



16th International Conference on Civil and Environmental Engineering (ICCEE 2017)

Conference Program

November 12, 2017 (Sunday)						
Locations: Shangri-La Hotel, Tainan (B1)						
15:30 - 17:30	Registration					
15:30 - 17:30	Welcome Reception					
November 13, 2017 (Monday)						
Locations: The Magic School of Green Technologies						
09:10 - 17:00	Registration				Location: The Second Floor	
09:30 - 09:50	Opening Ceremony				Location: Conference Hall	
09:50 - 10:00	Group Photograph				Location: Conference Hall	
10:00 - 10:30	Keynote Lecture 1 The Environmental Disasters and Related Countermeasure in Northeast Asia Regions National Cheng Kung University, Emeritus Prof. Hwung-Hweng, Hwung Chair: Prof. Yang-Yih Chen				Location: Conference Hall	
10:30 - 10:50	Coffee Break (Location: The Third Floor)					
10:50 - 11:20	Keynote Lecture 2 Observation and Numerical Prediction of Localized Heavy Rain in Hiroshima in August 2014 Hiroshima University, Prof. Yoshihisa Kawahara Chair: Prof. Kenji Kawai				Location: Conference Hall	
11:20 - 11:50	Keynote Lecture 3 Ocean and Coastal Management in Taiwan: Issues and Challenges National Taiwan Ocean University, Prof. Wen-Yan Chiau Chair: Director Yung-Fang Chiu				Location: Conference Hall	
11:50 - 12:50	Lunch Time (Location: Room 1~4) Steering Committee Meeting (Location: Room 5)					
12:50 - 14:25	Session CE-1 Location: Room 1	Session CE-3 Location: Room 2	Session COE-1 Location: Room 3	Session EEEP-1 Location: Room 4	Session CE-5 Location: Room 5	
14:25 - 14:45	Coffee Break					
14:45 - 16:20	Session CE-2 Location: Room 1	Session CE-4 Location: Room 2	Session COE-2 Location: Room 3	Session EEEP-2 Location: Room 4	Session CE-6 Location: Room 5	
16:30 - 17:30	Guided Tour: The Magic School of Green Technologies (On-site Registration, Quote Limit: 40 people)				Location: The First Floor	
Locations: C-Hub @ NCKU						
17:40 - 20:00	Welcome Party					

[Abbreviations for session names] CE: Civil Engineering; SMA: Structural Materials and Architecture; TP: Transportation and Planning; HE: Hydraulic Engineering; COE: Coastal and Ocean Engineering; EEEP: Environmental Engineering and Environmental Preservation; SGI: Surveying and Geospatial Information; REME: Resources Engineering, Management and Economics



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November 14, 2017 (Tuesday)						
Locations: The Magic School of Green Technologies						
08:30 - 17:00	Registration				Location: The Second Floor	
08:40 - 09:10	Keynote Lecture 4 Safety Assessment of Upright Breakwater System Via Vibration Measurement and Simplified Model Pukyong National University, Prof. Jeong-Tae Kim Chair: Prof. Won-Bae Na				Location: Conference Hall	
09:10 - 09:40	Keynote Lecture 5 Performance of Framed Structures with Trapezoidal Steel Plate Infill Walls National Central University, Prof. Hsieh-Lung Hsu Chair: Prof. Wen-Yi Hung				Location: Conference Hall	
09:40 - 10:10	Keynote Lecture 6 Evaluation of Ship Emission on Air Quality in Taiwan by Using AIS National Cheng Kung University, Prof. Yee-Lin Wu Chair: Prof. Tsair-Fuh Lin				Location: Conference Hall	
10:10 - 10:30	Coffee Break (Location: The Third Floor)					
10:50 - 12:25	Session SGI & HE Location: Room 1	Session CE-7 Location: Room 2	Session COE-3 Location: Room 3	Session EEEP-3 Location: Room 4	Session CE-9 Location: Room 5	
12:25 - 13:10	Lunch Time (Location: Room 1~4) Steering Committee Meeting (Location: Room 5)					
13:10 - 14:45		Session CE-8 Location: Room 2	Session COE-4 Location: Room 3	Session EEEP-4 Location: Room 4		
14:45 - 15:00	Coffee Break (Location: The Third Floor)					
15:00 - 17:00	Student Workshop Title : Green Energy and Environmental Protection (20min for each team) (Location: Room 1)					
15:10 - 16:10	The Magic School of Green Technologies English Guided Tour and Chinese Guided Tour (On-site Registration, Quote Limit: 40 people)				Location: The First Floor	
Locations: Shangri-La Hotel, Tainan (3F)						
17:30 - 20:30	Closing Ceremony & Farewell Party					

