

Graduate School of Science and Technology Master's Thesis Abstract

Laboratory name (Supervisor)	Interactive Media Design (Hirokazu Kato Professor)		
Student ID	1911310	Submission date	2021 / 1 / 24
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Thesis title	A Mixed Reality Collaboration System to Promote Social Participation of People Who Have Difficulty in Going Out 外出困難者の社会参加を促進するための複合現実コラボレーションシステム		
Abstract			
More than one billion population in the world are tortured by disabilities, and a majority of them have difficulties in social participation due to the unsatisfied transportation demanding. Therefore, in this thesis, we propose to use a remote collaboration system based on mixed reality to help people with disabilities to join in social activities. Specifically, our system employs a pair of VR and AR HMDs as well as a \$360^\circ\$ camera to create a virtual environment, where physically separated users can interact with each other immersively. Furthermore, we also equip our system with a branch of functions that can further facilitate communications. In order to test our system, we also design a remote shopping scenario to simulate the condition where people with disabilities want to go shopping at home. The user study shows that our system can satisfy most requirements without triggering obvious discomfort.			