UoA Joint Research Forum 2023

10/1 (Sun) 2 (Mon)

□ 30th Anniversary Commemorative Event □

Organizer : The University of Aizu
CAIST, AI Center, ARC-Space,
UoA IEEE Student Branch

↑ web page   ↑ Application

On the Emergence, Reproduction, and Utilization of Intelligence
～ Roles of the University of Aizu in the New AI Era ～

Pre-registration required ※Application Limit:September 28,

10/1(Sun)	Part 1: Graduate Student Achievements Presentation Organizer: UoA IEEE Student Branch	※English/Japanese
09:00 -	Poster Session by graduate students : Area in front of the ALO	For more information, please visit the following web page. →
11:00 - 11:30	Introduction of the Graduate School, IEEE, and Other Academic Societies : Lecture Room S4	

＜The forum will be streamed live on YouTube(in Japanese)＞

Part 2: The Role of Universities in the AGI Era: Lecture Theater   ※Simultaneous interpretation will only be available at the venue.

↑ YouTube live

13:00 - 13:05	Opening Remarks	ZHAO Qiangfu, Vice Chairperson of the Board of Executives
13:05 - 13:55	**Keynote Speech 1**	

"Advancements in Semiconductor Technology and AI Computing"

Executive Director, AI Chip Design Center,
The National Institute of Advanced Industrial Science and Technology(AIST)
UCHIYAMA Kunio

13:55 - 14:05	Break
14:05 - 14:55	**Keynote Speech 2**

"Novel IoT Techniques of Cutting-Edge ICT Techniques for Moon and Mars Explorers"

Research Executive Director, ICT Testbed Research and Development Promotion Center,
National Institute of Information and Communications Technology(NICT)
MURATA Takeshi

14:55 - 15:45	**Keynote Speech 3**

"AI Development for EEG Diagnostic Support with Cloud System and its Operation Case Study"

Professor, Department of Advanced Electrical and Electronic Engineering,
Institute of Engineering, Tokyo University of Agriculture and Technology
TANAKA Toshihisa

15:45 - 15:55	Break	
15:55 - 17:25	**Panel Discussion** **"Industry-Academia-Government Collaboration in the AI Era"** Chair: Professor CHEN Wenxi	

・ UCHIYAMA Kunio ・ MURATA Takeshi ・ TANAKA Toshihisa
・ IZUMI Koichi (Senior Manager of Infotainment and Sound Business Units, ALPS ALPINE CO., LTD.)

・ HISADA Masayuki （CEO, Aizu Computer Science Laboratories, Inc.）

・ ISHIBASHI Shiro (Director of UBIC, the University of Aizu)

17:25 - 17:30	Closing Talk	ISHIBASHI Shiro, Director of UBIC

＜The forum will be streamed live on YouTube(in Japanese)＞

10/2(Mon)	**Part 3: Research Center & Cluster Achievements Presentation:** Lecture Theater ※Simultaneous interpretation will only be available at the venue.
09:30	Opening Talk NAKAMURA Akihito, Director of CAIST

↑ YouTube live

・ Joint Research Programs in ARC-Space as a COE of Archived Data Science for Lunar and Planetary Explorations [ARC-Space]
・ Cloud Robotics Systems including Cyber-Physical Systems and Online Judge [ARC-Robot]
・ Nonvolatile Logic Circuit Technology and Its Application to IoT Devices [ARC-IoT]
・ Toward the Realization of Image Recognition Technologies that Contribute to Human Life [ARC-Vision]
・ Smart Design - A Human-Centered Adaptive Human-Computer Collaboration [Smart Design]
・ Vehicular Satellite Communication Diagnosis and Optimization by Environmental Sensing and Learning [Advanced Networking]
・ Multi-Agent Simulation with Large Language Models for Media Effects Estimation ~Collaboration with Hakuhodo DY Media Partners [Data Science Engineering]
・ The Future of Cybersecurity and AI: Evolution of Threats and Countermeasures [Information Security]
・ Exploring Green Computing-Inspired Resilient Knowledge Discovery Solutions for Big Transportation Data [Intelligent Transportation Systems]
・ AI Model Development with the Help of LLMs [Automatic AI System Design]
・ Exploring the Intersection of Optics, AI, and Medical Engineering Innovation [Biomedical Information Engineering]
・ Recent Progress in ARC-HPC [High Performance Computing & Simulation]
・ Activities of Satellite Data Utilization Cluster [Satellite Data Utilization]

15:00	Closing Remarks	DEMURA Hirohide, Director of ARC-Space

THE UNIVERSITY of AIZU
1993 - 2023

Pre-registration required
Participation is free of charge

UoA Joint Research Forum 2023 Keynote Speeches Outline

Part 2: The Role of Universities in the AGI Era

Recently, artificial general intelligence (AGI) such as ChatGPT has been a hot topic. Through keynote speeches and panel discussions, we will discuss what the UoA, which specializes in computer science and engineering, can do in the era of AGI from multiple perspectives such as new educational content, strategic research themes, and methods of contributing to society.
In the presentations of research results from the centers and clusters, we will introduce examples of industry-academia-government collaboration, joint research, and cases of regional development.

