

The 6th Civil Engineering Conference in the Asian Region
(CECAR 6)

FINAL REPORT

Summary

The 6th Civil Engineering Conference in the Asian Region (CECAR 6) was organized by the Indonesian Society of Civil and Structural Engineers (HAKI). This CECAR 6 was held in Hotel Borobudur, Jakarta, from 20 to 22 August, 2013. The CECAR 6 was held at the same time as the annual HAKI conference 2013. The CECAR 6 was attended by 657 delegates from 10 ACECC member countries and 8 from non-member countries.

The major theme of this conference was “Embracing the Future through Sustainability”. The papers and presentations were mainly invited by HAKI and other ACECC member societies, which were also the co-hosts of this event, i.e. ASCE, CICHE, EA, ICE (I), JSCE, KSCE, MACE, PICE and VIFCEA. The technical program started with the Keynote Addresses by His Excellency Dr. Ir. Hermanto Dardak, the Vice Minister of Public Works and His Excellency Dr. Bambang Susantono, the Vice Minister of Transportation. Furthermore, six keynote lectures were given by the distinguished guest speakers from USA, Taiwan, Indonesia, Japan, and Korea. The technical program consisted of eight parallel technical sessions for oral presentations and 19 poster presentations, with a total of 233 abstracts and papers included in the conference proceedings (plus 6 presentations without paper).

There were 28 tracks for the technical sessions. Some of them were (1) Climate Change, (2) Sustainable Infrastructure, (3) Analytical, Design, and Testing Technologies, (4) Advanced Construction Technologies, (5) Construction Engineering and Management, (6) Operation and Maintenance Engineering, (7) Urban Problems, (8) Mega Projects, etc. In addition, six Special Sessions were organized to discuss important issues on (1) Tsunami –Lessons Learned from Past Disasters, (2) Disaster Mitigation, Adaptation and Preparedness Strategies, (3) Long Span Bridges, (4) Anti Corruption, (5) Precast Concrete Structures, and (6) Building Information Management. Further, five special forums were organized by ACECC member institutions to discuss various matters, i.e. (1) Symposium on Asia and Pacific Collaboration of ITS research (by JSCE), (2) Workshop on Vulnerability and Resilience of Critical Infrastructure Systems in Asia (by ASCE), (3) Forum on Concrete Model Code (by KSCE), (4) Presidential Session on Infrastructures (by HAKI) and (5) Asian Board Meeting on Lesson Learned from Past Natural Disasters (by JSCE).

There was also a post conference activity on the 23rd of August 2013, i.e. a short course organized by Indonesian Society of Civil and Structural Engineers (HAKI). The instructors for the short course were Mete A. Sözen from Purdue University (USA) and Ashraf Habibullah from CSI Berkeley USA.

Background to CECAR 6

At the 16th Executive Committee Meeting (ECM) of ACECC in Sydney in 2008, the Indonesian Society of Civil and Structural Engineers (HAKI) was voted and endorsed to be the host of CECAR 6 in 2013.

Embracing the Future through Sustainability was chosen as the CECAR 6 conference theme as a continuation of previous CECAR themes to acknowledge the growing future challenges faced by Asia nations in serving the needs of better and safer life for its people while maintaining and preserving its precious environment.

Technical Programs

There were many areas of special interests discussed during CECAR 6. These included the following:

Technical Sessions:

- Analytical and Design Methods
- Application of Information Technology
- Bridge Engineering
- Building Information Management
- Case Studies and Failure Investigation
- Climate Change and Coastal Management
- Construction Engineering and Management
- Disaster Mitigation, Adaptation, Preparedness Strategies
- Durability and Serviceability of Materials and Structures
- Environmental Impacts
- Geotechnical and Foundation Engineering
- Green Buildings
- Innovative Construction Products, Systems, and Practices and Testing Technology
- Mega Projects
- New Construction Material
- Performance Based Design and Analysis
- Prefabrication Technology
- Recycling of Resources
- Repairs, Retrofitting, and Maintenance
- River Basin Management
- Safety and Reliability
- Standards, Regulations and Codes of Practice
- Structural Health Investigations
- Sustainable Infrastructure/Construction
- Testing Technology
- Underground Construction Technologies
- Urban Problems
- Wind Engineering

Special Sessions:

