Day1(4/16) 14:00 - 15:30		
TS6-15-1	TS7-3	TS6-8-1
Chair: William E. Kelly	Chair: Ken Kawamoto	Chairs: Akira Kashida (Kajima
(ASCE)	(Saitama University)	Corp.)
ASCE's support for	Management of landfills	Automated construction in Oita-
sustainable infrastructure	reclaimed with construction	gawa dam project
education and practice	and demolition wastes -	Takayuki Kambe (Kajima
William E. Kelly (ASCE)	Strength characterization	Corp.)
	for stability assessment	
	Purbashree Sarmah	
	(Kyoto University)	
Transforming civil	Measures taken in	Applying computer vision
engineering education and	Construction and	technology to inclination
practice to achieve the	Demolition Waste (CDW)	monitoring of a drainage gallery
United Nations sustainable	recycling in Japan	in a landslide
development goals: Where	Fumiaki Jikihara (Ministry	I-Hui Chen (National Chung
we are - Indian perspective	of Land, Infrastructure,	Hsing University)
Ajit Sabnis (InCiCon AG)	Transport and Toursim)	
Status of Bangladesh in	Sources, barriers and good	As-built management using the
educating future civil	practices to reduce	execution history of
engineers and practitioners	construction waste	construction machines in
on sustainable	Lilliana Abarca-Guerreo	pavement construction
infrastructure practices	(Instituto Tecnologico de	Genzaburo Matsuura (Tokyo
Mohammad Ali Ashraf	Costa Rica)	City University)
(Southern University		
Bangladesh)		

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Day1(4/16) 14:00 - 15:30		
New Zealand's provision for	Opportunities and	Development of new road
sustainable infrastructure	challenges of construction	pavement condition
education and practice	and demolition waste	visualization technology utilizing
April J. Lander (ASCE)	utilization: case of concrete	smartphone
	waste utilization in Bangkok	Hiroshi Sasaki (Fujitsu Traffic
	Metropolitan Region,	& Road Data Service Ltd.)
	Thailand	
	Vilas Nitivattananon	
	(Asian Institute of	
	Technology)	
Sustainability practice in	Current situation and new	Novotel Hotel extension project
the Philippine Infrastructure	regulations on construction	- planning, design and
Design and Construction	and demolition waste	construction of a seismic
Ernesto S. de Castro	management in Vietnam	isolated structure above an
(ESCA Inc./ PICE)	Nguyen Hoang Giang	underground metro station
	(National University of Civil	Shih-Pu Kuo (Sinotech
	Engineering)	Engineer Consultants Ltd.)
Continual Learning Center		
in Nepal for Sustainable		
Infrastructure Practices		
Dhrub Rai Thapa (Nepal		
Engineeres' Association)		
Ling.ineeres / issociation)		

Day1(4/16) 14:00 - 15:30		
TS6-14-1	TS4-3	TS6-12
Chair: Kuniyoshi	Chair: Akimasa Fujiwara	Chair: Nobuyoshi Yabuki
Takeuchi (University of	(Hiroshima University)	(Osaka University)
Yamanashi)		
Transdisciplinary approach	An evaluation of traffic and	Stereo vision based
for scientific-knowledge	safety efficiency of Single	framework for on-site
based decision making for	Point Urban (SPUI) and	tracking of multiple workers
building societal resilience	Diverging Diamond	Man-Woo Park (Myongji
to disasters	Interchange (DDI)	University)
Kuniyoshi Takeuchi	interchange.	
(University of Yamanashi)	Amir Masoud Rahimi	
	(University of Zanjan)	
Transdisciplinary approach	Potential and challenges of	Image sensing of traffic
in the preparedness phase	big data for transportation	flow characteristics and its
of a debris flow prone	planning and management	application for traffic safety
village in Taiwan	in the context of developing	Albert Y. Chen (Taiwan
Ting-Chi Tsao (Sinotech	nations	National University)
Engineering Consultants,	Arnab Jana (Indian	
Inc.)	Institute of Technology	
	Bombay)	
Trans-disciplinary approach	The effectiveness of	Productivity improvements
for enhancing resilience of	collected travel-time data	in the field of construction
business communities:	on travel time saving in a	by ICT
learning from Padang city	shared autonomous taxi	Masahiko Takeda (Japan
Harkunti Pertiwi Rahayu	system	Construction Information
(Institute Technology of	Zhiguang Liu (Nagoya	Center)
Bandung)	University)	

