

Announcement on launching Artificial Intelligence eXploration Research Center, UEC

- The first AI Center in national universities,
realizing AGI for society where people and AI coexist in a harmony -

国立大学法人電気通信大学

人工知能先端研究センター
Artificial Intelligence eXploration Research Center

AIX

<http://aix.uec.ac.jp>



The University of Electro-Communications (hereinafter referred to as UEC) (President: Takashi FUKUDA) announces that the University establishes Artificial Intelligence eXploration Research Center (AIX) in UEC Chofu Campus on July 1, 2016.

“AI for X” is a basic principle for AI research at AIX. Thus, we set up the following 3 basic policies for the research based on the principle: “AI for Science”, “AI for Design” and “AI for Service”. “Artificial General Intelligence (AGI)” is a common base for the 3 policies. Under these basic policies, AIX is aiming to encourage new AI research which its main focus point is the realization of AI by the interdisciplinary fusion, for instance, artificial intelligence, robotics, brain and neuroscience, computer science and service science, to implement “ the most versatile Artificial Intelligence System living with humankind” that can support future social infrastructure.

The Japanese Society for Artificial Intelligence celebrates the 30th anniversary in 2016. In addition, 2016 is a turning point since the word “Artificial Intelligence” was used for the first time in the conference at Dartmouth, United Kingdom in 1956, just 60 years ago.

UEC establishes AIX in such memorial year.

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UEC Artificial Intelligence eXploration Research Center (AIX)

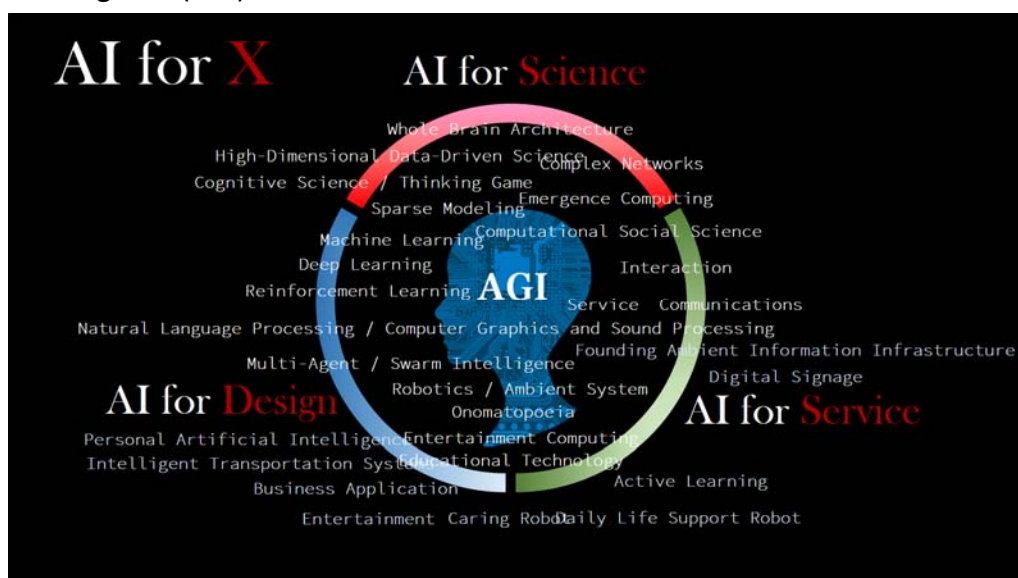
Background

On the background for the establishment of AIX, we are required the quick response and act for AI research because there is a global change related to artificial intelligence research in the past few years. Japan also displays extreme wariness over the current situation of AI research. “Deep Learning” which suddenly came up in 2011 has ignited this AI boom, and the boom has been continued until present. However, Japan can be in a critical situation for AI research in the future because overseas countries are currently leading all elements of the research, such as research environment, budget and human resource.

To resolve the current situation, AI research centers have been established in Japan since 2012 at industry and academia level. Likewise, at the governmental research institution level, Artificial Intelligence Research Center was established at National Institute of Advanced Industrial Science and Technology (AIST) last year. Also, RIKEN AIP center will be launched this summer. In the meantime, some research centers for AI have been already established by the private universities; however, AIX is the first research center for AI research established by the National Corporation University in Japan.

Main Focus Point of AIX: “Undertaking Research and Development of Artificial General Intelligence (AGI)”

“Development of Artificial General Intelligence (AGI)” is one of important future issues of accelerated AI research, such as Deep Learning. Although there are research centers which conduct AGI research as their research theme in Japan, they do not carry out AGI research as their main focus area. Otherwise, UEC has many top-level researchers for the realization of AGI. Thus, we establish AIX in which undertakes “Research and Development of Artificial General Intelligence (AGI)” as the main focus area.



