

<https://www.ntt-review.jp/archive/2022/202207.html>

Front-line Researchers

- Ryuichiro Higashinaka, Visiting Senior Distinguished Researcher, NTT Human Informatics Laboratories/NTT Communication Science Laboratories

Rising Researchers

- Takuhiro Kaneko, Distinguished Researcher, NTT Communication Science Laboratories

Feature Articles

Optical and Wireless Transmission Technologies for IOWN/6G

- Research and Development for Pioneering a New Communications Paradigm with Wide-area Coverage
- Future Development of Digital Coherent Optical Transmission Technology
- Research and Development of Scalable Optical Transport Technologies
- R&D Activities of Core Wireless Technologies toward 6G Radio Access

Feature Articles

ICT Platform for Connected Vehicles Created by NTT and Toyota

- Overview of Technical Development and Verification in the Connected-vehicle Field
- Activities and Results of Field Trials—Reference Architecture for a Connected-vehicle Platform
- Activities and Results of Field Trials—Network Edge Computing Platform
- Real-time Spatiotemporal Data-management Technology (Axispot™)
- Selective Vehicle-data-collection Algorithm
- Vertically Distributed Computing Technology
- Lane-specific Traffic-jam-detection Technology
- Technology for Calculating Suddenness Index for Aggregated Values

Regular Articles

- Unsupervised Depth and Bokeh Learning from Natural Images Using Aperture Rendering Generative Adversarial Networks

Global Standardization Activities

- Report of the 9th ITU-T TSAG (Telecommunication Standardization Advisory Group) Meeting

Front-line Researchers

Ryuichiro Higashinaka, Visiting Senior Distinguished Researcher, NTT Human Informatics Laboratories/NTT Communication Science Laboratories

▼ Abstract

Ryuichiro Higashinaka, a visiting senior distinguished researcher of NTT Human Informatics Laboratories/NTT Communication Science Laboratories and professor of the Graduate School of Informatics, Nagoya University, is aiming to create a dialogue system that allows humans and computers to understand each other and intelligently collaborate by clarifying the principles of natural-dialogue interaction between them. We interviewed him about the progress of his research and his attitude as a researcher.



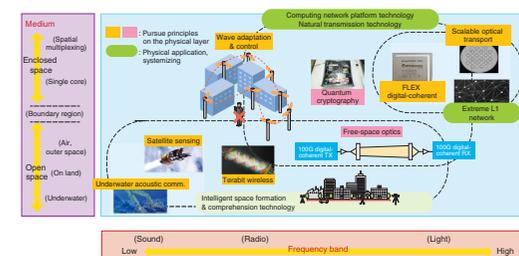
Feature Articles

Optical and Wireless Transmission Technologies for IOWN/6G

Research and Development for Pioneering a New Communications Paradigm with Wide-area Coverage

▼ Abstract

Research and development at NTT Network Innovation Laboratories aims to establish elemental technologies for next-generation communication networks envisioned under NTT's Innovative Optical and Wireless Network (IOWN) and the 6th-generation mobile communication system (6G). This article introduces optical/wireless transmission technologies and systemization technologies currently being researched and developed at NTT Network Innovation Laboratories.



Feature Articles

ICT Platform for Connected Vehicles Created by NTT and Toyota

Overview of Technical Development and Verification in the Connected-vehicle Field

▼ Abstract

The NTT Group and Toyota Motor Corporation are collaborating on the research and development of an ICT platform for connected vehicles. They conducted joint field trials from 2018 to 2020 and established the basic technology through various use cases and verification of the platform. In the Feature Articles in this issue, the NTT Group operating companies and NTT laboratories that are participating in the collaboration present the details of the field trials, the results, technologies applied, value provided, and future issues.

