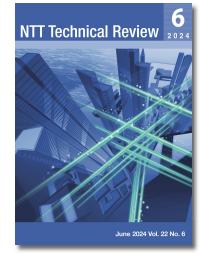
# NTT Technical Review 6

#### https://www.ntt-review.jp/archive/2024/202406.html



#### View from the Top

Sachiko Oonishi, Executive Vice President, Head of Research and Development Market Strategy, NTT Corporation

#### **Front-line Researchers**

Tomoharu Iwata, Senior Distinguished Researcher, NTT Communication Science Laboratories

#### **Rising Researchers**

Daisei Uchida, Distinguished Researcher, NTT Access Network Service Systems Laboratories

#### **Feature Articles**

# Revolutionizing Living and Working Spaces with Personalized Sound Zone

- Development of a Personalized Sound Zone and Future Outlook
- PSZ Spot-sound-reproduction Technology: New Sound-confinement Method Using Opposite-phase Sound Waves
- Acoustic XR Technology Merging Real and Virtual Sounds
- PSZ Active Noise Control and Desired Sound Selection Technologies for Creating a Comfortable and Safe Sound Environment in Vehicle Cabins
- NTT sonority's Pursuit of Innovation—New Businesses That Leverage PSZ and MAGIC FOCUS VOICE Technologies

# **Regular Articles**

Millimeter-wave-based Drone Automatic Landing-guidance System for Advanced Maritime Operations

# **Global Standardization Activities**

Recent Trends in GlobalPlatform: Digital Trust – Evaluation & Certification, Trusted Execution Environment, and Digital Identity –

# Practical Field Information about Telecommunication Technologies

Case Studies of Telecommunication Problems Caused by Conducted Disturbance in AC Power Lines

#### View from the Top

# Sachiko Oonishi, Executive Vice President, Head of Research and Development Market Strategy, NTT Corporation

#### ▼ Abstract

In 2023, the Research and Development Market Strategy Division was established at NTT Corporation. Its mission is to create new value by combining research and development on the basis of the conventional product-out approach with marketing while being committed to creating an exciting future. We asked Sachiko Oonishi, NTT executive vice president, head of Research and Development Market Strategy, about the Division and her mindset as a top executive.



#### Feature Articles

Revolutionizing Living and Working Spaces with Personalized Sound Zone

# Development of a Personalized Sound Zone and Future Outlook

#### **▼**Abstract

Personalized Sound Zone (PSZ) is the ultimate sound space that enables a world in which one hears only the sounds one wants to hear and others hear only the sounds that one wants them to hear. It will enable new lifestyles in which people can enjoy work and entertainment experiences regardless of location, provide a new acoustic experience by merging real space and virtual sound space, enable self-driving cars in which people seated apart from each other can comfortably have conversations in a space as quiet as a living room, and improve the quality of life by enhancing hearing ability. These Feature Articles introduce the challenges involved in achieving PSZ.



#### **Regular Articles**

# Millimeter-wave-based Drone Automatic Landing-guidance System for Advanced Maritime Operations

#### ▼ Abstract

Drones have gained increased interests from a variety of fields such as logistics and environmental measurements. In the maritime domain, their applications are wide spreading, including cargo transportation, weather observation, fishery exploration, red-tide monitoring, port management, and detection of illegal ships. However, safely navigating drones to ships is challenging due to the swaying caused by waves and the occurrence of poor visibility conditions such as fog and rain. To address this challenge, our team has been investigating a novel automatic landing-guidance system using high-resolution millimeter-wave radar, which is tolerant to weather conditions. This article investigates the overall system, which consistently guides a drone at a distant point to a landing point for all-weather operation.

