FINAL REPORT

Issued By ASCE



CIVIL ENGINEERING CONFERENCE IN THE ASIAN REGION (CECAR7)

2016

WAIKIKI, OAHU, HAWAII | AUGUST 30 – SEPTEMBER 2, 2016

*Ho-'omalamalama: Building a Sustainable Infrastructure in the Asia Pacific Region *Ho-'omalamalama is a Hawaiian term that means to brighten, illuminate, enlighten, or inform.





Hilton Hawaiian Village Waikiki Beach Resort www.cecar7.org

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I. CECAR 7 2016 Steering Committee

<u>Conference Chairs</u> Udai P. Singh, D.Engr., BCEEM, PMP Environmental Consultant

Albert T. Yeung, Ph.D., PE Professor University of Hong Kong

David G. Leverenz, P.E *Transportation Consultant*

Jon M. Young, *PE, LEED AP Executive Director Hawaii Asphalt Paving Industry*

Gary Chock, S.E., D.CE President, Martin & Chock, Inc. ASCE Staff

Meggan Maughan-Brown, CAE, CMP, Aff.M.ASCE Director, Global Programs

Jennifer Scafer, Aff.M.ASCE Administrator of Global Programs

Leanne Shroeder, Manager, Conference & Meeting Services

Shingai Marandure, Coordinator, Conference & Meeting Services

Kelly Jarvis, Registar, Conferences & Meetings

Committee Chairs Report

Compiled by Udai P. Singh, D.Engr., BCEEM, PMP Conference Chair

The 7th Civil Engineering Conference in the Asian Region (CECAR 7) was conducted successfully at the Hilton Hawaiian Village, Oahu, Hawaii from 30th August through 2nd September, 2016. The theme of CECAR 7 was "Ho-'omalamalama: Building A Sustainable Infrastructure In The Asia Pacific Region". Ho-'omalamalama is a Hawaiian term that means to brighten, illuminate, enlighten, or inform. CECAR 7 enlightened conference participants and others on strides made in sustainable civil engineering infrastructure applicable to the Asia Pacific Region. Approximately 400 people from 30 countries attended the conference.

Over 400 abstracts were received by the conference steering committee from ACECC Technical Committees and researchers/practitioners from about 30 countries. Of these, the final conference program included approximately 250 technical papers for presentation. In addition, the conference included six technical keynote addresses (two on each morning) given at plenary sessions by eminent experts in diverse areas of civil engineering from Bangladesh, Hong Kong, Japan, Korea, Taiwan, and USA. The keynote speaker from Hawaii, USA had to cancel his presentation at the last minute as he had to coordinate transportation planning activities for the state of Hawaii in preparation for a hurricane rapidly approaching the Hawaiian islands. U.S. Congresswoman Tulsi Gabbard gave the welcome keynote address at the opening plenary on 31st August. The Kyoto Declaration from WECC 2015 was also presented at the opening plenary. Moreover, the President of each member society was given an opportunity to briefly address the attendees.

A Proceedings of the conference was published. The CD-ROM was given out to attendees at the conference. In addition, the Proceedings will be maintained online at the ACECC website until the next CECAR. Papers and sessions were organized into seven broad-based technical tracks in the conference program and Proceedings: Environmental & Water Resources, Transportation, Infrastructure Management, Geotechnical, Natural Disasters, Structural, and Sustainability. Moderators selected from all member societies chaired the technical sessions. In addition to the podium sessions, poster sessions were held, primarily during breaks and lunch hours.

Two workshops were held on 30th August: (1) Engineering Ethics Workshop: Discussion of Case Studies, and (2) Natural Hazards Risk and Management Workshop. Three technical tours were conducted on 30th August and 2nd September: (1) Honolulu Rail Project Tour, (2) Hawaiian Aquaponic Farm Tour, and (3) Nu'Uanu Watershed Tour. An Awards Dinner, whose program included networking, local cuisine, presentation of ACECC awards, and local cultural entertainment, on the evening of 1st September was appreciated by all attendees.

The closing plenary on 2nd September started with a keynote motivational address given by Ms. Annabel Chotzen on "Put Your Dreams To Work". Annabel took us on a journey of achieving our most heart-felt goals and dreams. Her powerful true-life stories were interwoven in a tapestry of success principles and the Hawaiian spiritual concepts helped us visualize, energize and reach for what we want most in our life. This was followed by the closing ceremony where the leadership of ACECC was passed on from ASCE to JSCE.

I have received positive feedback from many attendees at CECAR 7. Many of us came to Hawaii with our families and enjoyed the beautiful and magical settings of the islands. It was a team effort that made CECAR7 professionally productive and socially enjoyable. I will present a more detailed report, including finances, on CECAR 7 at the next PCM/ECM.

II. Conference Program

a. Schedule at a Glance

| Monday, August 29 | | | | | | | |
|--------------------------------------|--|--|--|--|--|--|--|
| 12:30 - 4:00 p.m. Registration hours | | | | | | | |
| Tuesday, August 30 | | | | | | | |
| 7:00 a.m 7:30 p.m. | Registration hours | | | | | | |
| 9:00 a.m 5:00 p.m. | Workshop/Special Session | | | | | | |
| 9:00 a.m 12:30 p.m. | Workshop/Special Session | | | | | | |
| 1:30 - 5:00 p.m. | Workshop/Special Session | | | | | | |
| 1:00 - 5:00 p.m. | Exhibit Hall set up | | | | | | |
| 1:30 - 5:00 p.m. | Technical Tours | | | | | | |
| 1:30 - 5:00 p.m. | Social Tours on own | | | | | | |
| Wednes | day, August 31 | | | | | | |
| 7:00 a.m 5:30 p.m. | Registration hours | | | | | | |
| 8:00 - 10:00 a.m. | Opening Plenary Session | | | | | | |
| 10:00 a.m 5:30 p.m. | Exhibit Hall Hours | | | | | | |
| 10:00 - 10:45 a.m. | Poster Session #1 & Networking Break in Exhibit Hall | | | | | | |
| 10:45 a.m 12:45 p.m. | Concurrent Technical Sessions | | | | | | |
| 12:45 - 1:45 p.m. | Poster Session #1 and Lunch | | | | | | |
| 1:45 - 3:15 p.m. | Concurrent Technical Sessions | | | | | | |
| <u>Thursda</u> | <u>y, September 1</u> | | | | | | |
| 7:00 a.m 5:00 p.m. | Registration hours | | | | | | |
| 8:00 - 9:00 a.m. | Plenary Session | | | | | | |
| 9:00 a.m 4:00 p.m. | Exhibit Hall hours | | | | | | |
| 9:00 - 10:30 a.m. | Concurrent Technical Sessions | | | | | | |
| 10:30 - 11:15 a.m. | Poster Session #2 and Networking Break in Exhibit Hall | | | | | | |
| 11:15 a.m 12:45 p.m. | Concurrent Technical Sessions | | | | | | |
| 12:45 - 1:45 p.m. | Poster Session #2 and Lunch | | | | | | |
| 1:45 - 3:15 p.m. | Concurrent Technical Sessions | | | | | | |
| 3:15 - 4:00 p.m. | Poster Session #2 and Networking Break in Exhibit Hall | | | | | | |
| 4:00 - 5:30 p.m. | Concurrent Technical Sessions | | | | | | |
| 4:00 - 6:30 p.m. | Exhibit Hall Breakdown | | | | | | |
| 6:30 - 9:00 p.m. | Awards Dinner | | | | | | |
| Friday | , September 2 | | | | | | |
| 7:30 a.m 12:00 p.m. | Registration hours | | | | | | |
| 8:00 - 9:00 a.m. | Plenary Session | | | | | | |
| 9:00 - 9:30 a.m. | Morning Networking Break | | | | | | |
| 9:30 - 11:00 a.m. | Concurrent Technical Sessions | | | | | | |
| 11:15 - 12:00 p.m. | Closing Keynote Session | | | | | | |
| 12:00 - 12:30 p.m. | Closing Ceremony | | | | | | |
| 1:30 - 5:00 p.m. | Technical Tours | | | | | | |
| | | | | | | | |

b. Committee Meeting Schedule

Monday, August 29, 2016

- 9:00 11:30 20th Technical Coordinating Committee Meeting
- 13:00 15:15 25th Planning Committee Meeting

Tuesday, August 30, 2016

8:30 – 12:30 32nd Executive Committee Meeting

c. Conference Important Dates

May 30, 2016Registration OpenedJuly 12, 2016Early Bird Registration DeadlineAugust 2, 2016Hotel Registration DeadlineAugust 9, 2016Advance Registration DeadlineAugust 30, 2016Conference Started

III. Registration

| Category | Budgeted | Actual | Budget/Actual | EB Pricing | EB Reg | ADV Pricing | ADV Reg | ONS Pricing | ONS Reg |
|------------------------------|----------|--------|---------------|---------------|-----------|----------------|------------|----------------|------------|
| Full Registration | | | | | | | | | |
| ACECC (incl. ASCE) Member | 66 | 101 | +50 | \$595 | 80 | \$695 | 90 | \$795 | 102 |
| Non-Member | 15 | 32 | +19 | \$695 | 17 | \$795 | 21 | \$895 | 34 |
| Full Time Student | | | | + • • • • | | | | + | |
| Member | 18 | 35 | +18 | \$265 | 32 | \$265 | 34 | \$265 | 36 |
| Non-Member | | | | 7-00 | | + | | + | |
| Speaker | | | 1 | | | | | | |
| Member | 195 | 169 | -26 | \$495 | 169 | \$595 | 167 | \$695 | 169 |
| Moderator | 100 | 100 | | ų 150 | 100 | <i>ų</i> 000 | 107 | ŶŨĴŨ | 100 |
| Member/ Non Member | 6 | 5 | -1 | \$495 | 5 | \$595 | 4 | \$695 | 5 |
| Daily | 0 | 5 | - | ψ155 | 5 | <i>4333</i> | | çoss | 5 |
| Daily Member | 0 | 23 | +26 | \$395 | 6 | \$545 | 6 | \$595 | 22 |
| Daily Non Member | 0 | 6 | +6 | \$395 | 0 | \$495 | 0 | \$595 | 6 |
| Dury Horr Merrider | | Ŭ | | <i>4333</i> | | φ155 | | <i>4333</i> | 0 |
| Complimentary | | l | I | 1 | | | | l | |
| Member | 76 | 12 | -75 | ŚO | 9 | \$0 | 9 | ŚO | 11 |
| Non-Member | 70 | | | ŶŬ | | ΨŪ | | ΨŪ | |
| Exhibitor Full Registration | | l | I | 1 | | | | l | |
| Member | 0 | 0 | +0 | ŚO | 0 | \$0 | 0 | ŚO | 0 |
| Non-Member | 0 | 0 | 10 | Ψ | 0 | ŲŲ | 0 | Ψ | 0 |
| Exhibitor Extra Staff | | I | | | | | | I | |
| Member | 0 | 0 | +0 | \$250 | 0 | \$250 | 0 | \$250 | 0 |
| Non-Member | 0 | 0 | 10 | J2J0 | 0 | <i>γ</i> 230 | 0 | 9230 | 0 |
| Exhibitor Booth Staff | | I | | | | | | I | |
| Member | 0 | 0 | +0 | ŚŊ | 0 | ¢Ω | 0 | ŚŊ | 0 |
| Non-Member | 0 | 0 | 10 | Ψ | 0 | ŲÇ | 0 | ŲÇ | 0 |
| | | | | | | | | | |
| Sossion Only | | | | | | | | | |
| Member | 0 | 0 | +0 | ŚŊ | 0 | ¢Ω | 0 | ŚŊ | 0 |
| Non Mombor | 0 | 0 | +0 | ΟÇ | 0 | ŞΟ | 0 | οÇ | 0 |
| Non-Member | | | | | | | | | |
| Municipal (Agency) | | | | | | | | | |
| Member | 0 | 0 | +0 | \$0 | 0 | \$0 | 0 | \$0 | 0 |
| Non-Member | | | | | | | | | |
| Staff | | | | | | | | | |
| Member | 0 | 5 | +5 | \$0 | 5 | \$0 | 5 | \$0 | 5 |
| Non Member | | | | | | | | | |
| Other | | | | | | | - | | - |
| Guest | 0 | 0 | +0 | \$0 | 0 | \$0 | 0 | \$0 | 0 |
| Younger Member | 0 | 0 | +0 | \$0 | 0 | \$0 | 0 | \$0 | 0 |
| Sustaining Corporate | 0 | 0 | +0 | \$0 | 0 | \$0 | 0 | \$0 | 0 |
| Member | | | | | | | | | |
| Cooperating | 0 | 0 | +0 | \$595 | 0 | \$695 | 0 | \$795 | 0 |
| Organizations | | | | | | | | | |
| Retired Life Members | 0 | 0 | +0 | \$0 | 0 | \$0 | 0 | \$0 | 0 |
| Exhibit Hall (Only) | 0 | 0 | +0 | \$0 | 0 | \$0 | 0 | \$0 | 0 |
| Sponsor Full - Member | 0 | 0 | +1 | \$0 | 0 | \$0 | 0 | \$0 | |
| Event Purchase Only | 0 | 2 | N/A | varies | 0 | varies | 0 | varies | 2 |
| Press Pass | 0 | 0 | N/A | \$0.00 | 0 | \$0.00 | 0 | \$0.00 | 0 |
| Totals | 376 | 390 | +23 | | 323 | | 336 | | 392 |
| FREs | | 10.67 | | N/A | 2 | N/A | 2 | N/A | 12 |

Evaluation/Recommendation/Comments: Registration pricing was set to break even based on 300 attendees. Member pricing was determined by ACECC society membership.

IV. Hotel/Facility

Hotel & Conference Venue

Hilton Hawaiian Village Waikiki Beach Resort 2005 Kalia Road Honolulu, HI 96815 Tel: (808) 949-4321

Hotel Final Pick Up Report

| Day | Sat | Sun | Mon | Tues | Wed | Thur | Fri | Sat | Sun | Mon | TOTAL |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| Dates | Aug 27 | Aug 28 | Aug 29 | Aug 30 | Aug 31 | Sept 1 | Sept 2 | Sept 3 | Sept 4 | Sept 5 | |
| Single/Double | 0 | 0 | 54 | 104 | 104 | 104 | 79 | 10 | 0 | 0 | 455 |
| Staff | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 0 | 0 | 0 | 20 |
| Original Total Block | 0 | 0 | 54 | 104 | 154 | 154 | 104 | 34 | 0 | 0 | 604 |
| Revised Total Block | 0 | 0 | 54 | 104 | 104 | 104 | 79 | 10 | 0 | 0 | 455 |
| Actual | 7 | 31 | 57 | 73 | 74 | 69 | 41 | 9 | 2 | 1 | 395 |
| % of Actual Block | N/A | N/A | 115% | 75% | 51% | 47% | 42% | 32% | N/A | N/A | 86% |
| Regular Room Rate (Single) | \$239 | \$239 | \$239 | \$239 | \$239 | \$239 | \$239 | \$239 | \$239 | \$239 | 455 |
| # of Rooms | 0 | 0 | 54 | 104 | 154 | 154 | 104 | 34 | 0 | 0 | |
| Regular Room Rate (Outside of Block) | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| # of Rooms | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | - |
| Staff Rate | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | 20 |
| # of Rooms | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 0 | 0 | 0 | 20 |

Evaluation/Recommendation/Comments: ASCE exercised the option to release a portion of the room block back to the Hilton to avoid possible attrition charges. Based on the revised hotel block the group picked up 86% of the contracted rooms, meeting the 80% contractual obligation and avoiding attrition fees.

V. City

The city of Waikiki, Oahu, Hawaii was selected due to its location and proximity to a majority of the audience.

<u>Airport</u>

Honolulu International Airport

300 Rodgers Boulevard Honolulu, HI 96819

Airport Code: HNL

Available Transportation

Travelers could choose from various transportation services. Taxi, shuttle, trolley, bus or private vehicles from Honolulu International Airport to Waikiki, Oahu. The Resort is just 8 miles from Honolulu International Airport.

SpeediShuttle

The only authorized on demand shuttle service provider at the Honolulu airport and has greeters stationed throughout the terminals. Shared Ride starting at \$15.48.

The Waikiki Trolley

"The Bus" public bus transportation routes to all parts of Oahu. A (1) day "all line" trolley pass is \$45.00.

Charley's Taxi

Provides general taxi service and is located at the Hilton Hawaiian Village. They offer several different options for transportation to and from the airport as well as around Honolulu. A "flat rate" to the airport is \$29.00 one-way.

Evaluation/Recommendations:

The city was very accommodating to travelers and attendees with easy access to the resort from the airport via taxi or shuttle bus. Local restaurants, shopping, and entertainment venues were within walking distance.

VI. Sponsorships

| | Silver Level | | | | | | | | | | |
|--------------------------|---------------------------------|---------------------------|----------|--------------|---------|-------|----------------|-----------|--|-----|--|
| Num | ber of Spon | sors Allotted @ Level | - | 1 | | | Item/Even | <u>it</u> | | 10% | |
| <u>Date</u> Confirmed | ate <u>LEVEL</u> <u>COMPANY</u> | | PLED | PLEDGED RECD | | | HART Rail Tour | | | | |
| | Silver | CH2M | \$2, | 500 | \$2,500 | | | | | | |
| Total Sponso | ors Budgeted | \$10,000 | | | | | | | | | |
| Recognition Benefits | | | Platinum | Gol | d Si | ilver | Bronze | Copper | | | |
| | | | \$25,000 | \$10,0 | 000 \$5 | 5,000 | \$2,500 | \$1500 | | | |
| Full Conf | erence Re | gistration | | | | | | | | | |
| Exhibit B | ooth | | | | | | | | | | |
| Podium F | Recognitio | n at Plenary | | | | х | | | | | |
| Attendee | e List Pre-a | nd Post Conference | | | | х | | | | | |
| Logo/Na | me & Link | in Conference | | | | | | | | | |
| Marketin | Logo | Lo | go | Logo | Name | Name | | | | | |
| Recognit | Logo | Lo | go | Logo | Logo | Name | | | | | |
| Recognit | ion on Cor | Logo | Lo | go | Logo | Logo | Name | | | | |
| Recognit | ion on the | Conference Website | Logo | Lo | go | Logo | Logo | Name | | | |

Evaluation/Recommendation/Comments:

A large number of academics make up the attendance of the conference limiting the potential sponsorship dollars interested in supporting the conference. This was anticipated

VII. Program

a. Plenary Sessions

Title: Opening Plenary Session & Technical Plenary SessionDate: Wednesday, August 31, 2016Time: 8:00 - 10:00 a.m.(Room Set: Theatre Style)Attendance: 178

Description: Plenary Welcome Address & Keynotes

U.S. Congresswoman Tulsi Gabbard commenced with the Opening Plenary Welcome Address. The Welcome Address was followed by Keynote speeches by Dr. Sung Woo Lee, President of KSCE, S. Korea. and Prof. Dr. Munaz Ahmed Noor, Vice Chancellor, Islamic University of Technology.

Plenary Speaker: Tulsi Gabbard rating: 8.15 Keynote Speaker: Dr. Sung Woo Lee rating: 7.92 Keynote Speaker: Prof. Dr. Munaz Ahmed Noor rating: 7.83

Title: Closing Plenary Session **Date:** Friday, September 2, 2016

Time: 11:15 – 12:00 p.m. **Attendance:** 86

Description: Annabel Chotzen used powerful true-life stories interwoven in a tapestry of success principles and the Hawaiian spiritual concepts to help you visualize, energize and reach for what you want most in your life. She provided powerful tools that engineers can use to communicate more effectively, create solutions to challenging problems, and resolve conflict quickly.