	Day1(4/16) 14:00 - 15:30	
Institutional structure for	An analysis of trucks' tour	Efforts for the practical use
incorporating science into	pattern using GPS	of BIM/CIM in Japan
decision-making - Building	trajectory data of freight	Hirotaka Sekiya (Ministry
the new-settlement of	vehicles in the Tokyo	of Land, Infrastructure,
Tacloban city of the	Metropolitan Area	Transport and Tourism)
Philippines -	Hideki Oka (The Institute	Transport and Tourism)
Senro Kuraoka (Nippon	of Behavioral Sciences)	
Koei Co., Ltd.)	or benavioral sciences)	
Status of Vietnam coastal	An analysis of traffic	Efforts to improve
erosion and proposed	accident factors using	productivity practiced by
policies for protection	ETC2.0 data	construction companies
,		· ·
Pham Hoang Kien	Canh Xuan Do (Hiroshima	Fumihiro Ojima (Tokyu
(University of Transport	University)	Construction Co., Ltd.)
and Communications)		
Restoration of housings in		
Nepal after the Gorkha		
earthquake, April 25th,		
2015 in the light of trans		
disciplinary approach		
Masashi Inoue (Eight-		
Japan Engineering		
Consultants, Inc.)		
Good reconstruction		
practices in Pakistan after		
the Kashimir earthquake		
Sarosh H. Lodi (NED		
University of Engineering &		
Technology, Pakistan)		
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	Day1(4/16) 14:00 - 15:30	
Relocation and land-use		
regulation following the		
Great East Japan		
Earthquake: How can		
scientific knowledge be		
incorporated into recovery?		
Mikio Ishiwatari (The		
University of Tokyo)		
Trans disciplinary approach		
for restroration of		
Kumamoto castle after the		
earhquakes in 2016		
Masaru Arakida (Asian		
Disaster Reduction Center)		

Day1(4/16) 14:00 - 15:30		
TS2-2		TS2-7
Chair: Osamu Kiyomiya		Chairs: Hiroyasu Kawai
(Waseda University)		(Port and Airport Research
		Institute), Wen-Son
		Chiang (National Cheng
		Kung University)
Technical standards		Characteristics of coastal
development, the present		disasters due to swell
state of technical standards		overtopping in Japan
and technical cooperation in		Katsuya Hirayama (Port
the ports and harbors field		and Airport Research
in Japan		Institute)
Masafumi Miyata		
(National Institute of for		
Land and Infrastructure		
Development of design		Impact of wave height and
code for port and harbor		sea level increasing on
facilities in Asian countries		shoreline recession
by university side		Wen-Son Chiang
Osamu Kiyomiya (Waseda		(National Cheng Kung
University)		University)
Development of quality port		Introduction to the new
infrastructure through the		web-based wave
establishment of the		information system of
national technical		Korea
regulations and standards		Sang-Ho Oh (Korea
Hau Duc Nguyen		Institute of Ocean Science
(Institute of Transport		and Technology)
Sicence and Technology)		

Day1(4/16) 14:00 - 15:30
Flow characteristics of
undular bore propagating
over sloping beach
Chang Lin (National Chung
Hsing University)
Current status and
challenges of wave
observation for ports and
harbours in Japan
Takashi Fujiki (Port and
Airport Research Institute)
Investigation of tropical
depression characteristics
and its associated surge
along the coast of
Bangladesh
Md Abdul Al Mohit
(Kyushu University)

