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Editor's Introduction

This book presents the contents of the fifth anniversary International Symposium of Asia Japan research at Ritsumeikan University, Session 1 held on February 22, 2021, entitled this data archiving of cultural properties based on advanced ICT and utilization of the archived data. The theme of this session is digitalized archiving of cultural heritage and its applications. We discuss, for example, how to archive cultural heritage objects, access the study archive data, utilize the Data Archive data for researchers and for the public. It contains five lecturers on this state-of -the-art research project.

We will begin with Professor Feener. He is a professor at Kyoto University and belongs to the Center for Southeast Asian Studies. Discussing the integration of digital heritage documentation and online archive building, his chapter explains the work of creating an online cultural heritage database with the Maritime Asia Heritage Survey (MAHS) project.

The second chapter is by Dr. Fadjar I. Thufail, a Senior researcher at the Indonesian Institute of Sciences (LIPI), and he presents his research from Indonesia, Jakarta, entitled "Sea as Method: Borobudur and the Ontology of the Maritime World," in which he introduces some new ways of the of utilizing this archive of data.

The third chapter is from one of the earlier-career researchers at Ritsumeikan University, Dr. Yuting Song. She is an expert in databasing. Her title is "Linking Ukiyo-e Records across Languages: An Application of Cross-Language Record Linkage Techniques to Digital Cultural Collections." She will present her new schemes for a language-matching database, which will be useful for our cultural heritage, database.

The fourth chapter is from researcher Itao Pan, a doctoral student

at the Graduate School of Information Science and Engineering, Ritsumeikan University. Her chapter is entitled “Fused 3D Transparent Visualization for Large-scale Cultural Heritage Using Deep Learning-based Monocular Reconstruction.” She will describe the visualization of the history archive, the Borobudur Temple of Indonesia, designated as a UNESCO World Cultural Heritage.

The final chapter is by Welte Li, a doctoral student at Ritsumeikan University. She is doing research on the archiving of the Gion festival, one of the biggest traditional festivals in Japan and the title of her talk is on the creation of collision visualization data using a laser scan point cross for safe designing of the route of the parade, which has many advantages over traditional processes in route planning.

We hope that readers will enjoy the various innovative uses of data visualization described in this book.

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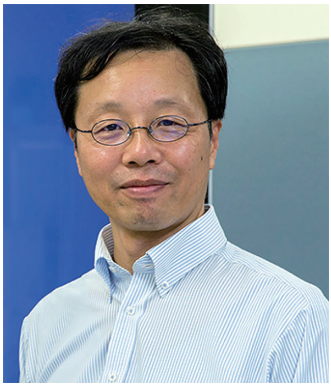

Editor

Satoshi Tanaka is a professor at the College of Information Science and Engineering, Ritsumeikan University, Japan. He also serves as the vice director of the Asia-Japan Research Institute, Ritsumeikan University. He earned his Ph.D. in theoretical physics from Waseda University, Japan, in 1987. Following positions as an assistant professor, senior lecturer, and associate professor at Waseda University and Fukui University, he assumed the role of professor at Ritsumeikan University in 2002. His current research focuses on computer visualization of complex 3D shapes, including 3D scanned cultural heritage objects, internal structures of the human body, and fluid simulation results. He has held leadership positions such as vice president of the Visualization Society of Japan (VSJ), president of the Japan Society for Simulation Technology (JSST), and president of ASIASIM (Federation of Asia Simulation Societies). Currently, he serves as a cooperation member of the Japan Science Council. He has been honored with best paper awards at the Asia Simulation Conference (2012 and 2022), the Journal of Advanced Simulation in Science and Engineering in 2014, among others.