G20
2019
JAPAN

The 6th
Japan-U.S.
Digital Innovation Hub
Workshop

June 10th, 2019

University Hall at University of Tsukuba
（Tsukuba Campus）

PROGRAM

The 6th Japan-U.S. Digital Innovation Hub Workshop:
Alliance for the Future of Digital Science

Date: June 10th, 2019 (Mon) 10:00-17:30 (Reception: 18:00-19:30)
Venue: University Hall at University of Tsukuba (Tsukuba Campus)
Organizer: Japanese University Consortium for Japan-U.S. Digital Innovation Hub
Co-organizer: JST, NEDO
Support from: MIC, MOFA, MEXT, METI, JIIA

10:00 Opening Remarks
    Kyosuke Nagata, President, University of Tsukuba
    Yoshiko Shirokizawa, Executive Director, Japan Science and Technology Agency (JST)
    Hiroaki Ishizuka, Chairman, New Energy and Industrial Technology Development Organization (NEDO)
    Hiroya Izumi, Deputy Director-General for ICT R&D and Cybersecurity Policy, Global Strategy Bureau, Ministry of Internal Affairs and Communications (MIC)
    Noriaki Abe, Senior Coordinator, Economic Policy Division, Economic Affairs Bureau, Ministry of Foreign Affairs of Japan (MOFA)
    Opening Address by Other Guests

Session: Alliance for the New Age of Digital Science
10:20 Keynote Speech 1
    Morley O. Stone, Senior Vice President for Research, The Ohio State University

10:35 Keynote Speech 2
    Tomás Díaz de la Rubia, Vice President for Discovery Park, Purdue University

11:00 Panel Discussion: Alliance for the New Age of Digital Science
    Panel Chair: Kyosuke Nagata, President, University of Tsukuba
    Panel Co-Chair: Tomás Díaz de la Rubia, Vice President for Discovery Park, Purdue University
    Larry Nagahara, Associate Dean for Research, Johns Hopkins University
    Charles Riordan, Vice President for Research, Scholarship and Innovation, University of Delaware
    Anthony England, Dean of the College of Engineering and Computer Science, University of Michigan -Dearborn
    Gretchen Neisler, Vice Provost for International Affairs, University of Tennessee
    Rajesh Zele, Professor-in-charge, IIT Bombay Research Park, Department of Electrical Engineering, Indian Institute of Technology, Bombay

12:10-13:20 Lunch & Networking

12:50-13:10 Luncheon Speech
    Teruo Kishi, Science and Technology Advisor to the Minister for Foreign Affairs of Japan

Session: Human Development for Social Innovation in Digital Era
13:20 Keynote Speech 3
    Richard K. Miller, President, Olin College of Engineering

13:45 Panel Discussion: Human Development for Social Innovation in Digital Era
    Panel Chair: David Manderscheid, Provost and Senior Vice Chancellor, University of Tennessee, Knoxville
    Panel Co-Chair: Akira Fujimaki, Trustee (Education and Academic Information Infrastructure), Vice President, Nagoya University
    David B. Williams, Executive Dean of the Professional Colleges and Dean of the College of Engineering, The Ohio State University

Douglas Reeves, Associate Dean of Graduate and International Programs, College of Engineering, North Carolina State University

B.L. (Rama) Ramakrishna, Director, Grand Challenges Scholars Program, United States National Academy of Engineering (NAE)

Takahiro Ueyama, Executive Member, Council for Science, Technology and Innovation, Cabinet Office, Japan

14:55 Coffee Break

Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

15:15 Keynote Speech 4

Junichi Tsujii, Fellow and Director of Artificial Intelligence Research Center, AIST

15:40 Keynote Speech 5

Shoji Watanabe, Deputy Director-General, Industrial Technology Policy and Environmental Bureau, Ministry of Economy, Trade and Industry (METI)

15:50 Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

Chair: Seiichi Matsuo, President, Nagoya University

Hideaki Ozawa, COO/CTO, NTT Research, Inc.

Adam Isles, Principal, Chertoff Group, LLC

Yoshiko Shirokizawa, Executive Director, Japan Science and Technology Agency (JST)

Hiroshi Oikawa, President, New Energy and Industrial Technology Development Organization (NEDO)

Mitsuyuki Nakao, Dean of Graduate School of Information Sciences, Tohoku University; Roger H. French, Kyocera Professor and Director of SDLE Research Center, Case Western Reserve University

Tetsuya Sakurai, Director of C-AIR, University of Tsukuba; Nii Attoh-Okine, Director of UD Cybersecurity Initiative, University of Delaware

Koichi Takeda, Director, Future Value Creation Center, Nagoya University; David B. Williams, Executive Dean of the Professional Colleges and Dean of the College of Engineering, The Ohio State University

Shinji Shimojo, Director of Cybermedia Center, Osaka University

Yuichi Kurita, Professor, Hiroshima University

17:10 Wrap up and Future initiatives

Chair: Shuzaburo Takeda, President, Takeda & Associates

Morley O. Stone, Senior Vice President for Research, The Ohio State University

Tomás Díaz de la Rubia, Vice President for Discovery Park, Purdue University

David Manderscheid, Provost and Senior Vice Chancellor, University of Tennessee

Yasunori Kanaho, Vice President and Executive Director for Collaborative Research, University of Tsukuba

Satoshi Watanabe, Senior Vice President, Hiroshima University

Hiroto Yasuura, Executive Vice President, Kyushu University

17:30 Transfer to the Hotel Grand Shinonome

(488-1 Onozaki, Tsukuba)

18:00 Reception

Welcome address

Keisuke Isogai, Director-General, Research Promotion Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT)

Shoji Watanabe, Deputy Director-General, Industrial Technology Policy and Environmental Bureau, Ministry of Economy, Trade and Industry (METI)

