

ÎSCE

# ACECC CECAR 8 Final Report

37<sup>th</sup> ACECC ECM Goa, India, September 25-27, 2019

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## ACECC CECAR 8 Resilient Infrastructures in Seamless Asia

- Date: April 16-19, 2019
- Venue: Hotel Metropolitan Ikebukuro, Tokyo
- No. of participants: 798
   Students: 51
- No. of submitted papers: 233
- No. of sessions: 43, some TSs have 2 or more parts.
- No. of booth exhibitors & booths: 47, 58 Website: <u>http://www.cecar8.jp/</u> Twitter & Instagram: "CECAR8"<sub>3</sub>

### 1. CECAR8 Local Organizing Committee

### Chair

KAYANO, Masayasu, Kajima Corp.

### **Advisors**

 KOBAYASHI, Kiyoshi, Ph.D., Kyoto University
 KUSAKABE, Osamu, Ph.D., ACECC Chair, International Press-in Association MORI, Masafumi, Dr. Eng., Ministry of Infrastructure, Land, Transport and Tourism
 OHISHI, Hisakazu, Japan Construction Engineers' Association
 TASHIRO, Tamiharu, Kajima Corp.

### **Vice Chairs**

HANAOKA, Norio, Yachiyo Engineering Co., Ltd. OHNISHI, Hirofumi, Ph.D., Katahira & Engineering Inc. SATO, Shinji, Dr. Eng., The University of Tokyo

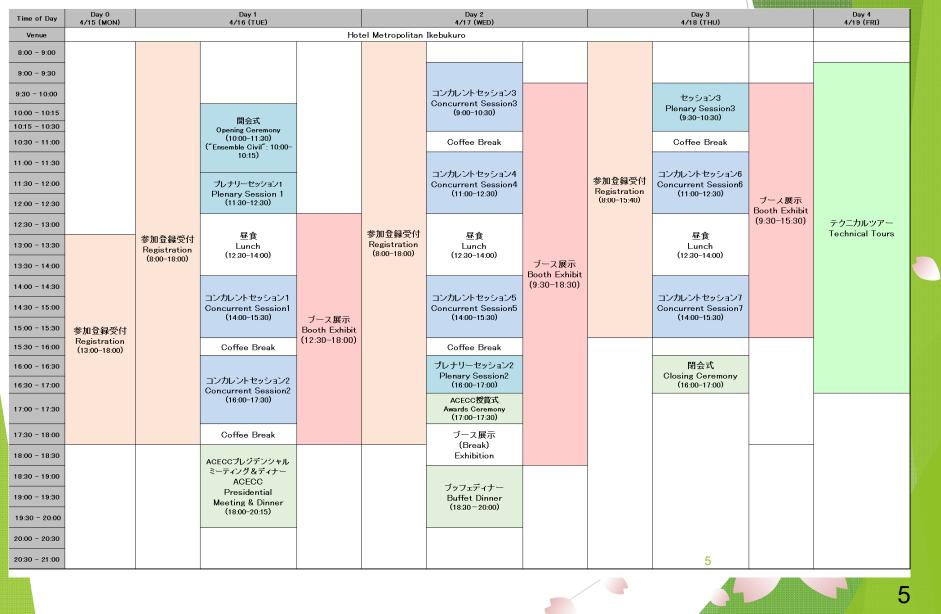
Secretary General

KIMURA, Makoto, Ph.D., Kyoto University

### Deputy Secretary General

OKUMURA, Yasuhiro, Ministry of Infrastructure, Land, Transport and Tourism RIHO, Yoshihiko, Kajima Corp. TSUKADA, Yukihiro, Dr. Eng., Japan Society of Civil Engineers

### i. Overview Program April 16-19, 2019



### ii. ACECC 36<sup>th</sup> ECM

- Date & Time: Monday April 15, 2019, 9:00-20:30
- Venue: JSCE HQ@Yotsuya 1-chome, Shinjuku, Tokyo
- 8:30-9:00 Registration
   9:00-12:00 30<sup>th</sup> PCM
   12:00-13:00 Lunch
   13:00-15:00 25<sup>th</sup> TCCM
   15:00-15:30 Coffee break
   15:30-19:00 36<sup>th</sup> ECM
   19:00-20:30 Welcome Reception
- Participants: ASCE, CICIHE, EA, HAKI, ICEI, IEB, IEP, JSCE, KSCE,
- MACE, NEA, PICE, VFCEA, and MES
- MES, which attended as an observer, received an approval for their application to become ACECC Member at the 36<sup>th</sup> ECM.

3. Registration i. Overview			
Cat	egory		Number
ACECC Member	434		
Non-ACECC Member			57
Speaker, Moderator	220		
Student (Buffet Dinner	19		
Student (Buffet Dinner not incl.)			32
Accompany Person			36
Т	otal		798
		*(	Complimentary registration incl.
Category	Early-Bird		On-Site
ACECC Member	¥50,000		¥60,000
Non-ACECC Member	¥55,000		¥65,000
Speaker, Moderator	¥40,000		¥50,000
Student	¥10,000	*Buffet di	nner not included.
			7

### 3. Registration

### i. Overview- Demographic-1

ACECC Member	Number	ACECC Member	Number
ASCE	93	NEA	1
CICHE	18	PICE	13
EA	8	VFCEA	3
Fed. MES	1	Others	7
HAKI	7	Unknown	239
ICEI	9	Total	798
IEB	3		
IEP	7		
JSCE	354		
KSCE	17		
MACE	17		
MES	1		
		8	

### 3. Registration, i. Overview- Demographic-2

Country	Number	Country	Number
Australia	7	Myanmar	3
Bangladesh	7	Nepal	2
Brazil	3	New Zealand	1
Cambodia	1	Pakistan	8
Chile	1	Philippines	20
China	16	Republic of Korea	34
Costa Rica	1	•	4
Djibouti	2	Singapore	
Hong Kong	2	Sri Lanka	5
India	19	Taiwan	43
Indonesia	11	Thailand	9
Italy	1	Turkey	2
Japan	546	United Arab Emirates	1
Jordan	1	United Kingdom & Northern	
Kyrgyz	1	Ireland	1
Lao People's Democratic Republic	1	United States of America	13
Lebanon	2	Viet Nam 9	12
Mongolia	18	Total	798