Overall Closing Plenary Satisfaction: 8.16

b. Technical Program Grid

| Date | Time Track Session Title | | | Attendees | Attendees per |
|-------|--------------------------|---|---|-----------|---------------|
| | | • | 14. Environmental 8 Meter | 20 | стте рюск |
| | | А | IA: Environmental & Water | 26 | |
| | | D | Resources | 24 | |
| | | D | | 24 | |
| | | С | 1C: Infrastructure | 35 | |
| | 10:45 – 12:45 p.m. | | Management | | 165 |
| | p | D | 1D: Natural Disaster | 30 | |
| | | E | 1E: Geotechnical | 20 | |
| | | F | 1F: Structural | 30 | |
| Ţ | | А | 2A: Innovative Technologies in | 20 | |
| st 3 | | | Water Resources | | |
| nßr | 1:45 – 3:15 p.m. | В | 2B: Rail Transit Projects in | 21 | |
| , Ai | | | Honolulu, Japan and Thailand | | |
| sday | | С | 2C: Geohazards | 18 | 93 |
| Vedne | | D | 2D: Energy Efficient Solutions for Sustainable Facilities | 16 | |
| - | | E | 2E: Bridge Design | 18 | |
| | | A | 3A: Challenges in Water Management | 20 | |
| | | В | 3B: Corrosion of Structural Elements | 20 | |
| | 4:00 – 5:30 p.m. | С | 3C: Towards the Reduction of Infrastructure Lifecycle Cost | 18 | 98 |
| | | D | 3D: Foundations | 20 | |
| | | E | 3E: Performance-Based Engineering for Natural Hazards | 20 | |

International Conference on Civil Engineering in The Asian Region - CECAR 7 2016 Waikiki, Oahu, Hawaii | August 30 – September 2, 2016 Hilton Hawaiian Village Waikiki Beach Resort FINAL REPORT SUMMARY

| Date | Time | Track | Session Title | Attendees | Attendees per time block |
|---------|-------------------------|-------|--|-----------|-----------------------------|
| | | A | 4A: Challenges in Water Supply | 12 | |
| | | В | 4B: Transportation Planning | 15 | |
| | 9:00 – 10:30 a.m. | С | 4C: Outstanding Hawaii Civil Engineering Projects | 28 | 110 |
| | | D | 4D: Recycled Materials | 15 | |
| | | E | 4E: Transdisciplinary Approach to Build Resilient Society | 40 | |
| | | А | 5A: Waste Management | 16 | |
| | | В | 5B: Rail Design and Operation | 20 | |
| | 11:15 a.m. – 12:45 p.m. | С | 5C: Construction Best Practices | 20 | |
| lber 1 | | D | 5D: Critical Success Factors in Construction | 12 | 98 |
| ptem | | E | 5E: Structural Dynamics | 30 | |
| lay, Se | | A | 6A: Storm water and Wastewater Systems | 19 | |
| hursc | | В | 6B: Traffic Management | 15 | |
| Г | 1:45 – 3:15 p.m. | С | 6C: Earthquake Engineering I | 12 | 94 |
| | | D | 6D: Geomaterials | 18 | |
| | | E | 6E: Disaster Management | 30 | |
| | | А | 7A: Watershed, River and Flood Management | 16 | |
| | | В | 7B: Pavement Preservation | 30 | |
| | 4:00 – 5:30 p.m. | С | 7C: Special Topics in Civil Engineering | 20 | 106 |
| | | D | 7D: Education | 20 | |
| | | E | 7E: Geotechnical Earthquake Engineering | 20 | |

International Conference on Civil Engineering in The Asian Region - CECAR 7 2016 Waikiki, Oahu, Hawaii | August 30 – September 2, 2016 Hilton Hawaiian Village Waikiki Beach Resort FINAL REPORT SUMMARY

| Date | Time | Track | Session Title | Attendees | Attendees per time block |
|--------|-------------------|-------|----------------------------------|-----------|-----------------------------|
| | | А | 8A: Hydraulics | 15 | |
| ber 2 | | В | 8B: Earthquake Engineering II | 15 | |
| otem | 0.20 11.00 | С | 8C: Infrastructure | 18 | 60 |
| y, Sej | 9:30 – 11:00 a.m. | | Management | | 08 |
| Frida | | D | 8D: Engineered Materials | 8 | |
| | | E | 8E: Tunneling | 12 | |

CECAR7 2016 POSTER SESSION GRID

| WEDNESDAY, AUGUST 31 | THURSDAY, SEPTEMBER 1 |
|---|---|
| POSTER SESSION #1 | POSTER SESSION #2 |
| CO2 Emission Estimation Reduction Impacts by Promoting Hybrid Cars Based on Time Sharing of Driving Modes from Probe Vehicles, Napon Srisakda (Graduate School of Science and Technology, Nihon University, Japan), Atsushi Fukuda, Tetsuhiro Ishizaka | Estimation of Quantile Using Regional Scaling Model and Index Flood Method, Younghun Jung (Yonsei University, South Korea), Hyunjun Ahn, Hanbeen Kim, Jun-Haeng Heo |
| Experimental Study for Neutralization and Revegetation from Acid Soil Based on the MICP <i>Toshiro Hata, (Toyama Prefectural</i> <i>University, Japan), Mizuki Sakai, Masanori Hatakeyama</i> | Estimate of the Initial Rock Stress by Performing a Comprehensive Evaluation using the Results of Several Techniques, Kozo Onishi, Naoki Nishizaka, Yoshihiko Ishikawa, Toshinori Nayuki (Obayashi Corporation, Japan), Tatsuya Tanaka, Kenichi Ando, Taishi Oouchi, Takatoshi Ito |
| Full Scale Model Tests on the Detection of Hidden Deteriorations of Reinforced Soil Walls, Tomohiro Fujita (Toyama Prefectural University, Japan), Hiroaki Miyatake | Rapid Evaluation and Assessment Program (REAP) as an Innovative Pre-Disaster Preparedness and Post-Disaster Response Tool for Essential Facilities – NAVFAC Case Studies, David B. Swanson (Reid Middleton, Inc., Mukilteo, WA, USA), Lance K. Lum, Erik S. Bishop, Bradley A. Martin, Kenny O'Neil |
| Dynamic Centrifuge Model Test on Irrigation Dam and Its Numerical Simulations, Seiichi Sato (Nippon Koei Co.,Ltd., Japan), Sokkheang Sreng, Yuta Koyama, Koji Kobayashi, Yasunori Shiraishi | Inspection Method for Internal State of Quay Wall Under Water Using Acoustic Device, Norihito Kishi (C.E. Research Institute, Sapporo / Hokkaido, Japan), Kazuya Yamaguchi, Akira Asada, Kei Fujisawa, Hideaki Yokohama |
| Application of Statistical Tests for Cleaning Matched Dedicated Short Range Communications Probe Data, Jinhwan Jang (Korea Institute of Civil Engineering and Building Technology, South Korea) | Design Data Generation System using Three-Dimensional Polyline for Progress Control of Working Form, Shigenori Tanaka (Kansai University, Osaka, Japan), Kenji Nakamura, Ryuichi Imai, Satoshi Kubota, Jun Sakurai |
| Bivariate Frequency Analysis Using Archimedean Copula and Nonstationary Gumbel Distribution with Inference Function for Margin Method, Younghun Jung (Yonsei University, South Korea), Kyungwon Joo, Jinseok Jung, Jun-Haeng Heo | Dynamic Buckling Behaviors of Circular Tube Piles on Centrifuge Tests, Tenshiro Goto, Moeko Matoba (Tohoku University, Sendai, Japan), Yoshihiro Kimura |
| Recent Earthquake Disaster in Kumamoto, Japan, Yoshihiro Katsuhama (Nippon Koei Co., Ltd., Japan), Yoshiki Yamamoto | Overview on Carbon Dioxide Uptake and Its Impact of Portland Cements Using Carbonation Curing, Jeong Gook Jang (Korea Advanced Institute of Science and Technology, Daejeon, south Korea), H.K. Lee |
| Concrete Use Mechanical Anchors Engineering Properties, <i>Chiwan</i> <i>Wayne Hsieh (National Pingtung University of Science and Technology,</i> <i>Taiwan), Jen-Han Wu, Yung-Chung Chen</i> | Development of Decision Making Criteria to Improve Road Maintenance Efficiency, Koonnamas Punthutaecha (Department of Rural Roads, Bangkok, Thailand), Koson Janmonta, Wit Ratanachot, Punthutaecha Tarugsa |
| Design Data Generation System using Three-Dimensional Polyline for Progress Control of Working Form, Shigenori Tanaka (Osaka University of Economics, Japan), Kenji Nakamura, Ryuichi Imai, Satoshi Kubota, Jun Sakurai | Research Concerning Estimation of Location Related to Traffic Events and Extraction of Public Opinions Related to Road Projects Using Microblogs, Ryuichi Imai, Kenji Nakamura (Osaka University of Economics, Osaka, Japan), Shigenori Tanaka, Yuki Fujimoto |
| Characteristics of Bus Operations and Fuel Consumption on Long Steep Grades , Grace Po-chun Chen, William Ta-chun Lin, Amy Yi-Chin Hu (THI Consultants, Inc., Taiwan), Yi-cheng Chang, Yu-wen Yang, Jason Cheng-wei Su | Best Practice Design of a Large-span Silo Roof with Shell and Tension Beam Structures - Ahmad Nazari, (Bisbane, Australia) |
| Modeling Vehicle Road Accident with Excess Zero Data of Johor Federal Road – Route Kluang-A/Hitam-B/Pahat, Joewono Prasetijo (Universiti Tun Hussein Onn, Malaysia), Wan Zahidah Musa, Wahid Razzaly, Kamarudin Ambak, Basil David Daniel | Effect of Methane Sampling Time on Average Flux under Rice Cultivation - Nadar Hussain Khokhar and Jae-Woo Park (Hanyang University, Seoul, Korea) |
| Public Private Partnership in Thailand Highways - A Case Study on an Extension of Donmuang Tollway Project - Pruethipong Singhatiraj (Ministry of Transports, Bangkok, Thailand), Chatchai Chuangching and Boonkua Janbanjong | Ultimate Seismic Capacity of Steel Moment Resisting Frame by Scaled Test - Sachi Furukawa (Tohoku University, Japan), Yuma Murata, Yoshihiro Kimura |
| Three-dimensional Analysis of Laterally Loaded Barrette Foundation using Plaxis 3D - Belkacem Moussai (USTHB University, Aliers, Algeria) and Djamila Behloul | Development of Deterioration Prediction Model for Porous Asphalt Pavements Considering Pot-Holes - Akihiro Tanaka, MA (Osaka University), Yota Yamada, Daijiro Mizutani, Kengo Obama, Kiyoyuki Kaito |

d. Technical Tours

Title: Honolulu Rail Project Tour Date: Tuesday, August 30, 2016 Time: 1:30 - 5:00 p.m. Attendees: 24

Description:

The Honolulu Authority for Rapid Transportation (HART) is constructing what will ultimately be a 20mile, \$5.2 billion elevated transit system. The tour followed construction of much of the initial segment from Kapolei to Aloha Stadium, which is set to open in 2018. The tour culminated in an in depth briefing on the project at the Maintenance and Storage Facility and included a short tour of the facility.

Pricing: EB: \$30 | ADV: \$65 | ONS: \$50

Title: Hawaiian Aquaponic Farm Tour Date: Friday, September 2, 2016 Times: 1:30 - 5:00 p.m. Attendees: 11

Description:

Tour attendees walked through the Hawaiian Aquaponic farm, hydroponics (water-based farming). Located at the historic Kunia Camp, Kunia Country Farms provides locally grown produce without utilizing the island's natural resources. Which is one of the Islands largest suppliers of leafy green vegetables. Continuing to Ohau's first tasting room and distillery, Manulele Distillers. The tour lasted approximately two hours.

Pricing: EB: \$55 | ADV: \$65 | ONS: \$75

Title: Nu'uanu WaterShed Date: Friday, September 2, 2016 Times: 1:30 - 5:00 p.m. Attendees: 11

Description: Attendees learned the important role watershed areas play in the islands water cycle by experiencing the outdoors. Beautiful sights of panoramic valley views and windborne clouds as attendees moved across mountaintops and forests toward the skies. Nu'uanu Reservoir #4 is a historic site that holds a rich heritage of ancient Hawaiian legends. This was a walking tour.

Pricing: EB: \$30 | ADV: \$40 | ONS: \$50

e. Special Events

Title: ACECC Awards Dinner Date: Thursday, September 1, 2016 Time: 6:30 - 9:00 p.m. Attendees: 92

Description: This was a great forum to network, mingle with friends and colleagues. The leaders of ACECC an ASCE celebrated the achievements of the night's honorees as they presented awards. There was no better way to conclude the conference than by attending this reception and dinner. This event offered spectacular hors d'oeuvres, entrees, drinks and the attendees first two drink tickets were complementary.

Pricing: EB: \$100 | ADV: \$125 | ONS: \$150

Program/Tours/Special Events Evaluation/Recommendation:

198 podium and 26 posters were presented at the conference for a total 224 presentations, The presentations covered six tracks allowing for many diverse presentations. Three workshops and six technical tours were originally planned, however, due to low registration, only two workshops and 3 technical tours had enough registrations to support hosting them.

f. Pre-Conference Workshops

Title: Engineering Ethics Workshop Authors/Hosts: Steve Starrett, Dr. Carlos Bertha Date: Tuesday, August 30, 2016 Time: 9:00 a.m. – 12:30 p.m. Attendees: 6

Description: Engineers around the world face engineering ethical dilemmas routinely in their roles as consultants, government representatives, designers, builders, contractors, supervisors, inspectors, and leaders. The goals of this workshop are: to stimulate engineer's commitment to high ethical standards, to discuss some challenging case studies, to increase participants understanding of how best to pursue solutions in difficult situations, and to enable knowledge to be conveyed between participants. This workshop will study numerous case studies of real situations that engineers faced, present philosophical background needed to better approach solutions to ethical challenges, and provide opportunities for small group discussions. The ASCE Code of Ethics will also be presented and discussed.

Pricing: EB: \$95 | ADV \$120 | ONS: \$170

Pre-Conference Workshops Continued:

Title: Natural Hazards Risk & Management Workshop Authors/Hosts: Vilas Mujumdar Date: Tuesday, August 30, 2016 Time: 1:30 – 5:00 p.m. Attendees: 7

Description: The Natural Hazards Risk & Management Workshop covered various natural hazards including earthquakes, hurricanes, and floods, their probabilities and impacts on the community as a risk. The workshop focused on addressing the multi- hazard engineering risk problem from the total community standpoint. It will include engineering systems, and socio-economic systems as components of a combined community system. Interdependence of various systems were discussed as well as the response and management considerations. The workshop was designed to challenge the engineering community to think about natural hazard risk reduction through a prism of developing community resilience based on complex systems nature.

Pricing: EB: \$95 | ADV:120 |ONS: \$170

VIII. Proceedings

There were (224) papers published in the conference proceedings. All CECAR 7 conference attendees received a copy of the Conference Proceedings at registration check in. Online access of the Proceedings was also available to download at: <u>www.eventscribe.com/2016/CECAR7</u>. It is important to note that the proceedings were published by ACECC and not ASCE and will not be available in the ASCE library. This conference did not use the abstract submission and draft paper format for submitting papers.

IX. Marketing

| 1/20/16 | Broadcast Email | Key note Speakers & SAG | Sent to: ACECC Members, Authors, Region 8 |
|---------|--------------------|--|--|
| 2/3/16 | Broadcast Email | Preliminary Program | Sent to: ACECC Members, Authors, Region 8 |
| 2/17/16 | Broadcast Email | Registration Opens | Sent to: ACECC Members, Authors, Region 8 |
| 3/2/16 | Broadcast Email | Workshops/Technical Sessions | Sent to: ACECC Members, Authors, Region 8 |
| 4/6/16 | Broadcast Email | Technical Tours | Sent to: ACECC Members, Authors, Region 8 |
| 5/11/16 | Broadcast Email | Housing/Technical Sessions | Sent to: ACECC Members, Authors, Region 8 |
| 6/8/16 | Broadcast Email | Conference Highlights | Sent to: ACECC Members, Authors, Region 8 |
| 7/6/16 | Broadcast Email | EARLY BIRD REGISTRATION DEADLINE | Sent to: ACECC Members Authors, Region 8 All members of AEI, CI, COPRI, EWRI, GI, SI & TD&I institutes excluding Students & life members |
| 7/27/16 | Broadcast Email | Hotel Registration Cut Off August 2nd | Sent to: ACECC Members, Authors, Region 8 |
| 8/3/16 | Broadcast Email | FINAL PUSH -Advance Registration deadline (8/9/16) same as the hotel | Sent to: ACECC Members Authors, Region 8 All members of AEI, CI, COPRI, EWRI, GI, SI & TD&I institutes excluding Students & life members |
| 8/24/16 | Broadcast Email | Program Overview -Attendee Checklist | Sent to: Conference Attendee Only |
| 9/1/16 | Broadcast Email | Day 1 Conference Daily Surveys | Sent to: Conference Attendee Only |
| 9/2/16 | Broadcast Email | Day 2 Conference Daily Surveys | Sent to: Conference Attendee Only |
| 9/3/16 | Broadcast Email | Day 3 Conference Daily Surveys | Sent to: Conference Attendee Only |
| 9/5/16 | Broadcast Email | Conference Follow Up Survey | Sent to: Conference Attendee Only |
| 9/14/16 | Broadcast Email | Conference Follow Up Survey | Sent to: Conference Attendee Only |

Email Metrics

| Subject | E-mails Received | Click Through | Click Through Rate | Opens | Open Rate | Possible Forwards | Unsubscribe |
|--------------------------------|---------------------|------------------|--------------------------|-------|--------------|----------------------|-------------|
| Tech. Sessions/Registration | 1993 | 63 | 2.11% | 1201 | 20.62% | 91 | 1 |
| Housing/Technical Grid | 9577 | 63 | 0.66% | 5512 | 22.29% | 375 | 0 |
| ADV Closing | 43650 | 206 | 0.48% | 22562 | 22.41% | 1052 | 0 |
| FINAL PUSH | 320 | 12 | 3.44% | 1148 | 64.69% | 50 | 0 |
| Welcome | 377 | 18 | 2.97% | 764 | 57.86% | 42 | 0 |
| Conference Follow Up Survey | 357 | 99 | 17.65% | 616 | 58.54% | 42 | 0 |

Designer

Colornet

<u>Website</u>

cecar7.org

<u>Preliminary Program</u> – electronic version, distributed via website and email blasts <u>Final Program -</u> 400 copies printed in the mailroom to reduce expenses

X. Attachments

- a. Evaluation Executive Summary
- b. Financial Summary
- c. Registration Report
- d. Housing Report
- e. Final Program

CECAR7

CIVIL ENGINEERING CONFERENCE IN THE ASIAN REGION

Waikiki, Oahu, Hawaii | August 30- September 2, 2016



Ho-'omalamalama:* Building a Sustainable Infrastructure in the Asia Pacific Region

CECAR7 2016 Conference Executive Evaluation Summary

Overview

- Dates: August 30 September 2, 2016
- Where: Waikiki, Oahu, Hawaii
- Attendees:388
- Survey Respondents: 30
 - o ACECC Members: 5
 - o ASCE Members: 8
 - o Non-Members: 14
 - o No Answer: 3

This report summarizes the findings of an online evaluation conducted September 3, 2016. **Please note**: *Italicized statements are a summary of frequently listed comments*. Percentages reflect the number of survey responses received.