	Day1(4/16) 16:00 - 17:30	
TS6-15-2	TS3-1	TS6-8-2
Chair: William E. Kelly	Chair: Chiwan W. Hsieh	Chairs: Akira Ooka (Taisei
(ASCE)	(National Pingtung University	Corp.)
	of Science and Technology)	
	3,,	
Next steps to ensure civil	RECP installation effect on	Design and construction of
engineers in the U.S. can		linkway with underpinning and
support achievement of the	and manning coefficient in	SCL tunnels with ground
SDGs	channel flow	freezing crossing underneath
William E. Kelly (ASCE)	Motsa Thabo (National	existing MRT 'live' tunnels for
William E. Keny (ASCL)	Pingtung University of Science	Thomson-East Coast Line
	,	
	and Technology)	Marina Bay Station in
		Singapore
		Hiromitsu Tada (Taisei Corp.)
Next steps to ensure civil	Model tests on geosynthetic-	Design and construction of the
engineers in Japan can	reinforced soil foundation	tunnel with artificial ground
support achivement of the	subjected to normal faulting	freezing for the 100m
SDGs	Jung Chiang (National	passenger adit of MTR West
Yoshinori Fukubayashi	Taiwan University)	Island Line C704 in Hong Kong
(University of Miyazaki)		Teijiro Saito (Nishimatsu
		Construction Co., Ltd.)
Technical cooperation and its	Applications of geosynthetics	On the volume restriction
contribution to the realization	for countermeasures against	operation of artificially frozen
of the SDGs' "Data Revolution"	nuclide contamination	ground for suppression of frost
Hiroshi Takeuchi (Japan	Takeshi Katsumi (Kyoto	heaving by warm-water piping
International Cooperation	University)	around frozen ground
Agency)	omversity)	Hiroshi Ogura (Seiken Co.,
, igeney ,		Ltd.)
		, , , , , , , , , , , , , , , , , , ,
	Analysis of model test results	Prediction of ground
	on combined use of EPS and	deformation and freezing earth
	geogrid to improve seismic	pressure with anisotropy of
	stability of bridge abutments	frost heave in artificial ground
	Junichi Koseki (The	freezing method
	University of Tokyo)	Masato Oishi (Seiken Co.,
	Investigation of geosynthetic	The first and largest
	reinforced soil embankments	membrane-based water
	Tomohiro Fujita (Public	treatment plant in the
	Works Research Institute)	Philippines
		Ronaldo C. Padua (Maynilad
		Water Services, Inc.)

Day1(4/16) 16:00 - 17:30
Lateral shear resistance of
triangular geogrid-reinforced
aggregate layer overlaying
poorly-graded sand layer
Jiro Kuwano (Saitama
University)
Application of vertical drains
for the construction of
embankment
Ying-Kung Wang (Sinotech
Engineering Consultants, Ltd.)

Day1(4/16) 16:00 - 17:30		
TS6-14-2	TS6-6	TS3-2
Chair: Kuniyoshi	Chair: Sang-Ho Lee	Chair: Shinichi Akutagawa
Takeuchi (University of	(Yonsei University)	(Kobe University)
Yamanashi)		
ACECC TC21's Efforts	The BIM application of	On-Site visualization for
Toward Building Societal	Danjiang Bridge Project,	advanced safety management
Resilience to Disasters	Taiwan	and maintenance for tunnels
through Transdisciplinary	Ting Far Teng (Sinotech	Shinichi Akutagawa (Kobe
Approach (TDA)	Engineering Consultants,	University)
Yoshihiro Katsuhama	Ltd.)	
(Nippon Koei Co., Ltd.)		
Transdisciplinary Approach	Planning of the Infra BIM	Case study on recovery of
for Building Social	implementation for	over-deformed metro tunnel
Resilience to Disasters	construction site offices	in Shanghai by soil grouting
-The 21st Technical	Hee Won Park (TAESUNG	Dongming Zhang (Tongji
Committee Activity-	SNI Singapore)	University)
Kenichi Tsukahara		
(Kyushu University)		
	Now and future of Infra	Consideration for supporting
	BIM mandate and projects	creation of 3-D model of
	Yoshihiko Fukuchi	underground structure
	(Autodesk Inc.)	Takeshi Okamoto (Takenaka
		Civil Engineering &
		Construction Co., Ltd.)
	Development of BIM-based	Construction challenges and
	information management	characteristic considerations
	system for railway	for a metamorphic rock tunnel
	infrastructure projects	in Taiwan
	Sung-Hoon Kim	Zong-Han Wu (CECI
	(TAESUNG SNI)	Engineering Consultants, Inc.)
	(2001.0 0.11)	

Day1(4/16) 16:00 - 17:30	
Development of BIM bas	sed
standard technology for	
railway infrastructure	
Sang-Ho Lee (Yonsei	
University)	