### 3. Registration

### ii. Technical Session-1

### \*No. of Audience was counted 30 min after the session began.

Papers       ity of     5       :ience     5	5 5	Audience 59
5	5	59
) 5	5	17
a 5	5	21
aido 6	5	Part 1: 8
		Part 2: 10
nal ent, <sup>6</sup>	6	28
10	10	Part 1: 29
nal 10	10	Pat 2: 35
n e	a 5 aido 6 nal 6	a $5$ $5$ aido $6$ $5$ hal $6$ $6$ ent, $6$ $10$

Area	Session No.	Session Title	Chair	No. of Papers	No of Speakers	No. of Audience
Coastal, Offshore, Hydraulic &Marine Engineering	TS2-6	Water and Disasters-Toward Building Resilient Society under Climate Change-	Toshio Koike (International Centre for Water Hazard and Risk Management, PWRI) Maximo L. Carvajal (DPWH, the Philippines)	5	5	31
Coasta Hydrau Engine	TS2-7	Wave and Tide Observation and Analysis	Hiroyasu Kawai (PARI) Wen-Son Chiang (National Cheng Kung University)	6	6	19
thetics	TS3-1	Applications of Geosynthetics for Various Civil Engineering Disciplines	Chiwan W. Hsieh (National Pingtung University of Science and Technology)	7	7	25
Geosynthetics	TS3-2	Experiences and Challenges in Construction and Management of Underground Infrastructures	Shinichi Akutagawa (Kobe University)	4	4	28
ement,	TS4-1	Civil Engineering Heritage: Preservation, Reuse and Social Significance	Masaaki Okada (Kindai University)	4	4	7
Tunnel, Management,	TS4-3	How to Utilize Big Data for Transportation Planning and Management	Akimasa Fujiwara (Hiroshima University)	5	5	32
Tunnel,	TS4-4	ITS-based Solutions for Urban Transportation in Asia Pacific Countries	Shunsuke Kamijo (The University of Tokyo )	4	4	18

Area	Session No.	Session Title	Chair	No. of Papers	No of Speakers	No. of Audience
Quality Infra.	TS4-6	Quality and Resilient Infrastructure in Asia: How Can Investment Gap Be Bridged?	Koki Hirota			66
	TS6-3	Comparative Study of Quality Infrastructure in Europe, the United States and Asia and Civil Engineer's Contribution	(Saitama Univ.) Ueda Tamon (Hokkaido Univ.)	10	11	52
Qua	TS6-7	Infrastructure Development and Economic Growth	<b>,</b>			52
Regional revitalization	TS4-7	The Keys of Success in Promoting Regional Revitalization	Shinya Hanaoka (Tokyo Inst. of Tech.) Rubel Das (Nippon Koei Co., Ltd.)	6	6	43
	TS5-1	Sustainable and Eco-friendly Concrete by Effective Application of Local Mineral Admixtures	Tetsuya Ishida (The Univ. of Tokyo)	7	7	34
Materials	TS5-2	Wood Utilization in Civil Engineering	Tadashi Hara (Kochi Univ.) Rihong Zhang (Ningbo Univ.)	7	6	26
cation, ce., BIM			Hironori Kato (The Univ. of Tokyo) Le Binh Phan (Vietnam-Japan Univ.)	5	5	34
Engineering Education, Infra. Maintenance., BIM	TS6-5	Enhancing Citizens' Understanding on Importance of Infrastructure Based on Infrastructure Health Report	Mitsuyasu Iwanami (Tokyo Inst. of Technology) Thomas W. Smith, III (ASCE)	3	5	38
Eng Infra	TS6-6	INFRA BIM	Sang-Ho Lee (Yonsei University)	5	5	32

Area	Session No.	Session Title	Chair	No. of Papers	No of Speakers	No. of Audience
les,		Innovative Construction Technologies and Management	Akira Kashida (Kajima Corp.)			84
igolor	TS6-8	in Infrastructure Projects	Akira Ooka (Taisei Corp.)	15	13	58
schr						66
& Mgt., New technologies,	TS6-9	Introduction of Users' Viewpoints in Post Appraisal of ODA Infrastructure Project	Tsunemi Watanabe (Kochi Univ. of Technology) Hai Luong Nguyen (Univ. of Transport & Communications)	7	7	24
ance &	TS6-12	Productivity Improvements in the Field of Construction by ICT	Nobuyoshi Yabuki (Osaka Univ.)	5	5	40
laintena	TS6-13	Study of Failure for Young Civil Engineers	Hiromasa Iwai (Nagoya Inst. of Technology)	2	1	27
fra. N	TS6-14	Transdisciplinary Approach for Disaster Risk Reduction by Scientific Knowledge-based Decision-Making - Four	Kuniyoshi Takeuchi	11	11	53
n, In	130-14	Years of Activity of TC21 and Statement from the Members for Future DRR -			11	38
Education, Infra. Maintenance	TS6-15 (1)	Transforming Civil Engineering Education and Practice to Achieve the United Nations Sustainable Development Goals: Where We Are	William E. Kelly	6	5	42
Engineering E Diversity		Transforming Civil Engineering Education and Practice to Achieve the United Nations Sustainable Development Goals: Next Steps	(ASCE)	2	3	34
Engine	TS6-16	Women in Civil Engineering	Yoh Sasaki (Waseda <sub>1</sub> Univ.)	3 6	6	43