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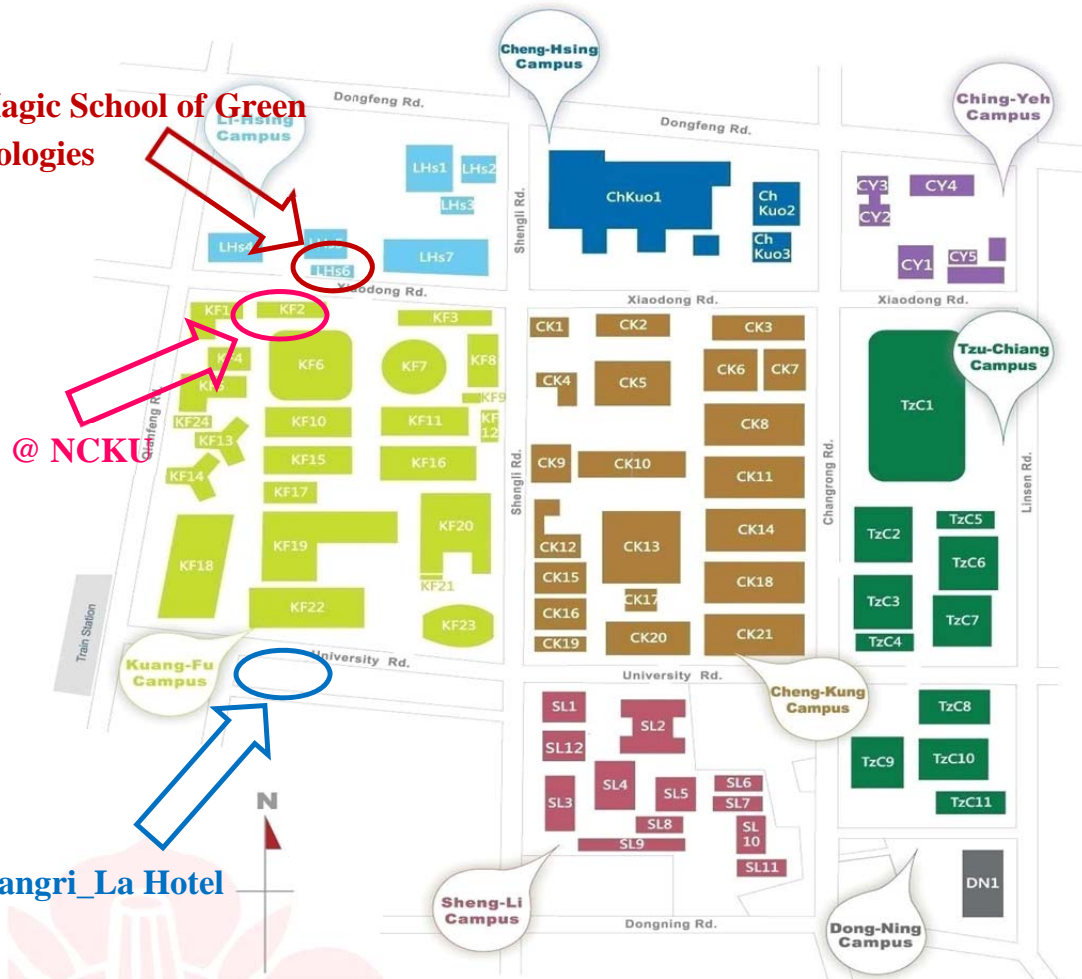
November 15, 2017 (Wednesday)	
Destination: Zengwen Reservoir, Chiayi County	
08:00 - 8:15	Meeting at The Magic School of Green Technologies
08:30 - 10:00	Trip from Tainan City to Chiayi County
10:00 - 12:00	Site Visit: Zengwen Reservoir, Chiayi County
12:00 - 13:00	Lunch Time/ Free Time
13:00 -15:00	Trip from Chiayi County to Tainan City



The Magic School of Green Technologies

C-Hub @ NCKU

Shangri-La Hotel





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Session Schedule

November 13, 2017 (Monday) 12:50 ~ 14:10						
Session CE-1 : Civil Engineering-1		Chair: Thanh-Canh Huynh		Location: Room 1		
Time	Title	Author	Reporter	Institution	Nation	Page
12:50 ~ 13:10	Preliminary Implementation of TDR Water Content Profile Monitoring at Zengwun Reservoir Watershed	Shih-Kai Wei and Chih-Chung Chung	Chih-Chung Chung	National Central University	Taiwan	1
13:10 ~ 13:25	Geographic Information Analysis by using Topic Model	Yuta Tsukano and Makoto Tsukai	Yuta Tsukano	Hiroshima University	Japan	3
13:25 ~ 13:40	A Detection of Velocity Deterioration Section on Highway	Yuki Yamamoto, Makoto Tsukai and Wataru Yamamoto	Yuki Yamamoto	Hiroshima University	Japan	5
13:40 ~ 13:55	An Experimental Study of Settlement Behavior of Artificial Reef according to Reinforcement Characteristics	Dae-Ho Yun and Yun-Tae Kim	Dae-Ho Yun	Pukyong National University	Korea	7
13:55 ~ 14:10	Experimental Evaluation of Influence Zone for End Bearing Capacity of Piles	Hiromu Suzuki and Koji Ichii	Hiromu Suzuki	Hiroshima University	Japan	9