Address by other Guests

19:30 Closing

Profiles of Speakers

Panel Discussion: Alliance for the New Age of Digital Science
Panel Chair

Kyosuke Nagata

University of Tsukuba
President

1981-1984 Research Associate (Post-doctoral fellow), Department of Biology and Cancer, Albert Einstein College of Medicine

1984-1985 Research Fellow, Program in Biology and Virology, Memorial Sloan-Kettering Cancer Institute

1985-1991 Associate Professor, Department of Molecular Genetics, National Institute of Genetics

1991-2001 Associate Professor, Tokyo Institute of Technology

2001-2004 Professor, Institute of Basic Medical Science, University of Tsukuba

2004-2010　Professor, Graduate School of Comprehensive Human Sciences, University of Tsukuba

2011-2013 Professor, Faculty of Medicine, University of Tsukuba

2013-　President, University of Tsukuba

2014-　Vice President, the Japan Association of National Universities

2014-2018 Member of Scientific Committee, Pharmaceuticals and Medical Devices Agency

2015- Member of Central Council for Education, Ministry of Education, Culture, Sports, Science and Technology (MEXT)

2017-　Vice President, Central Council for Education, MEXT

2015-　Chair of the University Committee of Japan's Central Council for Education, MEXT

2015- President, Japan University Accreditation association

2016- Member of Council for University Chartering and School Juridical Person, MEXT

2017-2019　The Board Chair, U.S.-Japan Research Institute

2017-2018 Member of Council for Cultural Affairs, MEXT

2018-　Chairperson, the Association of East Asian Research Universities (AEARU)

Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

JST's Digital Science Initiatives

Yoshiko Shirokizawa

Japan Science and Technology Agency (JST)
Executive Director

Ms. Shirokizawa joined Japan Information Center for Science and Technology (predecessor of JST) in 1987. She has managed various projects, including the Center of Innovation (COI) Program, aiming at the realization of a vibrant and sustainable society in the context of Japan's aging population. She was also engaged in the establishment of JST's National Bioscience Database Center (NBDC) that deals with the integration, sharing and application of bioscience research data. Since 2015, she has been serving as an Executive Director, responsible for a wide range of activities, including international collaborative programs, industry-academia collaborative programs, promotion towards implementing the SDGs through science, technology and innovation (STI for SDGs), etc.

Keynote Speech1

Morley O. Stone

The Ohio State University
Senior Vice President for Research

Morley O. Stone serves at the senior vice president for research at The Ohio State University where he is responsible for the overall strategic planning and infrastructure support for the university's $864 million annual basic and applied research program. An international leader in human performance and biomimetics, Dr. Stone brings more than 25 years of experience in research and development to this position.

Prior to joining Ohio State, he served as the chief technology officer at the Air Force Research Laboratory (AFRL), Wright-Patterson Air Force Base in Dayton, Ohio. In that role, he oversaw more than $2.3 billion in science and technology programs and $2.5 billion in externally funded projects in areas ranging from materials science to space-based technologies. He has also served as chief scientist for AFRL's Human Performance Wing and as a manager at the Defense Advanced Research Projects Agency, where he created programs in bio-inspired sensors, robotics and more.

Throughout his career, he has built strong strategic research collaborations with academia, industry and government organizations including Ohio State, the National Science Foundation, the National Aeronautics and Space Administration and the Defense Health Agency.

Dr. Stone has published more than 90 peer-reviewed papers and book chapters and holds more than a dozen patents and invention disclosures. He earned a BS in biological sciences from Wright State University and a PhD in biochemistry from Carnegie Mellon University.

Keynote Speech2, Panel discussion: Alliance for the New Age of Digital Science, Wrap up and Future initiatives

The Era of Convergence: a Brief Introduction to Discovery Park at Purdue University

Tomás Díaz de la Rubia

Purdue University
Vice President for Discovery Park

Tomás Díaz de la Rubia is Purdue University's vice president for Discovery Park. In this position, his responsibilities include building upon Discovery Park's foundation of excellence, which has enabled high-impact research that crosses traditional academic boundaries. He works closely with faculty and deans to help catalyze Purdue's many strengths and build on its legacy of interdisciplinary research with global impact. Prior to Purdue, Tomás served as chief research officer and deputy laboratory director for science and technology at the Lawrence Livermore National Laboratory, where he was responsible for the science and technology foundations of the laboratory's $1.6 billion research program. Tomas is a member of the National Academies Intelligence Community Studies Board; member of the Board of Directors of the Civilian Research and Development Foundation; member of the Editorial Board of Applied Physics Reviews; fellow of the American Physical Society; fellow of the American Association for the Advancement of Science and served as an elected member of the board of directors of the Materials Research Society. Tomás has published more than 150 peer-reviewed articles and has co-edited several books and conference proceedings. He holds a bachelor's degree and a doctorate in physics from The State University of New York, Albany.

Panel Discussion: Alliance for the New Age of Digital Science

Creating a Digital Science Alliance: A Hopkins Perspective

Larry A. Nagahara

Johns Hopkins University
Associate Dean for Research

Dr. Larry Nagahara is currently the Associate Dean for Research (ADR) in the Whiting School of Engineering (WSE) and Research Professor in the Department of Chemical and Biomolecular Engineering at Johns Hopkins University (JHU).   Previously, he was the Associate Director within the Division of Cancer Biology at National Cancer Institute (NCI)/National Institutes of Health (NIH), where he directed and coordinated programs and research activities related to expanding the role of the physical sciences and engineering in cancer research.   This included the largest federally-funded program dedicated to the convergence of physical and life sciences, namely the NCI's Physical Sciences–Oncology Initiative.   In addition, Dr. Nagahara served as the Nanotechnology Projects Manager for the NCI's Alliance for Nanotechnology in Cancer program. Before joining NCI, Dr. Nagahara was a Distinguished Member of the Technical Staff at Motorola and led their nanosensor effort.   He has published over 95 technical papers, 3 book chapters, and over 25 patents issued/filed in these fields. He is also a Fellow of the American Association for the Advancement of Science (AAAS), American Institute for Medical and Biological Engineering (AIMBE), American Physical Society (APS), IEEE, Materials Research Society (MRS), and a former member of Motorola's Scientific Advisory Board.