Session			No of	No of	No. of
	Session Title	Chair			
TS7-2	Climate Change Adaptation Measures in Water- related Issues	Tomohito Yamada (Hokkaido Univ.)	4	3	26
TS7-3	Environmentally Sound Management of Construction and Demolition Waste (CDW: Challenges and Opportunities in Asian Countries	Ken Kawamoto (Saitama Univ.)	5	5	21
TS7-4	Role of Civil Engineering in Mitigation of Climate Change	Minoru Yoneda (Kyoto Univ.)	5	4	27
	GS-1 & GS-5-1: Bridge Design	Yuta Yamada (Nihon Univ.)	4	3	20
GS-1 & GS-5	GS-1 & GS-5-2: Concrete Materials and Pavement	Kolluru V.L. Subramaniam (Indian Inst. of Technology Hyderabad)	4	4	24
	GS-1 & GS-5-3: Structural Members	Hikaru Nakamura (Nagoya Univ.)	6	6	30
GS-2	Environmental Systems and Engineering	Akiyuki Kawasaki (The Univ. of Tokyo), Jinwoo Lee (The Hong Kong Polytechnic Univ.)	5	4	10
	GS-6-1: Construction Engineering and Management	Yoshinori Fukubayashi (Univ. of Miyazaki)			
GS-3 & Construction Engineering	GS-6-2 & GS-3: Monitoring & Large-Scale Tests in Geotechnical & Construction Engineering	Moonkyung Chung (Korea Inst of Construction Engineering)			
63-0	GS-6-3: Application of ICRT/AI in Civil Engineering	Kazuyoshi Tateyama (Ritsumeikan Univ.) <sub>14</sub>			
	GS-6-4: ICRT/AI in Civil Engineering & Construction Safety	Satoshi Kubota (Kansai Univ.)			
	TS7-3 TS7-4 GS-1 & GS-5 GS-2	No.Session HileTS7-2Climate Change Adaptation Measures in Water- related IssuesTS7-3Environmentally Sound Management of Construction and Demolition Waste (CDW: Challenges and Opportunities in Asian CountriesTS7-4Role of Civil Engineering in Mitigation of Climate ChangeTS7-4GS-1 & GS-5-1: Bridge DesignGS-1 & GS-5GS-1 & GS-5-2: Concrete Materials and PavementGS-2Environmental Systems and EngineeringGS-2Environmental Systems and EngineeringGS-3 & GS-6GS-6-1: Construction Engineering and ManagementGS-3 & GS-6-3: Application of ICRT/Al in Civil EngineeringGS-6-4: ICRT/Al in Civil Engineering & Construction	No.Session fiftleChairTS7-2Climate Change Adaptation Measures in Water- related IssuesTomohito Yamada (Hokkaido Univ.)TS7-3Environmentally Sound Management of Construction and Demolition Waste (CDW: Challenges and Opportunities in Asian CountriesKen Kawamoto (Saitama Univ.)TS7-4Role of Civil Engineering in Mitigation of Climate ChangeMinoru Yoneda (Kyoto Univ.)TS7-4Role of Civil Engineering in Mitigation of Climate ChangeMinoru Yoneda (Kyoto Univ.)GS-1 & GS-5GS-1 & GS-5-1: Bridge DesignYuta Yamada (Nihon Univ.)GS-1 & GS-5GS-1 & GS-5-2: Concrete Materials and Pavement GS-1 & GS-5 Structural MembersSubramaniam (Indian Inst. of Technology Hyderabad)GS-2Environmental Systems and Engineering Monitoring & Large-Scale Tests in Geotechnical & Construction EngineeringAkiyuki Kawasaki (Univ. of Miyazaki)GS-6-3: Application of ICRT/Al in Civil Engineering GS-6-4: ICRT/Al in Civil Engineering & Construction GS-6-4: ICRT/Al in Civil Engineering & ConstructionSatoshi Kubota (Kansai	No.Session TitleChairPapersTS7-2Climate Change Adaptation Measures in Water- related IssuesTomohito Yamada (Hokkaido Univ.)4TS7-3Environmentally Sound Management of Construction and Demolition Waste (CDW: Challenges and Opportunities in Asian CountriesKen Kawamoto (Saitama Univ.)5TS7-4Role of Civil Engineering in Mitigation of Climate ChangeMinoru Yoneda 	No.Session TitleChairPapersSpeakersTS7-2Climate Change Adaptation Measures in Water- related IssuesTomohito Yamada (Hokkaido Univ.)43TS7-3Environmentally Sound Management of Construction and Demolition Waste (CDW: Challenges and Opportunities in Asian CountriesKen Kawamoto (Saitama Univ.)55TS7-4Role of Civil Engineering in Mitigation of Climate ChangeMinoru Yoneda (Kyoto Univ.)54GS-1 & GS-1 & GS-5-1: Bridge DesignYuta Yamada (Nihon Univ.)43GS-1 & GS-5-2: Concrete Materials and PavementKolluru V.L. Subramiam (Indian Inst. of Technology Hyderabad)44GS-1 & GS-5-3: Structural MembersHikaru Nakamura (Magoya Univ.)66GS-2Environmental Systems and Engineering GS-6-1: Construction Engineering and Management (GS-6-2 & GS-3: Monitoring & Large-Scale Tests in Geotechnical & Construction EngineeringYoshinori Fukubayashi (Univ. of Miyazaki)4GS-6-3: Application of ICRT/AI in Civil Engineering GS-6-4: ICRT/AI in Civil Engineering & Construction Engineering & ConstructionKazuyoshi Kubota (Kansai4

### ii. Technical Session-6 No. of No of No. of Session Area Session Title Chair No. **Papers Speakers** Audience Kuniaki Sasaki (Waseda Part 1: 18 Mgt. Univ.) GS-4 Infrastructure Planning and Management 8 8 Arnab Jana (Indian Inst. Part 2: 20 of Technology Bombay) Coastal, Hydraulic &Marine Eng Tetsuya Ikeda (ICHARM) Chjeng-Lun Shieh GS-7 Hydrology, Hydraulic, and Coastal Engineering 5 22 4 (National Cheng Kung Univ.) Total 233 225 1505

• 233 papers submitted were published in the CECAR 8 Proceedings in the form of USB flash drive. The copies of Proceedings on the USB flash drive were distributed to the attendees at the registration desk.
The Proceedings on the USP flash drive was included in the registration

The Proceedings on the USB flash drive was included in the registration fee.