Demographics

Membership Status

- ACECC Members: 15.38%
- ASCE Members: 30.77%
- Non Member: 53.85%

Conferences Attended

- 1-2: 57.69%
- 3-4: 26.92%
- 5-6:0%
- More than 6 per year: 3.85%
- Do not usually attend conferences: 11.54%

Male/Female

- Male: 88.46%
- Female: 11.54%

Distance Traveled for this Conference

- 0-25 miles: 11.54%
- 26-50 miles: 0%
- 51-150 miles: 0%
- 151-200 miles: 0%
- 201-250 miles: 0%
- Over 250 miles: 88.46%

Attendees Country of Origin = 390

- Algeria-1
- Australia-6
- Austria-2
- Bangladesh-2
- Canada-3
- China-11
- Finland-1
- Hong Kong-2
- India-13
- Indonesia-9

- Islamic Republic of
 - Iran-1
- Japan-131
- Republic of Korea-36
- Lebanon-3
- Malaysia-1
- Mongolia-2
- Netherlands-1
- New Zealand-1
- Pakistan-2
- Philippines-29

- Saudi Arabia-1
- Somalia-1
- South Africa-2
- Taiwan-23
- Thailand-4
- United Arab Emirates-1
- United Kingdom-1
- United States-98
- Vietnam-2

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CIVIL ENGINEERING CONFERENCE IN THE ASIAN REGION Waikiki, Oahu, Hawaii | August 30- September 2, 2016



Ho-'omalamalama:* Building a Sustainable Infrastructure in the Asia Pacific Region

What Influence Attendance (Average based on a 10-point rating scale)

| • | Most Important: | Visit the Destination/City Presenting/Moderating a Session Network and Socialize with Peers Content of Conference Website | 8.54 Average 8.30 Average 7.52 Average 7.41 Average |
|---|------------------|---|--|
| • | Least important: | Participate in Workshops Attend Educational Sessions Hear Keynote & Featured Speakers Prior Attendance at an ASCE/ACECC Conference | 7.08 Average 6.96 Average 6.76 Average 5.83 Average |

Overall Satisfaction

| ٠ | Most Satisfied: | Meeting Venue | 8.72 Average |
|---|------------------|-------------------------------------|--------------|
| | | Hotel Accommodations | 8.59 Average |
| | | Pre-Conference Registration Process | 8.46 Average |
| | | Length of Conference Sessions | 8.23 Average |
| | | Scheduling/Timing of Events | 8.12 Average |
| | | Printed Conference Final Program | 8.08 Average |
| • | Least Satisfied: | Onsite Registration Process | 8.05 Average |
| | | Conference Organization | 8.04 Average |
| | | Meal Functions | 7.88 Average |
| | | Relevance to Your Job and Interests | 7.68 Average |
| | | Conference Website | 7.65 Average |
| | | Pre-Conference Electronic Marketing | 7.45 Average |
| | | | |

Marketing

| ٠ | Learned of Conference: | From a Colleague | 46.15% |
|---|------------------------|--------------------|--------|
| | | ASCE Weekly News | 19.23% |
| | | E-mail | 15.38% |
| | | Other | 11.54% |
| | | Flyer | 3.85% |
| | | Social Media | 3.85% |
| | | Conference Website | 0% |
| | | Print Advertising | 0% |
| | | Smart Brief | 0% |
| | | | |



CIVIL ENGINEERING CONFERENCE IN THE ASIAN REGION

Waikiki, Oahu, Hawaii | August 30- September 2, 2016

Ho-'omalamalama:* Building a Sustainable Infrastructure in the Asia Pacific Region

Registration/ Customer Service

- Extremely Satisfied with Process:
- Average:

Fulfillment

• Did the conference fulfill you reason(s) for attending? Yes: 96.55% No: 3.45% 41.38% 8.41 Rating

| CEC | CAR 2016 hosted by AS | CE | | | |
|------|-------------------------------|------------------|------------------|---------|---|
| | Estimated total attendance | 300 | 396 | | Developed by A. Rushing, CMP |
| | | BUDGET | ACTUAL | VAR. | Assumptions |
| | REVENUE | | | | |
| 4200 | Registration Income | <u>\$156,140</u> | <u>\$165,598</u> | -9,458 | |
| | Registration - Attendee | \$167,055 | \$152,065.00 | 14,990 | \$152,065, 390 attendees |
| | Registration - Comps and Cxl | (\$45,815) | \$0.00 | -45,815 | (77) comps |
| | Registration - Add'l Programs | \$13,275 | \$2,525.00 | 10,750 | workshops: Ethics (10), Hazards(10) |
| | Registration - Tours | \$7,375 | \$2,150.00 | 5,225 | Tours (33) Rail; (11) Aqua; (11) Watershed |
| | Registration - Guest Program | \$0 | \$0.00 | 0 | |
| | Registration - Tickets | \$14,250 | \$8,858.00 | 5,392 | Awards Dinner 93 sold (16 comp), (11) extra meal tickets |
| 4250 | Exhibit Income | <u>\$0</u> | <u>\$0</u> | 0 | |
| | Registration - Special | | \$0.00 | | |
| | Registration - Exhibitor | \$0 | \$0.00 | 0 | |
| | Registration - Booths | \$0 | \$0.00 | 0 | Exhibit Tables available thru Sponsorships only |
| 4260 | Sponsorship Income | <u>\$172,000</u> | <u>\$155,000</u> | 17,000 | Dues & sponsor subtotal \$155,000 |
| | Grants | \$152,000 | \$152,500.00 | 0 | ACECC dues |
| | Affiliate Programs | \$0 | \$0.00 | 0 | |
| | Sales | \$20,000 | \$2,500.00 | 17,500 | CH2M-Hart tour |
| | Local Cmte/Section/Inst | \$0 | \$0.00 | 0 | |
| | TOTAL REVENUE | \$328,140 | \$320,598 | 7,542 | \$0 |
| | SALARY | | | | |
| 5100 | Overtime | \$3,000 | \$2,254.00 | 746 | CM Staff onsite |
| | Total Salary & Fringe | \$3,000 | \$2,254 | 746 | |

| CECAR 2016 hosted by ASCE | | | | | |
|---------------------------|------------------------------------|----------|-------------|------------------------------|---|
| | Estimated total attendance | 396 | | Developed by A. Rushing, CMP | |
| | | BUDGET | ACTUAL | VAR. | Assumptions |
| | CONFERENCE EXPENSES | 6 | | | |
| 5400 | Consultant | \$0 | \$0.00 | 0 | N/A |
| 5410 | Honorarium - Speakers | \$0 | \$1,000.00 | -1,000 | Annabel Chotzen \$1000 spk fee, final payment made 8/3/16 |
| 5450 | Photographer | \$0 | \$0.00 | 0 | N/A |
| 5490 | Temporary Wages/Agency | \$1,560 | \$0.00 | 1,560 | (2) temp staff xCANCELLED Onsite |
| 5601 | Staff Travel | \$14,765 | \$10,441.44 | 4,324 | (3) C&M Staff, (1) Intn Staff travel, excluding flight, to be billed to Intl Budget per Meggan Maughan EST |
| 5630 | CommitteeTravel | \$0 | \$1,790.75 | -1,791 | |
| 5690 | Instructor / Speaker Travel | \$5,385 | \$2,000.00 | 3,385 | Dr.Vilas Mujumdar/Steve Starett-stipen |
| 5700 | Meetings - General | \$0 | \$361.83 | -362 | Face2Face Cmte mtg June 22-23 |
| 5800 | Conf & Sem - General | | | Add'l Tot | \$2,140 |
| 5801 | - Additional Programs 1 | \$1,070 | \$0.00 | 1,070 | Envision-Cancelled |
| 5802 | - Additional Programs 2 | \$535 | \$0.00 | 535 | 1/2 DAY Workshop included in AV Bill |
| 5803 | - Additional Programs 3 | \$535 | \$0.00 | 535 | 1/2 DAY Workshop included in AV Bill |
| 5810 | - Ancillary Venue - Electric | \$0 | \$0.00 | 0 | |
| 5811 | - Ancillary Venue - Gratuities | \$500 | \$0.00 | 500 | CSM, AV, Housemen EST |
| 5812 | - Ancillary Venue - Labor | \$0 | \$0.00 | 0 | |
| 5813 | - Ancillary Venue - Phone/Internet | \$0 | \$3,298.43 | -3,298 | WIFI for 2 days for ACCECC Mtgs |
| 5820 | - Catering - Breakfasts | \$0 | \$48,370.52 | -48,371 | 2 CB-ACECC, 3 CB for conference |
| 5821 | - Catering - Breaks | \$0 | \$15,786.50 | -15,787 | (5) mid AM, (4) PM - |
| 5822 | - Catering - Lunches | \$36,149 | \$48,128.40 | -11,979 | (2) Lunches, (2) ACECC Lunches |
| 5823 | - Catering - Receptions | \$16,635 | \$6,680.63 | 9,954 | ACECC COMM Reception |
| 5824 | - Catering - Dinners | \$43,782 | \$20,164.26 | 23,618 | Awards Dinner w/Luau gte:91 |
| 5825 | - Catering - Other | \$46,139 | \$0.00 | 46,139 | |
| 5830 | - Entertain - Décor | \$0 | \$0.00 | 0 | <i>N/A</i> |
| 5831 | - Entertain - Music | \$0 | \$2,596.86 | -2,597 | Firedancer, hula and musicans, ACECC Awards Dinner |
| 5840 | - Registration - Final Program | \$4,000 | \$850.00 | 3,150 | printed 400 inhouse |
| 5841 | - Reg - Equipment/Counters | \$1,500 | \$680.63 | 819 | printers for reg & Office |
| 5842 | - Reg - Sponsorship Items | \$11,600 | \$0.00 | 11,600 | none sold |
| 5843 | - Reg - Supplies | \$1,510 | \$468.76 | 1,041 | ribbons, badgestock, |
| 5850 | - Program Dev - General | \$0 | \$0.00 | 0 | N/A |
| 5851 | - Conf Calls / Meetings - CTTE | \$425 | \$158.00 | 267 | Committee Conference calls |
| 5860 | - Exhibits / Decorator | \$1,250 | \$0.00 | 1,250 | Pipe n drape -contingency |
| 5870 | - Audio/Visual | \$25,822 | \$37,872.50 | -12,050 | (3) General Sessions, (1) Awards Dinner, (4) B/Os x 3 days, 2 day ACECC Meeting |
| 5873 | - Awards/Gifts | \$0 | \$1,016.01 | -1,016 | Awards per MMaughan-Brown |
| 5875 | - First Aid | \$0 | \$0.00 | 0 | N/A |
| 5876 | - Posters | \$850 | \$2,690.05 | -1,840 | 10 poster boards |
| 5879 | - Signs | \$3,475 | \$5,080.93 | -1,606 | print local 8 meter, 14 22X28 |
| 5882 | - Proceedings | \$4,085 | \$3,727.92 | 357 | 250 CDs in a Cardboard sleeve, & shipping to HI, \$475 cd cover design |

| CEC | CAR 2016 hosted by AS | CE | | | |
|------|------------------------------------|-----------|-------------|-------|---|
| | Estimated total attendance | 300 | 396 | | Developed by A. Rushing, CMP |
| | | BUDGET | ACTUAL | VAR. | Assumptions |
| 5883 | - Paper Mangement System | \$0 | \$0.00 | 0 | N/A - collected via email to ProgTech Committee |
| 5894 | - Tours - Tech & Optional | \$6,587 | \$2,074.00 | 4,513 | (1) 55 bus, (2) 11 person van |
| 5895 | - Transportation | \$0 | \$0.00 | 0 | Included in Tours |
| 5896 | - Logistic Support | \$0 | \$0.00 | 0 | N/A |
| 5898 | - Miscellaneous | \$0 | \$0.00 | 0 | N/A |
| 6100 | Marketing - General | \$3,000 | \$750.00 | 2,250 | Branding concept design |
| | Design Costs | | | 0 | <u>\$5,250</u> |
| 6111 | - Design Costs - Piece 1 | \$0 | \$0.00 | 0 | CFP |
| 6112 | - Design Costs - Piece 2 | \$750 | \$39.75 | 710 | badgedesign |
| 6113 | - Design Costs - Piece 3 | \$4,500 | \$970.00 | 3,530 | Prelim |
| 6114 | - Design Costs - Piece 4 | \$0 | \$0.00 | 0 | Flyer |
| | Printing Costs | | | | <u>\$0</u> |
| | Postage Costs | | | | <u>\$0</u> |
| | Electronic Costs | | | | <u>\$200</u> |
| 6141 | - Electronic - Web Banner | \$0 | \$150.00 | -150 | email banner |
| 6142 | - Electronic - eNews Buttons, etc. | \$200 | \$0.00 | 200 | N/A |
| 6150 | - Consultants | \$3,000 | \$0.00 | 3,000 | Copywriter-not used |
| 6170 | EXH Marketing/Special costs | \$1,000 | \$563.00 | 437 | Prospectus - Print in-house or electronic - \$563 design cost |
| 6201 | Printing & Copying - Outside | \$500 | \$251.31 | 249 | Printing of the Addendum onsite |
| 6206 | - Mailhouse Processing | | | | <u>\$0</u> |
| 6300 | Postage & Delivery - Regular | \$0 | \$0.00 | 0 | <u>\$5,250</u> |
| 6302 | - International | \$250 | \$0.00 | 250 | Contingency |
| 6310 | - Shipping | \$5,000 | \$2,693.40 | 2,307 | Conference Materials to/from Honolulu-hotel handle fees |
| 6420 | Telephone - Service | \$1,000 | \$1,832.46 | -832 | Internet for staff office |
| 8195 | Association Management Fee | \$75,000 | \$70,273.00 | 4,727 | Svc CMS, CSS, Web, Accounting, IT, Marketing, Sales, & Registration |
| | Total Conf Expenses | \$322,358 | \$292,761 | | |
| | TOTAL EXPENSES | \$325,358 | \$295,015 | | includes SAL OT |
| | Cost per person | \$1,085 | \$745 | | |
| | PROFIT/(LOSS) | \$2,782 | \$25,583 | | |

CECAR7 2016 Registration Report

| | FINAL | | Conference | |
|--|------------|---------------|------------|-----------|
| CECAR 7 Hawaii Code: CECAR716 | Early Bird | FINAL Advance | On-Site | 2016 |
| Date | 7/13 | 8/8 | 9/1 | Final |
| Weeks Out | 7 | 3 | 0 | |
| Conference Registration | | | | |
| Full Registration - ACECC (incl. ASCE) | 80 | 90 | 116 | 101 |
| Full Registration - Non-Member | 17 | 21 | 34 | 32 |
| Full Registration - Speaker | 169 | 167 | 169 | 169 |
| Full Registration - Moderator | 5 | 4 | 5 | 5 |
| Full Registration - Student | 32 | 34 | 36 | 35 |
| Local Hawaiian Attendee | 0 | 0 | 0 | 0 |
| Daily - Day 1 & Day 2 | 6 | 6 | 26 | 28 |
| Daily - Day 3 | 0 | 0 | 6 | 7 |
| Daily - Student | 0 | 0 | 0 | 0 |
| Daily - Speaker | 0 | 0 | 0 | 0 |
| Session-Only Speaker | 0 | 0 | 0 | 0 |
| Complimentary | 9 | 9 | 11 | 12 |
| Exhibitor Booth Staff | 0 | 0 | 0 | 0 |
| Exhibitor Addt'l Staff | 0 | 0 | 0 | 0 |
| Exhibit Hall Only | 0 | 0 | 0 | 0 |
| Sponsor | 0 | 0 | 1 | 0 |
| Staff | 5 | 5 | 5 | 5 |
| Event Purchase Only | 0 | 0 | 2 | 2 |
| Press Pass | 0 | 0 | 0 | 0 |
| Pending Cancellation Count - not yet approved/pr | ocessed | | | |
| Pending Cancellation Revenue - not yet processed | | | | |
| Total Warm Bodies: | 323 | 336 | 411 | 396 * |
| FRE: | 2 | 2 | 11 | 12 |
| Total Full Registrations: | 305.00 | 318.00 | 371 | 354 |
| No Shows (including guests-does not include | | | | |
| cancellations) | | | | |
| | | | | |
| Total Base Registration Revenue: | \$130,790 | \$139,920 | \$149,855 | \$150,005 |
| Total Participation of RSVP Events | | | | |
| Continental Breakfast- Wednesday | 274 | 311 | 361 | 258 |
| Lunch-Wednesday | 281 | 317 | 370 | 367 |
| Continental Breakfast- Thursday | 274 | 307 | 351 | 356 |
| Lunch- Thursday | 278 | 311 | 361 | 358 |
| Continental Breakfast- Friday | 262 | 300 | 349 | 346 |
| Proceedings | 297 | 314 | 357 | 357 |
| RSVP (Package) Events | | | | |
| Continental Breakfast- Wednesday | 273 | 310 | 359 | 256 |
| Lunch-Wednesday | 278 | 314 | 366 | 363 |
| Continental Breakfast- Thursday | 272 | 306 | 348 | 353 |
| Lunch- Thursday | 277 | 310 | 360 | 357 |
| Continental Breakfast- Friday | 262 | 300 | 348 | 345 |
| Proceedings | 293 | 310 | 357 | 355 |

CECAR7 2016 Registration Report

| | FINAL | | Conference | |
|---|------------|---------------|-------------|-------------|
| CECAR 7 Hawaii Code: CECAR716 | Early Bird | FINAL Advance | On-Site | 2016 |
| Date | 7/13 | 8/8 | 9/1 | Final |
| Weeks Out | 7 | 3 | 0 | |
| RSVP Events Extra Ticket Purchase | | | | |
| Continental Breakfast- Wednesday | 1 | 1 | 2 | 2 |
| Lunch-Wednesday | 3 | 3 | 4 | 4 |
| Continental Breakfast- Thursday | 2 | 1 | 3 | 3 |
| Lunch- Thursday | 1 | 1 | 1 | 1 |
| Continental Breakfast- Friday | 0 | 0 | 1 | 1 |
| Proceedings | 4 | 4 | 3 | 2 |
| Total Events Extra Ticket Revenue | \$554.00 | \$516.00 | \$828.00 | \$808.00 |
| Special Event Registration | | | | |
| Awards Dinner | 48 | 56 | 94 | 94 |
| Total Special Event Registrations: | 48 | 56 | 94 | 94 |
| Total Special Event Revenue | \$4,300.00 | \$4,600.00 | \$8,075.00 | \$8,125.00 |
| Workshop Registration | | | | |
| Envision a Sustainable - Workshop | 0 | 0 | 0 | 0 |
| Engineering Ethics Workshop: | | | | |
| Discussion of Case Studies - | 6 | 6 | 10 | 10 |
| Natural Hazards Risk and Management | | | | |
| Workshop | 5 | 7 | 10 | 32 |
| Total Short Course Registrations: | 11 | 13 | 20 | 42 |
| Short Course Revenue | \$1,045.00 | \$1,560.00 | \$ 2,405.00 | \$ 2,525.00 |
| Technical Tour Registration | | | | |
| T1: Honolulu Water Reclamation Facility - | 5 | 7 | 0 | 0 |
| T2: Covanta Honolulu (H-Power) Recycling & | | | | |
| Waste Processors - | 4 | 5 | | 0 |
| T3: Honolulu Rail Project Tour - | 22 | 23 | 33 | 32 |
| T4: Hawaiian Aquaponic Farm - | 9 | 10 | 9 | 11 |
| | | | | |
| T5: Sand Island Treatment Plant - CANCELLED | | | | |
| 7.23.16 DUE TO CONSTRUCTION | 8 | 4 | 1 | 1 |
| T6: Nu'uanu Watershed - | 7 | 9 | | 11 |
| Total Technical Tour Registrations: | 55 | 58 | 43 | 55 |
| Friday Tour Boxed Lunch | | | 8 | 8 |
| Garlic Chicken/Beef | | | | |
| Mochico Chicken/Beef | 8 | 8 | 8 | 8 |
| Caesar Salad | | | | |
| Technical Tour Revenue | \$2,150 | \$2,235 | \$ 920.00 | \$ 2,105.00 |

CECAR7 2016 Registration Report

| | FINAL | | Conference | | |
|--|------------|---------------|------------|-----------|--|
| CECAR 7 Hawaii Code: CECAR716 | Early Bird | FINAL Advance | On-Site | 2016 | |
| Date | 7/13 | 8/8 | 9/1 | Final | |
| Weeks Out | 7 | 3 | 0 | | |
| Sponsorship Sales | | | | | |
| Goal | \$20,000 | \$20,000 | \$20,000 | \$20,000 | |
| Committed Sponsors | 1 | 1 | 1 | 1 | |
| Total Pledge | \$2,500 | \$2,500 | 2500 | 2500 | |
| Total Paid | \$- | \$2,500 | 2500 | 2500 | |
| Left to be Paid | \$2,500 | \$0 | 0 | | |
| Total Remaining Towards Goal | \$20,000 | \$17,500 | \$17,500 | | |
| Total Conference Revenue | \$138,839 | \$ 151,331.00 | \$164,583 | \$166,068 | |
| Hotel Reservations - Hilton Hawaiian Village | | | | | |
| Total Contracted Hotel Rooms | 455 | 455 | 455 | 455 | |
| Total Room Nights Booked | 345 | 466 | 427 | 427 | |
| Percentage of Total | 76% | 102% | 93.85% | 93.85% | |
| Total Remaining Rooms | 110 | 0 | 28 | 28 | |

NOTES:

* Final registration counts and revenue shown in the FINAL COLUMN have been adjusted due to refunds and balance dues amounts not collected due to no shows post conference.

