



Communication That Reaches the Heart

Recent developments in artificial intelligence (AI) promise big changes in how we live and work. This process of change necessitates constant questioning and re-forming of the nature of the communications between people, between people and computers, and between computers. Such reform demands the establishment of new theories and processing technologies that are based on a deep understanding of the relationship between people and information.


By taking on the challenges of basic research on both information as well as human behavior, NTT Communication Science Laboratories has set out to develop communication that “reaches the heart.”

As a COE (center of excellence) for open communication science, we collaborate widely with research institutes and renowned universities in Japan and overseas. Our aim is to contribute to society academically and technologically with the discovery of new concepts and principles plus innovations that link to new services.



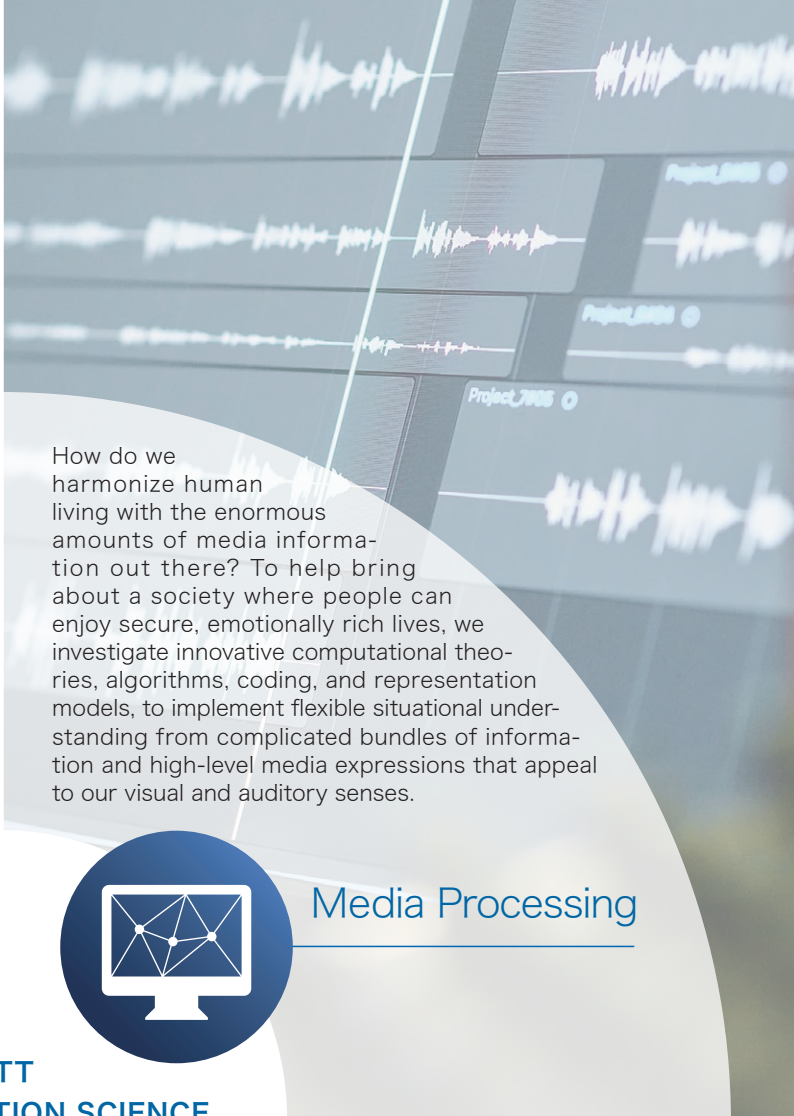
<https://www.rd.ntt/e/cs/>





Using information science, psychology, and neuroscience, we are grasping the diverse functions of the human senses, emotions, and movement and clarifying how the brain and body processes information and conveys it to the heart and mind. We also propose design principles for information and communication technologies that enable heart-to-heart human connection.

Human Information Science



How do we harmonize human living with the enormous amounts of media information out there? To help bring about a society where people can enjoy secure, emotionally rich lives, we investigate innovative computational theories, algorithms, coding, and representation models, to implement flexible situational understanding from complicated bundles of information and high-level media expressions that appeal to our visual and auditory senses.

Media Processing



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Diverse Brain Science



Our objectives are to elucidate the essence of human diversity as the interaction of brain, body, and environment and to establish a methodology for bringing out the latent abilities of each individual. We mainly target athletes and those with autism spectrum disorder.