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November 13, 2017 (Monday) 14:45 ~ 16:20						
Session CE-2 : Civil Engineering-2		Chair: Chih-Chung Chung		Location: Room 1		
Time	Title	Author	Reporter	Institution	Nation	Page
14:45 ~ 15:05	RBFN-based Compensation Technique for Impedance Monitoring under Varying Temperature	Thanh-Canh Huynh and Jeong-Tae Kim	Thanh-Canh Huynh	Pukyong National University	Korea	11
15:05 ~ 15:20	Fracture Energy of Concrete Subjected to Elevated Temperature at Early Ages	Xiangen Wang, Hiroki Nishikawa and Kenichiro Nakarai	Xiangen Wang	Hiroshima University	Japan	13
15:20 ~ 15:35	Temperature influence analysis on performance evaluation of expansive concrete under steam curing	Akeru Okazaki, Kenichiro Nakarai, Hideaki Karasawa, Yuji Tadokoro and Masato Tsujino	Akeru Okazaki	Hiroshima University	Japan	15
15:35 ~ 15:50	A repeated web survey for inter-regional passenger transportation demand	Yushi Sugahara, Makoto Tsukai and Canh Xuan Do	Yushi Sugahara	Hiroshima University	Japan	17
15:50 ~ 16:05	Cantilever Retaining Wall in Seismic Loading: Physical and Numerical Modelling	Wen-Yi Hung, Thien-An Nguten	Thien-An Nguyen	National Central University	Taiwan	19
16:05 ~ 16:20	Countermeasures for Reducing Embankment Deformation Induced by Lateral Spreading	Lin-Mao Hu, Wen-Yi Hung and Jun-Xue Huang	Lin-Mao Hu	National Central University	Taiwan	21



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November 14, 2017 (Tuesday) 10:50 ~ 12:25						
Session SGI & HE : Surveying and Geospatial Information & Hydraulic Engineering		Chair: Fang-Chun Lee		Location: Room 1		
Time	Title	Author	Reporter	Institution	Nation	Page
10:50 ~ 11:10	A Study on Marine Environment Quality in Magong Bay, Taiwan	Han-Lun Wu, Ping Chen, Ronting Hsu and Ruey-Chy Kao	Han-Lun Wu	National Cheng Kung University	Taiwan	199
11:10 ~ 11:25	The Competitiveness of Water Industry in Taiwan	Kuang-Chih Chang, Hsiang-Lan Juan, Te-Yuan Chen, Fang-Chun Lee and Chung-Feng Ding	Fang-Chun Lee	National Cheng Kung University	Taiwan	201
11:25 ~ 11:40	Moving Path and Speed of Sand Particles during Dune Formation	Akira Kitamura, Yoshihisa Kawahara and Tatsuhiko Uchida	Akira Kitamura	Hiroshima University	Japan	203
11:40 ~ 11:55	Open channel flow response to rigid submerged vegetation	Shotaro Ishihara, Yoshihisa Kawahara and Tatsuhiko Uchida	Shotaro Ishihara	Hiroshima University	Japan	205
11:55 ~ 12:10	Development of optimum rainfall threshold to predict of landslide initiation in Korea	Ji-Sung Lee, Ananta Man Singh Pradhan and Yun-Tae Kim	Ji-Sung Lee	Pukyong National University	Korea	207
12:10 ~ 12:25	Radiometric Normalization of Multitemporal Optical Satellite Images using Iteratively-Reweighted Multivariate Alteration Detection	Bo-Yi Lin, Zhi-Jia Wang and Chao-Hung Lin	Bo-Yi Lin	National Cheng-Kung University	Taiwan	209



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November 13, 2017 (Monday) 12:50 ~ 14:10						
Session CE-3 : Civil Engineering-3		Chair: Truong-Nhat-Phuong Pham		Location: Room 2		
Time	Title	Author	Reporter	Institution	Nation	Page
12:50 ~ 13:10	Soil depth modeling and its application in hillslope stability	Ananta Man Singh Pradhan, Ji-Sung Lee and Yun-Tae Kim	Ananta Man Singh Pradhan	Pukyong National University	Korea	23
13:10 ~ 13:25	Estimation Method for Accident Probability in Hydrogen Transport by road	Tatsuro Omachi, Hiroki Noguchi and Masaaki Fuse	Tatsuro Omachi	Hiroshima University	Japan	25
13:25 ~ 13:40	Earthquake-induced damage estimation of the road networks within small townships in Mandalay, Myanmar	Yu Nandar Hlaing, Koji Ichii and Kyaw Zaya Htun	Yu Nandar Hlaing	Hiroshima University	Japan	27
13:40 ~ 13:55	Design study of the deployable bridge with scissors structure	Yuta Hama, Ichiro Ario and Kotaro Adachi	Yuta Hama	Hiroshima University	Japan	29
13:55 ~ 14:10	SLOPE FAILURE BEHAVIOR STABILIZED BY COLUMN MIXED WITH WASTED MATERIAL (RICE HUSK ASH) USING CENTRIFUGE MODELING	Dwi Agrina and Wen-Yi Hung	Dwi Agrina	National Central University	Taiwan	31