FRE - Is a Full Registration Equivalent. (ie. Two daily registrations would equal one full registration.)

Hotel Final Pick Up Report

| Day | Sat | Sun | Mon | Tues | Wed | Thur | Fri | Sat | Sun | Mon | TOTAL |
|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------|
| Dates | Aug 27 | Aug 28 | Aug 29 | Aug 30 | Aug 31 | Sept 1 | Sept 2 | Sept 3 | Sept 4 | Sept 5 | |
| Single/Double | 0 | 0 | 54 | 104 | 104 | 104 | 79 | 10 | 0 | 0 | 455 |
| Staff | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 0 | 0 | 0 | 20 |
| Original Total Block | 0 | 0 | 54 | 104 | 154 | 154 | 104 | 34 | 0 | 0 | 604 |
| Revised Total Block | 0 | 0 | 54 | 104 | 104 | 104 | 79 | 10 | 0 | 0 | 455 |
| Actual | 7 | 31 | 57 | 73 | 74 | 69 | 41 | 9 | 2 | 1 | 395 |
| % of Actual Block | N/A | N/A | 115% | 75% | 51% | 47% | 42% | 32% | N/A | N/A | 86% |
| Regular Room Rate (Single) | \$239 | \$239 | \$239 | \$239 | \$239 | \$239 | \$239 | \$239 | \$239 | \$239 | 455 |
| # of Rooms | 0 | 0 | 54 | 104 | 154 | 154 | 104 | 34 | 0 | 0 | |
| Regular Room Rate (Outside of Block) | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| # of Rooms | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| Staff Rate | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | \$119.50 | 20 |
| # of Rooms | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 0 | 0 | 0 | 20 |

THE ASIAN CIVIL ENGINEERING COORDINATING COUNCIL

ACECC website: http://www.acecc-world.org/



Chairman: Prof. Albert Tak-Chung Yeung, Ph.D. American Society of Civil Engineers

Members: American Society of Civil Engineers Engineers Australia Institution of Civil Engineers (India) Institution of Engineers, Pakistan Korean Society of Civil Engineers Nepal Engineers' Association Vietnam Federation of Civil Engineering Associations Secretary General: Dr. Kenichi Horikoshi, Ph.D Japan Society of Civil Engineers E-mail: kenichi.horikoshi@acecc-world.org

Chinese Institute of Civil & Hydraulic Engineering Indonesian Society of Civil and Structural Engineers Institution of Engineers, Bangladesh Japan Society of Civil Engineers Mongolian Association of Civil Engineers Philippine Institute of Civil Engineers

ACECC MEMBER CONTRIBUTIONS FOR CECAR7

Please note that the amounts were proposed by the ASCE Local Organizing Committee of CECAR7, discussed and approved at the ACECC 23rd PCM and the 29th ECM, Gunsan, Korea.

| NO. | MEMBER INSTITUION | ACTUAL CONTRIBUTION 2013 CECAR6 | SOCIETY CONTRIBUTION 2016 CECAR7* | Number of Complimentary Registrations |
|-------|----------------------|---------------------------------------|---|---|
| | | \$ US | \$ US | |
| 1 | ASCE | \$28,000.00 | \$30,000.00 | 10 |
| 2 | JSCE | \$28,000.00 | \$30,000.00 | 10 |
| 3 | EA | \$21,000.00 | \$23,000.00 | 7 |
| 4 | CICHE | \$21,000.00 | \$23,000.00 | 7 |
| 5 | KSCE | \$21,000.00 | \$23,000.00 | 7 |
| 6 | ICE(I) | \$7,000.00 | \$7,000.00 | 3 |
| 7 | HAKI | \$7,000.00 | \$7,000.00 | 3 |
| 8 | PICE | \$7,000.00 | \$7,000.00 | 3 |
| 9 | VFCEA | \$ - | \$500.00 | 1 |
| 10 | MACE | \$ - | \$500.00 | 1 |
| 11 | IEP | Non member | \$500.00 | 1 |
| 12 | IEB | Non member | \$500.00 | 1 |
| 13 | NEA | Non member | \$500.00 | 1 |
| Total | | \$ 140,000.00 | \$ 152,500.00 | 55 |

*<u>NOTE</u>: The bank transfer charges (both on the sender's side and the recipient's side) should be borne by the submitting ACECC member.

FINAL PROGRAM



CIVIL ENGINEERING CONFERENCE IN THE ASIAN REGION (CECAR7)

2016

WAIKIKI, OAHU, HAWAII | AUGUST 30 – SEPTEMBER 2, 2016

*Ho-'omalamalama: Building a Sustainable Infrastructure in the Asia Pacific Region *Ho-'omalamalama is a Hawaiian term that means to brighten, illuminate, enlighten, or inform.





Hilton Hawaiian Village Waikiki Beach Resort www.cecar7.org

MONDAY, AUGUST 29, 2016

12:30 – 4:00 p.m. Registration (Palace Lounge)

TUESDAY, AUGUST 30, 2016

| 8:00 a.m. – 5:00 p.m. | Registration (Palace Lounge) |
|------------------------|--|
| 9:00 a.m. – 12:30 p.m. | Engineering Ethics Workshop (Honolulu Suite 1) |
| 1:00 – 5:00 p.m. | Exhibit Hall Set Up <i>(Palace Lounge)</i> |
| 1:30 – 5:00 p.m. | Natural Hazards Risk & Management Workshop (Honolulu Suite 1) |
| 1:30 – 5:00 p.m. | Technical Tours |
| 1:30 – 5:00 p.m. | Social Tours on Own |

WEDNESDAY, AUGUST 31, 2016

| 7:00 a.m. – 5:30 p.m. | Registration (Palace Lounge) |
|-------------------------|--|
| 8:00 – 10:00 a.m. | Opening Plenary Session (Tapa Ballroom 1) |
| 10:00 a.m. – 5:30 p.m. | Exhibit Hall Hours (Palace Lounge) |
| 10:00 – 10:45 a.m. | Poster Session #1 and Networking Break in Exhibit Hall (Palace Lounge) |
| 10:45 a.m. – 12:45 p.m. | Technical Session 1 |
| 12:45 – 1:45 p.m. | Poster Session #1 Cont. and Lunch (<i>Tapa Ballroom 2</i>) |
| 1:45 – 3:15 p.m. | Technical Session 2 |
| 3:15 – 4:00 p.m. | Poster Session #1 and Networking Break in Exhibit Hall (Palace Lounge) |
| 4:00 – 5:30 p.m. | Technical Session 3 |

THURSDAY, SEPTEMBER 1, 2016

| 7:30 a.m. – 5:30 p.m. | Registration (Palace Lounge) |
|-------------------------|--|
| 8:00 – 9:00 a.m. | Plenary Session (Tapa Ballroom 1) |
| 9:00 a.m. – 4:00 p.m. | Exhibit Hall Hours (Palace Lounge) |
| 9:00 – 10:30 a.m. | Technical Session 4 |
| 10:30 – 11:15 a.m. | Poster Session #2 and Networking Break in Exhibit Hall (Palace Lounge) |
| 11:15 a.m. – 12:45 p.m. | Technical Session 5 |
| 12:45 – 1:45 p.m. | Poster Session #2 and Lunch (Tapa Ballroom 2) |
| 1:45 – 3:15 p.m. | Technical Session 6 |
| 3:15 – 4:00 p.m. | Poster Session #2 and Networking Break in Exhibit Hall (<i>Palace Lounge</i>) |
| 4:00 – 5:30 p.m. | Technical Session 7 |
| 6:00 – 9:00 p.m. | Awards Dinner (The Great Lawn) |
| | |

FRIDAY, SEPTEMBER 2, 2016

| 7:30 a.m. – 12:30 p.m. | Registration (Palace Lounge) |
|------------------------|--|
| 8:00 – 9:00 a.m. | Plenary Session (Tapa Ballroom 1) |
| 9:00 – 9:30 a.m. | Morning Networking Break (Palace Lounge) |
| 9:30 – 11:00 a.m. | Technical Session 8 |
| 11:15 – 12:30 p.m. | Closing Plenary Session (Tapa Ballroom 1) |
| 1:30 – 5:00 p.m. | Technical Tours |
| 1:30 – 5:00 p.m. | Social Tours on Own |

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*Ho-'omalamalama: Building a Sustainable Infrastructure in the Asia Pacific Region *Ho-'omalamalama is a Hawaiian term that means to brighten, illuminate, enlighten, or inform.

WELCOME TO CECAR7 AND HAWAII

Aloha!

On behalf of the American Society of Civil Engineers (ASCE) and the Asian Civil Engineering Coordinating Council (ACECC), I would like to welcome all of you to the beautiful island of Oahu, Hawaii and the 7th Civil Engineering Conference in the Asian Region (CECAR 7).

Civil engineers throughout the world regularly face challenges in building infrastructure in our quest for sustainable solutions to quality of life issues. CECAR 7 will be true to its theme of Ho-'omalamalama and will enlighten conference participants and others on strides made in sustainable civil engineering infrastructure applicable to the Asia Pacific Region. As a participant in this conference, you will participate in knowledge dissemination in research as well as practice areas.

ACECC could not have selected a better venue with this conference theme. Native Hawaiians have been conducting sustainable practices in water management, food production, and several other areas for centuries before Hawaii became a tourism paradise. Your host, ASCE, is a global leader in the area of sustainable practices in civil engineering infrastructure.

You will have an opportunity to attend presentations on strides made on a wide variety of topics in this area in the US and all other member societies of ACECC. We will learn from each other and apply this knowledge to our jobs and societies when we get back home.

Our conference technical program has approximately 250 papers from more than 30 countries, including concurrent sessions on topics covering natural disasters, infrastructure management, sustainability, environmental & water resources, structural, transportation, and geotechnical engineering. Poster sessions and exhibits are scheduled during the morning and afternoon breaks and the lunch hour on Wednesday and Thursday.

U.S. Congresswoman Tulsi Gabbard will give the welcome keynote address at the opening plenary, and Ms. Annabel Chotzen will give a motivational keynote presentation on "Put Your Dreams To Work" at the closing plenary session. Six technical keynote addresses (two on each day) will be given at plenary sessions by eminent experts in diverse areas of civil engineering from Bangladesh, Korea, Japan, Hong Kong, Taiwan, and the USA.

Prior to the conference opening, you have a choice of 2 technical workshops and a technical field tour on Tuesday. In addition, you can opt to go on one of the other 2 technical field tours on Friday afternoon.

Attendees will have access to tremendous keynote speakers, a multitude of diverse and interesting technical sessions and workshops, technical tours on the island, social and networking events, and the opportunity to interact with your colleagues on an international level. Come and share your knowledge, insights, and experiences with your fellow professionals while having fun networking in a magical setting.

I look forward to seeing and interacting with you at CECAR7 in Hawaii.

Mahalo!

Udai P. Singh, CECAR7 Conference Chair



CHAIR

Udai P. Singh Consultant, Moraga, CA

MEMBERS

CONFERENCE

STEERING COMMITTEE





David G. Leverenz Odessa, FL Albert Tak-Chung Yeung The University of Hong Kong, Hong Kong



Gary Yet Kong Chock Martin and Chock, Inc., Honolulu, HI



Jon M. Young Hawaii Asphalt Paving Industry, Honolulu, HI



Meggan Maughan-Brown ASCE, Reston, VA

WHO IS ACECC?

ACECC was established in 1999 with the aim of promoting the acquisition and transfer of civil engineering knowledge for advancing the design and construction practices that ultimately improve the quality of life of all citizens from ACECC member countries. ACECC is currently comprised of member societies from 13 countries (Australia, Bangladesh, India, Indonesia, Japan, S. Korea, Mongolia, Pakistan, Philippines, Nepal, Taiwan, USA, and Vietnam) and in the near future hopes to add societies from other Asian countries.



TUESDAY, AUGUST 30, 2016

ENGINEERING ETHICS WORKSHOP: DISCUSSION OF CASE STUDIES

9:00 a.m. – 12:30 p.m. (Honolulu Suite #1)

Workshop Presenters: Steve Starrett, Ph.D., P.E., D.WRE, F.ASCE, F.EWRI, Associate Professor, Kansas State University; Dr. Carlos Bertha, Ph.D., U.S. Air Force Academy

Engineers around the world face engineering ethical dilemmas routinely in their roles as consultants, government representatives, designers, builders, contractors, supervisors, inspectors, and leaders. The goals of this workshop are: to stimulate engineers' commitment to high ethical standards, to discuss some challenging case studies, to increase participants' understanding of how best to pursue solutions in difficult situations, and to enable knowledge to be conveyed between participants. This workshop will study numerous case studies of real situations that engineers faced, present philosophical background needed to better approach solutions to ethical challenges, and provide opportunities for small group discussions. The ASCE Code of Ethics will also be presented and discussed.

This is a ticketed event, tickets may be purchased at the Registration Desk.

Onsite Registration: \$170

NATURAL HAZARDS RISK AND MANAGEMENT WORKSHOP

1:30 – 5:00 p.m. (Honolulu Suite #1)

Workshop Presenter: Vilas Mujumdar, P.E., S.E., Consulting Engineer, Vienna, VA, USA

This workshop will cover various natural hazards including earthquakes, hurricanes, and floods, as well as their probabilities and impacts on the community as a risk. The workshop will focus on addressing the multi-hazard engineering risk problem from the total community standpoint. It will include engineering systems, and socio-economic systems as components of a combined community system. Interdependence of various systems will be discussed as well as the response and management considerations. Emphasis

will be given on developing *resilience* in the community with specific considerations for the infrastructure systems. Resilience definitions, resilience determinants, and resilience development, including capacity building, will also be covered. The workshop is designed to challenge the engineering community to think about natural hazard risk reduction through a prism of developing *community resilience* based on complex systems nature.

This is a ticketed event, tickets may be purchased at the Registration Desk.

Onsite Registration: \$170

TECHNICAL TOURS

T3: HONOLULU RAIL TRANSIT PROJECT TOUR

1:30 - 5:00 p.m.

Presented by: HART

The Honolulu Authority for Rapid Transportation (HART) is constructing what will ultimately be a 20-mile, \$5.2 billion elevated transit system. This tour will follow construction of much of the initial segment from Kapolei to Aloha Stadium, set to open in 2018. The tour will culminate in an in depth briefing on the project at the Maintenance and Storage Facility and will include a short tour of that facility. The tour will depart from Hilton Hawaiian Village promptly at 1:30 PM and return to the hotel around 5:00 PM.

Required dress code: Attendees must wear fully closed shoes. Hard hats, if required, will be provided by HART.

For more information about the project, see www.honolulutransit.org.

Transportation to the tour site will be provided from the Hilton Hawaiian Village. Bus will depart promptly at 1:30 p.m. from the Tapa Tower pick up/drop off located on Kalia Road.

This is a ticketed event, tickets may be purchased at the Registration Desk.

Onsite Registration: \$50



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CECAR7 2016 PROGRAM HIGHLIGHTS

WEDNESDAY, AUGUST 31, 2016



Opening Plenary Welcome Address U.S. Congresswoman

Rep. Tulsi Gabbard represents Hawaii's

Tulsi Gabbard

2nd Congressional District in the United States House of Representatives. She is serving on the Armed Services Committee and its Subcommittee on Sea Power & Protection Powers and Subcommittee on Oversight & Investigations. Congresswoman Tulsi Gabbard also serves on the Committee on Foreign Affairs and its Subcommittee on Asia and the Pacific. She is one of the first two female combat veterans, first Hindu, and first female of Samoan ancestry to ever serve as a member of the U.S. Congress.



Plenary Session Keynote Address Dr. Sung Woo Lee, President of KSCE, S. Korea

"Innovative Applications of Fiber Composites and Large-scale 3D Printer on Civil Structures"

During his career, Dr. Sung Woo Lee has served as the Dean of College of Engineering, and more recently the President of Kookmin University from 2008 to 2012. His primary focus of research has been structural analysis, experiments and maintenance of bridge and port structures. In more recent years, Dr. Lee's research turned to fiber reinforced composite bridge structures, an area in which his expertise is now internationally recognized.

Currently, Dr. Lee also has interest on the development of large-scale 3D printer and its application to civil structures. Dr. Lee is currently serving as the president of the Korean Society of Civil Engineers (KSCE) and he is a member of the National Academy of Engineering of Korea (NAEK). He is also a member of the American Society of Civil Engineers (ASCE).

OPENING PLENARY SESSION

8:00 – 10:00 a.m. (Tapa Ballroom - Salon 1)

Poster Session #1 and Networking Break in Exhibit Hall 10:00 – 10:45 a.m. (Palace Lounge)

TECHNICAL SESSION 1 10:45 a.m. – 12:45 p.m.

Poster Session #1 Continued and Lunch 12:45 – 1:45 p.m. (Tapa Ballroom - Salon 2)

TECHNICAL SESSION 2 1:45 – 3:15 p.m.

Poster Session #1 and Networking Break in Exhibit Hall 3:15 – 4:00 p.m. (*Palace Lounge*)

TECHNICAL SESSION 3 4:00 – 5:30 p.m.



Plenary Session Keynote Address Prof. Dr. Munaz Ahmed Noor, Vice Chancellor, Islamic University of Technology "Bangladesh Towards a Sustainable Flood Management and Resilience Future"

Prof. Dr. Munaz Ahmed Noor joined Islamic University of Technology (IUT) as Vice-Chancellor on April 1, 2016; Prior to joining he was the Pro-Vice-Chancellor of the National University. He is a Professor of the Civil Engineering Department at Bangladesh University of Engineering and Technology (BUET). He received his BS degree in Civil Engineering and M. Sc. degree in Structural Engineering from Bangladesh University of Engineering and Technology (BUET), Dhaka. He was awarded the University Gold Medal for best academic performance for both of the degrees. He was also awarded the Presidential Gold Medal for standing first in combined merit list in HSC. He was then awarded a scholarship by Asian Development Bank and received his PhD in Civil Engineering from University to Tokyo, Japan in 2000.

His main research interests are in concrete technology, urban safety, climate change, earthquake engineering and disaster risk management. He contributed to and conducted many seminars and short courses on Earthquake Engineering and concrete technology in Bangladesh. He contributed a chapter to the book titled "Climate Change and Growth in Asia", by Edward Elgar Publishing. He edited "Earthquake Resistant Design Manual" on behalf of Bangladesh Earthquake Society where he was elected Vice President. He is the author of the popular book "Designing with Grade 500 Steel" published from UPL. He is the editor of the monthly magazine "Beyond Building". He is also the author of many national and international journal and conference papers.

THURSDAY, SEPTEMBER 1, 2016



Plenary Session Keynote Address

Professor Masahiko Isobe, President, Kochi University of Technology

"2011 Great East Japan Earthquake Tsunami and Future Nankai Trough Earthquake Tsunami - Experience and Preparation"

Masahiko Isobe graduated from the Department of Civil Engineering at the The University of Tokyo in 1975 and obtained a Doctorate of Engineering degree from the same university in 1981.

He played a key role in reestablishing a system of prevention and reduction of disasters due to tsunamis after the Great East Japan Earthquake in 2011.

Professor Isobe will introduce the lessons learned from the Great East Japan Earthquake Tsunami and the concept and process of recovery to date. He will also share how experience will help prepare for Nankai Earthquake Tsunami which is expected to occur in 30 years.



