

2023

10.11

(wed.)

12:10
12:50

12:10-12:15

◆ Introduction

12:15-12:40

◆ Seminar
(Presentation)

12:40-12:50

◆ Q&A

Online
(Zoom)Scan here for
Registrationhttps://temdec-med-kyushu-u-ac-jp.zoom.us/webinar/register/WN_jk_pbyEFS02HWZYHQhmV-A

Supported by Kyushu University, Q-AOS & TEMDEC

Cooling and dehumidification technology by thermal energy

Chair: Assoc. Prof. Kim SCHUMACHER (Research Futures Coordinator of Q-AOS)



Key Words

Air conditioning

Energy saving

Waste heat utilization

Renewable heat

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I studied for MSc in Renewable Energy and Architecture at the University of Nottingham, UK, and for PhD in Engineering at Tokyo University of Agriculture and Technology (TUAT). I worked as a technical staff at TUAT before I receive PhD degree and after I got PhD, I involved in researches on air-conditioning technologies using renewable heat and low-grade waste heat as research assistant or assistant professor. I moved to Kyushu University as an associate professor in 2011 and I was promoted to a professor in 2017. I supervised some related books such as "Fundamentals and applications of thermally driven cycle technology" and "Low-temperature waste heat utilization technology using adsorption refrigerators/heat pumps".

Air conditioning serves not only to create a comfortable living space for residents but also plays a crucial role in safeguarding people's lives against heatstroke. Furthermore, ventilation is recommended as part of infection control measures; however, electricity consumption of air conditioning will increase by introducing a large amount of outdoor air. Thus, air conditioning is deeply related to people's well-being and is closely linked to energy and environmental issues. In this seminar, focusing on technologies to reduce energy consumption and carbon dioxide emissions due to air conditioning, I will introduce air conditioning methods that utilize thermal energy instead of electricity to provide cooling and dehumidification.