Anti Corruption (organized by TC-17)
Long Span Bridges (organized by TC-18)
Tsunami –Lessons Learned from Past Disasters (organized by TC-7)
Building Information Management (organized by TC-13)
Precast Concrete Structures (organized by HAKI)
Disaster Mitigation, Adaptation, and Preparedness Strategies (organized by TC-7)

Other Forums:

Symposium on Asia and Pacific Collaboration of ITS research (organized by TC-16)
Workshop on Vulnerability and Resilience of Critical Infrastructure Systems in Asia
(organized by TC-14)
Forum on Concrete Model Code (organized by KSCE)
Asian Board Meeting (organized by JSCE)
Presidential Session on Infrastructures (organized by HAKI)

Short Courses:

A short course on Earthquake Engineering
Structural Engineering Software-Next Generation

Venue and Registration

The conference was held at the Hotel Borobudur, Jalan Lapangan Banteng Selatan, Jakarta 10710, Indonesia. The total numbers of conference attendees were 657 from 10 ACECC member countries and 8 from non-member countries. Number of delegations from each country is shown in the table below.

Country	Participants with papers	Total
Australia/EA	5	11
Bangladesh/IEB	-	4
China	1	1
England	1	1
FIB	-	2
Germany	1	1
Hong Kong	1	1
India/ICE	3	8
Indonesia/HAKI	81	286
Iran	1	1
Japan/JSCE	52	66
Korea/KSCE	49	65
Malaysia	7	7
Mongolia/MACE	1	5
Nepal/NEA	-	1
Netherlands	1	1
Philippines/PICE	10	16
Portugal	1	1
Taiwan/CICHE	45	64
US/ASCE	2	17
ABM (Asian Board Meeting)	-	9

Numbers of papers from each country are shown in the table below:

Country	Paper
Australia	6
China	1
England	1
Germany	1
Hong Kong	1
India	3
Indonesia	74
Iran	1
Japan	46
Korea	40
Malaysia	7
Mongolia	1
Netherlands	1
Philippines	9
Portugal	1
Taiwan	38
USA	2
TOTAL	233

Opening Ceremony

The Vice Minister of Public Works, Dr. Ir. Hermanto Dardak, officially opened the CECAR 6 Conference on Tuesday, 20 August, 2013. During the opening ceremony, the Jakarta Protocol was signed by the President of each ACECC member society, witnessed by the Vice Minister of Public Works. The Presidents who signed the Jakarta Protocol are:

- Gregory E. DiLoreto (ASCE)
- Kotaro Hashimoto (JSCE)
- Shi-Shuenn Chen (CICHE)
- Jongsung Sim (KSCE)
- Rob Barker (EA)
- Ganzorig Erdene (MACE)
- Dradjat Hoedajanto (HAKI)
- Romeo S Momo (PICE)
- Er. SL. Swamy (ICE (I))
- Abdur Rouf (IEB)

Key Note Speakers

The CECAR 6 conference was very fortunate to have the following eminent speakers as the keynote speakers of the conference:

Hermanto Dardak

Vice Ministry of Public Works of Indonesia

Toward Sustainable Development in Indonesian Construction Industry

Hermanto Dardak is the Vice Minister for Ministry of Public Works, Republic of Indonesia. He holds a Bachelor in Civil Engineering from the Bandung Institute of Technology, and a Doctor of Philosophy (Ph.D.) from the University of New South Wales, Sydney, Australia.

Gregory E. DiLoreto

ASCE President 2013, USA

livable Communities: Can Civil Engineers be Leaders of a New Future?

Greg DiLoreto is the Chief Executive Officer of the Tualatin (To-wal-a-tin) Valley Water District located in metropolitan Portland Oregon. He has worked in the public works field for 34 years, 17 years as a public works director/city engineer. Mr. DiLoreto holds a B.S. degree in Civil Engineering from Oregon State University and a Master degree in Public Administration from Portland State University. He is registered as a civil and environmental engineer and a professional land surveyor in Oregon. Mr. DiLoreto is a fellow in the American Society of Civil Engineers. He served on the ASCE Board of Direction 2004-06. He has received the 1986 ASCE Edmund Freidman Young Engineer Award, the 1995 ASCE Oregon Section Outstanding Civil Engineer award and the 2005 ASCE Government Engineer of the year award. In 2003 he was inducted into the Oregon State University Academy of Distinguished Engineers.