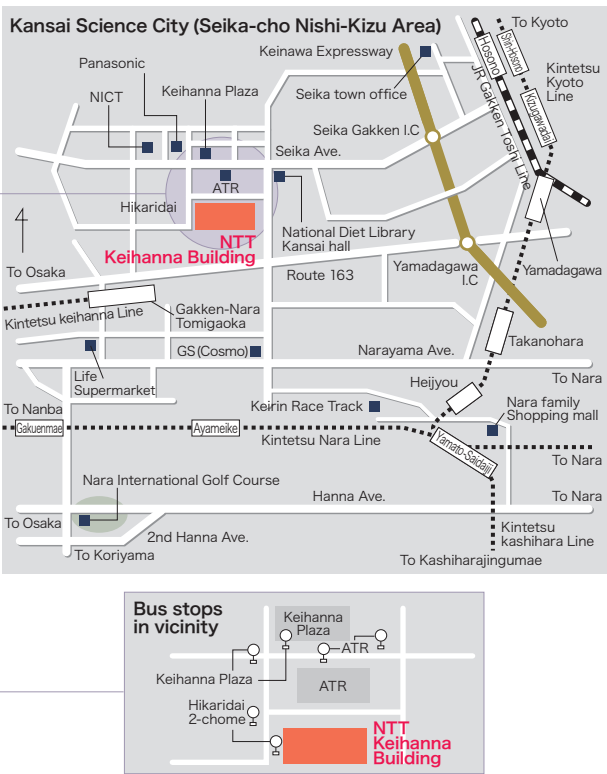
Data and Machine Learning



By joining together massive amounts of language and real-world information, we aim to develop far-reaching intelligence processing and core technologies that will support information infrastructures of the future, as well as to create new value from data itself through extensive data analysis that makes full use of machine learning techniques.

NTT Keihanna Building

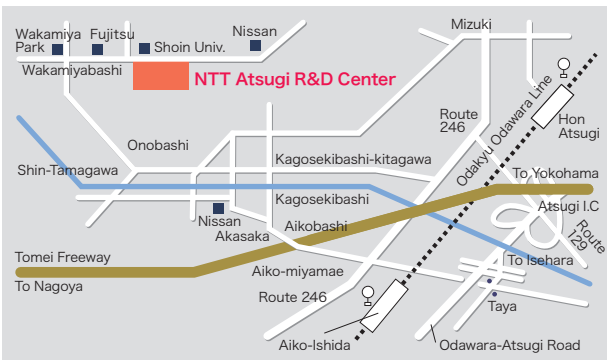
2-4, Hikaridai, Seika-cho, Soraku-gun, Kyoto, Japan 619-0237




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| By Train and Bus | "Shin-Hosono" station on Kintetsu Kyoto Line (30 minutes from "Kyoto" station.) "Hosono" station on JR Gakken Toshi Line (1 hour from "Kyobashi" station.) West exit Bus Stop (1) 15-minutes ride by bus on the "59 Gakken Nara Tomigaoka" route; 1-minute walk after getting off at the "Hikaridai 2-chome" bus stop. (2) 15-minutes ride by bus on either the "36 Hosono Station" route or the "56 Gakken Nara Tomigaoka" route; 7-minute walk after getting off at the "Keihanna Plaza" bus stop. |
| | "Gakken Nara Tomigaoka" station on Kintetsu Keihanna Line (30 minutes from "Namba" station.) Bus Stop No.1 (1) 15-minutes ride by bus on the "59 Hosono Station" route; 1-minute walk after getting off at the "Hikaridai 2-chome" bus stop. (2) 15-minutes ride by bus on the "56 Hosono Station" route; 7-minute walk after getting off at the "Keihanna Plaza" bus stop. |
| | 10-minutes from "Shin-Hosono" station on Kintetsu Kyoto Line or "Hosono" station on JR Gakken Toshi Line. 20 minutes from "Gakuenmae" station on Kintetsu Nara Line. 10 minutes from "Takanohara" station on Kintetsu Kyoto Line. 10 minutes from "Gakken Nara Tomigaoka" station on Kintetsu Keihanna Line. |
| By Taxi | From Osaka take Route 163, turn left at the Hikari-dai sign and then turn left at the T junction. Turn left at Keihanna Plaza and the laboratory is then on your left the, after the first crossroads. From Kyoto, take the Keinawa Expressway to the Seika-Gakken Interchange and then turn right. Turn left at Keihanna Plaza and the laboratory is then on your left, after the first crossroads. |

NTT Atsugi R&D Center

3-1, Morinosato Wakamiya Atsugi-shi, Kanagawa, Japan 243-0198



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| By Train and Bus | "Aiko-Ishida" station on Odakyu Line (1 hour from "Shinjuku" station.) Get off at Aikou-Ishida station and go to the North exit, catch either the "Mori-no-Sato" bus (Ai17) or the "Shoin University" bus (Ai18) or "Nissan Senshin Gijutsu Kaihatsu Center" bus (Ai19 or Ai21) at the bus stop No.4. Get off at the Tsushin Kenkyusho Mae (Electrical Communications Laboratories) bus stop (about 15 minutes). |
| | "Hon-Atsugi" station on Odakyu Line (1 hour from "Shinjuku" station.) Get off at the East exit of Hon-Atsugi station and go to the bus center (6 minutes by walk). Then catch the "Mori-no-Sato via Akabane Takamatsuyama" bus (Atsu44) at the bus stop No.9. Get off at the Tsushin Kenkyusho Mae (Electrical Communications Laboratories) bus stop. (about 25 minutes) |
| By Taxi | 15 minutes from "Aikou-Ishida" station. 20 minutes from "Hon-Atsugi" station. |
| By Car | Leave the Tomei expressway at the Atsugi Interchange, taking the Odawara-Atsugi Road. Soon take the exit to Isehara. Continue along the side road under the express way. Then turn right at the third set of lights (Taya crossroads), cross Route 246 and continue towards Aikobashi and Akasaka. Turn left at the Kagoseki crossroads and then continue ahead. Turn right at the Onobashi Wamiyabashi crossing and continue up the hill. The lab is on your right (about 20 minutes). |

**NTT**

NTT COMMUNICATION SCIENCE LABORATORIES

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