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November 13, 2017 (Monday) 14:45 ~ 16:20						
Session CE-4 : Civil Engineering-4		Chair: Yun-Tae Kim		Location: Room 2		
Time	Title	Author	Reporter	Institution	Nation	Page
14:45 ~ 15:05	Effect of arrangements of geotextiles on the stability of Narrow Mechanically Stabilized Earth Wall	Wen-Yi Hung and Truong-Nhat-Phuong Pham	Truong-Nhat-Phuong Pham	National Central University	Viet Nam	35
15:05 ~ 15:20	Impedance Responses of PZT-CFRP Interface for Prestressed Multi-strand Tendon Anchorage System	Ngoc-Loi Dang, Thanh-Canh Huynh, Joo-Young Ryu and Jeong-Tae Kim	Ngoc-Loi Dang	Pukyong National University	Viet Nam	37
15:20 ~ 15:35	Artificial Neural Networks for Damage Detection in Wind-Turbine Supporting Structure	Cong-Uy Nguyen, Thanh-Canh Huynh, Ngoc-Loi Dang and Jeong-Tae Kim	Cong-Uy Nguyen	Pukyong National University	Korea	39
15:35 ~ 15:50	Performance of the Portable Signal Transmitter(Beacon) at Buried Condition in the Soil	Shohei Dohi and Koji Ichii	Shohei Dohi	Hiroshima University	Japan	41
15:50 ~ 16:05	Using centrifuge test to study the pile foundation behavior in lateral spreading situation	Wen-Yi Hung, Chung-Jung Lee, Yu-Yi Chang and Chung-Chi Weng	Chung-Chi Weng	National Central University	Taiwan	43
16:05 ~ 16:20	Characterizing Trade Structure for New and Used Automobiles Using Gravity Model	Shun Watanabe and Masaaki Fuse	Shun Watanabe	Hiroshima university	Japan	45



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November 14, 2017 (Tuesday) 10:50 ~ 12:15						
Session CE-7 : Civil Engineering-7		Chair: Jing-Hua Lin		Location: Room 2		
Time	Title	Author	Reporter	Institution	Nation	Page
10:50 ~ 11:10	New Absorbing Boundary Conditions for Time-Domain Analyses of Elastic-Wave Propagation in Infinite Media	Jin-Ho Lee, Ngoc-Loi Dang and Cong-Uy Nguyen	Jin-Ho Lee	Pukyong National University	Korea	69
11:10 ~ 11:30	Seismic behavior of canister in buffer material considering different conditions by centrifuge modeling test	Wen-Yi Hung and Jia-Jun Xu	Jia-Jun Xu	National Central University	Taiwan	71
11:30 ~ 11:45	Mechanism of Slope Failure Caused Large Scale Landslides	Teppei Iwai and Takeo Moriwaki	Teppei Iwai	Hiroshima University	Japan	73
11:45 ~ 12:00	Influence of curing condition on water absorption and chloride penetration into concrete	Yasutaka Kubori and Kenichiro Nakarai	Yasutaka Kubori	Hiroshima University	Japan	75
12:00 ~ 12:15	Effects of high temperature history at early age and drying on shear strength of RC beams with limestone aggregate	Hiroki Nishikawa, Yu Sasaki, Xiangen Wang and Kenichiro Nakarai	Hiroki Nishikawa	Hiroshima univercity	Japan	77



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November 14, 2017 (Tuesday) 13:10 ~ 14:45						
Session CE-8 : Civil Engineering-8		Chair: Jin Ho Lee		Location: Room 2		
Time	Title	Author	Reporter	Institution	Nation	Page
13:10 ~ 13:30	Dynamic Analysis of Caisson Breakwater System using Limited Vibration Measurement	So-Young Lee, Thanh-Canh Huynh, Ngoc-Loi Dang and Jeong-Tae Kim	So-Young Lee	Pukyong National University	Korea	79
13:30 ~ 13:45	Ultimate Slip Behavior of Perfobond-Strip under the Lateral Confinement Parallel to the PBL Plates	Ryo Isuda and Katashi Fujii	Ryo Isuda	Hiroshima University	Japan	81
13:45 ~ 14:00	A study on moisture transfer in cement paste and mortar using electrical resistance method	Tatsuya Kitagawa, Totsawat Daungwilailuk, Phuong Trinh Bui, Yuko Ogawa and Kenji Kawai	Tatsuya Kitagawa	Hiroshima University	Japan	83
14:00 ~ 14:15	Performance Evaluation of Fly Ash as Supplementary Cementitious Material for Contributing to Strength Development of Hardened Mortar Using SiO ₂ /C ₃ S	Tan Phat Huynh, Masashi Hajiri, Phuong Trinh Bui, Yuko Ogawa and Kenji Kawai	Tan Phat Huynh	Hiroshima University	Japan	85
14:15 ~ 14:30	Application of Borehole ERT in Ground Improvement Assessment	Chun-Hung Lin and Chih-Ping Lin	Chun-Hung Lin	National Sun Yat-sen University	Taiwan	87
14:30 ~ 14:45	The Failure Conditions of Sandy Slope by Centrifuge Modelling under Gravity, Earthquake and Rainfall	Wen Yi HUNG and Minh Canh TRAN	Tran Minh Canh	National Central University	Taiwan	89