Plenary Session Keynote Address

Dr. John L. Endicott, AECOM Fellow, Hong Kong

"Regionally Based Systematic Approach to Stabilization Of Slopes and Current Methods Of Evaluation of Slope Stability"

Dr. Endicott is an AECOM Fellow in recognition for his expertise when working in ground engineering for over 40 years. Since 1975 he has been located in Hong Kong and working around South East Asia where he is well known for all aspects of geotechnical engineering. He has worked on several contracts for Government from establishing regulations, for developing a register of over 55,000 man-made slopes and retaining walls, guantified risk assessment, as well as regional studies of natural hillslopes and slope stabilization measures. Dr. Endicott's experience is broadly based. It includes involvement with many underground railway projects, many road tunnels and water tunnels, deep foundations, reclamation to form new land including the nearly 3,000 acre site for the Hong Kong Airport. His responsibilities extend throughout the S.E.Asia and Pacific Region. He has been an Expert Witness in several high profile cases. This lecture will describe the steps taken in Hong Kong in conducting a systematic approach to landslip mitigation that resulted in reducing the annualized fatalities to less than one, and some of the current techniques for evaluation of stability of natural terrain and potential for debris flow.

PLENARY SESSION 8:00 – 9:00 a.m. (Tapa Ballroom - Salon 1)

TECHNICAL SESSION 4 9:00 – 10:30 a.m.

Poster Session #2 and Networking Break in Exhibit Hall 10:30 – 11:15 ta.m. (Palace Lounge)

TECHNICAL SESSION 5 11:15 a.m. – 12:45 p.m.

Poster Session #2 (Continued) and Lunch 12:45 – 1:45 p.m. (Tapa Ballroom Salon 2)

TECHNICAL SESSION 6 1:45 – 3:15 p.m.

Poster Session #2 (Continued) and Networking Break 3:15 – 4:00 p.m. (Palace Lounge)

TECHNICAL SESSION 7 4:00 – 5:30 p.m.



THURSDAY, SEPTEMBER 1, 2016

AWARDS DINNER

6:30 – 9:00 p.m.

(Hilton Hawaiian Village - Great Lawn)

Join the leaders of ACECC in celebrating the achievements of the night's honorees as they present the following awards.

The ACECC Civil Engineering Award shall be granted to a project that contributed a remarkable advancement of civil engineering and development in Asia, honoring and recognizing the efforts made by all those engineers who worked for the project.

The award ceremony will take place under the stars on the scenic Great Lawn of the Hilton Hawaiian Village. Enjoy the breathtaking view and warm summer breezes from the Duke Kahanamoku Lagoon. Guests will be treated to a performance of traditional Hawaiian music, fire dancing and the beautiful Hula dance. This is an evening not to be missed!

Advance ticket purchase was required for this event. We apologize, onsite ticket purchase is not available for this event.



2016 ACECC ACHIEVEMENT AWARDS

Dr. Yukihiko Sumiyoshi

Counselor, Japan Bridge Bearing Assoc., Ex-Chair, Central Consultant Inc., Japan

Dr. Tai Sik Lee

President, Korea Institute of Civil Engineering and Building Technology – KICT, South Korea

Dr. Za-Chieh Moh

Chairman and CEO, MAA Group Consulting Engineers, Taiwan

OUTSTANDING PROJECT AWARD

Yi Sun-sin Bridge Daelim Industrial Co., Ltd., South Korea

PROJECT AWARDS

The Construction of Yamate Tunnel on the Central Circular Route

Metropolitan Expressway Co., Ltd., Japan

National Freeway No. 1 Widening Project from Wugu to Yangmei

Taiwan Area National Expressway Engineering Bureau, Taiwan

Development of North Kalibaru Container Terminal Phase I Port of Tanjung Priok

New Priok Port Project Phase I PR. PP (Persero) Tbk., Indonesia

Lai Chau Hydropower Project Electricity of Vietnam, Vietnam

FRIDAY, SEPTEMBER 2, 2016



Plenary Session Keynote Address

Professor Liang-Jenq Leu, National Tawaiwan University

"Educating The Future

Civil Engineers For A Sustainable World: An Integration Of Cornerstone, Keystone, And Capstone Courses On Engineering Design At The National Taiwan University"

Dr. Liang-Jenq Leu is Professor and Chairman of the Department of Civil Engineering at the National Taiwan University. Dr. Leu earned his Bachelor and Master's degrees from the Department of Civil Engineering of National Taiwan University in 1987 and 1989, respectively. He joined the faculty of National Taiwan University shortly after receiving his PhD from Cornell University in 1994. His area of research includes optimal design of structures, structural health monitoring, earthquake resistant design, and simulation of architectural physics for green buildings.



Plenary Session Keynote Address

Mr. Edwin H. Sniffen, P.E., Deputy Director, Hawaii Department Of Transportation

"Transportation Engineering Challenges And Solutions, With A Focus On Highways In Hawaii"

Mr. Sniffen oversees improvements and maintenance of approximately 2,500 lane miles of state highways across the Hawaiian islands. Mr. Sniffen is a Professional Civil Engineer and received his B.S. in Civil Engineering from Santa Clara University. PLENARY SESSION 8:00 – 9:30 a.m. (Tapa Ballroom - Salon 1)

Networking Break 9:00 – 9:30 a.m. (Palace Lounge)

TECHNICAL SESSION 8 9:30 – 11:00 a.m.

CLOSING PLENARY SESSION 11:15 – 12:00 p.m.

CLOSING CEREMONY 12:00 – 12:30 p.m.



Closing Plenary Keynote Address Annabel Chotzen "Put Your Dreams To Work"

In this life-changing motivational presentation, Annabel will take you on a journey of achieving your most heart-felt goals and dreams. Annabel's powerful truelife stories are interwoven in a tapestry of success principles, and the Hawaiian spiritual concepts help you visualize, energize, and reach for what you want most in your life.

Annabel has a Master's degree from Harvard University and a Bachelor's degree from Bennington College. Annabel has been an Adjunct Professor of Business Communications, Public Speaking and Professional Development at the University of Hawaii, Hawaii Pacific University, and Chaminade University. She loves living in Hawaii, swimming in the ocean, and playing cello with the Oahu Civic Orchestra.

FRIDAY, SEPTEMBER 2, 2016

TECHNICAL TOURS

T4: HAWAIIAN AQUAPONIC FARM TOUR

1:30 - 5:00 p.m.

Presented by: Kunia Country Farms



Imagine growing food without relying on the soil, or adding water, or even using power. Welcome to the world of aquaponics - a cross between aquaculture

(raising fish) and hydroponics (water-based farming). Located at the historic Kunia Camp, Kunia Country Farms provides locally grown produce without utilizing the island's natural resources. Fish in large tanks provide the nutrients necessary for crops to mature. The long rows of plant roots absorb the nutrients and clean water is returned to the fish, beginning the process over again. Started 5 years ago, the farm is one of the island's largest suppliers of leafy green vegetables.

Continue your tour next door at Oahu's first tasting room and distillery, Manulele Distillers. Heirloom sugarcanes originally brought to the islands by the early Polynesians are hand crafted into one of the world's finest pure cane rums. Learn about the history behind the sugar canes, the fermentation process, distilling, and barreling before ending the tour in the tasting room. For those not of drinking age, step up to the juice bar and sample the differences in flavor of individual varieties of sugar cane.

The tour will last approximately two hours. Visit <u>www.kuniacountryfarms.com</u> and <u>www.kohanarum.com</u> for more information.

Required dress code: Dress code is casual and comfortable – shorts and t-shirts acceptable. Covered shoes required (Comfortable walking shoes are suggested) – NO slippers, sandals, open-toed shoes, or high heels. Depending on weather conditions – rain jacket, poncho, or umbrella may be necessary. Sunscreen is recommended.

Transportation to the tour site will be provided from the Hilton Hawaiian Village. Bus will depart promptly at 1:30 p.m. from the Tapa Tower pick up/drop off located on Kalia Road.

This is a ticketed event, purchase tickets at the registration desk.

Onsite Registration: *\$*75

T6: NU'UANU WATERSHED TOUR

1:30 - 5:00 p.m.

Presented by: Honolulu Board of Water Supply

Experience the outdoors and learn the important role watershed areas play in our island's water cycle. Set sights on panoramic valley views, wind borne clouds that move across mountaintops, and forests that reach toward the skies. Nu'uanu Reservoir #4 is a historic site that holds a rich heritage of ancient Hawaiian legends. Since this is a walking tour, participants should wear appropriate shoes and feel comfortable walking up to two miles.

- Learn how the water cycle is related to weather and climate
- Learn about the events (including warfare and land control), people (including Kamehameha, Kekuhaupio, Kalaniopuu, Kiwalao, Keoua, Keawemauhili, Kahekili, Kalanikupule, Davies, and Young), and ideas (including foreign advisors, weaponry, and strategies) that led to the unification of the Hawaiian Islands
- Discover why recycling and conservation of resources are important

Transportation to the tour site will be provided from the Hilton Hawaiian Village.

Required dress code: Dress code is casual and comfortable – shorts and t-shirts acceptable. Covered shoes required (Comfortable walking shoes are suggested.) – NO slippers, sandals, open-toed shoes or high heels. Depending on weather conditions – rain jacket, poncho or umbrella may be necessary. Insect repellent and sunscreen recommended.

Transportation to the tour site will be provided from the Hilton Hawaiian Village. Bus will depart promptly at 1:30 p.m. from the Tapa Tower pick up/ drop off located on Kalia Road.



This is a ticketed event, purchase tickets at the registration desk.

Onsite Registration: \$50

All attendees will be required to sign a liability waiver form prior to attending the tour.

MONDAY, AUGUST 29

12:30 - 4:00 p.m.

REGISTRATION - Palace Lounge

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| 8:00 a.m 5:00 p.m. | REGISTRATION - Palace Lounge |
| 9:00 a.m 12:30 p.m. | Pre-conference Workshop: Engineering Ethics Workshop: Discussion of Case Studies Honolulu Suite #1 |
| 1:30 - 5:00 p.m. | Pre-conference Workshop: Natural Hazards Risk and Management - Honolulu Suite #1 |
| 1:30 - 5:00 p.m. | TECHNICAL TOURS |
| | Technical Tour 3 Honolulu Railway Tour |
| VEDNESDAY , | AUGUST 31 |
| 7:00 a.m 5:30 p.m. | REGISTRATION - Palace Lounge |
| 8:00 - 10:00 a.m. | OPENING PLENARY SESSION - Tapa Ballroom- Salon 1 Opening Plenary Session - Chair: Udai P. Singh (ASCE) Welcome Address – U.S. Congresswoman Tulsi Gabbard (Hawaii, USA) Kyoto Declaration - Yumio Ishii (JSCE) Innovative Applications of Fiber Composites and Large-scale 3D Printer on Civil Structures - Sung Woo Lee, Kookmin University, Seoul, Korea Bangladesh Towards a Sustainable Flood Management and Resilience Future - Munaz Ahmed Noor, Islamic University of Technology, Boardbazar, Gaziour, Baneladesh |

POSTER SESSION #1 & NETWORKING BREAK - Palace Lounge

10:00 - 10:45 a.m.

Remarks by Presidents of ACECC Member Societies

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*Ho-'omalamalama: Building a Sustainable Infrastructure in the Asia Pacific Region *Ho-'omalamalama is a Hawaiian term that means to brighten, illuminate, enlighten, or inform.

WEDNESDAY, AUGUST 31 (continued)

| | TRACK F: Structural, Tapa Ballroom 1 | Session 1F: Structural Analysis and Design Moderator: Douglas Sereno (ASCE) | Experimental Study on Highly- Flowable Strain Hardening Fiber subjected to Lateral Cyclic and High Axial Loading - Wen-Cheng Liao (National Taiwan University, Taipei, Taiwan J and Li-Wei Tseng Erflect on RC Beams by CFRP Grid with PCM Shotcrete Method - Rui Guo (Kyushu University, Flucucka, Japan), Shinichi Hino, Shigetada Hatakeyama, Atsuya Komori (Nippon Steel & Sumikin Materials Co. Ltd., Tokyo, Japan) and Kenchi Taniguchi Astudy on Bonding Mechanisms of Epoxy Adhesive and PCM of RC slabs - Atsuya Komori(Nippon steel and Sumikin materials Co., Ltd., Tokyo, Japan), Akira Kobayashi and Tadashi Abe Examinations on the Load- carrying Capacity of RC Beams that have Undergone Combined Region, Sapporo, Hokkaido, Japan), Yasuhiko Sato and Tamon Ueda Flexural Capacity of the Precast R Ceanarlon (Institute for Cold Region, Sapporo, Hokkaido, Ueda Flexural Capacity of the Precast R C Beams-columm Connection Using CFRP Sheet - Rudy Diamaluddin (Hasanuddin Uriversity, Makassar Indonesia), Harmonis Rante and Rita Irmawati |
|----------------------|---|--|--|
| | TRACK E: Geotechnical, Iolani Suite 6&7 | Session 1E: Ground Improvement Moderator: Chiwan Hsieh (CICHE) | Nanoparticle-coated Surface to Capture Migrating Fine Particles - Xianglei Zheng and Jaewon Jamg (Arizona State University, The Effectiveness of Shear Strength Prediction Models for Fiber-Reinforced Clay - Assile Abou Diab (American University of Beirut, Beirut, Lebanon), Shadi Najjar (American University of Beirut, Lebanon), Shadi Najar (American University of Beirut, Beirut, Lebanon) Aoki and Toshio Yonezawa Aoki and Toshio Yonezawa Development of New Vertical Drain for Ground Improvement - Seok-Won Lee (Konkuk University, Seoul, South Korea), Chang-Kun Ahn and Seong-Moo Her Electro-Osmotic Consolidation for Soft Soil Improvement - Liming Hu (Tsinghua University, Beijing, China), Hui Wu, Weiling Wu and Qingbo Wen Geotechrical Simulation of Electro-Osmotic Consolidation for Soft Shigematsu (National Institute of Technology, Tsubata, Ishikawa, Japan), Yudai Sakiura and Yoshimi Tanida |
| | TRACK D: Natural Disaster, Iolani Suite 3&4 | Session 1D: Tsunami Disaster Mittgation Moderator: Mitsu Okamura (JSCE) | Tsunami Source of the 2014 Iquique, Chile, Earthquake and the Tsunami Potential on the North Chilean Coast - Voshihiro Okumura (Kyoto University, Kyoto, Dokumura (Kyoto University, Kyoto, Domohiro Takagawa Tators Affecting Tsunami-induced Tomohiro Takagawa Factors Affecting Tsunami-induced Ouerturning of Building in the Ouerturning of Building in the Autor the Eavrthquake Michitaka Ishida, Kohiji Tokimatu (Tokyo Institute of Technology, Tokyo, Japan) and Shusaku Inoue (Tokyo Institute of Technology, Tokyo, Japan) and Shusaku Inoue (Takenaka Corporation, Osaka, Japan) Effects of Partial Breaching in fundation - Takashi Tomita and Yu Chida (Port and Airport Research Institute, Yokosuka, Kanagawa, Japan) Study on Estimation of Run-up Tsunami Force Acting on a Vertical Wall Structure - Yukinobu Oda Japan), Takahide Honda, Kazunori Ito and Tomoyuki Takabatake Detailed Design of Tsunami Shelter Consultants Co., Ltd., Tokyo, Japan), Shogo Otake (Oriental Consultants Co., Ltd., Tokyo, Japan), Shogo Otake (Oriental Consultants Co., Ltd., Tokyo, Japan), Shogo Otake (Oriental Consultants Co., Ltd., Tokyo, Japan), Takahiro Kukidome (Oriental Consultants Co., Ltd., Tokyo, Japan), Takahiro Kukidome |
| | TRACK C: Infrastructure Management, Honolulu Suite 3 | Session 1C: BIM and Beyond Moderator: Sang-ho Lee (KSCE) | Current Status of Civil Construction Information Modeling (CIM) Initiative and Projects in Japan - Nobuyoshi Yabuki (Osaka University, Osaka, Japan) Implementation of BIM for Bridge Design - A Case Study - Yi-Min Chen (Sinotech Engineering Consultants, Ltd., Taipei, Taiwan), Chih- Wen Chen and Shang-Hsien Hsieh (National Taiwan) Development of a Visualization 3D Management Platform in Construction - Fu-Cih Siao, Chih-Chuan Lin (CECI Engineering Consultants Inc, Taipei, Taiwan), Development of a Visualization 3D Management Platform in Construction - Fu-Cih Siao, Chih-Chuan Lin (CECI Engineering Consultants Inc, Taipei, Taiwan), Wan-Li Lee, Hsiang-Wai Lu and Jui-Yu Su Man-Li Lee, Hsiang-Wai Lu and Jui-Yu Su Advances of Real-time Simulation, Remote Sensing, and Geo-informatics in Assessing Tsunami Impact - Shunichi Koshimura (Tohuku University, Sendai, Japan) Developing a GIS-based Tool for Evaluating Adaptation Strategies for Highway and Rail Facilities in Taiwan - Yan-Hung Chou University, Sendai, Japan) Developing a GIS-based Tool for Evaluating Adaptation Strategies for Highway and Rail Facilities in Taiwan - Yan-Hung Chou University, Sendai, Japan) Developing a GIS-based Tool for Evaluating Adaptation Strategies for Highway and Rail Facilities in Taiwan - Yan-Hung Chou University, Sendai, Japan) Developing a GIS-based Tool for Evaluating Adaptation Strategies for Highway and Rail Facilities in Taiwan - Yan-Hung Chou University, Sendai, Japan) Developing a GIS-based Tool for Evaluating Adaptation Strategies for Highway and Rail Facilities in Taiwan - Yan-Hung Chou University, Sendai, Japan) Developing a GIS-based Tool for Evaluating |
| ECHNICAL SESSION 1 | TRACK B: Transportation, Honolulu Suite 2 | Session 1B: Pavement Rehabilitation and Life Cycle Assessment Moderator: Anthony Bartolomeo (ASCE) | Solutions for Urban Traffic Issues by ITS Technologies - Hiroshi Makino, (Ministry of Land, Infrastructure, Transport and Tourism, Tsukuba City, Ibaraki, Japan), Koichi Sakai, Takahiro Tsukiji, Shunsuke Kamijo, Tomoaki Mizutani and Kazuya Tamada Optimal Policies for Pavement Maintenance, Resurfacing and Reconstruction - Jinwoo Lee (New York University Abu Parab Emirates) and Samer Madana Development of Pavement Life Cycle Analysis Using Regional Data - Hasan Ozer, Seung Gu, Rebekha Yang and Mojtaba Ziyadi Network Level Example Gas Emissions - John Harvey Multidimensional Evaluation of Mutual- Dependent Deterioration Processes - Kiyoyuki kaito and Daijiro Mizutani |
| 10:45 a.m 12:45 p.m. | TRACK A: Environmental & Water Resources, Honolulu Suite 1 | Session 1A: Environmental Health and Water Quality Moderator: Craig Patterson (ASCE) | Sustainable Provision of Water and Sanitation Services in a Resource Constrained Environment - Neil Mataloculus Mercer and Chris Buckley (University of Kwazulu- Natal, Burban, South Africa) Hydrologic and Hydraulic Evaluation of a West Maui Watershed and Its Sediment Retention Basin with Potential Retention During torm Events - Maling Li Environmental Impacts of Ballast Water Transfer for Maritime Freight Transfort Clantid Gunsch Carolina, U.S.A.) and William Gerhard Duke University, Durham, North Carolina, U.S.A.) and William Gerhard Duken South Africa) and Björn Pietruscha Novel Low-cost Remediation Technologies for Metal Contaminated Agricultural Soils in China - Barbara A. Zeeb, David S. Carnegie, Steven V. Rose (MALROZ Ganegie, Steven V. Rose (MALROZ Cannegie, Steven |