Panel Discussion: Alliance for the New Age of Digital Science

Digital Research and Educational Partnerships with the University of Delaware

Charles Riordan

University of Delaware

Vice President for Research, Scholarship & Innovation

Charles G. Riordan serves as the University of Delaware's Vice President for Research, Scholarship and Innovation, with responsibility for advancing the research enterprise, including oversight of seven research institutes, numerous core facilities and developing public-private research partnerships to drive economic development. Riordan is an inorganic chemist, whose laboratory has been supported by the National Institutes of Health and the National Science Foundation (NSF). His research interests include the roles of metal ions in biology and metal-mediated transformations for dioxygen utilization. Riordan previously served as Chair of the Chemistry and Biochemistry Department and Vice Provost for Graduate and Professional Education. Riordan received the University's outstanding doctoral graduate advising and mentoring award and served as chair of the University's strategic planning steering committee.

A recipient of a 1994 National Young Investigator Award from the NSF, Riordan is an elected fellow of the Royal Society of Chemistry and the American Association for the Advancement of Science (AAAS). He has served on the several editorial advisory boards. Riordan received the 2014 Delaware Section Award from the American Chemical Society. He earned his bachelor's degree at Holy Cross, his Ph.D. at Texas A&M University and was a postdoctoral fellow at the University of Chicago.
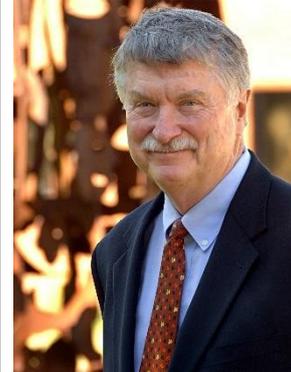
Alliance for the New Age of Digital Science
Campus-Wide Cybersecurity Center for Education, Research, and Outreach

Anthony W England

University of Michigan-Dearborn
Dean, Engineering & Comp. Sci.

Anthony W (Tony) England is Dean, College of Engineering and Computer Science, University of Michigan-Dearborn, and Professor of Electrical Engineering and Computer Science, College of Engineering, University of Michigan-Ann Arbor. Tony earned his Ph.D. in geophysics from M.I.T. in 1970. His research has spanned microwave sensing of the Earth and planets. He served as NASA Scientist Astronaut from 1967 to 1972 and from 1979 to 1988. With NASA, he graduated from Air Force Flight School, served as Mission Scientist for Apollos 13 and 16, was co-investigator on the Apollo 17 Surface Electrical Properties Experiment, flew as Mission Specialist Astronaut on Space Shuttle Challenger in 1985, and was Space Station Program Scientist in 1987. He served as Research Geophysicist with the U.S. Geological Survey from 1972 to 1979 where he participated in and led geophysical parties in Antarctica, used ground penetrating radar to study glaciers in Washington State and Alaska, and participated in assessments of nuclear waste containment and the U.S. Antarctic Treaty. Tony joined the University of Michigan-Ann Arbor in 1988 and became Dean at UM-Dearborn in 2012. He was a member of the National Research Council's Space Studies Board and is a Fellow of IEEE and the Electromagnetics Academy.

Panel Discussion: Alliance for the New Age of Digital Science
Coalescing Institutional Strengths for Innovation and Impact

Gretchen Christianna Neisler

University of Tennessee
Vice Provost for International Affairs

As Vice Provost, Dr. Gretchen Neisler has served as the University of Tennessee's senior international officer since August 2018 and is responsible for:

☐ Working closely with the university community to lead development of the university's strategic global agenda to enhance the engagement and impact of the University of Tennessee's work;

☐ Representing the university to external constituents, both nationally and internationally; and

☐ Overseeing the Center for International Education, which encompasses the offices of the Asia Platform for Engagement, English Language Institute, International House, International Support Services, and Programs Abroad.

She is an authority on faculty development and organizational structures as they support global research efforts of scientists. She has published articles on scientific networking, faculty development, organizational change in international higher education institutions. Most recently she co-authored a book titled Success After Tenure: Supporting Mid-Career Faculty.

Prior to her Vice Provost appointment, Gretchen Neisler served as director of the Center for Global Connections in Food, Agriculture, and Natural Resources in the College of Agricultural and Natural Recourses at Michigan State University. Neisler earned her PhD. at Michigan State University in Higher Education Administration. She can be found on Twitter at @Gretchen_n.

Panel Discussion: Alliance for the New Age of Digital Science

Digital Science in India

Rajesh Zele

IIT Bombay, India

Professor in charge, IITB Research Park

Professor Rajesh Zele is the alumnus of IIT Bombay (B.Tech. 1989). He joined IIT Bombay as a Professor in Electrical Engineering Department after 22 years of industry experience. Before joining IIT, Prof. Rajesh Zele was the Director at MaxLinear, developing the next generation CMOS RF and Mixed-Signal SOCs for Digital Cable and Satellite Communications. Prof. Rajesh Zele has also served as the Vice President of MindTree, leading the team for Bluetooth and short-range wireless transceivers. He founded the startup Alereon Semiconductors in Pune to develop ultra-wideband RF ICs for Wireless USB products. Before Alereon, he was the Director of Engineering at Zilker labs developing power management products. He established Austin Design Center for the startup FET and managed the technical team responsible for 10Gbps optical networking products. Prof. Rajesh Zele has an extensive background in wireless transceivers at Motorola, where he was IC design manager for the Talk-About radio platform. He has presented talks at various IEEE conferences and symposiums. He has written over 20 papers, co-authored a book chapter and holds 8 US patents. Prof. Rajesh Zele has received Ph.D. in ECE from Carnegie Mellon University, MSEE from Oregon State University, and is also a Senior Member of IEEE.