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November 13, 2017 (Monday) 12:50 ~ 14:25						
Session COE-1 : Coastal and Ocean Engineering-1		Chair: Yang-Chi Chang		Location: Room 3		
Time	Title	Author	Reporter	Institution	Nation	Page
12:50 ~ 13:10	Reciprocity of Numerical Green's Functions and its Applications in the Quick Forecast of Tsunami and Storm Surges	Guan-Yu Chen and Chin-Chu Liu	Guan-Yu Chen	National Sun Yat-sen University	Taiwan	107
13:10 ~ 13:25	Streamflow distribution and salinity behavior in branch of a tidal river	Shokei kanetou, Kiyoshi Kawanishi, Meddy Danial and Takayuki Wakabayashi	Shokei Kanetou	Hiroshima University	Japan	109
13:25 ~ 13:40	A Relationship Between Scour and Soil Characteristics	Byeong-Ryeong Yoo and Yun-Tae Kim	Byeong-Ryeong Yoo	Pukyung National University	Korea	111
13:40 ~ 13:55	A Numerical Investigation on Sediment-Laden River Flow	Mackdonald Jeanty, Chun-Hung Pao and Jia-Lin Chen	Mackdonald Jeanty	National Cheng Kung University	Taiwan	113
13:55 ~ 14:10	Scour-Critical Conditions Around the Head of Breakwater	I-Fan Tseng, Chung-Pan Lee, I-Fu Lin and Yu-Chen Hsu	I-Fu Lin	National Sun Yat-sen University	Taiwan	115
14:10 ~ 14:25	Dynamic analysis of submerged gravity-type net cages under combined wave-current flow	Hung-Jie Tang, Ray-Yeng Yang and Yang-Yih Chen	Hung-Jie Tang	National Cheng Kung University	Taiwan	117



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November 13, 2017 (Monday) 14:45 ~ 16:20						
Session COE-2 : Coastal and Ocean Engineering-2		Chair: Guan-Yu Chen		Location: Room 3		
Time	Title	Author	Reporter	Institution	Nation	Page
14:45 ~ 15:05	Risk assessment of maritime engineering, case of offshore pipeline projects	Wei-Shing Wu, Chen-Feng Yang and Yang-Chi Chang	Yang-Chi Chang	National Sun Yat-sen University	Taiwan	119
15:05 ~ 15:20	Influence of Adsorbed Ions on Sediment Properties	Takahiro Suzuki, Yuki Morimoto, Tadashi Hibino and Shinya Nakashita	Takahiro Suzuki	Hiroshima University	Japan	121
15:20 ~ 15:35	Flow Analysis of Step-type Artificial Reef based on Computational Fluid Dynamics	Dongha Kim, Sung-Chul Jang and Won-Bae Na	Dongha Kim	Pukyong National University	Korea	123
15:35 ~ 15:50	Experimental study on the dynamic mooring line damping	Wen-Yang Hsu, Tzu-Ching Chuang, Wei-Ting Hsu, Ray-Yeng Yang and Ya-Cing YOU	Wen-Yang Hsu	National Cheng Kung University	Taiwan	125
15:50 ~ 16:05	Analysis on Optimization and Mutual Impact of Two Wind Farms Using WindPRO	Chiuan-Lin Chen, Pei-Chi Chang and Jiun-Jih Miao	Chiuan-Lin Chen	National Cheng Kung University	Taiwan	127
16:05 ~ 16:20	The Analysis of Nonlinear Interfacial Waves in a Two-layer Fluid	Yang-Yi Chen, Bin-Da Yang and Chang-Heng Ke	Chang-Heng Ke	National Sun Yat-sen University	Taiwan	129



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November 14, 2017 (Tuesday) 10:50 ~ 12:25						
Session COE-3 : Coastal and Ocean Engineering-3		Chair: Po-Hung YEH		Location: Room 3		
Time	Title	Author	Reporter	Institution	Nation	Page
10:50 ~ 11:10	Impact of climate change on wave characteristics around Taiwan	Kai-Cheng HU, Wei-Shiun LU, Wen-Son CHIANG, Jin-Li YU and Shih-Chun HSIAO	Kai-Cheng, Hu	National Cheng Kung University	Taiwan	131
11:10 ~ 11:25	Investigation on the function of GCA as a filter material	Hiroki Takata, Yuki Morimoto and Tadashi Hibino	Hiroki Takata	Hiroshima University	Japan	133
11:25 ~ 11:40	Settlements of Intensively Stacked Cube-type Artificial Reefs on the Seabed Soil	Minji Kim, Sol Han and Won-Bae Na	Minji Kim	Pukyong National University	Korea	135
11:40 ~ 11:55	Wave interaction with sinusoidal bottom using OpenFOAM	Yu Hsiao, Chung-Liang Tsai, Yen-Lung Chen and Shih-Chun Hsiao	Yu Hsiao	National Cheng Kung University	Taiwan	137
11:55 ~ 12:10	Wave Overtopping Risk Analysis using Joint Probability Method	Wen-Son Chiang, Wei-Shiun Lu and Kai-Cheng Hu	Wen-Son Chiang	National Cheng Kung University	Taiwan	139
12:10 ~ 12:25	DualSPHYSIC Simulation of Waves Traveling over the Dikes	Fang-Cheng Li, Chung-Ming Chung and Chao-Lung Ting	Fang-Cheng Li	Taiwan Ocean Research Institute	Taiwan	141



