
Activity Report for TC- 28 Application of Monitoring Technology for Infrastructure Maintenance

Date: 2024.8.30

Name of Chair: Eiki YAMAGUCHI

Responsible Society: JSCE

1. Outline of TC

1.1. Objectives

Infrastructure is critical for economic prosperity, economic growth, and sustainable development. While many countries invest heavily in infrastructure construction, much less attention has been paid to maintenance work, which could generate a serious bottleneck to economic growth and public services in the long run. Utilizing new technologies for systematic infrastructure management is essential for both preventing accident and minimizing life-cycle-cost.

Civil Infrastructures have been constructed across the Asian region and maintenance has already become a big issue to be addressed. Although many monitoring technologies and products are developed, the administrators are struggling to choose technologies as the practical specifications are not sufficiently standardized. The objective of TC28 is to prepare the guidelines on the scheme for maintenance of infrastructures by demonstrating good use of monitoring technology for making maintenance works more sophisticated and efficient.

1.2. Terms of Reference

TC28 provides the guidelines and recommendations for utilization of monitoring technologies, which cover wide range of fields: namely, concrete decks, concrete beams, steel beams, salt environment, bridge piers and foundations, embankment and cutting slopes, and handling of monitoring data.

TC28 holds periodical meetings to share and discuss the maintenance and monitoring issues with members from various disciplines and sectors. Integration of knowledge and opinions leads to enhancement for quality of the guideline and practical applications of monitoring technologies in Asian countries.

1.3. Expected Outcomes

- ACECC guidelines for application of monitoring technology for infrastructure maintenance
- Reports on status and issues of maintenance and monitoring in the member countries
- Reports on introduction to latest technologies of monitoring and application examples
- Suggestions to promote practical applications of monitoring in Asia for the next generations.

1.4. Period of Activity (1) since TC's inception, and (2) for this Report (Month/Year to Month/Year)

October 2021 - September 2024 (3 years)

1.5. Members

Organization	Name	Affiliation
ASCE	Chungwook Sim	University of Nebraska at Lincoln
CICHE	Tzu-Kang Lin	University of Yanming-Chiaotung
EA	Shane Scriven	Engineers Australia's Asset Management Council
IEB	A.F.M.Saiful Amin	Bangladesh University of Engineering and Technology
IEP	Shamsoon Fareed	University of Engineering & Technology
IEP	Wajahat Nassar	Inventories/Warehousing
KSCE	Chang-Su Shim	Chung-Ang University
KSCE	Robin Eunju Kim	Seoul National University
PICE	Benito M. Pacheco	University of the Philippines Diliman
VFCEA	Pham Hoang Kien	University of Transport and Communication
VFCEA	Le Thanh Binh	Anglia Ruskin University, UK Ho Chi Minh city University of Transport, Vietnam
JSCE (Chair)	Eiki Yamaguchi	Kyushu Institute of Technology
JSCE	Masaaki Nakano	Nippon Koei
JSCE	Tetsuro Goda	Nippon Koei