### 4. Exhibit Booth

### 47 Exhibitors, 58 Booths

- MLIT, Tokyo Metropolitan Govt., NILIM, JICA, JACIC, PARI
- Constructions companies e.g., Kajima, Taisei, Obayashi Road, Okumura, Ando-Hazama, Kumagai, Sumitomo-Mitsui and more
- Consultants e.g., Oriental Consultants, Pacific Consultants, Nippon Koei, Yachiyo Engineering, Katahira & Engineers, CTI and more
- Railway, Road, Electric companies e.g. JR East, NEXCO East, West & Central, Metropolitan Expressway, Kansai Electric Power and more
- Overseas company: ACE Instrument Co., Ltd. (Korea)
  - ¥ 300,000 per booth
- The exhibit booths were categorized into three groups:
   1) construction, 2) infrastructure management and maintenance, and 3) consulting and the like, and set up in three rooms in the venue.
- Many visitors to the exhibit booths were found anytime during the three days. Several students dropped by and made exchange with the booth exhibitors at those rooms

### 5. Technical Tours

### 5 one-day tours, 3 half-a-day tours & Tour with Young Engineer

	Tour	No. of Attendees	Reg. fees
	Road Infrastructure Toru in and around Tokyo	13	
<b>1</b>	Water Supply Sewerage Infrastructure Tour	16	
y Tou	Railway Infrastructure Tour	6	\$46
One-day Tour	Tour of Reconstruction from the Great East Japan Earthquake	14	
0	Construction and Demolition Waste Recycling Facility	25	\$10
	Explore Shinjuku Subcenter	14	
-day	Excursion in Ikebukuro	6	
Half-a-day Tour	Modern Civil Engineering Construction Site	12	\$10
ΤĔ	Tour with Young Engineer to the small old city	3	
	Total	109	\$28,05
			17

### 6. Financial Summery

### Revenue

- Revenue					
Revenue	Budget (800 reg.)	Actual (798 reg)	Memo		
CECAR8 Registration	\$324,074	\$317,392			
Technical Tour		\$2,854	Covered by donation		
Booth Exhibit	\$166,666	\$161,395	58 exhibit booths		
ACECC Contribution	\$ 133,425	\$131,500			
Income from external sources (Grants)	\$71,759	\$69,038	Grants from 1) Japanese Society for the Promotion of Science, 2) Association for Disaster Prevention Research		
Temporally borrowing from ACECC		\$55,000			
Total	\$695,925	\$737,179			
*US\$1= ¥107.81 in July, 2019, when the surplus of CECAR8 revenue was deposited after the revenue and expenses were fixed.					

<ul> <li>Financial Summery</li> <li>Expenses</li> </ul>					
Expenses	Budget (800 reg.)	Actual (798 reg.)	Memo		
Venue/room rental	\$159,837	\$157,000			
Catering	\$75,925	\$77,405	Presidential & buffet dinners, coffee breaks, others		
Equipment	\$172,222	\$173,822	Audio & visual systems, booth setup, others		
Marketing & Printing	\$49,074	\$32,000	PR tools, videos, SNS, programs, proceedings, congress bags, others		
Others	\$206,481	\$176,953	Honorarium, travel, photographer, interpreters, Emcee, travel agency's services, JSCE' operation, handling & shipping, others		
Reimbursement of temporal loan from ACECC		\$55,000			
Total	\$663,540	\$672,180			
*US\$1= ¥107.81 in July, 2019, when the surplus of CECAR8 revenue was deposited after the revenue and expenses were fixed.					

6	. Financial				
•	Registratic	on income by o	category		
	Category	No. of Early-Birds	Registration income	No. of Full Registrants	Registration income
	ACECC	237	\$109,916	159	\$88,489
	Non-ACECC	32	\$16,325	24	\$14,470
	Speaker/ Moderator	215	\$79,770	—	0
	Student	With buffet 16 Without buffet 8	\$1,781 \$743	With buffet3Without buffet24	\$334 \$2,226
	Accompanying person	10	\$927	26	\$2,412
	Sub total	518	\$209,461	236	\$107,931
	*Complimentary (ACECC members, speakers & others incl.)	44			

Total: Registrants 798, Registration income \$317, 392

### **ACECC Member Contribution for CECAR8**

	ACECC members	Corporate Contribution (US\$) CECAR 8	No. of Complimentary Registration	Annual Membership fee (\$)
1	ASCE	25,000.00	6	2,500
2	JSCE	25,000.00	0	2,500
3	EA	25,000.00	6	2,500
4	CICHE	20,000.00	4	2,500
5	KSCE	20,000.00	4	2,500
6	ICE(I)	4,000.00	3	1,000
7	HAKI	4,000.00	3	1,000
8	PICE	4,000.00	3	1,000
9	VFCEA	1,000.00	2	1,000
10	MACE	1,000.00	2	1,000
11	IEP	1,000.00	2	1,000
12	IEB	1,000.00	2	1,000
13	NEA	500.00	2	500
	Total	\$ 131,500.00	39	\$ 20,000

The amounts & number of complimentary registration were proposed by the LOC of CECAR8, and approved at the 33<sup>rd</sup> ECM in Ulaanbaatar, Mongolia.

### ACECC Bylaws, Article IV, item 5

"The ACECC will receive 40% of surplus produced by organizing the International Conference (CECAR) and other related activities,..."

Following the Bylaws above, the 40% of the surplus \$65,427 produced by organizing the CECAR8 was paid to the ACECC.

### The surplus to be paid to the ACECC: \$25,999

= (\$737,179 (the total revenue) - \$672,180 (the total expense)) x 0.40
 \*The revenue, expenses and surpluses are calculated with the ¥/\$ exchange rate in July, 2019, when the surplus of CECAR8 revenue was deposited after the revenue and expenses were fixed.

- The remaining has been donated to JSCE's technical research & studies programs.
- The financial statements was reported and approved by the CECAR8 LOC on June 20, 2019. Then, they also was reported and approved by the auditor on August 2, 2019.

### Addendum

<u>1. Opening Ceremony</u>, Apr 16, 2019, 10:00-11:30 w/a musical performance by Ensemble Civil

- Opening remarks by Mr. Masayasu Kayano LOC Chair
- Movie "ACECC 20th History"
- Opening messages
   Prof. Kusakabe, ACECC Chair
   Prof. Kobayashi, JSCE President
   Dr. Mori Vice-Minister of Land, Infrastructure, Transport and Tourism

Mr. Hasegawa, Vice Governor of Tokyo Metropolitan Govt.