Introduction of Off-Campus Speakers

■ UCHIYAMA Kunio
Executive Director, AI Chip Design Center, The National Institute of Advanced Industrial Science and Technology (AIST)

Tokyo Institute of Technology, M.S. in Information Science, Ph.D in Engineering.
1978: Entered Central Research Laboratory, Hitachi, Ltd. Engaged in research on CAD, mainframes, microprocessors, and computer systems Served as Corporate Chief Researcher, Corporate Officer and Chief Scientist of Hitachi.
Currently heads the AI Chip Design Center of the National Institute of Advanced Industrial Science and Technology (AIST).
Won the Ichimura Prize, the Director General of the Science and Technology Agency Award, and the Medal with Purple Ribbon, and other awards for his development of consumer microcomputer technology.
Fellow of IEEE and IEICE, Member of Board of Governors of the IEEE Computer Society (2016-2021)

■ MURATA Takeshi Research Executive Director, General Testbed Research and Development Promotion Center, National Institute of Information and Communications Technology (NICT).

Born in 1963.
March 1995 Coursework completed without degree, Department of Electrical Engineering, Graduate School of Engineering, Kyoto University.
May 1995 PhD. in Engineering, Kyoto University.
1995-2003 Faculty of Engineering, Ehime University (Information Engineering).
2003-2007 Center for Information Technology, Ehime University.
2008-Current Research Executive Director of Electromagnetic Measurement Research Center,
ICT Testbed Research and Development Promotion Center and Resilient ICT Research Center, National Institute of Information and Communications Technology.
2011- Member of the Expert Committee for the Nationwide International Collaborative Use of the Radio Science
Computer Experiment (KDK), the Research Institute for Sustainable Humanosphere, Kyoto University.
Currently, Specially-appointed professor in Shinshu University (2021-) and Visiting professor in Kyoto University (2023-).
Author of "The Pictorial Book of Japan's Weather and Meteorology at a Glance from Himawari 8 and Aerial Photographs".

■ TANAKA Toshihisa Professor of Tokyo University of Agriculture and Technology (TUAT)

1997: Tokyo Institute of Technology, B.E., Electrical and Electronic Engineering
2002: Ph.D in Engineering, Tokyo Institute of Technology
2002-2004: RIKEN Brain Science Institute
2004-Present: Tokyo University of Agriculture and Technology
2011: Visiting Researcher, University of Hawaii at Manoa
2022-Current: Co-founder and CTO, Sigron Inc. Vice President (Membership), Asia-Pacific Signal and Information, Processing Association (APSIPA) Associate Editor, Neural Networks

■ IZUMI Koichi Senior Manager of Infotainment and Sound Business Units, ALPS ALPINE CO., LTD.

1987: Graduated from the National Institute of Technology, Kitakyushu College, Electrical and Electronic Engineering Course
1987: Joined Alps Electrics, Inc. Assigned to the Iwaki Plant (formerly Alpine, Inc.) to engage in car audio and navigation development
2016-19: Seconded to Alpine America R&D (2019: Alps Electrics and Alpine merged to form Alps Alpine, Inc.)
2021-Current: Senior Manager of Software Strategy Division. Alps Alpine Co.,LTD.

■ HISADA Masayuki Director and CEO, Aizu Computer Science Laboratories, Inc.

Born in Tokoname City, Aichi Prefecture
Member of the first graduating class of the University of Aizu, which was established in 1993 and specializes in Computer Science
2002: Completed the University of Aizu Doctoral Program (PhD of Computer Science and Engineering)
Researcher at a venture company and Visiting Lecturer at a universityFounded Aizu Labs, Inc. in 2007 to engage in cutting-edge research UoD development, including electric power trading and automated driving demonstration tests using blockchain technology
2019 Apr - Current: Established Aizu Computer Science Laboratories (Director and CEO) to engage in advanced research and development using IT and ICT technologies in the energy sector

Part 3: Research Center & Cluster Achievements Presentation

Keywords: Archived Data Science for Lunar and Planetary Explorations / Cyber-Physical Systems / Artificial Intelligence (AI) / Machine Learning / Deep Learning / Circuit Design / Pattern Recognition / High-Dimensional Data Visualization / Creative Support Systems / Big Data / Data Science / Cyber Security / Pattern Mining / Automatic Generation of AI Systems / Medical Engineering / High Performance Computing / Quantum Algorithms / Remote Sensing / Industry-Academia Collaboration / Cooperative Research / Satellite Data Utilization