Day1(4/16) 16:00	- 17:30
	TS2-1
	Chair: Yoshimitsu Tajima
	(The University of Tokyo)
	Integration of remote sensing
	and GIS to study erosion and
	accretion at estuaries and
	coastal zone in Thua Thien
	Hue province
	Hung Thanh Nguyen
	(Vietnam Academy for Water
	Resources)
	Investigation of dynamic
	morphological changes
	around the potential cross-
	dams sites at the north-
	eastern part of the Meghna
	Estuary of Bangladesh
	Mohammad Asad Hussain
	(Bangladesh University of
	Engineering and Technology)
	Development of economic
	evaluation framework for
	adaptation to future beach
	loss
	Keiko Udo (Tohoku
	University)

Potential use of discharge
channel for beach recovery in
Pamanukan - Subang
Regency, Indonesia
Takayuki Suzuki (Yokohama
National University)
Thailand's economic and
adaptation assessment to
future beach loss due to sea
level rise
Chatuphorn Somphong
(Tohoku University)

Day2 (4/17) 09:00 - 10:30		
TS4-1	TS6-9	TS6-8-3
Chair: Masaaki Okada	Chairs: Tsunemi	Chairs: Akira Kashida
(Kindai University)	Watanabe (Kochi	(Kajima Corp.)
	University of Technology),	
	Hai Luong Nguyen	
	(University of Transport	
	and Communications)	
Redesign of historical	Investigation of users'	Construction of a sharp-
structures for succession	viewpoints in post appraisal	curved balanced cantilever
and to create a story of	of ODA infrastructure	bridge over a highway in
bridges and people	projects: the case of	Jakarta Mass Rapid Transit
Yoh Sasaki (Waseda	Vietnam	Project
University)	Hai Luong Nguyen	Koushi Seki (Tokyu
	(University of Transport	Construction Co., Ltd.)
	and Communications)	
An actual proof of	Evaluation approaches to	Post-pilecap static axial
Tokushima's Museum of	improve efficiency of Japan'	loading test
Bridges	s development assistance	Muhammad Rizal (WIKA
Shuichi Takeichi	projects	Engineering and Research
(Tokushima Prefecture	Satoshi Yamaoka	Institute)
Land Development Public	(Utsunomiya University)	
Corporation)		
The importance of	Introduction of users'	Historic Franklin Avenue
autonomous management	viewpoint into post	Bridge rehabilitation
by a local community for	evaluation for ODA	Stephen Kaldenbach
sustainable use of	infrastructure projects	(Kraemer North America)
traditional water	focusing on appropriate	(11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
infrastructure: a case study	technology	
in Gujo Hachiman	Junji Yokokura (Yachiyo	
Seiya Inomata (School of	Engineering Co., Ltd.)	
the Water in Gujo-		
hachiman, Specified		
Nonprofit Corporation)		
r		

Day2 (4/17) 09:00 - 10:30		
The new guide map of	Competitiveness of China's	Design and construction of
bridges gain much more	large international	6m diameter segmental
interests of high school	contractors in 2017	tunnel in NIPE Contract C4,
students	Shuangliang Tai (Harbin	Singapore
Kei Suzuki (Nihon	Instiutute of Technology)	Ong Ai Bin (Penta Ocean
University)		Construction Co., Ltd.)
	Lesson learned and	Tokyo Outer Ring Road,
	direction for performance	Main Line Tunnel Project
	improvement of ODA	(Tomei-North)
	infrastructure project in	Masami Moriguchi (Kajima
	Indonesia	Corp.)
	Dewi Larasati (Institut	
	Teknologi Bandung)	
	Estimation method to	
	measure effectiveness of	
	consulting engineers for	
	public works in Japan	
	Takashi Goso (Tokyo City	
	University)	
	Motivation of construction	
	engineers and users'	
	satisfaction in infrastructure	
	projects	
	Tsunemi Watanabe	
	(Kochi University of	
	Technology)	