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UEC Artificial Intelligence eXploration Research Center (AIX)

Faculty



(AIX Main Faculties)

Satoshi KURIHARA

Former executive and chief editorial board member of the Japanese Society for Artificial Intelligence
Observer of the Ethics Committee of the Japanese Society for Artificial Intelligence
Visiting researcher of Dwango Artificial Intelligence Laboratory / Technical Advisor of ai+ Inc.
Chief examiner of “Special Interest Group on Emergent Intelligence on Network (SIG-EIN) of Japan Society for Software Science and Technology

Takeshi ITO

Scholar who studies on “Expert”, such as Shogi player, Mr. Yoshiharu HABU/ Frequently appear in the media

Akira UTSUMI

Chief editorial board member of Japanese Cognitive Science Society

Maki SAKAMOTO

Editorial board member of the Japanese Society for Artificial Intelligence
Leading scholar of Kansei Engineering and Onomatopoeia/Frequently appear in the media, such as TV programs

Takayuki NAGAI

Representative of JST CREST “CLOUD, LEARNING, SYMBOL EMERGENCE, AND ROBOTICS FOR HOME SERVICE APPLICATION”

Kunihito HOKI

Software developer of the Computer Shogi program “Bonanza”

Yasuhiro MINAMI

AI Project: Todai Robot Project “Can Get a Robot Into the University of Tokyo?”
(for English)

Tadashi YAMAZAKI

Succeeded to reproduce real-time simulation of cat’s cerebellum on supercomputer

Affiliated Faculty

Hiroshi YAMAKAWA

Director of Dwango Artificial Intelligence Laboratory
Representative of the Whole Brain Architecture Initiative (WBAI)

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UEC Artificial Intelligence eXploration Research Center (AIX)

Further Strengthen the Collaboration with Corporations

Only one research center is not enough to encourage the global development of AI research in Japan. Thus, we promote the collaboration with the supporting corporations for AIX among with UEC and affiliated faculties. The following 5 corporations are going to participate in AIX as the supporting corporation at the establishment:

DENTSU INC.

The logo for Dentsu Inc. features the word "dentsu" in a bold, lowercase, sans-serif font.

XCompass Ltd.



Scigineer Inc.

The logo for Scigineer Inc. features the word "scigineer" in a bold, lowercase, sans-serif font.

al+ Inc.



NEXT Co., Ltd.



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Advisors

We appoint advisors to give us some advice and evaluation for research activities at AIX. At the establishment of this research center, the following experts take up an appointment as an advisor :

Minoru ASADA

Professor, Graduate School of Engineering, Osaka University

Hiroaki KITANO

President of the Systems Biology Institute
Director of Sony Computer Science Laboratories, Inc.
Professor, Okinawa Institute of Science and Technology Graduate University

Hirokazu TAKI

President of Wakayama University

Hideyuki TOKUDA

Professor, Faculty of Environment and Information Studies, Keio University

Eisaku MAEDA

Director of NTT COMMUNICATION SCIENCE LABORATORIES

Hiroshi MARUYAMA

CSO at Preferred Networks

Hiroyuki MORIKAWA

Professor, Research Center for Advanced Science and Technology,
University of Tokyo



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Project AI YOKAI “YokAI”

“Realization of YOKAI by AI”

Chofu City, where UEC is located, is a place in connection with Japanese manga artist Shigeru MIZUKI who died in 2015. Mr. MIZUKI used YOKAI as his motif in his famous work. Thus, we choose YOKAI as a project theme at AIX.

“YOKAI” has been familiar with people in Japan for long time in various contents. It has a unique sense for Japanese, and it is clearly different from “Ghost” or “Fairy” in English.

“Yokai is not only manipulating a strange or peculiar phenomenon which people cannot understand but also being unusual and unscientific existence who occurs the phenomenon by his/her mysterious power.”

～Yokai snuggles up to human society, has own character, can communicate and plays a prank. ～

For the realization of YOKAI, AGI and Ambient Information Technology are necessary to watch over our daily life, predict our actions, and carry out an appropriate interaction.

Conversation skill and embodiment of only human activity, such as “the harmonizing” or “read social cues”, are also required.

“YOKAI has many important elements for the realization of AGI”

- * Various infrastructure technologies (Deep Learning, VR, AR, Robotics etc) for realizing the “Environmental Intelligence” which is suggested in Eisaku MAEDA[1], Yasuhiro MINAMI[2], Kohji DOHSAKA, Resurgence of Fairies and Goblins-A Proposal for the New Version of “Ambient Intelligence”～ (Special Section on IPSJ’s 46th Anniversary), Vol. 47, No. 6, 2006. are ready to be applied now.

[1] Advisor of AIX
[2] Faculty of AIX