Introduction of Representatives of ACECC Members

<u>2. Plenary Sessions</u>
Plenary Session 1, Apr 16, 11:30-12:30
Mr. Jitsuro Terashima, President, Japan Research Institute "Global Vision of the 22<sup>nd</sup> Century -the Roles of Asia in the 21<sup>st</sup> Century".

> Plenary Session 2, Apr 17, 16:00-17:00 Ms. Robin Kemper, 2019 ASCE President "Engineering the Future"

Plenary Session 3, Apr 18, 9:30-10:30 Mr. Benoit Rulleau, CTO, Kansai Airport Co. "Building Resilient Airports in Asia"

Simultaneous interpretation between Eng. & Jp.

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3. Presidential Meeting & Dinner Apr 16, 18:00-20:30 Meeting @ "Mercury" 18:00-18:55 Dinner @ "Polaris" 19:00-20:30

"Tokyo Declaration 2019" was finalized and signed, and then announced at the Closing Ceremony on 18<sup>th</sup>.

Closing Ceremony "Fuji", Apr18, 16:00~17:00
Announce "Tokyo Declaration 2019"
Hand over the ACECC Flag to the CECAR 9 host, ICE, I.



### 4. ACECC Awards Ceremony "Fuji", Apr17, 17:00~17:30

MC: Dr. Udai Singh, Chair of ACECC Awards Sub-committee

### Outstanding Civil Engineering Project Award

Eurasia Tunnel Project Civil Engineering Project Awards

Taiwan Taoyuan Int'l Airport Access MRT System Construction Project Emergency 2008 Cyclone Recovery & Restoration Project Shinjuku Terminal South Gate Area Infrastructure Development Project Underground Critical Facilities Construction at Oyutolgoi Project of Mongolia

### Achievement Awards

Dr. Yumio Ishi, CIT, Engineering Co., Ltd. Dr. Sahibzada Farooq Ahmad Rafeeqi, Pro Vice Chancellor, NED Univ. of Engineering and Technology Mr. Paul L. Mitchell, Center for Pavement Excellence Asia Pacific Ltd. Dr. John Chirn-Chung Li, National Central Univ. TC Activity Award TC13 BIM

### 5. Technical Session Schedule Day 1

		Tuesday, April 16,	2019		Tuesday, April 16, 2019					
10:00 -	Opening Ceremony				Opening Ceremony					
11:30	Opening Ceremony									
11:30 -	Plenary Session 1				Plenary Session 1					
12:30										
12:30 - 14:00	Lunch				Lunch					
Room	Akebono	Yuzuru	Fuji-1	Fuji-2	Fuji-3	Sakura	Asakaze	Hatsukaze	Shunyo	
14:00 - 15:30	TS6-15-1: Transforming Civil Engineering Education and Practice to Achieve the United Nations Sustainable Development Goals: Where We Are Chair: William E. Kelly (ASCE)	TS7-3: Environmentally Sound Management of Construction and Demolition Waste (CDW) : Challenges and Opportunities in Asian Countries Chair: Ken Kawamoto (Saitama University)	TS6-8-1: Innovative Construction Technologies and Management in Infrastructure Projects Chairs: Akira Kashida (Kajima Corp.)	TS6-14-1: Transdisciplinary Approach for Disaster Risk Reduction by Scientific Knowledge-based Decision-Making - Four Years of Activity of TC21 and Statement from the Members for Future DRR- Chair: Kuniyoshi Takeuchi	TS4-3: How to Utilize Big Data for Transportation Planning and Management Chair: Akimasa Fujiwara (Hiroshima University)	TS6-12: Productivity Improvements in the Field of Construction by ICT Chair: Nobuyoshi Yabuki (Osaka University)	TS2-2: Development of Quality Port Infrastructure Through the Establishment of the National Technical Regulations and Standards Chair: Osamu Kiyomiya (Waseda University)	Hold	TS2-7: Wave and Tide Observation and Analysis Chairs: Hiroyasu Kawai (Port and Airport Reseaerch Institute), Wen-Son Chiang (National Cheng Kung University)	
15:30 - 16:00			Break	(University of Yamanashi)			Coffee Break			
16:00 - 17:30	TS6-15-2: Transforming Civil Engineering Education and Practice to Achieve the United Nations Sustainable Development Goals: Next Steps Chair: William E. Kelly (ASCE)	TS3-1: Applications of Geosynthetics for Various Civil Engineering Disciplines Chair: Chiwan W. Hsieh (National Pingtung University of Science and Technology)	TS6-8-2: Innovative Construction Technologies and Management in Infrastructure Projects Chairs: Akira Ooka (Taisei Corp.)	TS6-14-2: Transdisciplinary Approach for Disaster Risk Reduction by Scientific Knowledge-based Decision-Making - Four Years of Activity of TC21 and Statement from the Members for Future DRR - Chair: Kuniyoshi Takeuchi (University of	TS6-6: INFRA BIM Chair: Sang-Ho Lee (Yonsei University)	TS3-2: Experiences and Challenges in Construction and Management of Underground Infrastructures Chair: Shinichi Akutagawa (Kobe University)	Hold	Hold	TS2-1: Coastal Erosion in Asian Countries- Monitoring, Evaluation and Prediction Techniques Foward Coastal Protection and Adaptation Strategies- Chair: Yoshimitsu Tajima (The University of Tokyo)	
17:30 -		Coffee	Break		Coffee Break					
18:00										
18:00 -	ACECC Presidential Meeting & Dinner				ACECC Presidential Meeting & Dinner					
19:30							ARRONAL		0000000000	
					/					