Day2 (4/17) 09:00 - 10:30		
TS4-6 & TS6-3	TS2-6	TS4-4
Chairs: Tamon Ueda	Chairs: Toshio Koike	Chair: Shunsuke Kamijo
(Hokkaido University), Koki	(Public Works Research	(The University of Tokyo)
Hirota (Saitama	Institute), Maximo L.	
University)	Carvajal (Department of	
	Public Works and	
	Highways, the Philippines)	
Assessing quality of	Water and disasters -	Logistics vehicle
infrastructure in the United	Toward building resilient	management system using
States	society under climate	ETC2.0 probe data
William E. Kelly (ASCE)	change -	Yuji Ikeda (National
	Toshio Koike (Public	Institute for Land and
	Works Research Institute)	Infrastructure
		Management)
Status and challenges of	Policy vision on rebuilding	Solutions for urban traffic
quality management for	flood-conscious societies	issues using ITS
infrastructure in Taiwan	Hirotada Matsuki	Technologies
Wu Te Ko (Cheng Shiu	(Ministry of Land,	Shunsuke Kamijo (The
University)	Infrastructure, Transport	University of Tokyo)
	and Tourism)	
Optimised management of	Management system for	Impacts of driver's
aging infrastructure in	mitigation of flooding	compliance levels on
Australia	disaster in Tainan	effectiveness of reactive
Paul Louis Mitchell	Cheng-Lun Shieh	variable speed limit control
(Centre for Pavement	(National Cheng Kung	under freeway bottleneck
Excellence Asia Pacific Ltd.)	University)	congestion
		Sorawit Narupiti
		(Chulalongkorn University)

	Day2 (4/17) 09:00 - 10:30	
Japanese Private Sector's	Integrated flood modelling	Development of mobility as
Contribution to	and monitoring in Indonesia	a service in Taiwan
Infrastructure Development	Irfan Sudono (Research	Jason Chang (National
in Asia	and Development Center	Taiwan University)
Katsuji Fukumoto	for Water Resources,	
(Obayashi Road	Bandung)	
Corporation)		
Quality and resilient	Activities for risk reduction	
infrastructure in Asia: How	of water-related disasters	
can investment gap be	through the IFI platform in	
bridged?	the Philippines	
Koki Hirota (Saitama	Maximo L. Carvajal	
University)	(Department of Public	
	Works and Highways, the	
	Philippines)	
An analysis of the future		
demand for urban railways		
in Asia		
Hiroshi Takeuchi (Japan		
International Cooperation		
Agency)		
-		

Day2 (4/17) 09:00 - 10:30		
GS-6-1	GS-1 & GS-5-1	TS2-3-1
Chair: Yoshinori	Chair: Yuta Yamada	Chair: Natsuhiko Otsuka
Fukubayashi (University	(Nihon Univertsity)	(Hokkaido University)
of Miyazaki)		
Anti corruption, ethics,	Structural design of the	Overview of recent shipping
sustainable infrastructure	Danjiang Bridge, Taiwan -	activities along the
and the UN sustainable	The largest asymmetric	Northern Sea Route
development goals	single tower cable stayed	Xiaoyang Li (Hokkaido
William E. Kelly (ASCE)	bridge	University)
	Kilian Karius (Leonhardt,	
	Andra und Partner)	
A new engineering	Design of Chung Cheng	Characteristics of sea ice
management contribution	Steel Arch Bridge in Taipei	condition for safe
to SDGs in Asia	Hsin-Yang Tsai (CECI	navigation along the
Rikuo Katsumata (Tokyo	Engineering Consultants,	Northern Sea Route
City University)	Inc.)	Natsuhiko Otsuka
		(Hokkaido University)
Challenges and	A study on the design of	Estimation of sailing speed
experiences: the	experimental DB based on	through ice covered waters
professional construction	BIM for small and medium-	based on the satellite
management consultancy	sized aging Concrete bridge	observation along the
service of renovating sports	Se-Hyun Park (KOCED	Northern Sea Route
venues for 2017 Taipei	CMI)	Kazutaka Tateyama
Summer Universiade		(Kitami Institute of
Ting En Wu (Moh &		Technology)
Associates, Inc.)		