Yozo Fujino

University of Tokyo, Japan

Long-Span Bridges Vibration, Control, Seismic Retrofit and Monitoring – Recent Studies and Lessons Learned

He is a professor of civil engineering, at the University of Tokyo, since 1990. He has also served as science adviser (adjunct) to Ministry of Education, Science and Technology, in 2002-2004. Prof. Fujino was a Melchor Chair Visiting Professor, University of Notre Dame, Indiana, USA, in 1997, a Visiting Associate Professor in Asian Institute of Technology, Bangkok, Thailand, in 1987, and a Visiting Scholar, Dept. of Civil Engineering, University of Illinois, Urbana, Illinois, in 1980.

His fields of expertise include bridge and structures, bridge design, bridge aerodynamics, bridge loading analysis, cable dynamics, wind effects on structures, control and monitoring of bridges and tower-like structures, bridge maintenance and management,

earthquake effects on structures, nonlinear dynamics, passive control and active control of bridges and tower-like structures, and safety and security of urban environments.

Mete A. Sözen

Purdue University, USA

Why Should Drift Drive Design for Earthquake Resistance?

Mete A. Sözen is the Kettelhut distinguished professor of structural engineering at Purdue University, West Lafayette, Indiana, USA. His research interests include development of professional design codes for reinforced and pre-stressed concrete structures, and for earthquake-resistant design of reinforced concrete structures.

He has received several honors and awards: Honorary Doctorate, Bogazici University, Turkey, 2004; John Parmer Award, Structural Engineers Association of Illinois, 2003; Distinguished Lecturer, Earthquake Engineering Research Institute, 2002; Noel Nathan Memorial Lecturer, University of British Columbia, 2002; Outstanding Paper Award, ASCE Council on Forensic Engineering, 1998; Honorary Doctorate, Johann Pannonius University, Hungary, 1998; Honorary Doctorate, Georgian Technical University, Tbilisi, 1998; and Illinois Section Structural Group Lifetime Achievement Award, 1998.

Masyhur Irsyam

Bandung Institute of Technology, Indonesia

Development of Spectral Hazard Maps for Revision of Seismic Building and Infrastructure Codes in Indonesia

Currently, Masyhur Irsyam is a professor at the Faculty of Civil and Environmental Engineering, Bandung Institute of Technology, Indonesia. His research interests include Soil Behavior, Ground Improvement, Foundation Engineering, Geotechnical Earthquake Engineering, Stability of Slope and Excavation, Soft Ground Tunneling, Offshore Geotechnics, Computational Geotechnics, Instrumentation and Testing in Geotechnical Engineering.

Bambang Susantono

Vice Minister of Transportation, Indonesia

Building Seamless Connectivity across Indonesia

Bambang Susantono is the Vice Minister for Ministry of Transportation, Republic of Indonesia. He is the President of Intelligent Transportation System (ITS) Indonesia and a Board Member of Intelligent Transportation System (ITS) Asia-Pacific. He serves as the President of Civil Engineering Alumni Association of Bandung Institute of Technology (ALSI-ITB) and a Board of Trustee of the South South North Foundation in Johannesburg, South Africa.

Bambang Susantono holds a Bachelor in Civil Engineering from the Bandung Institute of Technology, a Master of Science in Civil Engineering (MSCE) in Transportation Engineering, a Master of City and Regional Planning (MCP), and a Doctor of Philosophy

(Ph.D.), all from the University of California at Berkeley. He teaches at the Graduate Program and is the program coordinator of Master's program in Infrastructure Management in Civil Engineering at the University of Indonesia.

Sang-Ho Lee

Yonsei University, South Korea

BIM and Its Application to Civil Engineering: How to Overcome the Limitations of Current BIM Technologies

Sang-Ho Lee is a professor in the Department of Civil and Environmental Engineering at Yonsei University, Seoul, Korea. He is the Head of the Civil and Environmental Engineering Department, and Director of the Research Center for Asset Management of Civil Infrastructure and Small and Medium Business Promotion Center of Yonsei University.

He has received B.S. and M.S. degrees in the Civil Engineering from Yonsei University (Korea), and Ph.D. degree from Northwestern University (USA). His former area of expertise was Computational Mechanics such as Meshfree Method and eXtended Finite Element Method (XFEM), and current research interests are Building Information Modeling (BIM) of Infrastructure and BIM-based Asset Management of Infrastructure. He serves and has served as the committee chair or key member in the areas of Construction CALS-EC, Construction-IT convergence, BIM, International Standards, etc.

