’s advances in mathematics and computer science with DENSO IT LAB’s autonomous driving, motorization, and MaaS technologies has allowed for the creation of an AI technology platform to realize exciting possibilities in future mobility.

In addition, as part of its continuing efforts to enhance industry-university collaboration and promote open innovation, DENSO IT LAB sponsor, DENSO Corporation, established the DENSO Mobility Research Collaborative Research Cluster at Tokyo Tech to facilitate research planning and development between the two organizations.

Overview of the Collaborative Research Chair

1. Name DENSO IT LAB Recognition and Learning Algorithm Collaborative Research Chair
2. Research Goal Creation of breakthroughs that link basic to applications
3. Period April 1, 2020 – March 31, 2023
4. Content Basic and applied research in the fields of machine learning, pattern recognition, and computer vision to expand information processing technology for mobility intelligence
5. Research Structure Gather the world-class mathematical and computer science knowledge and create technical breakthroughs in acquiring knowledge from data

Role	Current Affiliation	Title	Name
Representative (Tokyo Tech)	Tokyo Tech School of Computing	Professor	Koichi Shinoda
Representative (DENSO IT LAB)	DENSO IT LAB	Executive General Manager	Hirotoishi Iwasaki
Collaborative Research Faculty	Tokyo Tech School of Computing	Associate Professor	Shunsuke Ono
	Toyo Tech School of Computing	Assistant Professor	Nakamasa Inoue

	Tokyo Tech School of Engineering	Associate Professor	Masayuki Tanaka
	Tokyo Tech Global Scientific Information and Computing Center	Associate Professor	Rio Yokota
	Tokyo Tech Global Scientific Information and Computing Center	Assistant Professor	Akihiro Nomura
Collaborative Research Chair Faculty	Tokyo Tech School of Computing DENSO IT LAB	Specially appointed Associate Professor Senior Researcher	Ikuro Sato
	Tokyo Tech School of Computing DENSO IT LAB	Specially appointed Associate Professor Senior Researcher	Rei Kawakami

[1] MaaS ("Mobility as a Service)

MaaS is a new concept in mobility that seamlessly connects all public transportation ways(buses, trains, taxis, ride-sharing and sharing cycles) using ICT. People can use them efficiently and conveniently.

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About Tokyo Institute of Technology

Tokyo Tech stands at the forefront of research and higher education as the leading university for science and technology in Japan. Tokyo Tech researchers excel in fields ranging from materials science to biology, computer science, and physics. Founded in 1881, Tokyo Tech hosts over 10,000 undergraduate and graduate students per year, who develop into scientific leaders and some of the most sought-after engineers in industry. Embodying the Japanese philosophy of “monotsukuri,” meaning “technical ingenuity and innovation,” the Tokyo Tech community strives to contribute to society through high-impact research.

HP: <https://www.titech.ac.jp/english/>

About DENSO IT LABORATORY, INC.

DENSO IT LAB was founded in 2000 by DENSO in 2000. Its mission is to innovate mobility. Toward its realization, DENSO IT LAB constructs a R&D framework from exploration of sprouting technologies to commercialization of the developed core technologies with value creation for end-users, weights on individuals, open communication and lifelong researchers as the visions. Research fields of DENSO IT LAB are Image Recognition, User Interface, Natural Language Processing, Signal Processing, Control and New Fields.

HP: <https://www.d-itlab.co.jp/en/>