### Day 2

		Wednesday, April 17	7, 2019			We	dnesday, April 17, 2	019	
Room	Akebono	Yuzuru	Fuji-1	Fuji-2	Fuji-3	Sakura	Asakaze	Hatsukaze	Shunyo
	TS4-1:	TS6-9:	TS6-8-3:	TS4-6:	TS2-6:	TS4-4:	GS-6-1:	GS-1 & GS-5-1:	TS2-3-1:
	Civil Engineering	Introduction of	Innovative	Quality and Resilient	Water and Disasters-	ITS-based Solutions	Construction	Bridge Design	Development of the
	Heritage:	Users' Viewpoints in	Construction	Infrastructure in	Toward Building	for Urban	Engineering and	Chair: Yuta	Northern Sea Route
	-								
	Preservation, Reuse	Post Appraisal of	Technologies and	Asia: How Can	Resilient Society	Transportation in	Management	Yamada (Nihon	and Its Future Task
	and Social	ODA Infrastructure	Management in	Investment Gap Be	under Climate	Asia Pacific Countries	Chair: Yoshinori	Univertsity)	Chair: Natsuhiko
	Significance	Project	Infrastructure	Bridged?	Change-	Chair: Shunsuku	Fukubayashi		Otsuka (Hokkaido
	Chair: Masaaki	Chairs: Tsunemi	Projects	TS6-3:	Chairs: Toshio	Kamijo (National	(Miyazaki University)		University)
	Okada (Kindai	Watanabe (Kochi	Chairs: Akira	Comparative Study	Koike (International	Institute for Land			
	University)	University of	Kashida (Kajima	of Quality	Centre for Water	and Infrastructure			
9:00 -		Technology), Hai	Corp.)	Infrastructure in	Hazard and Risk	Management)			
10:30		Luong Nguyen	20, p.)	Europe, the United	Management,	(indiagement)			
		(University of		States and Asia and	PWRI), Eko Winar				
		Transport and		Civil Engineer's	Irianto (Research				
		Communications)		Contribution	and Development				
				TS6-7:	Center for Water				
				Infrastructure	Resources)				
				Development and					
				Economic Growth					1
				Chairs: Koki Hirota					
L0:30 -		Coffee Break		(Japan International		1	Coffee Break		
11:00			Cooperation						
	Hold	TS2-5-1:	Hold	Agency) , Ueda	TS4-7:	TS6-16:	GS-6-2 & GS-3:	GS-1 & GS-5-3:	T\$2-3-2:
		Recent Water-		Tamon (Hokkaido	The Keys of Success	Women in Civil	Monitoring & Large-	Structural Members	Development of the
		Related Natural		University)	in Promoting	Engineering	Scale Tests in	Chair: Hikaru	Northern Sea Route
		Disasters in Asian			Regional	Chair: Yoh Sasaki	Geotechnical &	Nakamura (Nagoya	and Its Future Task
		Region			Revitalization	(Waseda University)	Construction	University)	Chair: Natsuhiko
1:00 -		Chairs: Hitoshi			Chairs: Shinya		Engineering		Otsuka (Hokkaido
12:30		Tanaka (Tohoku			Hanaoka (Tokyo		Chair: Moonkyung		University)
		University), Il Won			Institute of		Chung (Korea		en men siegy y
		Seo (Seoul National			Technology), Rubel		Institute of		
		University)			Das (Nippon Koei		Construction		
2:30 -							Engineering)		
			nch		Das (Nippon Koei				
12:30 - 14:00	TS1-1:		nch Hold		Das (Nippon Koei	TS6-4:	Engineering)	GS-1 & GS-5-2:	Hold
14:00	<b>TS1-1:</b> Advanced Concept	Lu			Das (Nippon Koei	<b>TS6-4:</b> Developing a More	Engineering) Lunch	GS-1 & GS-5-2: Concrete Materials	Hold
14:00		Lu			Das (Nippon Koei	Developing a More	Engineering) Lunch		Hold
14:00	Advanced Concept and Implementation	Lur TS2-5-2: Recent Water- Related Natural			Das (Nippon Koei	Developing a More Relevant Program	Engineering) Lunch	Concrete Materials and Pavement	Hold
14:00	Advanced Concept and Implementation of Seismic Design	Lu TS2-5-2: Recent Water- Related Natural Disasters in Asian			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering	Engineering) Lunch	Concrete Materials and Pavement <b>Chair: Kolluru V.L.</b>	Hold
14:00	Advanced Concept and Implementation of Seismic Design Methods for	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education	Engineering) Lunch	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
14:00	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education <b>Chairs: Hironori</b>	Engineering) Lunch	Concrete Materials and Pavement <b>Chair: Kolluru V.L.</b>	Hold
14:00 4:00 -	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The	Engineering) Lunch	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
4:00 4:00 - 5:30	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University), Il Won			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education <b>Chairs: Hironori</b> <b>Kato</b> ( <i>The</i> <i>University of Tokyo</i> ),	Engineering) Lunch	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
4:00 - L5:30	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> (The University of	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University) , Il Won Seo (Seoul National			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo), Le Binh Phan	Engineering) Lunch	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
4:00 - 15:30	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ), <b>Dongsoo</b>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University), Il Won			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo), Le Binh Phan (Vietnam-Japan	Engineering) Lunch	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
14:00 .4:00 - 15:30	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ) , <b>Dongsoo</b> <b>Kim</b> ( <i>Korea</i>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University) , Il Won Seo (Seoul National			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo), Le Binh Phan	Engineering) Lunch	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