Gwo-Fong Lin

National Taiwan University, Taiwan

Runoff Forecasting and Its Application to Flood Mitigation in River Basins

Gwo-Fong Lin is currently a Distinguished Professor in the Department of Civil Engineering at the National Taiwan University. He was the Chairman of the Civil Engineering Department and Director of the Hydrotech Research Institute at National Taiwan University. He has received various honors and awards.

Presidential Papers

The following Presidential papers were presented in the relevant session category:

HAKI	D. HOEDAJANTO	<i>Challenges for Indonesian Civil Engineers due to the Adoption of the New Indonesian Seismic Code</i>
ASCE	G. E. DILORETO	<i>America's Infrastructure Grade and Our Economic Future</i>
ICE	ER. S. L. SWAMY	<i>Road Safety Initiatives in India</i>
KSCE	J. S. SIM and J.W. SIM	<i>Recent Status and R&D Projects on Roads and Bridges in Korea</i>
EA	B. TONKIN	<i>Australia's Infrastructure Report Cards</i>
JSCE	K. HASHIMOTO	<i>Infrastructure Maintenance and Renewal for Achieving Sustainable Society</i>
PICE	R. S. MOMO	<i>Infrastructure Development in the Philippines</i>

Technical Presentations

The technical presentations were conducted for three days, with 233 presentations in oral and poster session. The papers presented by each delegate, according to country, are shown in the table below:

Country	Poster	In Proceeding only	Oral Presentation
Australia		1	5
China			1
Egypt			
England			1
Germany			1
Hong Kong			1
India			3
Indonesia	2	2	70
Iran			1
Italy			
Japan			45
Jordan			
Korea	16	3	21
Kuwait			
Lybia			
Malaysia		1	6
Mongolia		1	
Netherlands			1
Phillipine			10
Singapore			
Taiwan	1	7	30
Thailand			
USA			2
Portugal			1
TOTAL	19	15	199

TOTAL 233*

Tours

Tours to famous destinations in Jakarta, packaged in nice compact programs, was provided during the Conference. There were 6 tour programs organized by tour company.

Exhibitions

All 38 booths were taken up with 21 sponsors/exhibitors (some sponsors took more than 1 booth) and 9 ACECC member societies.

Social Programs

Welcome Reception

The Welcome Reception was held on the Tuesday evening (August 20, 2013) at Timor Room, Hotel Borobudur Jakarta.

Gala Dinner and ACECC Awards

The Gala Dinner was held on the Wednesday night (August 21, 2013) at Singosari Restaurant, Hotel Borobudur. In this program, ACECC Awards were presented. The announcer for the Awards was Dr. Za-Chieh Moh from CICHE. The following awards were presented:

ACECC Outstanding Civil Engineering Project Award	Four Rivers Restoration Project (nominated by KSCE)
ACECC Outstanding Civil Engineering Project Award	Construction of a world-leading, next-generation expressway “The Shin-Tomei Expressway” (nominated by JSCE)
ACECC Civil Engineering Project Award	Taipei MRT Nangan eastern Extension (nominated by CICHE)
ACECC Civil Engineering Project Award	PICE PGEP Philgreen School Buildings (nominated by PICE)
ACECC Civil Engineering Achievement Award	Hiroshi Okada (nominated by JSCE)
ACECC Civil Engineering Achievement Award	Chun-Su Chon (nominated by KSCE)
ACECC Civil Engineering Achievement Award	Wiratman Wangsadinata (nominated by HAKI)

Financial Report

A summary of the budget with actual income and expenditure revenues is reported in separate report. The summary can be found in the table below. The surplus from this event is USD 90,238.16.

