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## Activity Report of ACECC TC28

### Application of Monitoring Technology for Infrastructure Maintenance

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Date 2022.3.18  
Japan Society of Civil Engineers

## 1. Outline of TC (\*shall be written, in case it is not shown in the website or has any changes.)

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### 1.1 Objectives

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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

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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

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- 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

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October 2021 - September 2024 (3 years)

## 1.5. Members

Organization	Name	Affiliation
ASCE	Lian Duan	California Department of Transportation
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
KSCE	Chang-Su Shim	Chung-Ang University
KSCE	Robin Eunju Kim	Hanyang 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

TC28 was successfully established at the 41<sup>st</sup> ECM in September 2021. We have recruited the members and made a draft for future actions, which will be shared and discussed in the next meeting of TC28. We held the 1<sup>st</sup> TC28 meeting on March 17th, 2022. The time schedule of the meeting is shown below.

[05min]	: Opening Speech by the Chair (Dr. Yamaguchi)
[10min]	: Self Introduction by all members
[10min]	: Presentation on activities and plans of TC28 by the Committee (Dr. Nakano)
[15min]	: Discussion on activities and plans of TC28 by all members
[05min]	: Presentation on how to proceed with TC28 by the Committee (Dr. Nakano)
[40min]	: Presentations on current state and issue of maintenance and monitoring in each society/institution by JSCE (Mr. Goda), KSCE (Dr. Shim), IEP (Dr. Fareed), and ASCE (Dr. Sim)
[25min]	: Discussion on how to proceed with TC28 and comments on the presentations by all members
[05min]	: Announcement for CECAR9 and selection of presenters by the Committee
[05min]	: Closing Speech by the Chair (Dr. Yamaguchi)

## 3. Activity Plans towards CECAR9

We are going to have a session for 90mins in CECAR9. The tentative time schedule of the meeting is shown below. We will discuss in more detail with the members during the 1<sup>st</sup> TC28 meeting.

[05min]	: Explanation of purpose for establishment of ACECC and TC28
[75min]	: Presentations for topic provision from member societies/institutions Tentative candidates of presenters → IEB, PICE, VFCEA and two more
[10min]	: Discussion and summarization