14:00 .4:00 - 15:30	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ), <b>Dongsoo</b>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University) , Il Won Seo (Seoul National			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo), Le Binh Phan (Vietnam-Japan	Engineering) Lunch	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
4:00 - L5:30	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ) , <b>Dongsoo</b> <b>Kim</b> ( <i>Korea</i>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University) , Il Won Seo (Seoul National			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo), Le Binh Phan (Vietnam-Japan	Engineering) Lunch	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
4:00 - 15:30	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ), <b>Dongsoo</b> <b>Kim</b> ( <i>Korea</i> <i>Advanced Institute</i>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University) , Il Won Seo (Seoul National			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo), Le Binh Phan (Vietnam-Japan	Engineering) Lunch	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
14:00 4:00 - 15:30 5:30 -	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ), <b>Dongsoo</b> <b>Kim</b> ( <i>Korea</i> <i>Advanced Institute</i> <i>of Science and</i>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University) , Il Won Seo (Seoul National University)	Hold		Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo), Le Binh Phan (Vietnam-Japan	Engineering) Lunch Hold	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
4:00 - 15:30 - 5:30 - 16:00	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ), <b>Dongsoo</b> <b>Kim</b> ( <i>Korea</i> <i>Advanced Institute</i> <i>of Science and</i>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University) , Il Won Seo (Seoul National University)			Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo), Le Binh Phan (Vietnam-Japan	Engineering) Lunch	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
4:00 - 15:30 - 16:00 6:00 -	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ), <b>Dongsoo</b> <b>Kim</b> ( <i>Korea</i> <i>Advanced Institute</i> <i>of Science and</i>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University), Il Won Seo (Seoul National University)	Hold		Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo), Le Binh Phan (Vietnam-Japan	Engineering) Lunch Hold	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam	Hold
4:00 - 15:30 - 15:30 - 16:00 - 17:00	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ), <b>Dongsoo</b> <b>Kim</b> ( <i>Korea</i> <i>Advanced Institute</i> <i>of Science and</i>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University), I Won Seo (Seoul National University) Coffee Plenary :	Hold Break Session 2		Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo) , Le Binh Phan (Vietnam-Japan University)	Engineering)  Lunch  Hold  Coffee Break  Plenary Session 2	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam (I.I.T. Hyderabad)	Hold
4:00 - 15:30 - 15:30 - 16:00 - 17:00 - 17:00 - 17:30	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ), <b>Dongsoo</b> <b>Kim</b> ( <i>Korea</i> <i>Advanced Institute</i> <i>of Science and</i>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University), I Won Seo (Seoul National University) Coffee Plenary :	Hold		Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo) , Le Binh Phan (Vietnam-Japan University)	Engineering) Lunch Hold Coffee Break	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam (I.I.T. Hyderabad)	Hold
4:00 - 15:30 - 15:30 - 16:00 - 17:00 - 17:30 - 7:30 -	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ), <b>Dongsoo</b> <b>Kim</b> ( <i>Korea</i> <i>Advanced Institute</i> <i>of Science and</i>	Lun TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University), 11 Won Seo (Seoul National University) Coffee Plenary : ACECC Awar	Hold Break Session 2		Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo) , Le Binh Phan (Vietnam-Japan University)	Engineering)  Lunch  Hold  Coffee Break  Plenary Session 2	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam (I.I.T. Hyderabad)	Hold
14:00 .4:00 - 15:30	Advanced Concept and Implementation of Seismic Design Methods for Resilience Against Intense Earthquake <b>Chairs: Riki Honda</b> ( <i>The University of</i> <i>Tokyo</i> ), <b>Dongsoo</b> <b>Kim</b> ( <i>Korea</i> <i>Advanced Institute</i> <i>of Science and</i>	Lui TS2-5-2: Recent Water- Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University), II Won Seo (Seoul National University) Coffee Plenary : ACECC Awar	Hold Break Session 2 ds Ceremony		Das (Nippon Koei	Developing a More Relevant Program for Civil Engineering Education Chairs: Hironori Kato (The University of Tokyo) , Le Binh Phan (Vietnam-Japan University)	Engineering) Lunch Hold Hold Plenary Session 2 ECC Awards Ceremo	Concrete Materials and Pavement Chair: Kolluru V.L. Subramaniam (I.I.T. Hyderabad)	

