



Brown Bag Seminar



ブラウンバックセミナー

Recorded data will be uploaded
Online (Zoom)

Supported by Kyushu University, Q-AOS & TEMDEC

2021.9.22

(Wed.)

Scan here for Registration

JP ↔ EN
Simultaneous Interpretation

12:10 ~ 12:50

12:10-12:15 ♦ Introduction

12:15-12:40 ♦ Seminar (Presentation)

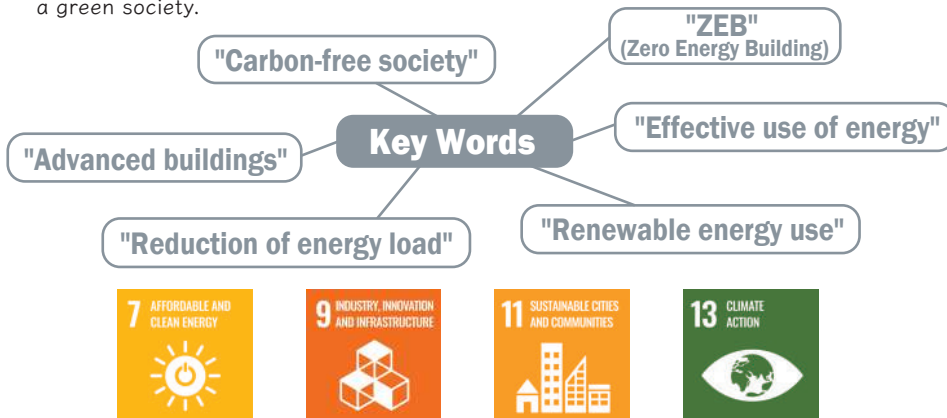
12:40-12:50 ♦ Q&A

https://temdec-med-kyushu-u-ac-jp.zoom.us/webinar/register/WN_MhRVFYQsQmeC1c6OZtgoZw

Zero-Energy Building Research Aiming for a Carbon-Free Society

Chair: Prof. Scott Valentine (Research Promotion Director of Q-AOS)

Japan has declared "2050 Carbon Neutral" (October 2020) and is rapidly accelerating various approaches toward the realization of a carbon-free society. This Declaration is a climate change mitigation measure that will reduce greenhouse gas emissions to virtually zero by 2050, and aims to reduce carbon dioxide emissions by 46% compared to 2013 by 2030 as an intermediate goal. The CO2 emissions in Japan are in descending order from industrial sector (35%), housing/building sector (32%), and transportation sector (19%), so high reduction targets are imposed as a matter of course on the housing/building sector. Converting the amount of CO2 reduction into primary energy, the housing/building sector is required to reduce 47% (oil 23.87 million kL) of the reduction plan for Japan as a whole (oil 50.3 million kl). Considering that the total energy consumption derived from architecture is 49.5 million kL, this reduction (48% of the total derived from architecture) is a very big target. Even if environmental design technology (for example, improvement of building performance, use of renewable energy, improvement of equipment efficiency, etc.) is introduced, it is an extremely ambitious goal to halve the energy consumption from architecture, which is directly related to the living environment (health, comfort, convenience, etc.) in less than 10 years from now to 2030. In this seminar, I will present about Zero Energy Building to reduce energy derived from architecture with the aim of realizing a green society.



Professor Akihito OZAKI, PhD
Kyushu University
Faculty of Human-Environment Studies

Akihito Ozaki received his doctor's degree in Engineering from Kyushu University in 1990. Then Dr. Ozaki was employed as an assistant professor with Fukuoka University in 1990 and promoted to a lecturer of Fukuoka University in 1996. He was doing many research activities concerned in building physics and energy conservation of buildings. He has been especially good at analysis of heat and mass transfer and prediction of the hygrothermal environment of buildings, and so he received the encouragement prize from Architectural Institute of Japan in 1994. In 1998, Dr. Ozaki joined CANMET energy technology centre of Natural Resources Canada as a senior researcher. At NRCan, he has been involved in the research and development of green buildings, and for his achievements, he received Energy Sector Merit Award in 2000 and Departmental Award of Natural Resources Canada in 2001. In 2001, Dr. Ozaki moved to the University of Kitakyushu as an associate professor. He also became involved with practical research related to advanced building in collaboration with industry, government, and academia. Simulation software 'THERB' which has been developed by himself to predict hygrothermal environment of buildings is approved as the software to certify energy efficiency of buildings by Ministry of Land, Infrastructure and Transport, and then it has been put to practical use with 'Housing Performance Indication System' in Japan. In 2006, Dr. Ozaki transferred to Kyoto Prefectural University as a professor. He received the outstanding paper prize from Architectural Institute of Japan in 2009. In 2014, Dr. Ozaki moved to Kyushu University as a professor. Currently he is heading up a research field on building environment.

