Proposed Terms of Reference, Commission on Ubiquitous Mapping for 2023-2027

(1) Commission Name

Commission on Ubiquitous Mapping

(2) Chairperson

Toru Ishikawa (Japan)

Department of Information Networking for Innovation and Design

Toyo University

1-7-11 Akabanedai, Kita-ku, Tokyo 115-8650, Japan

Phone: +81-3-5924-2600

E-mail: toru.ishikawa@iniad.org

(3) Terms of Reference 2023-2027

Since its establishment in 2003, the Commission on Ubiquitous Mapping has been pursuing various issues concerning the development of a geospatially enabled society and its potential effects on people's spatial behavior and thinking. Such an advanced geospatial society with integrated computing and mapping capabilities enables people to access any information they need anywhere at any time (environments referred to by the terms pervasive computing, the Internet of Things, and smart cities) and may change the manner in which people interact with physical environments and external spatial representations. In particular, the use of advanced geospatial technologies, including mobile navigation tools and web mapping services, has been found to distract people's attention from the surrounding environments and hence degrades their spatial awareness. With this kind of concern about possible negative impacts of satellite navigation tools taken into consideration, together with the recognition of their benefits and convenience, the Commission, for the proposed period of 2023-2027, intends to continue the activities that have been successfully conducted by the current commission members and expand the scope of the Commission to human and social issues of ubiquitous mapping, to include the theoretical and practical discussion of the relationship between geospatial technologies and human spatial cognition and experience.

Specific activities that the Commission aims to conduct during the proposed period include:

- Organizing international workshops on ubiquitous mapping with other commissions at

future ICA conferences;

- Fostering the link with other international conferences that discuss cognitive and social aspects of ubiquitous mapping, such as the International Conference on Spatial Information Theory (COSIT), the International Conference on Spatial Cognition (ICSC), and the Spatial Cognition Conference Series;

- Facilitating participation in ICA conferences by researchers in a wide range of disciplines related to cartography and geographic information science, including geography, psychology, computer science, architecture and planning, sociology, linguistics, and education, among others;

- Promoting the submission of research articles for presentation at ICA conferences and possibly proposing special issues of ubiquitous mapping in international journals of cartography and other related disciplines;

- Conducting research on the theory and application of ubiquitous mapping in interdisciplinary collaboration, for example, with researches in the related disciplines that explore geospatial information and technology from the perspective of computing and informatics (e.g., context awareness, artificial intelligence, robotics, autonomous cars, and IoT devices), social applications and implications (e.g., volunteered geographic information, crowdsourcing, open data, public participation, collaborative mapping, locational privacy, and digital divide), and human spatial awareness (e.g., geospatial thinking, spatial literacy, map skills, navigation assistance, and sense of place); and

- Situating the concept of ubiquitous mapping in the domain of theoretical cartography.