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Front-line Researchers

- Hiroaki Gomi, Senior Distinguished Researcher, NTT Communication Science Laboratories

Rising Researchers

- Shinya Shimizu, Distinguished Researcher, NTT Human Informatics Laboratories

Feature Articles

International Standardization Trends

- On Publishing Feature Articles on International Standardization Trends
- Standardization Trends in Technologies Related to Fixed-line Networks
- Standardization Trends Related to Wireless Communications
- Standardization Trends Related to Environmental and Operations Technologies
- Standardization Trends Related to Application- and Service-related Technologies

Feature Articles

Efforts toward the Early Deployment of IOWN

- Efforts of NTT IOWN Integrated Innovation Center toward the Early Deployment of IOWN
- APN-controller Technology for IOWN Service Provision and Expansion
- Data-centric Infrastructure for Supporting Data Processing in the IOWN Era and Its Proof of Concept
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- Artificial Neural Network Trained for Sound Recognition Exhibiting Human-like Sensitivity to Sound Amplitude Modulation

NTT IOWN Technology Report

- Release of NTT IOWN Technology Report 2023

Special Report

- Growth Record of Kanagawa Prefectural Yokosuka Senior High School Students Becoming Sports Analysts—Introducing NTT Human Informatics Laboratories' Contribution Activities to the Local Community

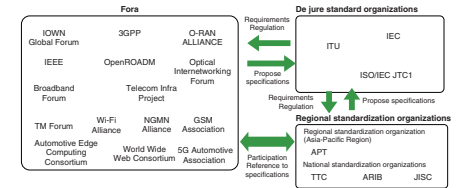
Feature Articles

International Standardization Trends

On Publishing Feature Articles on International Standardization Trends

▼ Abstract

As a means of introducing Feature Articles on International Standardization Trends in this issue, this article describes the historical background and economic benefits of international standardization. Since January 2023, Mr. Seizo Onoe has been Director of the Telecommunication Standardization Bureau of the International Telecommunication Union (ITU). The Ministerial Declaration of the G7 Digital and Tech Ministers' Meeting calls for cooperation in international standardization. This resulted in interest in international standardization in Japan reaching an unprecedented level. Accordingly, this article also introduces recent trends surrounding international standardization and provides an overview of the NTT Group's efforts in this area.



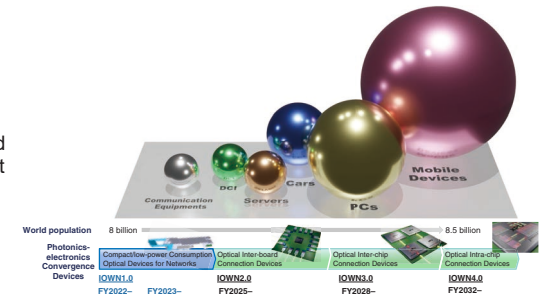
Feature Articles

Efforts toward the Early Deployment of IOWN

Efforts of NTT IOWN Integrated Innovation Center toward the Early Deployment of IOWN

▼ Abstract

NTT established NTT IOWN Integrated Innovation Center to incorporate the concept of the Innovative Optical and Wireless Network (IOWN) as early as possible through the practical application of various IOWN technologies developed by NTT laboratories and the provision of IOWN services/products to meet market needs and social demands. This article presents the activities of NTT IOWN Integrated Innovation Center, which aims to spread IOWN widely and contribute to a transformation of society.



Regular Articles

Artificial Neural Network Trained for Sound Recognition Exhibiting Human-like Sensitivity to Sound Amplitude Modulation

▼ Abstract

Amplitude modulation (AM) is one of the most important sound physical dimensions for auditory perception. Human listeners can detect subtle AM in such a way that their sensitivity to AM depends on the stimulus parameters. Why does the auditory system exhibit such a form of AM sensitivity? How does the brain conduct AM detection? To answer these questions, my research colleagues and I conducted a computational study. We trained an artificial neural network (NN) model for sound recognition and simulated AM-detection experiments in the model. We found the emergence of human-like AM sensitivity in the model.