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November 14, 2017 (Tuesday) 13:10 ~ 14:30						
Session COE-4 : Coastal and Ocean Engineering-4		Chair: Kai-Cheng, Hu		Location: Room 3		
Time	Title	Author	Reporter	Institution	Nation	Page
13:10 ~ 13:30	The Correlation Analysis between Sediment Discharge and Marine Geomorphic Change on the Northern Yunlin Coast	Jing-Hua Lin, Yu-Qi Huang, Jia-Lin Chen and Ray-Yeng Yang	Jing-Hua Lin	National Cheng Kung University	Taiwan	143
13:30 ~ 13:45	Axial Velocity Characteristics of Propeller Jet Flow	Po-Hung Yeh and Jian-Hao Hong	Po-Hung Yeh	National Sun Yat-sen University	Taiwan	145
13:45 ~ 14:00	Mean Flow and Turbulence Fields due to Breaking Solitary Waves on Impermeable Rough Slopes	Yun-Ta Wu, Kang-Wei Huang, Hwung-Hweng Hwung and Ray-Yeng Yang	Yun-Ta Wu	National University of Singapore	Singapore	147
14:00 ~ 14:15	Wake Region Estimation of Artificial Reefs Considering Height Differences	Somi Jung and Won-Bae Na	Somi Jung	Pukyong National University	Korea	149
14:15 ~ 14:30	Time Evolution of Surface Waves Caused by Sea Bottom Variations	Jaw-Fang Lee and Pi-Sheng Hu	Jaw-Fang Lee	National Cheng Kung University	Taiwan	151



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November 13, 2017 (Monday) 12:50 ~ 14:25						
Session EEEP-1 : Environmental Engineering and Environmental Preservation-1		Chair: Akiyoshi Ohashi		Location: Room 4		
Time	Title	Author	Reporter	Institution	Nation	Page
12:50 ~ 13:10	Identification and Characterization of Natural Organic Matters in Upstream Rivers of a Drinking Water Reservoir	Chih-Hua Chang, Tsair-Fuh Lin, Jia-Wei Wang and Chun-Hsi Lai	Jia-Wei Wang	National Cheng Kung University	Taiwan	153
13:10 ~ 13:25	Simultaneous recovery of Ni and Co from rechargeable battery waste with dissolution treatment solution using MnOB	Taiki Ota, Tomonori Kindaichi, Noriatsu Ozaki and Akiyoshi Ohashi	Taiki Ota	Hiroshima University	Japan	155
13:25 ~ 13:40	An Investigation of Wind-Blown Sand Environment at Taichung Harbor in Taiwan	Chih-Chung Wen, Shu-Huei Jhang, Yong-Jun Lin and Li-Hung Tsai	Shu-Huei Jhang	Hungkuang University	Taiwan	157
13:40 ~ 13:55	Photoreduction of hexavalent chromium by graphene oxide under renewable sun or visible light irradiation	Shang-Shing Wu and Wen-Che Hou	Shang-Shing Wu	National Cheng Kung University	Taiwan	159
13:55 ~ 14:10	An effect of pyrolysis temperature of oyster shell on phosphate removal.	Hee-eun Woo, Kyeongmin Kim, Kyunghoi Kim and In-Cheol Lee	Hee-eun Woo	Pukyong National University	Korea	161
14:10 ~ 14:25	The impact of air quality on the conversion of solar energy	Min-Lin Luo and J.H. Lu	Min-Lin Luo	Taiwan Power Company	Taiwan	163