Prof. Zele currently serves as the Professor-In-Charge for IIT Bombay Research Park where industry members are invited to start their R & D operations on IITB campus to promote Industry-Academia collaboration. He also serves as a board member for SINE, IIT Bombay's startup initiative

Luncheon Speech

Science Diplomacy towards Digital Innovation

Teruo Kishi

Ministry of Foreign Affairs
Science and Technology Advisor to the Minister for Foreign Affairs of Japan

He has been working for over 40 years in the fields of materials science especially fracture mechanics and nondestructive testing of metal, ceramics and composite materials. Currently, he is serving as the President of the "Innovative Structural Materials Association (ISMA)" funded by Ministry of Economy, Trade and Industry (METI), which promotes R&D mainly for materials used in automobiles. Until March 2019, he had been serving as the Program Director of a large national research project on Structural Materials (SIP program) funded by the Cabinet Office of Japan, which promotes R&D mainly for materials used in aircrafts. In addition to his research activities, he has been appointed to the first Science and Technology Advisor to the Minister for Foreign Affairs of Japan since September 2015 to bridge science and diplomacy.

Keynote Speech 3

Educating Engineers Who Will Create a Better World in the Digital Era

Richard K. Miller

Olin College of Engineering

President

Richard K. Miller was appointed President (and first employee) of Olin College of Engineering in 1999.   Previously, he served as Dean of Engineering at the University of Iowa; Associate Dean of Engineering at USC in Los Angeles; and faculty member at UCSB in Santa Barbara. An elected Fellow of the American Academy of Arts and Sciences, National Academy of Engineering (NAE), and National Academy of Inventors, he received the Brock International Prize in Education (2017) and the NAE Gordon Prize (2013).   Miller served as Chair of the National Academies Board on Higher Education and Workforce (BHEW) and Chair of the Engineering Advisory Committee of the National Science Foundation.   He has also served on advisory boards for Harvard University, Stanford University, the NAE, NAS, and the U.S. Military Academy at West Point, among others.   A former consultant to the World Bank in the establishment of new universities in developing countries, he is a frequent speaker on engineering education.   Miller received the 2002 Distinguished Engineering Alumnus Award from the University of California at Davis, where he earned his B.S.   He earned his M.S. from MIT and Ph.D. from the California Institute of Technology, where he received the 2014 Caltech Distinguished Alumni Award.

Panel Discussion: Human Development for Social Innovation in Digital Era Wrap up and Future initiatives

David C. Manderscheid

University of Tennessee, Knoxville
Provost and Senior Vice Chancellor

Dr. Manderscheid has served as the provost and senior vice chancellor for the University of Tennessee, Knoxville since July 2018. Prior to his appointment Dr. Manderscheid served as the executive dean of the College of Arts and Sciences and vice provost for arts and sciences at the Ohio State University where he also served as lead dean for the university's translational data analytics initiative. Before joining Ohio State, he was dean of the College of Arts and Sciences at the University of Nebraska-Lincoln from 2007-2013. He also served as a faculty member at the University of Iowa where he rose through the ranks to chair of the Department of Mathematics.

Dr. Manderscheid is an internationally recognized mathematician. He received his bachelor's degree in mathematics from Michigan State University, and his PhD in mathematics from Yale University. He has held appointments at the Institute for Advanced Study at Princeton, the Mathematical Sciences Research Institute in Berkley, California, and the University of Paris. His work in representation theory with applications to number theory has been widely published. He has received support from the National Science Foundation, the National Security Agency, and the US Department of Education, in addition to numerous teaching awards.

Panel Discussion: Human Development for Social Innovation in Digital Era
Digital-Related Education in Nagoya Univ.

Akira Fujimaki

Nagoya University
Trustee(Education and Academic Information Infrastructure),
Vice President

Akira Fujimaki is the Trustee in charge of education and academic information infrastructure from 2019, where he has served as a Vice President of Nagoya University and the Director of Information & Communications since 2018. He received his B. Eng. Degree and M. Eng, Degree from Tohoku University in 1982 and 1984, respectively, where he also received his Ph.D. degree in 1987. He joined the Japan Society for the Promotion of Science as a Research Fellow from 1986 to 1987 and from 1987 to 1988 he attended the University of California, Berkeley as a Visiting Researcher. His career at Nagoya University began with a position as Research Associate at the School of Engineering from 1988 to 1992, and was followed by a position as a Lecturer from 1992 to 1993 and an Assistant Professor from 1994 to 1997. He served as an Assistant Professor of the Graduate School of Engineering from 1997 to 2004, and was appointed to the position of Professor from 2004 to 2019. In 2010, he joined the University administration upon his appointment to Presidential Advisor, a post he held until 2015, and since then has served as a Vice Trustee from 2015 to 2018.

Panel Discussion: Human Development for Social Innovation in Digital Era

David B. Williams, PhD, ScD

Executive Dean of the Professional Colleges
Dean of The College of Engineering at The Ohio State University

The Executive Dean represents seven colleges, which educate 27,000 students, on senior university councils.

