**Access**

**Universal Communication Research Institute**
Advanced Speech Translation Research and Development Promotion Center
3-6, Hikaidai, Beka-cho, Soraku-gun, Kyoto, 619-0289 Japan

**Access by Train**

- **At Hosen Stn., on the JR Gakken-Yoshii Line, or Shin-Hosono Stn., on the Kintetsu Kyoto Line.**

  - **Take Narita-koujo Bus.**
    - Sh6 for "Hosono Kita Line" or Narita-koujo Bus #6 for "Gakken Nara Tomigoza Stn." and get off at "Hikaidai Station." Stop. The bus ride will take about 15 minutes, and the building is across the road from the bus stop. Alternatively, get off at the #56 bus at "Koh:numel" and walk for six minutes.

- **At Gakken Nara Tomigoza Stn., on the Kintetsu Kethanna Line.**

  - **Take Narita-koujo Bus.**
    - #6 for "Hosono Stn." and get off at "Hikaidai Station." Bus stop in front of the building, or take Narita-koujo bus #6 for "Hosono Stn." and get off at "Koh numel" and walk for six minutes. Either bus ride will take about 10 minutes.

**Access by Car**

- Sankyo Expressway #31, Higashi-Otsu Route – Nishitetsu Kintetsu – Kintetsu Kethanna
- Kintetsu Kethanna – Kintetsu Kintetsu
- Kintetsu Kethanna – Sankyo Expressway #31, Higashi-Otsu Route

**Access by Highway Bus**

There are buses running directly to Kethanna from Kanoya Bus terminal and Kanoya Bus terminal.

**NICT Headquarters**

- Universal Communication Research Institute
- Advanced Speech Translation Research and Development Promotion Center

**Access by Train**

- **From JR Kokubunji Station.**
  - Take the Tsuchiura Line (South Exit)
  - Get off at "Tsuchiura Shinkansen Station," take bus on front of NICT.
  - From JR Musashii-Koganei Station.
  - Take the Kita Line (South Exit)
  - Get off at "Kita Line Station," take bus on front of NICT.

**From Kodaiai Stn. On Seibu Shinjuku Line**

- GRo of Kodaiai Station Entrance, get off at "Shinjuku-dori," approx. 15 minutes.

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**NICT National Institute of Information and Communications Technology (HQ)**

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Message from the Director General

A society in which the people of the world can all communicate with each other without worrying about differences in languages or abilities, without the barrier of language, has long been a great dream of the human race. Japan has been pursuing the national project, Global Communication Plan, since 2014, with the aim of realizing a society without language barriers. The Advanced Speech Translation Research and Development Center (ASTREC) was established as a research hub that would play a central role in research and development under this Plan. ASTREC is pursuing R&D with an "all-Japan" line-up of researchers from government, industry, and academia, the goal of which is to develop highly practical multilingual speech translation technologies that can be used on public transport such as trains, in shopping facilities, at tourist spots, and in healthcare settings by the year 2020, as well as technologies for multilingual text translation technologies to enable companies to machine-translate patents from other countries. Through the activities of the Global Communication Development Promotion Council, the outcomes of these research and development activities, which are the fruit of industry-academia-government collaboration, are being widely disseminated throughout society.

Organization

- Advanced Speech Translation Research and Development Promotion Center
- Planning Office (Kōbō, Kashiwa)
- Advanced Speech Technology Laboratory (Kōbō)
- Advanced Translation Technology Laboratory (Kōbō)
- System Development Office (Kōbō)

Deploying Research Outcomes in Society
(System Development Office and Planning Office)

VoiceTra http://voicetra.nict.go.jp/
Speech translation app that translates spoken words into other languages.

KoeTra http://www.koetr.jp/
An app that facilitates communication between hearing-impaired people and people with normal hearing.

SpeechCanvas* http://speechcanvas.nict.go.jp/
Convenient app to assist with communication using hearing-impaired people at events, etc.

*http://gscp.nict.go.jp/

Advanced Speech Technology Laboratory

The Advanced Speech Technology Laboratory will realize practical speech recognition technologies in ten languages (Japanese, English, Chinese, Korean, Thai, Vietnamese, Indonesian, Myanmar, Spanish, and French) with the aim of implementing them in society in 2020. Research and development involved includes (1) building speech corpora of about 2,000 hours in four languages, Japanese, English, Chinese, and Korean, and of about 500 hours in the other languages; (2) developing multilingual and multidisciplinary language models; and (3) developing high-speed, high-accuracy speech recognition engines. The Laboratory will also conduct research and development of cognitive synthesis technologies to realize practical speech synthesis systems in the above ten languages.

In terms of research and development for the world post-2030, the Laboratory is aimed to reexamine technologies for the conversion of all speech contents around the globe into text. It will conduct research and development of technologies for recognizing speech generated by multiple people speaking different languages in environments such as public spaces with background noise and echoes, and technologies for mixed-language dialogue in many languages.

Speech recognition
Machine control
Speech synthesis

Advanced Translation Technology Laboratory

While conducting research and development of multilingual and multidisciplinary machine translation, the Advanced Translation Technology Laboratory will also concurrently collect large volumes of bilingual data to build highly accurate machine translation systems for use in multiple languages and multiple fields. In particular, to cope with the sharp rise in the number of overseas tourists coming to Japan, the Laboratory will conduct research and development aimed at the implementation in society of practical speech translation systems for areas such as travel, healthcare, and disaster preparation, in the ten languages mentioned above, that can be used in general daily life. In terms of research and development for the world post-2020, the Laboratory will aim to establish the basic technologies for simultaneous interpreting systems, such as the incrementalization of translation processing. Also, to minimize the dependence on bilingual data that is hindering the universal adoption of machine translation systems, the Laboratory will pursue research and development of technologies for making use of data in other languages in the same discipline that are not bilingual and of technologies for reciprocal conversion of syntactically equivalent expressions.

Minna no Honyaku http://trans-aid.jp/
Minna no Honyaku (Translation for Everyone) is a website that lets people work together to translate documents from all over the globe. Anyone can translate as much or as little as they are able. Even if one person can manage only a tiny part, the combined efforts of everyone doing their own parts all over the globe will serve to significantly lower the barriers of language. Minna no Honyaku provides the necessary foundations for translation and information about translation to achieve this kind of future.

Minna no Machine Translation@TexTra https://mt-auto-minhon-mt.ucll.jgnox.jp/
Minna no Machine Translation@TexTra is a website that allows anyone to help foster machine translation. Users can try out previously registered machine translations, have their own files machine translated, and use the translation editor on the site to translate text themselves.