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November 13, 2017 (Monday) 14:45 ~ 16:20						
Session EEEP-2 : Environmental Engineering and Environmental Preservation-2		Chair: Shou-Heng Liu		Location: Room 4		
Time	Title	Author	Reporter	Institution	Nation	Page
14:45 ~ 15:05	Intensification of Biogas Purification at Normal Pressure by Physical and Biological Processes in a Sponge Scrubber System	Roslan Noorain, Tomonori Kindaichi, Noriatsu Ozaki and Akiyoshi Ohashi	Siti Noorain Binti Roslan	Hiroshima University	Japan	165
15:05 ~ 15:20	Occurrence of Endocrine Disrupting Activities, Brominated Flame Retardants and Organophosphorus Flame Retardants in Indoor Dust Collected from Taiwan	Chen-Hua Lee, Wen-Ting Shih, Fung-Chi Ko, Mei-Chun Tseng and Pei-Hsin Chou	Wen-Ting Shih	National Cheng Kung University	Taiwan	167
15:20 ~ 15:35	Preparation of humidity control materials by recycling inorganic sludges	Chi-Hong Kuok and Shou-Heng Liu	Chi-Hong Kuok	National Cheng Kung University	Taiwan	169
15:35 ~ 15:50	Quantification of Team Microbes for Cooperated Dechlorination in the Selected Chloroethene-Contaminated Sites	Henry Yew, Hui-Ping Chuang, Jia-Jun Tee, Liang-Ming Whang and Tsair-Fuh Lin	Henry Yew	National Cheng Kung University	Taiwan	171
15:50 ~ 16:05	Evaluation of the impacts of human activity on water quality: A case study in a reservoir catchment in southern Taiwan	Chia-Chen, Chung, Chun-Ying, Chao and Wan-Ru, Chen	Chia-Chen, Chung	National Cheng Kung University	Taiwan	173
15:05 ~ 16:20	Varation of environmental characteristics in Jinhae Bay according to climate change	SungHoon Ryu, Kyeongmin Kim, Incheol Lee and Kyunghoi Kim	SungHoon Ryu	Pukyong National University	Korea	175



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November 14, 2017 (Tuesday) 10:50 ~ 12:10						
Session EEEP-3 : Environmental Engineering and Environmental Preservation-3		Chair: Feng-Jiau LIN		Location: Room 4		
Time	Title	Author	Reporter	Institution	Nation	Page
10:50 ~ 11:10	Established Coastal Environment Condition Assessment off Yunlin, southwestern Taiwan	Ping Chen, Bo-Ren Su and Ta-Kang Liu	Ping Chen	National Cheng Kung University	Taiwan	177
11:10 ~ 11:25	Validation of the specificity of primers targeting Candidatus Saccharibacteria(TM7) in activated sludge	Ryota Takenaka, Tomonori Kindaichi, Yoshiteru Aoi, Noriatsu Ozaki and Akiyoshi Ohashi	Ryota Takenaka	Hiroshima University	Japan	179
11:25 ~ 11:40	A study of Nutrient Dynamics in the Love River and the Kaohsiung Harbor due to Sewerage Diversion	H.H. Huang, H.C. Yu, and Jason C.S. Yu	Jason C.S. Yu	National Sun Yat-sen University	Taiwan	181
11:40 ~ 11:55	Effectivity of Biological Microorganism's Application to Geotechnical Engineering for Grouting Material	Wen-Yi Hung, Ssu-Ching Chen, Emma Yuliani, Maytri Handayani, Chia-Sheng Hsu	Maytri Handayani	National Central University	Taiwan	183
11:55 ~ 12:10	Anthropogenic surfactants affect dynamics of marine organic carbon	Ruei-Feng Shiu and Chon-Lin Lee	Ruei-Feng Shiu	National Sun Yat-sen University	Taiwan	187



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November 14, 2017 (Tuesday) 13:10 ~ 14:30						
Session EEEP-4 : Environmental Engineering and Environmental Preservation-4		Chair: Wan-Ru Chen		Location: Room 4		
Time	Title	Author	Reporter	Institution	Nation	Page
13:10 ~ 13:30	A Comprehensive Investigation for Coastal Situation around Kaohsiung Coastal Area	Feng-Jiau Lin, Hsiu Wen Tso, Jung Ting Hsu, Yih-Tsong UENG and Hsiao Yun CHANG	Feng-Jiau Lin	National Cheng Kung University	Taiwan	189
13:30 ~ 13:45	Application of granulated coal ash for improving environment of redox coastal sediment	Kyunghoi Kim, Huon-Tae Kim and In-Cheol Lee	Kyeongmin Kim	Pukyong National University	Korea	191
13:45 ~ 14:00	Investigating the Androgen Receptor, Mineralocorticoid Receptor, and Thyroid Hormone Receptor Disrupting Activities of Bisphenols and Their Photodegradation Derivatives	Yueh-Chih Hsu, Bou-Ching Chen and Pei-Hsin Chou	Bou-Ching Chen	National Cheng Kung University	Taiwan	193
14:00 ~ 14:15	Operation Assessment of a Water Reclamation Plant by Water Quality Analysis, Fluorescence Excitation-Emission Matrix and High Performance Size Exclusion Chromatography	Sin-Yi Liou and Wan-Ru Chen	Sin-Yi Liou	National Cheng Kung University	Taiwan	195
14:15 ~ 14:30	Influences of mobility and migration of human on the awareness of the conservation of local environments and pro-environmental activity	Hajime Hirokane, Noriatsu Ozaki, Akiyoshi Ohashi and Tomonori Kindaichi	Hajime Hirokane	Hiroshima University	Japan	197



