

Introduction of Shimamoto Laboratory

Waseda University

Department of Communications and Computer Engineering
(School of Fundamental Science and Engineering)

Department of Computer Science and Communications Engineering
(Graduate School of Fundamental Science and Engineering)

Global Information and Telecommunications Institute

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Features of Shimamoto Laboratory

- **Multidisciplinary:** From Vital Sensing to Space Communications
- **Multi-nationality:** International environment with many students from English-speaking countries such as U.K., U.S., New Zealand etc, and Asian countries such as Nepal, India, and China. Half of the presentations and discussions are English-based.
- **Multi-frequency bands:** From ultrasonic, short wave, millimeter wave, and terahertz wave radio waves to infrared, visible light, and ultraviolet light
- **Experimental Facilities:** Anechoic chambers, optical communication equipment, robots, drones, large outdoor antennas, etc.
- **International conferences:** from bachelor students (e.g. two papers submitted by 4th year undergraduates were accepted by the IEEE ICC2021, the world's TOP conference)
- **Career Path:** Expand into a wide range of fields (main employers within 2-3 years: Ministry of Internal Affairs and Communications, Ministry of Land, Infrastructure, Transport and Tourism, KDDI, Nomura Research Institute, NHK, Goldman Sachs, Apple Japan, Ericsson, SONY, NTT DOCOMO, Nokia, Marubeni, JAL (pilot), Rakuten, etc.)

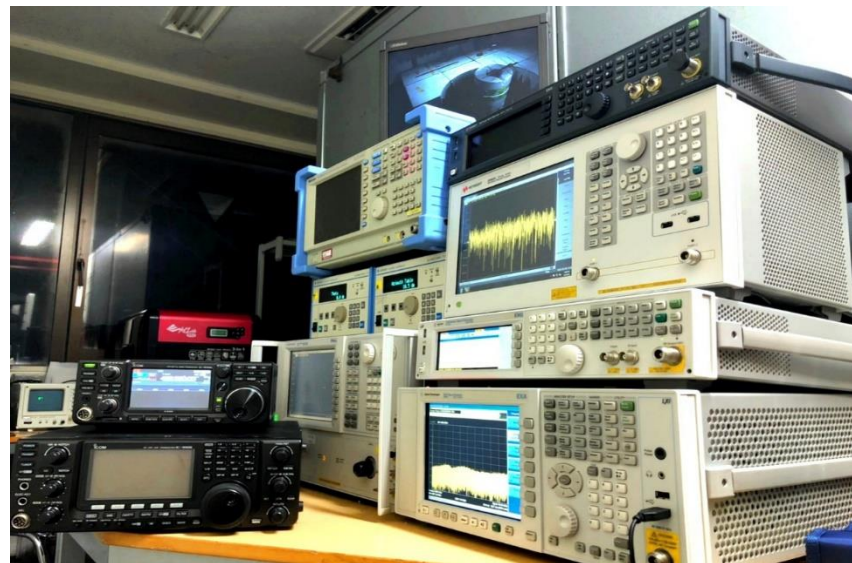
Research Environment



Antennas



Chamber Room



Measuring equipment



Robot、DRONE、3D Printer etc.

Laboratory Members



Faculties

Professor Shigeru Shimamoto
Professor Jiang Liu
Associate Professor Zhenni Pan
Lecturer Megumi Saito
Research associate Kazutoshi Yoshii

Research Field Examples

Optical Wireless
Communication
光無線通信

Vital Sensing
人体情報センシング

V2X
車用通信

SAT UAV
航空宇宙通信

AI COM
人工知能通信

Beyond 5G
次世代無線通信

Energy Trans.
電力伝送

Ultra Sonic Com
超音波通信

Robot Com
ロボット通信

無線通信方式RAN

変復調方式Mod

アクセス方式Access

多元接続方式MA

中継方式Relay

ネットワーク方式Net

センシング方式Sensing