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| 12:45 - 1:45 p.m. | OSTER SESSION #1 (Continued) | Palace Lounge & LUNCH - Tag | oa Ballroom - Salon 2 | |
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| 1:45 - 3:15 p.m. | ECHNICAL SESSION 2 | | | |
| RACK A: Environmental & Water Resources, Honolulu Suite 1 | TRACK B: Transportation, Honolulu Suite 2 | TRACK C: Geotechnical, Honolulu Suite 3 | TRACK D: Sustainability, Iolani Suite 3&4 | TRACK E: Structural, Iolani Suite 6&7 |
| 2A: Innovative Technologies in Mater Resources Voderator: Steve V. Rose (Canada) | 2B: Rail Transit Projects in Honolulu, Japan and Thailand Moderator: David G. Leverenz (ASCE) | 2C: Geohazards Moderator: Yanrong Li (China) | 2D: Energy Efficient Solutions for Sustainable Facilities Moderator: Luh-Maan Chang (CICHE) | 2E: Bridge Design Moderator: Iswandi Imran (HAKI) |
| Evaluation of Household Water Treatment Devices for Removal of Naterborne Pathogens from Drinki Nater - Rajib Sinha (B&I Federal Bervices, Cincinnati, Ohio, U.S.A.) Craig Patterson, Skand Saksena, Rich Ugalia, John Lee Heckman, Prakhar Gupta and Alpana Divekar Peracetic Acid as a Green Disinfecta or Combined Sewer Overflows - Craig Patterson (U.S. EPA, Cincinnat Dhio, U.S.A.) Bob Freeborn, John Maziuk, Daniel J. Murray, Vasudevan Vamboodiri, Donald A. Schupp and Sruce Smith Evaluation of an Innovative Approa or Validation of Ultraviolet (UV) Reactors for Disinfection in Drinking Mater Systems - Jeffrey Adams (U.S. Patire Steton and Scales of Applications - Emmanuel Newvi Prairie View A&M University, Prairi View, Texas, U.S.A.) Research Regonal and Scales of Applications - Emmanuel Nervey Dati mai, Kenji Nakamura, Satoshi (ubota, Yoshimasa Umehara | Building the First Driverless Metro System in the United States - Ryan Tam and Justin Garrod (Honolulu, Authority on Rapid Transit, Honolulu, Authority on Rapid Transit, Honolulu Sustainable Community Development into Hawaii's Future - Ryan Tam (Honolulu Authority on Rapid Transit, Honolulu, Hawaii, U.S.A.) and Justin Garrod Current Status of TC12 (Railway Technology Renewal and Expansion in Asian Region) - Jun Izawa (Japan) Current Status of Rolland - Nakorn Chantasorn (Thailand) - Nakorn Chantasorn (Thailand) - Nakorn Chantasorn (RMIT University, Melbourne, Australia), Rintu Renjith, Sujeeva Setunge, Brian O'Donnell, Dilshan Hewawasamge and Ernst Tan Asian Railway Technical Forum - Toru Miyauchi (Japan) | Study on the Mechanisms of Debris Flows That Damaged Flexible Barriers in the Channel of Fraser Hill, Malaysia - Senro Kuraoka (Nippon Koei Co., Ltd., Tsukuba-shi, Ibaraki, Japan), Lim Tien Sze, Che Hassandi Abdullah, Suhaimi Jamaludin, Mohamad Nazri and Norhidayu Binti Kasim Study on the Utilization of Fault Tree for Preventative Maintenance of Reinforced Soil Walls - Hiroaki Niiyatake (Public Works Research Institute, Tsukuba, Japan) and Tomohiro Fujita Appropriate Schemes for Assessment of Debris Flow Spreading Based on an Empirical Approach and Case Studies in Gyeonggi Province, Korea - Sinhang Kang (Korea Advanced Institute of Science and Technology, Daedeok Impolis, Daejeon, South Korea), Seung-Rae Lee, Joon-Young Park and Deukhwan Lee Shaking Table Tests of Liquefaction in Sand-Clay Layered Ground and the Effects of the Ground Compaction Methods - Takaaki Kobayashi (Port and Airport Research Institute, Yokosuka, Kanagawa, Iapan), Shinji Sassa, Keita Watanabe and Hiroyuki Yamazaki | A Practical Assessment Model for Sustainable Transportation - Panos Frevedouros (University of Hawaii at Manoa, Honolulu, Hawaii, U.S.A.) and Lambros K. Mitropoulos A Statistical Model on the Geopolymer Concrete - Yanping Li, Lin Shen (University of Hawaii at Manoa, Honolulu, Hawaii, U.S.A.), Li Ai and Reza Mirrmoghtadaei Micro Generation and Customer Side Smart Grid Infrastructures - Thomas M. Korman (California Polytechnic State University, San Luis Obispo, California, U.S.A.), Vasser Salem, Sustainable Infrastructure - Kevin R. Anderson (California V.S.A.), Vasser Salem, Souha Jouhar, Saman Bahrani, Kaian Wang, Ali Sharbat, Maryam Shafahi and Reza Baghaei Lakeh | Numerical Simulation of a Multi- span Extradosed Cable-stayed Bridge Employing Cable-Sliding Aseismic Friction Bearing for Seismic Protection - Shengze Tian (Tongji University, Shanghai, China), Wancheng Yuan (Tongji University, Shanghai, China), Haolin Yang and Han Li Experimental Investigation on Seismic Response of Bridges Considering Scour Effect - Yu Shanghai, China), University, Shanghai, China), Yan Xu (Tongji University, Shanghai, China) and Alice Alipour Simple Bridge-Weigh-In-Motion Using Transverse Stiffeners - Eiki Yamaguchi (Kyushu Institute of Technology, Tobata, Kitakyushu, Japan), Masayoshi Kibe and Kazuki Yamamoto |
| 3:15 - 4:00 p.m. | OSTER SESSION #1 (Continued) | & NETWORKING BREAK - Pa | lace Lounge | |

*Ho-'omalamalama: Building a Sustainable Infrastructure in the Asia Pacific Region *Ho-'omalamalama is a Hawaiian term that means to brighten, illuminate, enlighten, or inform.

WEDNESDAY, AUGUST 31 (continued)

| 4:00 - 5:30 p.m. TEC | HNICAL SESSION 3 | | | |
|--|--|--|---|---|
| TRACK A: Environmental & Water Resources, Honolulu Suite 1 | TRACK B: Structural, Honolulu Suite 2 | TRACK C: Infrastructure Management, Honolulu Suite 3 | TRACK D: Geotechnical, Iolani Suite 3&4 | TRACK E: Natural Disaster, Iolani Suite 6&7 |
| 3A: Challenges in Water Management Moderator: Ashok Pandit (ASCE) | 3B: Corrosion of Structural Elements Moderator: Eiki Yamaguchi (JSCE) | 3C: Towards the Reduction of Infrastructure Lifecycle Cost Moderator: Thomas W. Smith, III (ASCE) | 3D: Foundations Moderator: Ernesto S. De Castro (PICE) | 3E: Peformance-Based Engineering for Natural Hazards Moderator: Kuniyoshi Takeuchi (JSCE) |
| Estimation of Carbon Budget and Storage in an Artificial Salt Marsh Constructed in Urban Coastal Area - Toru Endo (Osaka City University, Osaka, Japan), Yusuke Nakano and Noriaki Ikada Planning and Engineering of Coastal Flooding Mitigation Works of an Airport Runway in a Storm-tracked Island - Eric C. Cruz and Edgardo P. Kasilag, II (AMH Philippines) Towards a Comprehensive Design of Nature-oriented River Structures - Kohji Michioku (Hosei University, Tokyo, Japan) Can River Restoration Projects Make Community and Professionals Sustainable? - A Case Study of a Small Urban River Restoration in Japan - Yoh Sasaki (Waseda University, Tokyo, Japan) Model - Hyunjun Ahn (Yonsei University, Seoul, South Korea), Jun-Haeng Heo, Sunghun Kim and Kyungwon Joo | Prediction of Cover Crack Propagation on Corroded RC Members - Aris Aryanto (Institut Teknologi Bandung, Bandung, Indonesia) and Yasuji Shinohara A Study on Fatigue Durability of RC Slab with Metal-Grid Instead of Steel Re-bar - Tadashi Abe, Kazuhiko Minakuchi (Nihon University, Narasino-shi, Chiba, Japan), Ming- Chien Hsu and Keisuke Shiota The Influence of Fly Ash on Bond Strength Property between Corroded Reinforcement Steel Bars and Concrete - Masayuki Tsukagoshi (Tokushima University, Tokushima City, Tokushima, Japan), Yasuji Shinohara, Hiroki Sugi and Takao Ueda Refect of Uniform Corrosion on Tensile Load-Carrying Capacities of Steel Specimens - Parham Memarzadeh (Islamic Azad University, Najafabad, Isfahan, Iran) Optimization of FRP Strengthening Technique for Concrete Structures - M. Umair Saleem (King Faisal University, Al-ahsa, Saudi Arabia), Muhammad Nasir Amin and Nauman Khurram | ASCE Grand Challenge and the Role of Innovation in Reducing Lifecycle Infrastructure Costs - Anthony Bartolomeo (Pennoni, Philadelphia, Pennysivannia, U.S.A.) Evaluating Alternative Pavement Materials - Saeed Dhafer Alqadhi (Purdue University, West Lafayette, Indiana, U.S.A.), Tariq Usman Saeed (Purdue University, West Lafayette, Indiana, U.S.A.) and Samuel Labi Targeted Hits for Modal Parameter Estimation and Rating - John DeVitis, David Masceri, Nicolas Romano, John Braley, Emin Aktan and Franklin L. Moon (Rutgers, The State University of New Jersey, U.S.A.) ICT Innovations for Reducing Infrastructure Lifecycle Cost - H. Sohn (Korea Advanced Institute of Science and Technology, Daedeok Innopolis, Daejeon, South Korea), Hyung Jin Lim, Ji-Min Kim, Suyoung Yang, Jun Lee and Yongtak Kim Technical Review of Optimal Monitoring Technology for Ground Subsidence Prevention - Byoungil Corporation, South Korea), Houngyoon Kim, Eunkeum Kwon, Yongsoo Kim and Wonino Park | Experimental Assessment of p-y Curves for Piles in Saturated Medium Dense Sand at Shallow Depths - Xiaowei Wang (Tongji University, Shanghai, China), Aijun Ye and Jianzhong Li Numerical Load Testing of a Geosynthetic Reinforced Soil - Landon H. Kaya (University of Hawaii at Manoa, Honolulu, Hawaii, U.S.A.), Phillip S.K. Ooi, Teruo Nakai, Michael T. Adams, Jennifer E. Nicks and Hossain Md. Shahin Md. Shahin Md. Shahin Md. Shahin Md. Shahin Reinforced Foundation Ground in Embankment Site Subjected to Consolidation - Yusaku Isobe, Geoscience Research Laboratory, Co, Ltd, Teruo Nakai, Yusaku Isobe and Hossain M. Shahin Beinforced Foundation Ground in Embankment Site Subjected to Consolidation - Yusaku Isobe and Hossain M. Shahin Geoscience Research Laboratory, Co, Ltd, Teruo Nakai, Yusaku Isobe and Hossain M. Shahin Geoscience Research Laboratory, Co, Ltd, Teruo Nakai, Vusaku Isobe and Hossain M. Shahin Geoscience Research Laboratory, Co, Ltd, Teruo Nakai, Vusaku Isobe and Hossain M. Shahin Geoscience Research Laboratory, Co, Ltd, Teruo Nakai, Vusaku Isobe and Hossain M. Shahin Geoscience Research Laboratory, Co, Ltd, Teruo Nakai, Vusaku Isobe and Hossain M. Shahin Geoscience Research Laboratory, Co, Ltd, Teruo Nakai, Vusaku Isobe and Hossain M. Shahin Geoscience Research Laboratory, Co, Ltd, Teruo Nakai, Vusaku Isobe and Hossain M. Shahin Berint, Lebanon, George Saad and Youmna Abdallah | Comparison of the USA, China and Japan Seismic Design Procedures - Guangren Yu and Gary Y.K. Chock (Martin & Chock, Inc., Honolulu, Hawaii, U.S.A.) Probabilistic Mapping of Storm- induced Coastal Inundation for Climate Change Adaptation - Kwok Fai Cheung (University of Hawaii, Honolulu, Hawaii, U.S.A.), Yoshiki Yamazaki, Volker Reeber, Ning and Gary Y.K. Chock (Martin & Chock, Inc., Honolulu, Hawaii, U.S.A.) Rapid Prediction of Waves, Surge, and Runup for Coastal Storms - Alexandros Taflanidis, Andrew B. Kennedy, Tracy Kijewski-Correa, Joannes Westerink and Kwok-Fai Cheung (University of Hawaii, Honolulu, Hawaii, U.S.A.) A Study on Risk Management for Building Property by Cyclone Risk Using Probabilistic Wind Model - Hiroyuki Watabe (National Defense Academy of Japan, Yokosuka, Kanagawa, Japan), Harumi Yashiro and Sei'ichiro Fukushima The ASCE 7 Tsunami Loads and Effects Design Standard for the U.S Gary Y.K. Chock (Martin & Chock, Inc., Honolulu, Hawaii, U.S.A.) |
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THURSDAY, SEPTEMBER 1

| | <pre>cperience and Preparation ation of Slope Stability</pre> | | TRACK E: Natural Disaster, Iolani Suite 6&7 | 4E: Transdisciplinary Approach to Build Resilient Society Moderator: Senro Kuraoka (JSCE) | Transdisciplinary Approach to Build Resilient Society - Vision, Strategy and Envisaged Activities of TC21 - Kuniyoshi Takeuchi (Public Works Research Institute, Tsukabara and Senro Kuraoka Policies and Application of Sciences for Building Resilient Society - Case of Restoration of Tacloban After Devastation Brought by Typhoon Haiyan, 2013 - Romeo S. Momo, Department of Public Works and Highways, Manila, the Phillippines Moving Towards Sustainable and Resilient Smart Water Institute, Yuseong-gu, Daejeon, South Korea), Hyosok Chae and and Kwangsuop Lim (K-water Institute, Yuseong-gu, Daejeon, South Korea), Hyosok Chae and and Kwangsuop Lim (K-water Institute, Yuseong-gu, Jaejeon, South Korea), Hyosok Chae and and Kwangsuop Lim (K-water Institute, Yuseong-gu, Jaejeon, South Korea), Hyosok Chae and and Kwangsuop Lim (K-water Institute, Yuseong-gu, Jaejeon, South Korea), Hyosok Chae and and Kwangsuop Lim (K-water Institute, Yuseong-gu, Jaejeon, South Korea), Hyosok Chae and and Kwangsuop Lim (K-water Institute, Yuseong-gu, Jaejeon, South Korea), Hyosok Chae and Priority 3 (Investing in DRR Resilience) and Priority 4 (Build Back Better) had worked? - Kenichi Tsukahara (Kyushu University, Fukuoka, Japan) Inter-governmental Synergies on DRR with Scientific Support - Shang-Hsien Hsien |
|-----------------------------------|---|-------------------|---|---|--|
| | i Trough Earthquake Tsunami - Ex ochi, Japan es and Current Methods of Evalu | | TRACK D: Sustainability, Iolani Suite 3&4 | 4D: Recycled Materials Moderator: Sohail Bashir (IEP) | Clay Bricks Prepared with Sugarcane Bagasse and Rice Husk Ash - A Sustainable Solution - Muhammad A. Saleem (University of Engineering and Technology, Lahore, Pakistan), Syed M.S. Kazmi and Safeer Abbas Low Cost Concrete Bricks Using Marble Slurry as a Raw Material - Manbre Slurry as a Raw Material - Manbreet Singh (Birla Institute of Technology and Science, Pilani, India), Anshuman Srivastava (Birla Institute of Technology and Science, Pilani, India) and Pratyaksh Agarwal Bending Capacity Analysis of High- strength Reinforced Concrete Beams Using Geopolymer Fly Ash and Environmentally Friendly Slag as Fine Aggregate Substitution - Teuku Budi Aulia (University of Syiah Kuala, Banda Aceh, Indonesia), Mochammad Affüddin and Lissa Opirina Waste Iron Slag and Alcofine as a Substitute Material for Fine Aggregate and Coment Used in Concrete - Ashish Kapoor, Sanjay Sharma (National Institute of Technical Teachers' Training and Research, Chennai, India) and Devinder Sharma |
| | om Salon I . Yeung (ASCE) fsunami and Future Nankai University of Technology, K ach to Stabilization of Slop long Kong | | TRACK C: Infrastructure Management, Honolulu Suite 3 | 4C: Outstanding Hawaii Civil Engineering Projects Moderator: Gary Y.K. Chock (ASCE) | Volcanic Ash Riverbank Stabilization Supporting Affordable Housing Complex - Kealohi Sandefur (Yogi Kwong Engineers, Honolulu, Hawaii, U.S.A.), James Kwong and Colton Takaesu Honoapi'liani Highway Realignment, Phase 1A - Realignment, Phase 1A - Brian Lock (Wilson Okamoto Corporation, Honolulu, Hawaii, U.S.A.) DCT Hana Highway Route 360 (KSF, Inc., Honolulu, Hawaii, U.S.A.) DOT Hana Highway Route 360 Emergency Repairs - Ryan Okahashi (AECOM, Honolulu, Hawaii, U.S.A.) Trenchless Sewer Reconstruction in Developed Urban Areas: Waimalu Sewer Project - Roy Abe (HDR, Inc., Honolulu, Hawaii, U.S.A.) and Tim Taylor |
| GISTRATION - Palace Lounge | ENARY SESSION - Tapa Ballro enary Session - Chair: Albert T 11 Great East Japan Earthquake Aasahiko Isobe, President, Kochi gionally Based Systematic Appro bhn L. Endicott, AECOM Fellow, F | CHNICAL SESSION 4 | TRACK B: Transportation, Honolulu Suite 2 | 4B: Transportation Planning Moderator: Amy Yi-Chin Hu (CICHE) | Improvement of Short Term Prediction of Micro-Simulation Through Parameter Adjustment Using Observation of Traffic State - Kuniaki Sasaki (University of Yamanashi, Yamanashi, Japan) A Monte Carlo Simulation-Based Approach for Modeling Stochastic Transportation Demand Forecast - Sungbong Chung and Kihan Song (The Korea Transport Institute, Sejong-si, South Korea) Bicycle-to-Pedestrian Traffic Accidents in Japan - Hidenobu Matsumoto (Kobe University, Kobe, Japan) and Koji Domae - 289 Analysis of the Future Traffic Demand Forecast and Proposed Development Plan in Dili Metropolitan Area, Timor- Leste - Yoshiyuki Tajima (Nippon Koei Co., Ltd., Tokyo, Japan) and Hisanari Ushirooka Road-Toll Pricing from a Socially Optimal Perspective under the Redemption Principle of Japanese Redemption Principle of Japanese |
| 7:30 a.m 5:30 p.m. RE | 8:00 - 9:00 a.m. Pl Pl6 20 20 Re Re 10 | 9:00 - 10:30 a.m. | TRACK A: Environmental & Water Resources, Honolulu Suite 1 | 4A: Challenges in Water Supply Moderator: Claudia Gunsch (ASCE) | Investigation on Seismic Behavior of Irrigation Dams by Dynamic Centrifuge Model Tests - Sokkheang Sreng (Nippon Koei Co., Ltd., Tsukuba, Japan), Hicyuki Itd., Tokyo, Japan), Hiroyuki Ieda, Yoshiyuki Mohri, Hidekazu Tagashira, Daisuke Watabe and Masahiro Maeda How Can Nationwide Master Plans of Integrated Water Resource Management Contribute to Resolve Water Issues in Developing Countries? - Ishiwatari Mikio (Japan International Cooperation Agency, Tokyo, Japan), Okazaki Yuji and Minoru Miyasaka Application of Stainless Steel Nanotule sfor Organic Compounds Removal - Hanuk Lee, Taehyup Oh and Jae-Woo Park (Hanyang University, Seoul, South Korea) |

*Ho-'omalamalama: Building a Sustainable Infrastructure in the Asia Pacific Region *Ho-'omalamalama is a Hawaiian term that means to brighten, illuminate, enlighten, or inform.

