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## Activity Report of ACECC TC28

### Application of Monitoring Technology for Infrastructure Maintenance

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Date 2022.8.30  
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  |
| IEP          | Wajahat Nassar    | Inventories/Warehousing   |
| 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<br>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 discussed the contents for the session of TC28 in CECAR9 and made an agenda including speakers and time-schedule.

| Time  | Organization | Name              | Contents  |
|-------|--------------|-------------------|---|
| 05min | JSCE         | Eiki Yamaguchi    | Greeting  |
| 10min | JSCE         | Masaaki Nakano    | Introduction of TC28,<br>Overview of Monitoring Guideline     |
| 15min | KSCE         | Robin Eunju Kim   | Current State of Infrastructure<br>Maintenance and Monitoring |
| 15min | CICHE        | Tzu-Kang Lin      |   |
| 15min | IEB          | A.F.M.Saiful Amin |   |
| 15min | JSCE         | Masaki MIYAMURA   |   |
| 15min | ALL          | -                 | Discussion and Summarization                                  |

## 3. Activity Plans towards CECAR9

We will prepare the detailed agenda and make a presentation materials for the session in CECAR9.