	Day2 (4/17) 09:00 - 10:30
Risk analysis of PPP urban	Seismic risk assessment of
railway project in Asia	bridges in Indonesia:
Hidetoshi Matsushita	methodology & case study
(National Graduate	Mutiara Cripstyani (IUSS
Institute for Policy Studies)	Pavia, PT Wiratman)
A Real Options Analysis	
(ROA) framework for	
resilient gas station projects	
Jatupol Siripongvakin	
(Kasetsart University)	

	Day2 (4/17) 11:00 - 12:30	
Hold	TS2-5-1	Hold
	Chairs: Hitoshi Tanaka	
	(Tohoku University),	
	Il Won Seo (Seoul	
	National University)	
	Probable Maximum	
	Precipitation (PMP)	
	evaluation in Northeast	
	Vietnam region in the	
	context of climate change	
	Thuy Thi Thanh Le	
	(Fukushima University)	
	Levee breaches at the	
	confluence of the Satsunai	
	and Tottabetsu Rivers in	
	Hokkaido, Japan	
	Yoshiaki Ishida (Hokkaido	
	University)	
	Estimating low flows in the	
	flow duration curve of	
	catchments in the humid	
	tropics	
	Chris Leong (Fukushima	
	University)	
	Analysis of rainfall-induced	
	shallow landslide using	
	hydrological-geotechnical	
	model	
	Thapthai Chaithong	
	(Tohoku University)	

Day2 (4/17) 11:00 - 12:30		
	Characteristics of the	
1	disaster by Northern	
	Kyushu Heavy Rain in July,	
	2017	
:	Shinichiro Yano (Kyushu	
	University)	

Day2 (4/17) 11:00 - 12:30		
TS6-3 & TS6-7	TS4-7	TS6-16
Chairs: Koki Hirota	Chairs: Shinya Hanaoka	Chair: Yoh Sasaki
(Saitama University),	(Tokyo Institute of	(Waseda University)
Tamon Ueda (Hokkaido	Technology), Rubel Das	
University)	(Nippon Koei Co., Ltd.)	
Estimating demand for	The role of urban planning	The role and challenges of
flood protection	in building disaster resilient	girl's class in civil
infrastructure	cities and the	engineering - Kanto Gakuin
Mikio Ishiwatari (Japan	demonstration case of	University
International Cooperation	Denpasar city in ASEAN	Sachiko Oyama
Agency)	Region	(Kojimagumi Co., Ltd.)
	Kien To (Eight-Japan	
	Engineering Consultants,	
	Inc.)	
Unlocking the spillover	On the progress and	SWCE's influence and
effect of Infrastructure and	prospect for promoting	expectations in Japanese
improving quality of life:	sponge city in Taiwan	construction industry
new insights for private	Shen-Hsien Chen	Kiko Yamada Kawai
sector investment in	(Sinotech Engineering	(Tokyo Institute of
developing countries in Asia	Consultants Inc.)	Technology)
Ke Seetha Ram (Asian		
Development Bank		
Discussion: policies of	The key learned from the	Women in civil engineering:
infrastructure development	leaders in regional	attracting and retaining
in Jakarta	revitalization	Robin A. Kemper (ASCE)
Sutanto Soehodho	Shu Takahashi (Nippon	
(Jakarta Local	Koei Co., Ltd.)	
Government; University of		
Indonesia)		

Day2 (4/17) 11:00 - 12:30		
Regeneration of urban	Diversity & inclusion	
functions by improving	management supporting	
underground pedestrian	women's active	
network of The Otemachi-	participation - introduction	
Marunouchi- Yurakucho	of Pacific Consultant's	
districts	actions-	
Isao Muto (Mitsubishi	Ayako Okawa (Pacific	
Jisho Sekkei Inc.)	Consultants Co., Ltd.)	
The study on drainage and	Civil engineering: career	
sewerage improvement	prospects for women in the	
project in Phnom Penh	Middle East	
metropolitan area	Dima Jawad (Notre Dame	
Kazuhiro Nakamura (CTI	University)	
Engineering Co., Ltd.)		
Development of tidal	Women in (Australian) civil	
embankment and area	engineering leadership	
management after the	Rebecca J. Gravina (RMIT	
Typhoon Yolanda in	University)	
Philippines		
Masaaki Chida (Pacific		
Consultants Co., Ltd.)		
	Regeneration of urban functions by improving underground pedestrian network of The Otemachi-Marunouchi- Yurakucho districts Isao Muto (Mitsubishi Jisho Sekkei Inc.) The study on drainage and sewerage improvement project in Phnom Penh metropolitan area Kazuhiro Nakamura (CTI Engineering Co., Ltd.) Development of tidal embankment and area management after the Typhoon Yolanda in Philippines Masaaki Chida (Pacific	