Williams was the President of the University of Alabama in Huntsville from 2007-2011. He served on the boards of the Tennessee Valley Corridor, The Huntsville Chamber of Commerce, the Alabama Innovation Council and the Alabama Business Council. Before Huntsville, Williams was VP of Research at Lehigh University, Bethlehem, PA where he was on the Board of the Ben Franklin Technology Partnership and the Life Sciences Greenhouse.

Williams holds B.A., M.A., Ph.D., and Sc.D. degrees from the University of Cambridge. He is a Fellow of six professional societies, (co) author or editor of 13 textbooks and conference proceedings and (co) author of 450 publications on electron microscopy studies of materials. A visiting professor at Manchester University, he has given 300 invited talks in 30 countries.

Panel Discussion: Human Development for Social Innovation in Digital Era
Human Development in the Digital Era

Douglas Reeves

North Carolina State University
Associate Dean, College of Engineering

Douglas Reeves is Associate Dean of Graduate and International Programs in the College of Engineering at NC State, with responsibility for programs that educate over 3000 engineering graduate students.

He received his PhD in Computer Science from the Pennsylvania State University, and is Professor of Computer Science, also at N.C. State. His research specialty is cybersecurity, particularly network security.

Panel Discussion: Human Development for Social Innovation in Digital Era
Grand Challenges Scholars Program

Rama Ramakrishna

Grand Challenge Scholars Program Network, US National Academy of Engineering
Director

Dr. Ramakrishna received his Ph.D. in solid state science from the Indian Institute of Technology, Madras, in 1982 and joined the faculty at Arizona State University in 1985. From 2011–16 he was the Diane and Gary Tooker Professor of Materials Science and Engineering until his transition to emeritus professor in 2016. He is dedicated to preparing engineers that have not only the necessary technical skills but also the cross-disciplinary knowledge, entrepreneurial spirit, global perspective, and sense of mission needed to meet the challenges facing humankind in the 21st century.

The research questions that he investigated lie at the crossroads of biology and materials. This lab designed biosensors and silicon-bio hybrid devices with applications from mining, electronics, and health to defense.

In 2013, he served as a senior science and technology advisor to the Office of the Secretary of State. As a Jefferson Science Fellow, he helped guide US international relations through the lens of "engineering for sustainable development" and provided intellectual, technical, and strategic leadership on policies and priorities.

Since January 2017, he has been at the National Academy of Engineering in Washington D.C. as the Director of the Grand Challenges Scholars Program Network.

Panel Discussion: Human Development for Social Innovation in Digital Era
CSTI's integrated Innovation Strategy for AI-ready Human Resource Development

Takahiro Ueyama

Cabinet Office

Executive Member,Council for Science, Technology and Innovation

Takahiro Ueyama

Takahiro Ueyama, born in Osaka in 1958. Completed a Ph.D. at the History Department at Stanford University after finishing the Graduate Program at the Faculty of Economics, Osaka University. He has taught at the Faculty of Economics, Sophie University (1998-2012) serving as its Dean from 2010-2012. After being Professor at the Faculty of Policy Management, Shonan Fujisawa Campus, Keio University (until 2015), and Vice President at the National Graduate Institute for Policy Studies (2015-16), he is currently Executive Member of the Council for Science, Technology and Innovation, Cabinet Office of Japanese Government.Publications include Akademikku kyapitarizumu o koete (Beyond Academic Capitalism), which was awarded the Yomiuri-Yoshino Sakuzo Prize in 2010.

Keynote Speech 4

Industrial Partnerships in Deployment of AI in Society

Junichi Tsujii

National Institute of Advanced Industrial Science and Technology (AIST)

AIST Fellow & Director of Artificial Intelligence Research Center (AIRC)

Prof. Tsujii is a Japanese computer scientist specializing in natural language processing and text mining, particularly in the field of biology and bioinformatics.

He graduated from Kyoto University Graduate School in 1973, obtaining a PhD in engineering. He became Associate Professor at Kyoto University in 1973, Professor at Manchester University in 1988, Professor at Tokyo University Graduate School in 1995, and Principal Researcher for Microsoft Research Asia (Beijing) in 2011 before taking on his current position as Director of AIRC in 2015 and Fellow of AIST in 2017.

He still holds a Professorship at Manchester University.

Keynote Speech 5

Expectation to US-Japan Digital Innovation HUB

Shoji Watanabe

Ministry of Economy, Trade and Industry
Deputy Director General, Industrial Technology Policy and Environmental Bureau

1988   Master of Engineering, University of Tokyo

1990   Joined Ministry of International Trade and Industry (METI)

2008-   Director, New & Renewable Energy Division

2011-   Director, Housing Industry Ceramics Building Materials Division

2012-   Director, R&D Division

2015-   Director, Software Industry Division

       Director, National Center of Incident Readiness and Strategy for Cybersecurity

2016-   Director, Information Policy Division

2018-   Deputy Director General,

       Industrial Technology Policy and Environmental Bureau

FY2006-FY2007

Special Appointment Professor,

International Research and Education Institute for Integrated Medical Science, Tokyo Women's Medical University

FY2007

Guest Professor, Kumamoto University

Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

Chair

Seiichi Matsuo

Nagoya University
President

Seiichi Matsuo is currently the President of Nagoya University (2015~), where he received his PhD in Nephrology in 1981. He was a Visiting Research Fellow at Mount Sinai Hospital in New York (1981~1982) and the State University of New York at Buffalo (1982~1984), and served as the Head of the Nephrology Division at Chubu Rousai Hospital in Nagoya (1984~1986). He began his career at Nagoya University as an Instructor (1986) at the School of Medicine, and eventually became a professor at the Graduate School of Medicine (2004~2015). After becoming a professor, he became actively involved in the executive functions of the university, serving as the Vice President of Nagoya University (2009~2015) and as the Director of various Nagoya University affiliated institutes such as the Nagoya University Hospital (2007~2013), the Center for Preventive Medical Engineering (2011~2015), the Headquarters for Industry-Academia-Government Collaboration (2012~2015), and the Institute of Innovation for Future Society (2014~2015).

Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

NTT Research Inc.: US based Invention & Innovation Hub of NTT Groups for Basic Research.

Hideaki Ozawa

NTT Research Inc.
COO/CTO

Hideaki Ozawa is the COO/CTO of NTT Research Inc. He is in charge of corporate and technology strategy at NTT Research Inc.

 Prior he oversees research and development of new technologies about Environmental Recognition system, such as image recognition, speech recognition language media recognition etc., Artificial Intelligence for human machine interaction etc, as VP, Head of Media Intelligence Laboratories at NTT from 2015 to 2018.

Dr. Ozawa has about 15years experience for the web service and business. As general manager of Smart Navigation division at NTT Resonant, he overseas technology based web services, Web search for mobile, Multimedia search service, Mobile cloud service, Interactive Digital map, Local search service, Tele health service etc.

Furthermore, as General Manager of IT development division at Walkerplus.com, he launched a major Japanese local portal service, Walkerplus.com, with Kadokawa Shoten publishing Co., LTD, JCB CO., LTD. and 8 companies at 2000.

Prior to that, he is worked at NTT Human Interface Labs and NTT Cyber Solution Labs. He researches and develop multimedia database system which is incorporated physical book functions as senior research engineer.

He received a Ph. D, M. Eng and B. Eng, from Department of Electrical Engineering at Keio University

Adam Isles

The Chertoff Group LLC
Principal

Adam Isles is a Principal at the Chertoff Group, where he helps clients build programs to manage security risk. Adam has worked with clients in a number of industries – including financial services, utilities, retail, technology, and transportation sectors.   He was the principal drafter for the firm's security risk management methodology, which was approved by the U.S. Department of Homeland Security for SAFETY Act designation in 2017.

Previously, Adam served as the Deputy Chief of Staff at the U.S. Department of Homeland Security (DHS).   At DHS, he coordinated policy decisions, including on technology standards, regulations and business rules, for numerous border, travel security, critical infrastructure protection and cybersecurity programs.

Before joining DHS, Adam served at the U.S. Department of Justice, where he started his legal career as a trial attorney in the Criminal Division in 1997. From 2002-2003, he was a Director of International Economic Affairs at the National Security Council, where he managed preparations for the 2002 G8 Summit.   From 1998-2001, he was also secretary of the G8 Hig h-tech Crime Experts Group.

Adam is a Certified Information Systems Security Professional (CISSP) and also holds a J.D. from Harvard Law School and a B.A. in history from Yale University.

Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

NEDO's activities to promote U.S. - Japan university cooperation on digital technologies

Hiroshi Oikawa

New Energy and Industrial Technology Development Organization (NEDO)
President

2018 President, NEDO

2017 Deputy Director-General, Manufacturing Industries Bureau

2016 Director for Technology Affairs and Advanced Capacity Building

Strategy

2015 Director, Technical Regulations, Standards and Conformity

Assessment Policy Division

2014 Director General, Technology Strategy Center, New Energy and

Industrial Technology Development Organization (NEDO)

2012 Director, Non-Ferrous Metals Division, METI

2009 Director, Petroleum Refining Division, ANRE

2006 GM, London Office, JOGMEC (Japan Oil, Gas and Metals National

Corporation; an affiliate of METI)

1989 Joined Mining Division, Agency of Natural Resource and Energy (ANRE), Ministry of International Trade and Industry (now known as METI)

Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

Computer-Guided Molecular Evolution of Protein

Mitsuyuki Nakao

Tohoku University

Dean of Graduate School of Information Sciences

Mitsuyuki Nakao (S'82–M'84) was born in Yamaguchi prefecture, Japan, in 1956. He received the Dr.Eng. degree in 1984 from the Tohoku University, Sendai, Japan. Currently, he is a Professor of Graduate School of Information Sciences, Tohoku University. Since 2018, he has been a dean of Graduate School of Information Sciences. Now he is an executive director of International Joint Graduate Program focused on Data Science. His current research interests include modeling of biological rhythms, biosignal interpretation, and systems biology.

Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

Roger H. French

Case Western Reserve University, Kyocera Professor

Roger H. French is the Kyocera Professor in the Dept. of Materials Science and Eng. in the Case School of Engineering, with secondary appointments in Macromolecular Science, Computer and Data Sciences, Biomedical Eng. and Physics at Case Western Reserve University (CWRU) in Cleveland Ohio, since August 2010.

He is director of the SDLE Research Center, focused on data science and analytics. He is the faculty director of the CWRU Applied Data Science Program

Before this he was in Central Research at the DuPont Co. in Wilmington, Delaware since 1985 and was Adjunct Prof. of Materials Science at the Univ. of Penn. since 1996.

He received his B. S. in Materials Science from Cornell University, and his Ph.D. from Massachusetts Institute of Technology under Prof. R. L. Coble.

French's materials research focuses on optical properties and electronic structure of polymers, ceramics, optical and biomolecular materials. These determine the vdW interactions driving wetting and mesoscale assembly of CNTs, proteins and DNA.

His energy research focuses on lifetime and degradation science. Using a Hadoop/Hbase/Spark-based data science and analytics environment he studies the spatio-temporal evolution of complex systems. This allows multi-factor real-world data, integrated with lab-based datasets, to identify mechanisms and pathways activated over lifetime.

His work has produced 28 issued patents, 5 active filings and more than 140 journal and 110 proceedings papers.

Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

Data collaboration for distributed data analytics infrastructure

Tetsuya Sakurai

University of Tsukuba
Director of Center for Artificial Intelligence Research

Tetsuya Sakurai is the Director of Center for Artificial Intelligence Research (C-AIR) and a Professor of Department of Computer Science at the University of Tsukuba. He is also a visiting senior researcher of RIKEN Center for Computational Science, a visiting professor at the Open University of Japan, and CEO of MathDesign, Co., Ltd. During 2014-2016 he was the Director of Office for Strategies of R&D, and from 2011 to 2015 he was the Dean of College of Information Science at the University of Tsukuba. He received his Ph.D. in engineering from Nagoya University in 1992. His main research interests focus on developing high performance algorithms for numerical computations and their applications for large-scale simulation, data analysis, and machine learning. He is a member of the Japan Society for Industrial and Applied Mathematics, the Mathematical Society of Japan, Information Processing Society of Japan, Society for Industrial and Applied Mathematics (SIAM), and the Institute of Electrical and Electronics Engineers (IEEE). He was awarded the 2018's Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology of Japan in his research of high-performance eigenvalue solvers.

Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/ Cyber
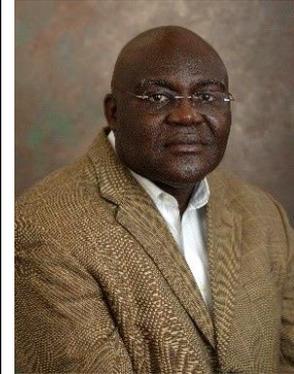
NEDO Report- Federated Learning and Health

Nii Attoh-Okine

University of Delaware
Director of UD Cyber Security Initiative

Nii O. Attoh-Okine, Ph.D., P.E., F. ASCE, Dr. Attoh-Okine is a Senior IEEE Member; Founding Associate Editor for ASCE/ASME Journal of Risk and Uncertainty Analysis; Professor of Civil and Environmental Engineering; Professor of Electrical and Computer Engineering; and the Interim Academic Director of the University of Delaware Cybersecurity Initiative. Over the last couple of years, Dr. Attoh-Okine authored two books which are defining the direction of research across disciplines: a) Resilience Engineering: Models and Analysis [Cambridge Press 2016] and b) Big Data and Differential Privacy in Railway Track Engineering [John Wiley 2017]. He served as an Associate Editor on the following ASCE Journals: a) ASCE Journal of Infrastructure Systems; b) ASCE Journal of Computing; c) ASCE Journal of Bridge Engineering; d) ASCE Journal of Pipeline Systems Engineering and Practice. He is currently working with researchers from the United States and Japan on Blockchain applications to Society 5.0. Dr. Attoh-Okine's areas of research include: cyber resilience of critical infrastructure, data science application in railway engineering and graphical probability models.

Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

NEDO Project: Explainable AI for Decision Basis

Koichi Takeda

Nagoya University

Professor

Koichi Takeda joined IBM Research - Tokyo in 1983 and worked mainly on natural language processing (NLP) research. He led the commercialization activities of machine translation, insight discovery from biomedical literature, clinical pathway discovery from electronic medical records, and text analytics for a broad-range of industrial domains. He was a member of the core team for developing IBM's question-answering system Watson during 2007-2011. He received PhD degree in Informatics from the Graduate School of Informatics, Kyoto University in 2010.

He has been appointed to Director and Professor of the Future Value Creation Research Center (FVCRC), Graduate School of Informatics, Nagoya University since April 2017. His main role is to promote research activities in Informatics, in particular, by assisting global research collaboration between Nagoya University and visiting researchers around the world. He also leads the core research unit in FVCRC for innovative problem solving and value creation for the society by embracing artificial intelligence and natural language processing techniques.

Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

Research and Development of Empathetic Intelligence Technology for Personal Interaction

Shinji Shimojo

Osaka University Cybermedia Center
Director and Professor

Current research work is focusing on Internet Architecture of IoT, HPC system using SDN (Software Defined System). He is a founding Member of a long term collaboration on grid middleware and applications, Pragma and had been hosted UCSD students in PRIME program. Won the Osaka Science Prize in 2005. Received the Minister of Internal Affairs and Communications Award in 2016 for his contribution to the technological advancement and utilization promotion about network technology. Member of IEEE and IEICE, and IPSJ fellow.

Presentation Session: Academia-Industry Cooperation and Japan-US Joint Research for AI/Cyber

Smart society for enjoying long healthy life - Developing AI smart coaching technology that facilitates voluntary skill-up for elderlies -

Yuichi Kurita

Hiroshima University
Professor

Yuichi Kurita received a B.E. degree from Osaka University in 2000, and M.E. and Ph.D. degrees in information science from Nara Institute of Science and Technology (NAIST), Japan in 2002 and 2004, respectively. From 2005 to 2007, he was a Research Associate with the Graduate School of Engineering at Hiroshima University, Japan. From 2007 to 2011, he was an Assistant Professor with the Graduate School of Information Science at NAIST. During 2010-2011, he was a visiting scholar in the School of Mechanical Engineering at the Georgia Institute of Technology, USA. Since 2011, he has joined the Graduate School of Engineering at Hiroshima University as an Associate Professor, and is a Professor from 2018. He is also appointed to the Assistant to President by Special Appointment, and Special Assistant to the Dean (International Collaborative Research) from 2018. He has also worked as a researcher in JST PRESTO from 2011. His research interests include physical human-robot interaction (pHRI), human augmentation, haptics, and medical engineering.