1.6. Financial Background

NA

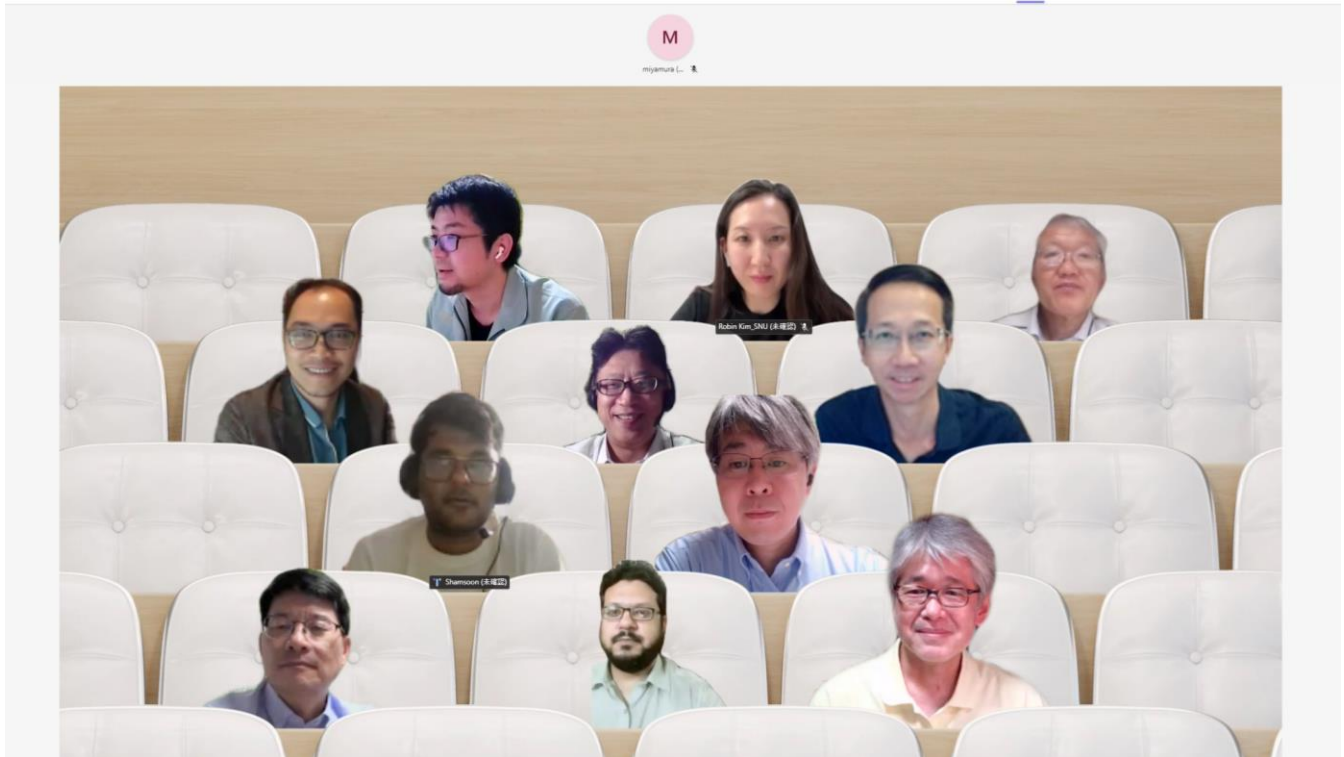
2. Recent Activities and Outcomes

We had a session of TC28 in the CECAR10 at Manila on 29th of February 2024. The agenda was as follows; 1) Opening, 2) Introduction of TC28 and Overview of Monitoring Guideline, 3) Recent Activities of TC28, 4) Current State of Bridge Maintenance in Korea, 5) Cable-stayed Bridge Tension Monitoring, 6) Ground Displacement Monitoring from the Metro Line Ben Thanh - Suoi Tien in Ho Chi Minh City, 7) Phase-free Road Management with Monitoring Technology, 8) Discussion and Summarization, 9) Closing.



We had the 3rd meeting of national commission with Japanese National Commission members on 22nd of May 2024. The agenda was as follows; 1) Sharing past activities of TC28, 2) Sharing the schedule of future TC activities, 3) Assignment of the monitoring guideline, 4) Checking if there are any monitoring cases that can be introduced at TC28 in the future by the Japanese National Committee member, and 5) Gathering other opinions (topics for TC meetings, policy for ACECC guideline development).

We had the 3rd meeting of TC28 on 17th of July 2024. The agenda was as follows; 1) Opening, 2) Overall schedule of TC28, Information of CECAR10@Jeju, and Expected final deliverable of TC28, 3) Brief introduction on Chapter2-9 of the Guideline, 4) Chapter allocation of the Guideline, Task details for the allocated chapter, and Expected work and schedule, 6) Closing. We confirmed the task distribution and the future schedule through the meeting.



3. Activity Plan towards Incoming CECAR

3.1. Session Title

Application of Monitoring Technology for Infrastructure Maintenance (Tentative)

3.2. List of Presentations

We will have presentations on the established monitoring guidelines for ACECC. We will decide the content of other presentations after discussion in TC meetings in future.

4. Other upcoming activities

We are planning to have the 4th TC meeting on October 2024 to discuss revisions, suggestions, and comments for the guideline.

5. Any requested Action Items for TCC and /or EC

NA