Day2 (4/17) 11:00 - 12:30		
GS-6-2 & GS-3	GS-1 & GS-5-3	TS2-3-2
Chair: Moonkyung Chung	Chair: Hikaru Nakamura	Chair: Natsuhiko Otsuka
(Korea Institute of	(Nagoya University)	(Hokkaido University)
Construction Engineering)		
Basic study on efficiency	Design of steel beams	Sailing route optimization
improvement of road	strengthened using low	for the NSR to minimize the
degradation analysis using	modulus carbon fiber	fuel consumption
floating car data and mobile	reinforced polymers	Hajime Yamaguchi (The
mapping system	Mahendrakumar	University of Tokyo)
Kunihiro Ishii (Aisa Air	Madhavan (Indian	
Survey Co., Ltd.)	Institute of Technology	
	Hyderabad)	
Applying time domain	Effect of crack path on	A semi-supervised sea ice
reflectometry technology to	shear load carrying	SAR image segmentation
measure slope deformation	mechanism of RC beams	strategy based on WGANs
in landslides	Yuta Yamada (Nihon	Yu-Huan Zhao (Fudan
I-Hui Chen (National	University)	University)
Chung Hsing University)		
Network of large scale	Shear strenthening of RC	Route search system in ice
testing facilities in Korea	beams reinforced by FRP	sea using dynamic window
established by KOCED	grid-PCM	approch
program	Rui Guo (Southwest	Toshiyuki Takagi
Gyeongjung Kim (KOCED	Jiaotong University)	(National Institute of
CMI)		Technology, Kushiro
Standardization of test	Elimination of transverse	
procedures in construction	reinforcement in new RC	
field of Korea	beam-column joints by	
Taehyeong Kim (KOCED	using highly flowable strain	
CMI)	hardening fiber reinforced	
	concrete (HF-SHFRC)	
	Wen-Cheng Liao (National	
	Taiwan University)	

Day2 (4/17) 11:00 - 12:30	
Investigation of axial force	
effect on the seismic	
response of RC piers using	
real-time hybrid simulation	
Minseok Park (Myongji	
University)	
 A novel analysis method of	
SDOF dynamic structure	
response considering soil	
structure interaction by soil	
impedance function	
Chiehcheng Chen	
(National Taipei University	
of Technology)	

Day2 (4/17) 14:00 - 15:30			
TS1-1	TS2-5-2 TS6-4		
Chairs: Dong Soo Kim	Chairs: Hitoshi Tanaka	Chairs: Hironori Kato	
(Korea Advanced Institute	(Tohoku University), II	(The Univeristy of Tokyo),	
of Science and	Won Seo (Seoul National	Le Binh Phan (Vietnam -	
Technology), Riki Honda	University)	Japan University)	
(The University of Tokyo)	, , ,	,,,,	
Evaluation of seismic	Evaluation of landuse cover	Engineering education for	
coefficients for pseudo	change and climate change	civil engineers in Asia:	
static analysis of gravity	impact to hazard area in	lessons from International	
type quay wall by	Laos PDR	Engineering Program of the	
centrifuge tests	Sengphrachanh	University of Tokyo, Japan	
Dong Soo Kim (Korea	Phrakonkham (Tohoku	Hironori Kato (The	
Advanced Institute of	University)	Univeristy of Tokyo)	
Science and Technology)			
Seismic design methods for	Drone-based tracer tests	Engineering education for	
resilience against intense	for observing the spatio-	civil engineers in Vietnam	
earthquake in Chile	temporal distributions of	Japan University toward a	
Victor Diaz (Ministry of	pollutant spilled into river	sustainable development	
Public Works)	Donghae Baek (Seoul	Le Binh Phan (Vietnam -	
	National University)	Japan University)	
Implementation and new	Feasibility of velocity-based	AUN/SEED-Net to develop	
approach for resilience	method for transverse	educational program	
design against extreme	mixing coefficients of 2D	among developing	
events: seismic design of	mixing analysis in natural	countries with Japanese	
highway bridges in Japan	rivers	university	
Shojiro Kataoka	Sung Hyun Jung (Seoul	Tamon Ueda (Hokkaido	
(National Institue for Land	National University)	University)	
and Infrastructure			
Management)			