FINANCIAL REPORT (CECAR 6)

INCOME

No	Details	Amount (IDR)	Amount (USD)
1	ACECC	Rp 90,245,000	\$ 139,813
2	Registration Fees	Rp 1,120,678,879	\$ 600
3	Sponsorship	Rp 238,617,500	
4	Exhibition	Rp 507,298,800	
5	Bank Interest	Rp 1,588,444	\$ -
6	Exchange USD	Rp 134,465,600	
Total		Rp 2,092,894,223	\$ 140,413.00

EXPENSES

Pre Conference Activities

No	Details	Amount (IDR)	Amount (USD)
1	Catering	Rp 14,379,500	
2	Conference Equipment	Rp 285,653,300	
3	Transport	Rp 25,880,500	
4	Program	Rp 215,619,300	
5	Secretariat	Rp 110,875,000	
6	Staging	Rp 58,565,000	
7	Administration Bank	Rp 5,000	
8	Venue	Rp 875,537,367	\$ 45,224
9	Exchange USD to IDR	Rp -	\$ 13,330
Total		Rp 1,586,514,967	\$ 58,553.81

EXPENSES

During Conference Activities

No	Details	Amount (IDR)	Amount (USD)
1	Keynote Speaker	Rp 37,859,250	\$ 4,825
2	Financial Support Registration	Rp 1,000,000	\$ 500
3	Overpayment Registration	Rp 16,812,000	\$ 350
4	Refund Booth Rental Fee	Rp 165,000	\$ -
5	Catering	Rp 20,115,100	
6	Transport	Rp 2,850,500	
7	Conferencing Equipment	Rp 12,236,900	
8	Helper	Rp 200,000	
9	Program	Rp 312,000	
Total		Rp 91,550,750	\$ 5,675.00

EXPENSES

Post Conference Activities

No	Details	Amount (IDR)	Amount (USD)
1	Transport	Rp 6,660,100	
2	Program	Rp 28,835,000	
3	Conferencing Equipment	Rp 2,010,000	
4	Supporting Staffs and Secretariat	Rp 97,265,000	
5	Catering	Rp 3,679,900	
6	Venue	Rp 102,812,019	
Total		Rp 241,262,019	Rp -
Expenses Pre + During + Post Conference Activities		Rp 1,919,327,736	\$ 64,228.81
Balance at 1 November 2013		Rp 173,566,487	\$ 76,184.19

Balance in USD	\$	90,238.16
HAKI (60%)	\$	54,143
ACECC (40%)	\$	36,095

The following table summarizes the actual ACECC corporate contributions towards the CECAR 6 conference:

No.	Date	Details	Amount (US\$)
1	04/01/2013	Corporate Contribution from HAKI	7,000.00
2	04/30/2013	Corporate Contribution from ASCE	27,960.00
3	05/01/2013	Corporate Contribution from ICE (I)	6,980.00
4	05/06/2013	Corporate Contribution from EA	20,955.00
5	05/15/2013	Corporate Contribution from PICE	6,965.00
6	05/24/2013	Corporate Contribution from KSCE	20,983.00
7	05/30/2013	Corporate Contribution from JSCE	28,000.00
8	06/03/2013	Corporate Contribution from CICHE	20,970.00
Total			139,813.00

With these ACECC contributions, the organizing committee was able to give complimentary registrations, subsidies, reduced registration fee to many students and local/international participants etc. The following table summarizes the number of participants with reduced registration fee or with complimentary registration:

No.	Type	Amount (USD)	Number of Participants
1	Partial Subsidy for International Student Registration Fee	100.00	7
2	Partial Subsidy for Regular International Participants	250.00	9
3	Complimentary Registration Fee for ACECC Member Societies	450.00	60
4	Complimentary Registration Fee for Observer and New Members	450.00	5
5	Complimentary Registration Fee for Keynote and Invited Speakers	450.00	10

6	Partial Subsidy for HAKI Members	325.00	260
7	Partial Subsidy for Local Participants	250.00	26
8	Complimentary Registration Fee for Sponsors	450.00	43
9	Complimentary Registration Fee for Government Officials	450.00	10
10	Complimentary Registration Fee for ACECC Awardees	450.00	7
11	Complimentary Gala Dinner Fee for ACECC Awardees	60.00	7
12	Complimentary Gala Dinner Fee for President of Societies, Keynote Speakers and others	60.00	36
13	Complimentary Gala Dinner Fee for KSCE Choir	60.00	24

Closing Ceremony

The ACECC flag was handed over to the next host at the closing ceremony. The upcoming 7th CECAR is to be hosted by American Society of Civil Engineers (ASCE), which will be held in Hawaii, in 2016. Prof. Albert Yeung (ASCE) has been appointed as the New Chairman of the Executive Committee of ACECC, and Dr. Kenichi Horikoshi (JSCE) has been appointed as the New Secretary General of ACECC.