| 10:30 - 11:15 a.m. PO | STER SESSION #2 & NETWOI | RKING BREAK - Palace Loun | ße | |
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| 11:15 a.m 12:45 p.m. TEC | CHNICAL SESSION 5 | | | |
| TRACK A: Environmental & Water Resources, Honolulu Suite 1 | TRACK B: Transportation, Honolulu Suite 2 | TRACK C: Infrastructure Management, Honolulu Suite 3 | TRACK D: Sustainability, Iolani Suite 3&4 | TRACK E: Natural Disaster, Iolani Suite 6&7 |
| 5A: Waste Management Moderator: Jae-Woo Park (KSCE) | 5B: Rail Design and Operation Moderator: Potenciano A. Leoncio, Jr (ASCE) | 5C: Constuction Best Practices Moderator: Rajinder Ghai (ICEI) | 5D: Critical Success Factors in Construction Moderator: Jeff Howard (EA) | 5E: Structural Dynamics Moderator: Muslinang Moestopo (HAKI) |
| Technical Options to Improve Municipi Waste Management Mode Based on Formulating Biowaste Recycling Links -Jun Matsushita (Chuo University, Tokyo, Japan), Saburo Matsui, Tomonad Miyashiro and Naoko Nakagawa Mathematical Constructs for Assessing the Effectiveness of Environmental Remediation Actions - Samuel Labi, Saeed Al Qadhi (Purdue University, West Lafayette, Indiana, U.S.A.), Jackeline Murillo Hoyos and Sikai Chen Disposal and Recycling of Disaster Wastes by Great East Japan Earthquakk - Hiroshi Ogawa (Kajima Corporation, Tokyo, Japan) Social Capital Networks and Efficiency of Earthquake Waste Management in Japan - Kiyomi Kawamoto (Hokkaido University of Education, Hakodate city, Hokkaido, Japan) and Karl Kim Hydrogeological Assessment and Upendra N. Tyagi (Monroe Energy Trainer, Pennsylvania, U.S.A.) | Stated Preference for a New Mass Transit and Actual Mode Choice Analyzed from the Past Surveys: A Case of BRT in Jakarta - Deo Nobel (University of Delaware, Newark, Delaware, U.S.A.), Sadayuki Yagi and Hirohisa Kawaguchi - 81. Development of a Ballast Settlement Model Using Laboratory Ballast Box Tests and Field Measurements - Yeong-Tae Choi (Korea Railroad Research Institute, Uliwangsi, Kyeonggi-do, South Korea), Sung Jin Lee, Sung Ho Hwang and Seong Yup Jang Agent-based Model for Assessing Technologies to Reduce Knock-on Urban Train Delay - Seiji lwakura and Wataru Kobayashi (Shibaura Institute of Technology, Tokyo, Japan) | Project-Specific Occupational Accident Risk Assessment Model - Sou-Sen Leu (National Taiwan University of Science and Technology, Taipei, Taiwan) and Ching-Miao Chang - 137 Next Generation Construction Production System Focusing on Automation Technologies of Construction Machines - Satoru Miura, Izuru Kuronuma and Kenniti Hamamoto (Kajima Corporation, Tokyo, Japan) Asian Economic Reform Using Economic Zone Projects - Rikuo Katsumata (Japan Development Institute, Tokyo, Japan) Role and Possibilities of PPP for Regional Development in Asian Countries - Satoshi Kato (Toyo University, Tokyo, Japan) and Ryo Matsumaru The Importance of Asia and the Activity of ACF - Manyop Han, Sejin Jeon and Seongdong Kim | The Effect of Firm Entry on Public Bidding Price in Japanese Construction Works - Koki Arai (Shumei University, Yachiyo-city, Chiba, Japan) and Emi Morimoto (University of Tokushima, Tokushima- City, Tokushima, Japan) A Review of Risk-based Studies on International Construction Projects - Rouzbeh Maddah (Indian Institute of Technology-Delhi, Hauz khas, New Delhi, India), Arvind Kumar Jain and Kumar Neeraj Jha A Study on the Major Factors for Delhi, India), Arving Tender of Construction Works - Nobuyuki Suzuki (Toyo University, Kawagoe City, Saitama Prefecture, Japan), Junjiro Akiba and James R. Whorlow Exploring the Critical Incidents in International Construction Projects - Daniel Haussner (Hazama Ando Corporation, Tokyo, Japan), Yu Maemura and Petr Matous | Effect of the Spatial Variability of Soil Surface Seismic Responses on Buildings - Joanna Badr (Lebanese University, Roumieh, Lebanon), Michel Farid Khouri, Elias El Haber and Cecile Cornou Developing Design Automation for Dolphin Structures with Optimization Techniques - Ying Zhe Jin, Hai Long Shao, Young Jun Nam, Jong Soo Lee and Yun Mook Lim (Yonsei University, Seoul, South Korea) Cyclic Performance of Moment Resisting Welded Connections with RBS Built by Iranian Profiles - Parham Memarzadeh (Islamic Azad University, Najafabad, Isfahan, Iran) and Mohammad Bahavior of Slab-Column Connections Subjected to Blast Loads - Kwang Mo Lim, Young Soo Yoon and Joo Ha Lee (University of Suwon, Hwaseong, Gyeonggi, South Korea) Seismic Analysis and Evaluation of Moment Frame Systems Renovated with Supplemental Damping - Lisa Wang (California State Polytechnic University, Pomona, California, U.S.A.) and Kenjiro Iwamoto |
| 12:45 - 1:45 n.m. | STER SESSION #2 (Continued | 1) - Palace Lounge & LUNCH | - Tapa Ballroom Salon 2 | |

THURSDAY, SEPTEMBER 1 (continued)

| 1:45 - 3:15 p.m. | ECHNICAL SESSION 6 | | | |
|---|---|---|--|--|
| FRACK A: Environmental & Water Resources, Honolulu Suite 1 | TRACK B: Transportation, Honolulu Suite 2 | TRACK C: Structural, Honolulu Suite 3 | TRACK D: Geotechnical, Iolani Suite 3&4 | TRACK E: Natural Disaster, Iolani Suite 6&7 |
| 6A: Stormwater and Wastewater Systems Voderator: Steve Starrett (ASCE) | 6B: Traffic Management Moderator: Pham Hoang Kien (VFCEA) | 6C: Earthquake Engineering I Moderator: Vilas Mujumdar (ASCE) | 6D: Geomaterials Moderator: Jae-Yeol Cho (KSCE) | 6E: Disaster Management Moderator: Shang-Hsien Hsieh (CICHE) |
| Renovation Design of Aging RC Sewer Pipes as Semi-Composite Structures Based on Nonlinear FEM Analysis - Masaaki Nakano (Nippon Koei Co., Ltd., Tsukuba-shi, Ibaraki, Iapan), Zihai Shi, Yukari Nakamura, Kenichi Ogawa and Kenichi Tanaka Evaluation of the Factors fround Cave-ins and Subsidence induced by a Damaged Sewer Pipeline - Tae-Young Kwak (Seoul National University, Seoul, South Correa), Joonyoung Kim, Min-ho Lee and Choong-Ki Chung (Seoul Vational University, Seoul, South Correa), Joonyoung Kim, Min-ho Lee and Choong-Ki Chung (Seoul Vational University, Seoul, South Approaches - Katsunori Yoshino Sekisui Chemical Co., Ltd., Ritto-city, Shiga, Japan), Yoshiniko dekawa and Hitomichi Shibata Development of Steady and Jisteady Pipe Flows Numerical simulation, Tsukuba, Ibaraki, Bariculture and Food Research Organization, Tsukuba, Ibaraki, apan), Masaomi Kimura, Hirohide kiri and Tetsuo Nakaya | Interagency Communication and Information Exchange System for Highway Incident Management: Framework and Prototype Development - Chuanxin Fang (Transtech LLC, Bellevue, Washington, U.S.A.), Shouhua Liang, Lihong Huang, Guohua Sun and Shouniu Wang Factors Affecting Driving Avoidance Behavior and Effects of a Smart Phone Based Driving Safety Diagnosis Tool - Ying Jiang (Hiroshima University, Higashi- Hiroshima Japan) and Junyi Zhang (Hiroshima Japan) and Junyi Zhang (Hiroshima Japan) and Junyi Zhang (Hiroshima Japan) a 246 The Correlation of Safety Indicators of Toll Road in Indonesia - Amelia Makmur (Krida Wacana Christian University, Jakarta Barat, Indonesia), Wimpy Santosa and Ranto Rajagukguk Expansion of ITS in Southeast Asia - Masayuki Yamamoto (Mitsubishi Heavy Industries, Kobe, Hyogo, Japan), Takazu Tsuji and Hideyuki tou (Mitsubishi Heavy Industries, Kobe, Hyogo, Japan) Policy Level Example Case Study: Urban Heat Island - Hui Li (Tongji University, Shanghai, China) | Study on Earthquake Time Histories and Response Spectrums for Analysis of High Rise Building Structures in Mongolia - Erdene Ganzorig (Mongolian University of Science and Technology, Ullaanbaatar, Mongolia) Seismic Fragility Analysis of a Typical Two-Pylon Cable-Stayed Bridge in China: Comparison of Fragility Models - Yutao Pang (Polytechnique Montréal, Montréal, Quebec, Canada), Xiaowei Wang (Tongji University, Shanghai, China), Yu Shang (Tongji University, Shanghai, China) and Li Wu Seismic Retrofit for an Existing Apartment by Core Wall - Tsung- Chih Chiou (National Center for Research on Earthquake Engineering, Taipei, Taiwan), Yaw-Shen Tu, Wen-Cheng Shen, Yi-An Li, Pu-Wen Weng, Yao-Sheng Yang, Lap-Loi Chung and Shyh-Jiann Hwang Relationship between the Mid- column Loss and Seismic Story- shear Resistances - Meng-Hao Tsai (National Pingtung University of Science & Technology, Pingtung, Science & Technology, Pingtung, | Effect of Compressive Loads on the Uplift Capacity of Line Pile Groups Considering Soil Non-Linearity - Anumita Mishra, (Indian Institute of Technology Kanpur), Nihar Ranjan Patra Destabilizing Effects of Chemical Weathering and Root Jacking on Sub-Tropical Volcanic Rock Slopes - James Kwong, Honolulu, Hawaii, U.S.A.), Kealohi Sandefur (Yogi Kwong Engineers, Honolulu, Hawaii, U.S.A.) and Shentang Wang Effects of Vesicular Parameter on the Failure Criterion of Basalts - Soonbo Yang (Port and Airport Research Institute, Yokosuka, Kanagawa, Japan) and Shinji Sassa (Port and Airport Research Institute, Yokosuka, Kanagawa, Japan) Effects of Using Unsuitable Fine-grained Volcanic Soil as Embankment for a Keinforced Earth Wall After Such Soil Was Crushel and Re-solidified - Atsuko Sato (Civil Engineering Research Institute for Cold Region, Sapporo, Hokkaido, Japan), Toshihiro Hayashi (Civil Engineering Research Institute for Cold Region, Sapporo, Hokkaido, Japan), Satoshi Nishimoto (Civil Engineering Research Institute for Cold Region, Sapporo, Hokkaido, Japan) and Teruvuki Suzuki (Kitami Institute of Technology, Sapporo, Hokkaido, Japan) | Improved Analysis Method for the Calculation of Building Damage Cost due to Flood Disaster - Kyonghoon Kim (Korea Institute of Civil Engineering and Building Technology, Ilsan, South Korea), Gilho Kim, Seok Kim, Jae-Woo Park and Jinman Kim An Evaluation of Infection Risk Caused by the Compound Disaster of a Large Earthquake with Flooding in an Urban River Catchment - Naoko Nakagawa (Rikkyo University, Tokyo, Japan), Akira Kawamura and Hideo Amaguchi Updated Risk Indices in the Asia-Pacific Region for Earthquakes and Floods - James E. Daniell and Trevor M. Daniell (University of Adelaide, Adelaide, South Australia) Effect of Breakwater in the Superposition of Earthquake and Airport Research Institute, Yokosuka, Kanagawa, Japan), Kojiro Suzuki and Taro Arikawa (Chuo University, Tokyo, Japan) The Transformed Behavior of Restored Constructure by Large Sandbags in a Large-scale Sediment Disaster - Woshinori Mori, Tetsuya Kubo, Hiroaki Mipatek and Genki Inoue (Public Works Research Institute, Tsukuba-shi, Ibaraki-ken, Japan) |
| 3:15 - 4:00 p.m. P. | OSTER SESSION #2 (Continu | ied) & NETWORKING BREA | .K - Palace Lounge | |

THURSDAY, SEPTEMBER 1 (continued)

*Ho-'omalamalama: Building a Sustainable Infrastructure in the Asia Pacific Region *Ho-'omalamalama is a Hawaiian term that means to brighten, illuminate, enlighten, or inform.

| 4:00 - 5:30 p.m. | ECHNICAL SESSION 7 | | | | |
|--|--|---|---|---|--|
| TRACK A: Environmental & Water Resources, Honolulu Suite 1 | TRACK B: Transportation, Honolulu Suite 2 | TRACK C: Infrastructure Management, Honolulu Suite 3 | TRACK D: Sustainability, Iolani Suite 3&4 | TRACK E: Geotechnical, Iolani Suite 6&7 | |
| 7A: Watershed, River and Flood Management Moderator: Udai P. Singh (ASCE) | 7B: Pavement Preservation Moderator: Jon Young (ASCE) | 7C: Special Topics in Civil Engineering Moderator: Ignacio B. Zaragoza, Jr. (PICE) | 7D: Education Moderator: Ed Wang (ASCE) | 7E: Geotechnical Earthquake Engineering Moderator: Osamu Kusakabe (JSCE) | |
| Transformation of Land Use Pattern in Phnom Penh City at a Watershed Scale - Luong Lim (Waseda University, Tokyo, Japan) and Yoh Sasaki (Waseda University, Tokyo, Japan) Groundwater Nutrient Loads from a Watershed to a Coastal Estuary - Ashok Pandit (Florida Institute of Technology, Melbourne, Florida), Jacob Jansen, Nawazish Ali, Howell H. Heck, Kamal Mamoua and Wissam Al-Taliby Reevaluation of the C-51 Basin Rule - Bijay Panigrahi, C. Alan Hall and Pradeep Behera (University of the District of Columbia, Washington DC, U.S.A.) Study on 4 Major Rivers Restoration Project for Enhancement of Waterfront and River Environmental Values in Korea - Sung Phil Jang (Korea Water Resources Corporation (K-water), Daedeok-Gu, Daejeon, South Korea) An Urban Flooding Simulation Technique by Using 3D City Information Model - Sang-Ho Lee (Yonsei University, Seoul, South Korea), Junwon Park, Sang I. Park and Young-Hoon Jang | Performance of Preventive Maintenance Treatment in Texas - Jorge Prozzi and Pedro Serigos Assessing the Stabilizing Mechanisms of Unbound Road Pavements - Dilan Robert (RMIT University, Melbourne, Australia), Rintu Renjith, Sujeeva Setunge, Brian O'Donnell, Dilshan Hewawasange and Ernst Tan - 58 Overlay Performance Under High Temperature Conditions - Adrian Archilla Performance Under High Temperature Conditions - Agphalt and Flexible Pavement Design - The European Perspective - Bernhard Hofko (Research Center of Road Engineering, Wien, Austria) and Ronald Blab Impact of Pre-existing Conditions on the Effectiveness of Preservation Treatments and Determination of Optimum Treatment Timing - Syed Haider | Maritime Network Efficiency Comparison in Indonesia - Hafida Fahmiasari (Delft University of Technology, the Netherlands) and Danang Parkesit - 2 Study on Sustainable City Management Affer 2020 Tokyo Olympic Games - Nobuyuki Suzuki (Toyo University, Kawagoe City, Saitama Prefecture, Japan) and James R. Whorlow - 27 Feng Shui Site Planning and Design Using Google Earth - Chao-Tai Hu and Chiwan Hsieh (National Pingtung University of Science & Technology, Pingtung, Taiwan) - 248 Empirical Development of 3D Terrain Processing Platform for Autonomous Excavation System - 248 Empirical Development of 3D Terrain Processing Platform for Autonomous Excavation System - Si Gyeongy, Do, South Korea), Tae-Yeong Kim, Soonwook Kwon and Jongwon Seo Developing of Emergency Action Plan Manual for Facility - Su-Yeul Park (Uno Solution Co., Paju, Gyeonggi, South Korea), Eun-Ho Oh, Jin-Man Kim and Hyeon-Cheol Park | Scenario Method for Understanding Public Opinions in Planning Process - Kiko Yamada-Kawai (Tokyo Institute of Technology, Tokyo, Japan) Landscape of Capstone Course in Civil Engineering Departments in Taiwan - Mandy Liu (Institute of Engineering Education Taiwan, Taiwan) and Liang-Jeng Leu (National Taiwan University, Taipei, Taiwan) Ethics in Civil Engineering Projects - Sohan Swamy (Institution of Civil Engineers, India, New Delhi, India) The Conceptual Model of Infrastructure Lifecycles - Koji Miyagi, Japan) - 177 Establishment of the Centre for Pavement Excellence Asia Pacific - Brian O'Donnell (CPEAP Limited, Langwarrin, Victoria, Australia) | Design and Construction of New Seismic Retrofit Method for Pile Foundation Using Steel Shell Reinforced Concrete and Ground Improvement: Application for Improvement: Application for Improvement: Application for Monorail - Satoshi Matsuki (Kajima Corporation, Tokyo, Japan), Masanori Shibata, Katsutoshi Fujisaki, Takahiro Arai, Takashi Obara and Masayuki Ishido Dara and Masayuki Ishido Design Method for Pile Foundation in Composite Ground and Evaluation of Its Seismic Performance - Koichi Tomisawa (Civil Engineering Research Institute for Cold Region, Sapporo, Hokkaido, Japan) and Koichi Isobe Earthquake-Induced Volume Contraction Characteristics of Rock Debris and Ris Assessment Chart for Prediction - Shinji Sassa (Port and Airport Research Institute, Vokosuka, Kanagawa, Japan), vusuke Gotoh, Hirovuki Yamazaki, Hidenori Takahashi and Eiji Kohama The Rule of Potential Factors in Triggering Landslides by Shanxi, China), Runqiu Huang and Vonghong Luo | |
| 6:00 - 9:00 p.m. | WARDS DINNER - Hilton Hav | waiian Villages Great Lawn | _ | | |

