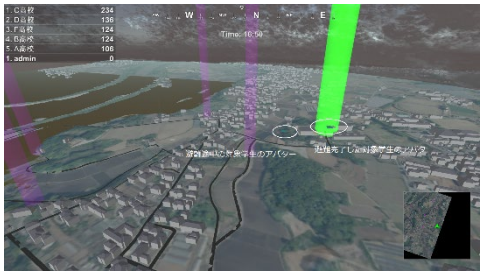
Title	Development of a risk communication system to improve public awareness of flood disasters and crisis management
Background & Needs	In time of flooding, people sometimes miss the chance of timely evacuation and expose themselves to dangers that arise along with the flood hazard. Such risks can be reduced by developing a risk communication system through which governments and residents can share the sense of crisis derived from an extraordinary event of flooding and take appropriate emergency actions, including evacuation.
Goals	To develop a system that seamlessly and comprehensibly reproduces, predicts, and visualizes signs, factors, and actual flood events from normal times to emergencies. To support concerted efforts by governments and residents in creating a timeline of emergency actions and a framework for consensus formation about implementing pre-event measures using the information produced by the developed system.
Method & Outcomes	We developed a virtual flood experience system using VR technology and held an e-sports-like competition in Tsukuba City, inviting students from local junior high and high schools and a university. The students learned about flooding at school before the event, including possible situations and appropriate evacuation actions. Then, they competed on the day for the points earned and the time taken to evacuate while gathering information and choosing evacuation routes through various flood situations created in the virtual space. The event's game-like factor seemed to help increase the students' engagement in this learning opportunity. The event was also meaningful for us. We confirmed that the developed system can facilitate learning about safe evacuation when coupled with general knowledge about flooding given in advance. The results indicated the system's possibility as a promising tool for disaster education.  水防災競技会の状況  仮想洪水体験システムで推定したつくば市内における水災害状況と避難行動
Collaborators	None.
Duration	FY2018-FY2022　　The project ended.
Researchers	Chief Researcher: SHINYA Takafumi, Senior Researcher: DENDA Masatoshi