Wrap up and Future initiatives

Chair

Shuzaburo Takeda

Takeda & Associates

President

Shuzaburo Takeda is President of Takeda and Associates. He   had served as Senior Advisor to the Ministry of Education, Culture, Sports, Science and Technology (MEXT) until August, 2017. He has several hats in Japan and the United States. He is Special Advisor to the President, Tsukuba University. He is Senior Advisor to the President, Nagoya University. And he is Management Advisor to RIKEN. Also, in U.S., he is Senior Advisor to the Ohio State University. Also, he is Presidential Council Member of the Olin College of Engineering, and Member of the IACA Washington Univ. in St. Louis. Dr. Takeda has been intimately involved in the Japan-US relationship for 40 years and for decades had been a close advisor to the late Howard H. Baker (Senator, Former US Ambassador to Japan). In recent years, he has been promoting collaboration between universities and research institutions in Japan and the United States, especially in Digital Innovation Area. He has received 2018 Distinguished Alumni Achievement Award from the Ohio State University where he earned his Ph.D. in physics.

Wrap up and Future initiatives

Yasunori Kanaho

University of Tsukuba
Vice President and Executive Director for Collaborative Research

Headquarters for International Industry-University Collaboration was established in 2014 to strengthen relationships among university, industry and governmental institutes. This organization's role includes:

1. facilitating technology transfer which leads to social and economic innovations to make a social contribution through research findings of the University of Tsukuba;

2. obtaining more international utilization of intellectual properties by making improvements of their assessment;

3. promoting cooperative researches with private enterprises as one of the most important means of technology transfer;

4. supporting university spin-offs by facilitating technological incubation and transfer;

5. promoting university-industry-governmental institutes cooperation within Tsukuba Science City and strengthening community relationships with local public organizations such as Ibaraki Prefecture, Tsukuba City and so forth;

6. accumulating knowledge and skills as to intellectual properties, technology transfer and university spin-offs, nurturing human resources and seeking to transfer those knowledge and skills to other universities.

We continuously make exertions to improve the organization of our office and to promote university-industry-governmental institutes cooperative activities in order to make more contribution to the progress of industry and society through transferring excellent research findings of the University of Tsukuba to the general public.

Wrap up and Future initiatives

Satoshi P. Watanabe

Hiroshima University
Senior Vice President

Satoshi P. Watanabe holds a joint professorship at the School of Informatics & Data Science and the Research Institute for Higher Education, and also serves as Senior Vice President for University Strategy at Hiroshima University.   Satoshi contributed to various public policy research initiatives, working as a biostatistician for the City of New York's Department of Health and Mental Hygiene and as a senior research scientist at the Washington, DC-based think-tank, American Institutes for Research, authoring publications for the U.S. Congress, US Department of Education, the White House Initiative on Educational Excellence for Hispanics, as well as the World Bank. Satoshi received his Ph.D. from Columbia University in the City of New York with emphases on labor economics, economics of education, and applied econometrics, after obtaining M.A. (economics), M.Ed. (international/comparative education), M.A. (statistics) at Columbia. Satoshi also attended the Johns Hopkins University's Whiting School of Engineering as an applied mathematics major.   Satoshi was also a visiting scholar at the Center for Studies in Higher Education (Goldman School of Public Policy), University of California, Berkeley in 2011-2012, and is currently a fellow at the Center for Organizational Research and Design (CORD), Arizona State University.

Wrap up and Future initiatives

Hiroto Yasuura

Kyushu University
Executive Vice President

Dr. Hiroto Yasuura is an Executive Vice President of Kyushu University since 2008. He is also serving as Chief Information Officer (CIO) and Chief Information Security Officer (CISO) of Kyushu University. Dr. Yasuura received the B.E., M.E. and Ph.D. degrees in computer science from Kyoto University, Kyoto, Japan, in 1976, 1978, and 1983 respectively. He was an associate professor in Kyoto University and moved to Kyushu University in 1991 as a Professor of Graduate School of Information Science and Electrical Engineering.

Dr. Yasuura was the research director of Silicon-Sea-Belt Fukuoka Project from 2001, to build up a research-industry R&D cluster on LSI design and fablication. More than 250 semiconductor related companies are moved or established in Fukuoka area in the last 20 years. He is also one of founders of ISIT (Institute of Systems, Information Technologies and Nanotechnologies, established in 1995), which is founded by Fukuoka city for promoting ICT industry. He served as the director of Experimental Center for Social System Technologies in Fukuoka and now is serving as the director general of Fukuoka Asian Urban Research Center. In accademic activities, Dr. Yasuura served as Technical Program Chair and General Chair of ICCAD at U.S. in 1997 and 1998, respectively. He served as a Vice President of IEEE CAS Society. He was also the General Chair of ASP-DAC 2003 and the Steering Committee Chair of ASP-DAC from 2004 to 2014. He is a fellow of IEEE, IEICE and IPSJ. From 2011 to 2017, he was a member of Science Council of Japan. He also worked for revolution of higer education by ICT. He established AXIES (Academic eXchange for Information Environment and Strategy) in 2011 and served as the first president of AXIES. He also one of founders of JMOOC and is now vice president. Under his strong leadership, Kyushu University has completed BYOD in 2017 and is now promoting Learning Analytics for improvement of its environment of Education.

Christopher J. West

NC State University
Practicum Manager

Dr. Christopher West, as Practicum Manager at NC State University's Institute for Advanced Analytics, annually guides 24 Masters of Science in Analytics student teams through their 8-month practicum project (180 projects since 2012) experience producing analytics based results for sponsoring corporate, governmental, and non-profit organizations. Prior to coming to the Institute in 2012, Dr. West retired from the U.S. Air Force as an engineering officer with over 21 years of experience in leadership positions both stateside and in deployed locations. He received his Ph.D. in Engineering Management from Old Dominion University in 2006, MS in Engineering Management from the Air Force Institute of Technology in 1996, and his BS in Electrical Engineering from Auburn University in 1998