FRIDAY, SEPTEMBER 2

| 30 a.m 12:00 p.m. RI | GISTRATION - Palace Loun | g | | |
|--|---|---|---|--|
| PI - 9:00 a.m. PI - 91 - 91 - 91 - 91 - 91 - 91 - 91 - 9 | ENARY SESSION - Tapa Bal. ENARY SESSION - Chair: Ducating the Future Civil Enginu gineering Design at the Nation ansportation Engineering Chal ansportation, Honolulu, Hawa | Iroom Salon 1 avid G. Leverenz (ASCE) eers for a Sustainable World: An Ir ael Taiwan University - Liang-Jeng lenges and Solutions, With a Focu ii, U.S.A. | ntegration of Cornerstone, Keyston a Leu, National Taiwan University, T us on Highways in Hawaii - Edwin H | e, and Capstone Courses on aipei, Republic of China . Sniffen, Hawaii Department of |
|) - 9:30 a.m. | ETWORKING BREAK - Pala | ce Lounge | | |
| 0 - 11:00 a.m. | CHNICAL SESSION 8 | | | |
| K A: Environmental & Water Irces, Honolulu Suite 1 | TRACK B: Structural, Honolulu Suite 2 | TRACK C: Infrastructure Management, Honolulu Suite 3 | TRACK D: Sustainability, Iolani Suite 3&4 | TRACK E: Geotechnical, Iolani Suite 6&7 |
| lydraulics rator: Roger W. Babcock, Jr.) | 8B: Earthquake Engineering II Moderator: Erdene Ganzorig (MACE) | 8C: Infrastructure Asset Management Moderator: Md. Abdus Sabur (IEB) | 8D: Engineered Materials Moderator: Dhruba Thapa (NEA) | 8E: Tunneling Moderator: Kenichi Horikoshi (JSCE) |
| antiative Experimental of Discharging Sediments • Mobile Suction Method at hagi Dam - Tatsuya Sugita, uni Saiki, Wataru Nakane, ai Tokunaga and Itsuki Miyairi ashi Corporation, Tokyo,) ling Hydraulic Jump on gated Bed Using Particle od - Md. Toufiq Anam, Yee- g Jin (University of Regina, a, Saskatchewan, Canada) e, Saskatchewan, Canada) e Fu lization of Flow Regina, a Saskatchewan, Canada) e Fu lization of Flow Regina, a Saskatchewan, Canada) e Fu lization of Flow Regina, a Saskatchewan, Canada) b (Dana Saskatchewan, Canada) i Fu i fu lization of Flow Regina, a Saskatchewan, Canada) b (Dana Saskatchewan, Canada) b (Dana Saskatchewan, Saskatchewan, Yee- ing PIV - Masaomi Kimura arsity of Tokyo, Tokyo, Japan), Azechi (National Agriculture ood Research Organization, ba, Ibaraki, Japan), Yohei b, Toshiaki lida and Naritaka | Seismic Risk Analysis of Cable- stayed Bridges in China Using Fragility Method - Wancheng Yuan (Tongi University, Shanghai, China) and Jian Zhong Eundamental Period Prediction of Steel Plate Shear Wall Structure - Benjamin Kean (San Francisco State University, San Francisco California, U.S.A.) and Cheng Chen Mechanical Behavior of Pile Head Joint Disconnected Pile Head Joint Disconnected Pile Head Joint Disconnected Pile Head Joint Disconnected Pile Head Rebars from Foundation for Earthquake Resistance - Tomohiro Tanikawa (Takenaka Corporation, Otsuka Inzai, Chiba, Japan), Junji Hamada, Tomio Tsuchiya and Tetsu Usami Utimate Seismic Capacity of Steel Moment Resisting Frame by Scaled Test - Sachi Furukawa, (Tohoku University), Yuma Murata, (Tohoku University), Yoshihiro Kimura | Environmental-Harmony Coastal Structure Functional Assessment - Rumiko Kajihara (Civil Engineering Research Institute for Cold Region, Sapporo, Hokkaido, Japan), Jin Sato, Kenji Sugawara, Masami Ohashi and Nobuo Mikami Bridge Component Deterioration: An Ordinal Logistic Regression - Pan Lu (North Dakota State University, Fargo, North Oan a Methodology to Find an Efficient Road Maintenance Budget Execution Plan Using AHP and GIS - Sungpil Shin (Korea Institute of Civil Engineering and Building Technology, and Inchul Yang - 262 Method for Analyzing Influence of Land Cutting on the Surrounding Trees - Yoshiki Yamamoto (Nippon Koei Co, Ltd., Tsukuba-shi, Ibaraki, Japan) | Mechanical Behavior of Adaptive Rubber Bearings - Chong-Shien Tsai (Feng Chia University, Taichung, Taiwan), Hui-Chen Su, Wen-Chun Huang and T.C. Chiang Effect of Accelerated Carbonation on Concrete Made with Fly Ash and Blast Furnace Slag - Shait Hussain (Birla Institute of Technology and Science, Pilani, India) Dipendu Bhunia (Birla Institute of Technology and Science, Pilani, India) and S.B. Singh Reliability Based Design of Concrete Mixes with Partial Replacement of Cement by Silica Fume - Rajinder Ghai (Irrigation Department, Punjab Government, Chandigarh, India) Simple Frost Damage Evaluation of Concrete Surface by Infrared Thermography - Yutaka Takashina (Kobe City College of Technology, Kobe, Japan) Effect of Air Void Content and Repeated Testing on Stiffness of Cylindrical Asphalt Mix Specimen - Daniel Steiner (Research Center of Road Engineering, Wien, Austria), Bernhard Hofko and Ronald Blab | Improvement of Shimbashi Station on the Ginza Subway Line (the First Subway in the East) - Atsushi Numata and Yasushi Arai (Tokyo Metro Co., Ltd., Tokyo, Japan) Construction of Long-Distance Water Transfer Tunnel, Pahang-Selangor Raw Water Transfer Tunnel, Malaysia - Takashi Kawata, Takayuki Matsumoto (Malaysia Office, Shimizu Corporation, Kuala Lumpur, Malaysia) and Akito Mito Mitigation of Tunnel Blasting Impact in Urban Residential Area - Keita Impact in Vasunari Tezuka, Takayuki Ochikawa, Norie Hanaoka and Katsunori Fukui Seismic Design of Damping Ring Tunnel - Masatoshi Fukuma (Oriental Consultants Co., Ltd., Tokyo, Japan), Takahiro Kukidome, Masato Kurata, Shogo Otake and Kaoru Fukawa The URUP Method - Tunnel Excavation with Extremely Thin Soil Overburden - Shusaku Mino (Obayashi Corporation, Tokyo, Japan), Atsushi Kagawa and Akihiro Nishimori |

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FRIDAY, SEPTEMBER 2

| ng (ASCE) aii, U.S.A. | E) | | Technical Tour 6 Nu'uanu Watershed Tour |
|---|--|--------------------|---|
| 100n CLOSING PLENARY SESSION - Chair: Albert T. Yeur Put Your Dreams to Work - Annabel Chotzen, Hawa | .m. CLOSING CEREMONY - Chair: Albert T. Yeung (ASC | n. TECHNICAL TOURS | Technical Tour 4 Hawaiian Aquaponic Farm Tour |
| 11:15 - 12:00 n | 12:00 - 12:30 p | 1:30 - 5:00 p.m | |

CECAR7 2016 TECHNICAL PROGRAM



CECAR7 2016 POSTER SESSION GRID

| WEDNESDAY, AUGUST 31 | THURSDAY, SEPTEMBER 1 |
|---|---|
| POSTER SESSION #1 | POSTER SESSION #2 |
| CO2 Emission Estimation Reduction Impacts by Promoting Hybrid Cars Based on Time Sharing of Driving Modes from Probe Vehicles, Napon Srisakda (Graduate School of Science and Technology, Nihon University, Japan), Atsushi Fukuda, Tetsuhiro Ishizaka | Estimation of Quantile Using Regional Scaling Model and Index Flood Method, Younghun Jung (Yonsei University, South Korea), Hyunjun Ahn, Hanbeen Kim, Jun-Haeng Heo |
| Experimental Study for Neutralization and Revegetation from Acid Soil Based on the MICP <i>Toshiro Hata, (Toyama Prefectural</i> <i>University, Japan), Mizuki Sakai, Masanori Hatakeyama</i> | Estimate of the Initial Rock Stress by Performing a Comprehensive Evaluation using the Results of Several Techniques, Kozo Onishi, Naoki Nishizaka, Yoshihiko Ishikawa, Toshinori Nayuki (Obayashi Corporation, Japan), Tatsuya Tanaka, Kenichi Ando, Taishi Oouchi, Takatoshi Ito |
| Full Scale Model Tests on the Detection of Hidden Deteriorations of Reinforced Soil Walls, Tomohiro Fujita (Toyama Prefectural University, Japan), Hiroaki Miyatake | Rapid Evaluation and Assessment Program (REAP) as an Innovative Pre-Disaster Preparedness and Post-Disaster Response Tool for Essential Facilities – NAVFAC Case Studies, David B. Swanson (Reid Middleton, Inc., Mukilteo, WA, USA), Lance K. Lum, Erik S. Bishop, Bradley A. Martin, Kenny O'Neil |
| Dynamic Centrifuge Model Test on Irrigation Dam and Its Numerical Simulations, Seiichi Sato (Nippon Koei Co.,Ltd., Japan), Sokkheang Sreng, Yuta Koyama, Koji Kobayashi, Yasunori Shiraishi | Inspection Method for Internal State of Quay Wall Under Water Using Acoustic Device, Norihito Kishi (C.E. Research Institute, Sapporo / Hokkaido, Japan), Kazuya Yamaguchi, Akira Asada, Kei Fujisawa, Hideaki Yokohama |
| Application of Statistical Tests for Cleaning Matched Dedicated Short Range Communications Probe Data, Jinhwan Jang (Korea Institute of Civil Engineering and Building Technology, South Korea) | Design Data Generation System using Three-Dimensional Polyline for Progress Control of Working Form, Shigenori Tanaka (Kansai University, Osaka, Japan), Kenji Nakamura, Ryuichi Imai, Satoshi Kubota, Jun Sakurai |
| Bivariate Frequency Analysis Using Archimedean Copula and Nonstationary Gumbel Distribution with Inference Function for Margin Method, Younghun Jung (Yonsei University, South Korea), Kyungwon Joo, Jinseok Jung, Jun-Haeng Heo | Dynamic Buckling Behaviors of Circular Tube Piles on Centrifuge Tests, Tenshiro Goto, Moeko Matoba (Tohoku University, Sendai, Japan), Yoshihiro Kimura |
| Recent Earthquake Disaster in Kumamoto, Japan, Yoshihiro Katsuhama (Nippon Koei Co., Ltd., Japan), Yoshiki Yamamoto | Overview on Carbon Dioxide Uptake and Its Impact of Portland Cements Using Carbonation Curing, Jeong Gook Jang (Korea Advanced Institute of Science and Technology, Daejeon, south Korea), H.K. Lee |
| Concrete Use Mechanical Anchors Engineering Properties, <i>Chiwan</i> <i>Wayne Hsieh (National Pingtung University of Science and Technology,</i> <i>Taiwan), Jen-Han Wu, Yung-Chung Chen</i> | Development of Decision Making Criteria to Improve Road Maintenance Efficiency, Koonnamas Punthutaecha (Department of Rural Roads, Bangkok, Thailand), Koson Janmonta, Wit Ratanachot, Punthutaecha Tarugsa |
| Design Data Generation System using Three-Dimensional Polyline for Progress Control of Working Form, Shigenori Tanaka (Osaka University of Economics, Japan), Kenji Nakamura, Ryuichi Imai, Satoshi Kubota, Jun Sakurai | Research Concerning Estimation of Location Related to Traffic Events and Extraction of Public Opinions Related to Road Projects Using Microblogs, Ryuichi Imai, Kenji Nakamura (Osaka University of Economics, Osaka, Japan), Shigenori Tanaka, Yuki Fujimoto |
| Characteristics of Bus Operations and Fuel Consumption on Long Steep Grades, Grace Po-chun Chen, William Ta-chun Lin, Amy Yi-Chin Hu (THI Consultants, Inc., Taiwan), Yi-cheng Chang, Yu-wen Yang, Jason Cheng-wei Su | Best Practice Design of a Large-span Silo Roof with Shell and Tension Beam Structures - Ahmad Nazari, (Bisbane, Australia) |
| Modeling Vehicle Road Accident with Excess Zero Data of Johor Federal Road – Route Kluang-A/Hitam-B/Pahat, Joewono Prasetijo (Universiti Tun Hussein Onn, Malaysia), Wan Zahidah Musa, Wahid Razzaly, Kamarudin Ambak, Basil David Daniel | Effect of Methane Sampling Time on Average Flux under Rice Cultivation - Nadar Hussain Khokhar and Jae-Woo Park (Hanyang University, Seoul, Korea) |
| Public Private Partnership in Thailand Highways - A Case Study on an Extension of Donmuang Tollway Project - Pruethipong Singhatiraj (Ministry of Transports, Bangkok, Thailand), Chatchai Chuangching and Boonkua Janbanjong | Ultimate Seismic Capacity of Steel Moment Resisting Frame by Scaled Test - Sachi Furukawa (Tohoku University, Japan), Yuma Murata, Yoshihiro Kimura |
| Three-dimensional Analysis of Laterally Loaded Barrette Foundation using Plaxis 3D - Belkacem Moussai (USTHB University, Aliers, Algeria) and Djamila Behloul | Development of Deterioration Prediction Model for Porous Asphalt Pavements Considering Pot-Holes - Akihiro Tanaka, MA (Osaka University), Yota Yamada, Daijiro Mizutani, Kengo Obama, Kiyoyuki Kaito |

DESTINATION

Whether young in age or young at heart, the Island of O'ahu is host to an abundance of energizing experiences that captivate the hearts and minds of residents and visitors alike. Take your senses on an adventure through O'ahu's countryside with breathtaking coastal views, sights of Hawai'i's local pineapple fields, and experience the charm of many local "mom and pop" shops located along the drive. Following a day of relaxation and exploration, indulge in the invigorating Honolulu nightlife; sampling satiating libations in urban Kaka'ako, watching the sky light up a multitude of colors during the fireworks show on Waikīkī Beach, and enjoying one of the latest farmto-table restaurants in Chinatown. O'ahu's complementary balance of city and country is what makes the island so intriguing. Located in the heart of O'ahu resides Waikīkī, one of the Island's most inviting cities. Electric lights, iconic palm trees, the feel and wafting scent of the cool ocean breeze, and the energy of the city's diverse culture are what make Waikīkī a host to a variety of experiences ranging from SUP (stand-up paddle boarding) and surf lessons, sampling island inspired cuisine, and dancing the night away at Hawai'i's hottest clubs. Why wait, the city invites you to dive in and enjoy all that O'ahu has to offer.

HOUSING

Hilton Hawaiian Village Waikiki Beach Resort 2005 Kalia Road Honolulu, HI 96815

Phone: 1-808-922-0811

Fax: 1-808-921-5511 Email: hhv.teleconcierge@hilton.com

MANADARA SPA & FITNESS CENTER

For Reservations call (808) 945-7721

XEROX BUSINESS CENTER

Ground level of the Diamond Head Tower 6 a.m. - 10 p.m. daily

DINING

The Waikiki Beach area offers one of largest collections of top restaurants and places for a quick bite on the go.

Below are a few of the favorite restaurants at the Hilton Waikiki Beach.

- Bali Steak & Seafood
- Rainbow Lanai
- Tropics Bar & Grill
- Benihana
- CJ'S New York Style Delicatessen
- Fresco Italian Restaurant

- Fresh Connection
- Hatsuhana
- Pronto Pickle

Airport and Ground Transportation

The Hilton Hawaiian Village Waikiki Beach Resort is just 8 miles from the Honolulu International Airport.

SPEEDISHUTTLE AIRPORT TRANSPORTATION

SpeediShuttle is the only authorized on demand shuttle service provider at the Honolulu airport and has greeters stationed throughout the terminals.

• Shared Ride starting at \$15.48

For reservations call 808-949-4321 or book online at **speedishuttle.com**

From the resort call ext. 70773 or stop by the SpeediShuttle desk in the main lobby.

PUBLIC TRANSPORTATION OPTIONS

Oahu Transportation Services offers "The Bus" public bus transportation routes to all parts of Oahu. For information on routes, times, and fares please call (808) 848-5555 or visit <u>www.thebus.org</u>.

Also Available: The Waikiki Trolley: www.waikikitrolley.com

CAB FARE

Charley's Taxi provides general taxi service and is located at the Hilton Hawaiian Village. They offer several different options for transportation to and from the airport as well as around Honolulu. For reservations and information call (808) 947-0077 or Ext. 75255 from the resort or visit http://www. charleystaxi.com/services/airport/

ADA Compliance

The Hilton Hawaiian Village Waikiki Beach Resort is ADA compliant and meets all regulations. If you require special assistance at the Conference, please submit a written description of your requirements with your registration form or email registrations@ asce.org before Tuesday, August 2, 2016. While ASCE will make every effort to meet the needs of the disabled, accommodations cannot be guaranteed without prior notification.

Attendee Packets

Early-Bird and Advance registrants will receive their name badges and any tickets ordered at the Registration Desk during registration hours. Early-Bird and Advance registrants should present the official registration receipt to on-site registration staff to obtain conference materials. If you submit a registration form via fax or postal mail one week prior to or after the registration cut-off date, please be sure to bring a copy of your fax or postal confirmation (as well as your email confirmation if you have received one), along with the original registration form paperwork to ensure on-site registration staff can process your registration. Due to the time constraints near and after the registration cut-off date, the appropriate paperwork may not have been forwarded to the on-site staff before their departure.

Attire

The dress code for the Conference is business casual (i.e. slacks, casual dresses) to business attire (i.e. neckties, business suits). Meeting room temperatures will vary, so wear layered clothing to ensure your personal comfort. Please note that certain events may have specific details on attire, and you should refer to the event for more information.

Badge Policy

Your name badge is your admission to the Conference. Tickets are required for the pre-conference workshop, meals, and special events. Where tickets are required, please be sure to bring your tickets with you to each event as you will not be admitted without a ticket. Please wear your badge at all times while in the hotel. ASCE/CECAR 7 recommends you remove your badge when leaving the hotel.

Conference Proceedings

Conference Proceedings will be available to all conference attendees via CD. The Proceedings can be obtained at registration check-in.

Online access to the proceedings is also available at <u>www.eventscribe.com/2016/</u> <u>CECAR7</u>. Login: CECAR7

Meeting Room Overcrowding

ASCE/CECAR 7 will make every effort to schedule popular events in rooms large enough to accommodate anticipated attendance. Since many events are extremely popular, it is wise to select alternative events as you plan your Conference schedule. ACECC/CECAR7 and the Hilton Hawaiian Villages Resort personnel are REQUIRED to follow local fire regulations and may ask participants in rooms filled to capacity to choose another event.

No Smoking Policy

ASCE supports a "No Smoking" policy. Smoking is prohibited in the Hilton Hawaiian Village Waikiki Beach Resort and all venues hosting ACECC/CECAR7 events.

Recording of Sessions

Video or audio recording of any educational session is strictly prohibited without prior written permission from both ASECC/CECAR 7 and the session presenter(s).

Weather

Average temperatures range from a high of 89 degrees during the day to a low of 75 degrees in the evening hours.

Program and Session Cancellation

CECAR7 reserves the right to cancel programs and/or sessions because of low registration. In the unlikely event of a cancellation, all registrants will be notified and will receive a full refund, if applicable. Programs and sessions are subject to change, and reserve the right to substitute a program, session, and/or speaker of equal caliber to fulfill the educational requirements.

Release/Waiver

Photograph Release: By submitting the Registration form, I hereby release any photographs that may be incidentally taken of me during these events by ACECC/CECAR 7 to be used for any purpose.

Liability Waiver: In submitting this registration, I acknowledge and agree that I am undertaking to participate in the Conference activities as my own voluntary and intentional act. I agree that I alone am responsible for determining whether I am physically capable of participating in any Conference activity, and I understand that there is risk associated with my participation, which may include without limitation, injury or loss caused by my own negligence or the negligence of others. With knowledge and acceptance of the risks involved, I accept full responsibility for my own safety and well-being. In consideration of my participation in Conference activities, I hereby waive, release, hold harmless, and discharge ASCE and its officers, directors, and employees from any and all loss or injury that may be suffered by me in connection with Conference activities to the fullest extent permitted by law.

| INCLUDED IN YOUR REGISTRATION FEE CIVIL ENGINEERING CONFERENCE IN THE ASIAN REGION 2016 | Full Registration | Student Registration | Exhibitor | Sponsor | Daily-Wed | Daily-Thurs | Daily-Fri |
|---|-------------------|-------------------------|-----------|---------|-----------|-------------|-----------|
| Continental Breakfast-Wednesday | х | х | х | х | х | | |
| Lunch-Wednesday | х | x | х | х | х | | |
| Continental Breakfast-Thursday | х | x | х | х | | х | |
| Lunch-Thursday | х | х | х | х | | х | |
| Continental Breakfast-Friday | x | x | х | x | | | х |
| Conference Proceedings | х | х | | х | x | х | х |



*Ho-'omalamalama: Building a Sustainable Infrastructure in the Asia Pacific Region *Ho-'omalamalama is a Hawaiian term that means to brighten, illuminate, enlighten, or inform.

CECAR7 2016 EVENT LOCATIONS AND FLOORPLANS



REGISTRATION HOURS

| Monday | 12:30 – 4:00 p.m. |
|-----------|------------------------|
| Tuesday | 8:00 a.m. – 5:00 p.m. |
| Wednesday | 7:00 a.m 5:00 p.m. |
| Thursday | 7:00 a.m. – 5:00 p.m. |
| Friday | 7:30 a.m. – 12:00 p.m. |

| Registration | Palace Lounge |
|-----------------|-----------------------|
| Exhibit Hall | Palace Lounge |
| Poster Sessions | Palace Lounge |
| Lunch | Tapa Ballroom Salon 2 |

TECHNICAL SESSIONS

| Track A | Honolulu Suite 1 |
|---------|-----------------------|
| Track B | Honolulu Suite 2 |
| Track C | Honolulu Suite 3 |
| Track D | Iolani 3&4 |
| Track E | Iolani 6&7 |
| Track F | Tapa Ballroom Salon 1 |

CECAR7 2016



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