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November 13, 2017 (Monday) 12:50 ~ 14:25						
Session CE-5 : Civil Engineering-5		Chair: Wen-Yang Hsu		Location: Room 5		
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12:50 ~ 13:10	Strength Comparison of Stabilized Dredged Marine Clay using Cement and Steelmaking Slag	Arlyn Aristo Cikmit, Takashi Tsuchida and Gyeong O Kang	Arlyn Aristo Cikmit	Hiroshima University	Japan	47
13:10 ~ 13:25	A Basic Study of Soil Adhesion to Excavator Bucket	Xinhua Huang and Koji Ichii	Xinhua Huang	Hiroshima University	China	49
13:25 ~ 13:40	Magnetic-Mount PZT-Sensor for Impedance-based Damage Detection	Joo-Young Ryu, Huynh Thanh Canh and Jeong-Tae Kim	Joo-Young Ryu	Pukyong National University	Korea	51
13:40 ~ 13:55	Evaluation of Vegetation on Sandy Slope Under Rainfall, Gravity and Earthquake Condition by Centrifuge modeling	Wen-Yi Hung and Tsung-Hsuan Chu	Tsung-Hsuan Chu	National Central University	Taiwan	53
13:55 ~ 14:10	Modeling Future Location of Hydrogen Station for assessing Availability, Accessibility and Safety of Hydrogen	Nobuaki Kawanishi, Tatsuro Omachi and Masaaki Fuse	Nobuaki Kawanishi	Hiroshima University	Japan	55
14:10 ~ 14:25	The Accuracy of Trade Statistics: The Case of Metallic Ores	Kohei Endo and Masaaki Fuse	Kohei Endo	Hiroshima University	Japan	57



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Session CE-6 : Civil Engineering-6		Chair: Hung-Jie Tang		Location: Room 5		
Time	Title	Author	Reporter	Institution	Nation	Page
14:45 ~ 15:05	Cesium Adsorption Capability of Sealing Geomaterials made of Marine Clay, Bentonite, Sand and Zeolite	Ooki Kurihara, An Hu, Takashi Tsuchida, Genki Takahashi and Hiroki Murakami	Ooki Kurihara	Hiroshima University	Japan	59
15:05 ~ 15:20	Empirical Model Predict Volume of Debris Flow from Catchment Area and Channel Length Based on Probabilistic Method	Ba Quang Vinh Nguyen and Yun-Tae Kim	Ba Quang Vinh Nguyen	Pukyong National University	Korea	61
15:20 ~ 15:35	Analysis of National Freeway Pavement Detection Indices	Min Che Ho and Jyh Dong Lin	Min Che Ho	National central university	Taiwan	63
15:35 ~ 15:50	Future Ownership and Disposal of Hybrid Vehicles in Japan	Hiroshi Akamatsu and Masaaki Fuse	Hiroshi Akamatsu	Hiroshima University	Japan	65
15:50 ~ 16:05	Considering Turn-Back Facility for Large-scale Disruption in Railway Network	Hiroki Noguchi and Chi Yung Lam	Hiroki Noguchi	Hiroshima University	Japan	67



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November 14, 2017 (Tuesday) 10:50 ~ 12:30						
Session CE-9 : Civil Engineering-9		Chair: Kenji KAWAI		Location: Room 5		
Time	Title	Author	Reporter	Institution	Nation	Page
10:50 ~ 11:10	Effect of Chloride Solution on Adsorption and Desorption of Lead in Cement Hydrates	Shaojun Zhou, Masaharu Yamasaki, Yuko Ogawa and Kenji Kawai	Shaojun Zhou	Hiroshima University	China	91
11:10 ~ 11:30	Behavior of Moisture and Carbonation in Mortar Containing Polypropylene Fibers after Exposed to High Temperature	Totsawat Daungwilailuk, Tatsuya Kitagawa, Phuong Trinh Bui, Yuko Ogawa and Kenji Kawai	Totsawat Daungwilailuk	Hiroshima University	Japan	93
11:30 ~ 11:45	Development of IoT sensing modulus for infinite slope failures	Wen-Jong Chang, Shih-Hsun Chou and Jyh-Fang Chen	Shih-Hsun Chou	National Cheng Kung University	Taiwan	95
11:45 ~ 12:00	An analytical model considering variation of compressibility and radial permeability due to PVD-Installation	Ba-Phu Nguyen, Dae-Ho Yun and Yun-Tae Kim	Ba-Phu Nguyen	Pukyong National University	Korea	97
12:00 ~ 12:15	Chemical and Microstructure Properties of Cement Treated Marine Clay in Solidification Process	Hiroyasu Kasu, Takashi Tsuchida and Gyeong O Kang	Hiroyasu Kasu	Hiroshima University	Japan	99
12:15 ~ 12:30	Development Flow Chart and Checklist of Restoration of Road Sink in Urban Areas	Seo Jeongeun , Seong Joohyun, Jung Minhyung and Choi Byoungi	Jeongeun Seo	Korea Infrastructures Safety&Technology Corporation	Korea	101