

Development of Virtual Earth Science Field Trip Tool - Innovative Earth Science Class utilizing latest ICT -

Shoji Sanefumi¹, *Yusuke Kobayashi¹, Kenji Kawai², Tomohiko Sato³

1. LIVEARTH, Inc., 2. University of Tokyo, 3. Tokyo Institute of Technology

In Earth Science, a field trip which can deepen the understanding of earth's layers by actually touching them is essential. However, geologically significant spots sporadically exist with inconvenient access, and considering moving time and cost, field trip is not readily planned and carried out. In this respect, the authors developed a web application using virtual reality and drone filming that realize virtual field trip in Jogashima, one of the most fundamental and comprehensive geological sites. Furthermore, using this web application we had an earth science class in which college students are engaged in virtual geological excursion. As a result, we had positive feedback from many students pointing out that earth science is not a rote learning but a distinct science. We expect more schools will use our web application to make earth science class enjoyable and full of student-centered learning.

Keywords: Earth Science, virtual reality, drone, virtual field trip, Jogashima, active learning

