

Yabe Akira

Position/Department/Division/Institution/Organization

Fellow, Energy System & Hydrogen Unit, Technology Strategy Center, New Energy and Industrial Technology Development Organization (NEDO)

Country

Japan

Career history

Yabe Akira has been a Fellow and former Director General of Technology Strategy Center of New Energy and Industrial Technology Development Organization (NEDO), National Research and Development Agency of Japan.

He has published the “Comprehensive R&D Principle for Sustainable Society [The NEDO’s Principle]” with the member of Technology Strategy Center of NEDO in February 2020 where the importance of “Circular Economy”, “Bio-economy” and “Sustainable Energy” would be stressed to realize the sustainable society.

He has been challenging to produce the technology strategy for various fields of energy engineering, such as the large scale and complicated energy system with much amount of variable renewable energy, the acceleration of hydrogen society and the development of the battery for battery electric vehicles and stationary battery storage.

He is also a Special Advisor & a Researcher Emeritus of National Institute of Advanced Industrial Science and Technology (AIST), and a Member of Science Council of Japan. He serves for ISO (International Organization for Standardization) as the Convenor of ISO/TC281 Fine Bubble Technology /WG3.

Before entering NEDO as a Director General of Technology Strategy Center for Energy System & Hydrogen Units at April 2015, he had been a Vice-President of AIST for 7 years as a Director General for Environment and Energy Research Fields.

He completed PhD in Mechanical Science and Engineering, Tokyo Institute of Technology at 1979 and joined Mechanical Engineering Laboratory (MEL) of Ministry of International Trade and Industry (MITI) of Japan. He served as a Head of Fluid Engineering and Quantum Engineering

Research Lab and Research Planning Office for MEL. He became a Director for Advanced Manufacturing Research Center on Micro and Nano Scale Science and Engineering, AIST on 2001, Director of AIST Chugoku Regional Research Center and Director of Research Collaboration Promotion Department.

He had been concurrently a Professor of Institute of Engineering Mechanics and Systems, University of Tsukuba (1992-2010), Adjunctive Professor of Science University of Tokyo (1995-2009), Russell Severance Springer Professor, Department of Mechanical Engineering, University of California, Berkeley (2001), Professor (Cooperative Chair) of Tokyo Institute of Technology (2005-2013), Adjunctive Professor of Kanazawa Institute of Technology (1997-2013).

He also served as the President of the Japan Society of Mechanical Engineers (JSME) (2013-2014). He had been a member of working group for the NESTI 2050 (National Energy and Environmental Strategy for Technological Innovation towards 2050) which was published on April 19, 2016 by the Council for Science, Technology and Innovation of Japan.

Awards/Publications

Best Papers Award from JSME (1984, 2001), Best Technology Development Award from Heat Transfer Society of Japan (1990), Distinguished Research Award from Science and Technology Agency of Japan (1994), Best Papers Award from Japan Society of Applied Physics (2002), Best Papers Award from Japan Society of Energy and Resources (2007)

Areas of expertise

Energy Engineering and Global Environment Protection, Renewable Energy Engineering, Energy System Engineering, Hydrogen, Energy Conservation, Heat Transfer, Heat Pump Technology, Mechanical Engineering, Ultra-fine Bubble Technology