### Day 3

Akebono S4-1:	Wednesday, April 17	, 2019			We	dnesday, April 17, 2	019	
S4-1:	Yuzuru	Fuji-1	Fuji-2	Fuji-3	Sakura	Asakaze	Hatsukaze	Shunyo
	TS6-9:	TS6-8-3:	TS4-6:	TS2-6:	TS4-4:	GS-6-1:	GS-1 & GS-5-1:	TS2-3-1:
ivil Engineering	Introduction of	Innovative	Quality and Resilient	Water and Disasters-	ITS-based Solutions	Construction	Bridge De <mark>sign</mark>	Development of the
eritage:	Users' Viewpoints in	Construction	Infrastructure in	Toward Building	for Urban	Engineering and	Chair: Yuta	Northern Sea Route
reservation, Reuse	Post Appraisal of	Technologies and	Asia: How Can	Resilient Society	Transportation in	Management	Yamada (Nihon	and Its Future Tasks
nd Social	ODA Infrastructure	Management in	Investment Gap Be	under Climate		Chair: Yoshinori	Univertsity)	Chair: Natsuhiko
ignificance	Project	Infrastructure	Bridged?	Change-	Chair: Shunsuku	Fukubayashi		Otsuka (Hokkaido
hair: Masaaki	Chairs: Tsunemi	Projects	TS6-3:	Chairs: Toshio	Kamijo (National	(Miyazaki University)		University)
kada (Kindai	Watanabe (Kochi	Chairs: Akira	Comparative Study	Koike (International	Institute for Land			
niversity)	University of	Kashida (Kajima	of Quality	Centre for Water	and Infrastructure			
			Infrastructure in	Hazard and Risk				
			Europe, the United	Management,				
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Coffee Break				Coffee Break				
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			•					Development of the
			University)					Northern Sea Route
				-				and Its Future Tasks
					(Waseda University)		University)	Chair: Natsuhiko
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								University)
	Seo (Seoul National			Technology) , Rubel		Institute of		
	University)			Das (Nippon Koei		Construction		
				Co., Ltd.)		Engineering)		
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The University of								
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echnology)								
	Coffee	Break				Coffee Brezk		
	Coffee	Break				Coffee Break		
	Coffee Plenary S					Coffee Break Plenary Session 2		
	Plenary S				AC		ony	
	Plenary S	Session 2 ds Ceremony			AC	Plenary Session 2	ony	
	Plenary S	Session 2 ds Ceremony Break			AC	Plenary Session 2	ony	
S d n f le e n f	sil-1: Ivanced Concept d Implementation Seismic Design athods for silience Against tense Earthquake tense Earthquake	Technology), Hai         Luong Nguyen         (University of         Transport and         Communications)         Id         TS2-5-1:         Recent Water-         Related Natural         Disasters in Asian         Region         Chairs: Hitoshi         Tanaka (Tohoku         University), II Won         Seo (Seoul National         University)         Seismic Design         tense Earthquake         tairs: Riki Honda         Tanaka (Tohoku         University), II Won	Technology), Hai       Corp.)         Luong Nguyen       (University of Transport and Communications)       Corp.)         Version       Transport and Communications)       Corp.)         Version       Coffee Break       Version         Version       TS2-5-1:       Hold         Recent Water-       Related Natural       Disasters in Asian         Region       Chairs: Hitoshi       Tanaka (Tohoku         University), 11 Won       Seo (Seoul National       Hold         St-1:       TS2-5-2:       Hold         Versity       It Won       Recent Water-         Related Natural       Disasters in Asian       Hold         St-1:       Recent Water-       Hold         Stensic Design       Recent Water-       Hold         segion       Chairs: Hitoshi       Tanaka (Tohoku         University), 11 Won       Chairs: Hitoshi       Hold	Technology), Hai Luong Nguyen (University of Transport and Communications)Corp.)Infrastructure in Europe, the United States and Asia and Civil Engineer's Contribution TS6-7: Infrastructure Development and Economic Growth Chairs: Koki Hirota (Japan International Cooperation Agency), Ueda Tamon (Hokkaido University), II Won Seismic Design thods for Silience Against tense Earthquake hondInfrastructure in Europe, the United States and Asia and Civil Engineer's Contribution TS6-7: Infrastructure Development and Economic Growth Chairs: Koki Hirota (Japan International Cooperation Agency), Ueda Tamon (Hokkaido University)IndTS2-5-1: Recent Water- Related Natural 	Technology), Hai Luong Nguyen (University of Transport and Communications)Corp.)Infrastructure in Europe, the United States and Asia and Civil Engineer's Contribution TS6-7: Infrastructure Development and Economic Growth Chairs: Koki HirotaHazard and Risk Management, PWRD, Ekko Winar Irianto (Research and Development Center for Water Related Natural Disasters in Asian RegionHazard and Risk Management, PWRD, Ekko Winar Infrastructure Development and Economic Growth Chairs: Koki HirotaHazard and Risk Management, PWRD, Ekko Winar Irianto (Research and Development Center for Water Regonzeration Agency), Ueda Tamaka (Tohoku University) all Won See (Seoul National University) Il Won See (Seoul National University) Il Won See Seoul National University) Il Won See Seoul National University) Il Won See Seoul National University) Il Kon Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University) Il Won See (Seoul National University) Il Won See Seoul National University) Il Won See Seoul National University) Il Won See Seoul National University) Il Won See Seoul National University) Il Won Seemic Design Related Natural Disasters in Asian Region Chairs: Hitoshi Tanaka (Tohoku University), Il WonHoldInfrastructure in LuoneHazard and Risk Management, PURD, Mater Contribution Tanaka (Tohoku University), Il WontuneTS2-5-2: Recent Water- Related Natural Disasters in Asian Region Region Chairs: Hitoshi Tanaka (Tohoku University), Il WonHoldInfrastructure in HoldHazard and Risk Management Contribution Tanaka (Tohoku Uni	Technology), Hai Luong Nguyen (University) of Transport and Communications)Corp.)Infrastructure in Europe, the United States and Asia and Civil Engineer's Contribution Development and Economic Growth Chairs: Koki Hirota Disasters in Asian RegionManagement, PWRI), Eko Winar Infrastructure Development and Economic Growth Chairs: Koki Hirota Disasters in Asian Resided Natural University), II WonManagement, PWRI, Eko Winar PWRI, Eko Winar Infrastructure Development and Economic Growth Chairs: Koki Hirota Disasters in Asian RegionManagement, Management, PWRI, Eko Winar Infrastructure Development and Economic Growth Chairs: Koki Hirota University), II WonManagement, Management, PWRI, Eko Winar Infrastructure Development and Economic Growth Chairs: Koki Hirota University)Management, Management, PWRI, Eko Winar Infrastructure Development and Economic Growth Chairs: Koki Hirota University), II WonManagement, Management, PWRI, Eko Winar Infrastructure Development and Economic Growth Chairs: Stinya Hanaoka (Tokya University), II WonManagement, Sti-1: Infrastructure Disasters in Asian RegionManagement, Management, PWRI, File Management, Management, PWRI, File Management, Manage	Technology), Hai Luong Nguyen (University of Transport and Communications)Corp. )Infrastructure in Europe, the United States and Asia and Civil Engineer's ContributionHazard and Risk Management, PMR1), Eko Winar Trianto (Research and Development Center for Water Resources)Management, Management, PMR1), Eko Winar Trianto (Research and Development Center for Water Resources)Management, Management, PMR1), Eko Winar Trianto (Research and Development Center for Water Resources)Management, Management, PMR1), Eko Winar Trianto (Research and Development Center for Water Resources)Management, Management, Management, PMR1), Eko Winar Trianto (Research and Development and Center for Water Resources)Management, Management, Management, PMR1, Eko Winar Trianto (Research and Development and Center for Water Resources)Management, Management, Management, PMR2, Eko Water Resources)Management, Management, Management, PMR2, Eko Water Resources)Management, Management, PMR2, Eko Water Resources)Management, Management, PMR2, Eko Water Resources)Management, Management, PMR2, Eko Water Resources, Women in Civil Engineering Chair: Shinya Hanada (Tokyu) University), I Won Seo (Seoul National University), I Won Seo (Seoul National RegionHoldManagement, Seo (Nigpon Koei Co., Ltd.)Management, PMR2, Eko Siter Seo (Seoul National Resources)Management, Seo (Seoul National University), I Won Institute of Institute of Institute of Institute of Institute of Institute of Institute of Institute of Institute of Institute of Instit	Technology, Hai Luong Nguyen (University of Transport and Communications)Corp. 1Infrastructure in Engineer's Contribution TS6-7: Infrastructure Development and Economic Growth Contribution TS6-7: Infrastructure Development and Economic Growth ContributionManagement, PWRI), Eko Winar PWRI), Eko Winar PWRI), Eko Winar PWRI), Eko Winar and Development, Resources)Management, PWRI), Eko Winar PWRI), Eko Winar PWRI), Eko Winar PWRI), Eko Winar and Development, Contribution TS6-7: The frastructure Development and Economic Growth ContributionManagement, PWRI), Eko Winar PWRI), Eko Winar PWRI), Eko Winar and Development, ContributionManagement, PWRI), Eko Winar PWRI), Eko Winar PRESCONDER <b< th=""></b<>

# Thank you very much.

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