

# An interactive visualization system of earth observation satellite data using Dagik Earth and Joy-Con

\*Ayane Kosugo<sup>1</sup>, Hina Yamanuki<sup>1</sup>, Zhiyan Liu<sup>1</sup>, Kazuhito Ichii<sup>1</sup>

1. Center for Environmental Remote Sensing, Chiba University

Satellite Remote sensing, earth observation from space, is effective for outreach activities through visualization of the change in global earth environment. However, people are unfamiliar with remote sensing; although remote sensing technology is commonly used in the daily life. In this study, we will report our attempt toward building a prototype system which people can enjoy and understand remote sensing with (1) Dagik Earth, a three-dimensional display system of satellite data image, and (2) Joy-Con, a pair of gaming controllers for “Nintendo Switch” which is quite popular to wide public. We enabled Joy-Con to operate computers by connecting with Bluetooth and assigning mouse and keyboard operations to buttons and joy-stick of Joy-Con with a key-mapping software. We also added contents that we generated in our research activities in Center for Environmental Remote Sensing (CEReS), Chiba University. Representative additional contents are monthly variations in terrestrial photosynthesis and atmospheric CO<sub>2</sub> concentrations. We found this system is effective and easy to use for visitors including kids. We hope this system is helpful to promote people’s understandings of remote sensing and global environmental problems.

Keywords: Remote Sensing, Dagik Earth, Joy-Con, Nintendo Switch, Outreach