Day2 (4/17) 14:00 - 15:30				
Strong ground motions to	Study of flow and mixing	Some challenges in		
be employed during the	characteristics in open	designing an educational		
design and performance	channel flow with rigid	curriculum in civil		
analysis of building type of	vegetation	engineering		
structures according to the	Il Won Seo (Seoul	Sudhir Misra (Indian		
New Turkish Seismic Code	National University)	Institute of Technology)		
Beyza Taskin (Istanbul				
Technical University)				
Overview of the state of the	Analysis of regional	Building blocks for quality in		
art in performance-based	characteristics of natural	engineering education		
design of port waterfront	disasters in the Philippines	Paul Louis Mitchell		
structures	Keisuke Ono (CTI	(Centre for Pavement		
Stephen E. Dickenson	Engineering Internatinal	Excellence Aisa Pacific Ltd.)		
(New Albion Geotechnical,	Co., Ltd.)			
Inc.)				

Day2 (4/17) 14:00 - 15:30			
Hold	GS-1 & GS-5-2	Hold	
	Chair: Kolluru V.L.		
	Subramaniam		
	(Indian Institute of Technology		
	Hyderabad)		
	Alkali-activated cements:		
	overview on current robustness		
	of the technology		
	Joonho Seo (Korea Advanced		
	Institute of Science and		
	Technology)		
	Evaluation of concrete frost		
	damage depth using		
	thermography		
	Yutaka Takashina (Kobe City		
	College of Technology)		
	Early age behavior of crack		
	movement in RCC base of		
	HMA-RCC composite pavement		
	Tetsya Sok (Gangneung-		
	Wonju National University)		

Day2 (4/17) 14:00 - 15:30				
	Performance of exposed			
	aggregate concrete pavement			
	Jae Hoon Kim (Gangneung-			
	Wonju National University)			

Da3 (4/18) 11:00 - 12:30				
TS7-2	TS5-1	TS2-4		
Chair: Tomohito Yamada	Chair: Tetsuya Ishida	Chair: Shinji Yamaguchi		
(Hokkaido University)	(The Univesity of Tokyo)	(National Institute for Land		
		and Infrastructure		
		Management, MLIT)		
A decision support system	Potential utilizations of off-	Climate change and		
for highway infrastructure	standard fly ashes	countermeasures against		
protection planning against	Somnuk Tangtermsirikul	sediment disaster in Japan		
sea level rise	(Thammasat University)	Taro Uchida (National		
Jinwoo Lee (The Hong		Institute for Land and		
Kong Polytechnic		Infrastructure		
University)		Management, MLIT)		
The analysis of future flood	Application of fly ash and	Overview of current		
risk in Hokkaido, northern	bottom ash from coal fired	landslide hazard zonation		
Japan, using database for	thermal power plants in Sri	mapping methodology		
policy decision making for	Lanka	utilize in Sri Lanka		
future climate change	S. M. A. Nanayakkara	M.A.K. Kumari (National		
(d4PDF)	(University of Moratuwa)	Building Research		
Tomohito Yamada		Organisation)		
(Hokkaido University)				
Climate change adaptation	High-volume utilization of	Hazard mitigation and		
in water sensitive urban	supplementary	preparedness of potential		
design strategies	cementitious materials in	deep-seated landslide and		
Paul Louis Mitchell	concrete buildings toward	debris flow torrent in		
(Centre for Pavement	sustainability	Taiwan: introduction of		
Excellence Asia Pacific Ltd.)	Takafumi Noguchi (The	recent government actions		
	University of Tokyo)	Ching-Ying Tsou (Hirosaki		
		University)		

Da3 (4/18) 11:00 - 12:30				
The analysis of future	Efficient production of	Prompt maximum damage		
heavy rainfall in Hokkaido,	alkali-activated	estimation against sediment		
northern Japan, using	geopolymers from low-	disaster based on sediment		
database for Policy Decision	calcium fly ash	movement magnitude		
making for Future climate	Kolluru V.L.	Shinichiro Hayashi		
change (d4PDF)	Subramaniam (Indian	(Hokkaido University)		
Tsuyoshi Hoshino	Institute of Technology			
(Hokkaido University)	Hyderabad)			
	Application of mineral	Estimating end of life for		
	admixtures in hot weather	Sabo dams		
	conditions	Kihwan Lee (University of		
	Shingo Asamoto (Saitama	Yeungnam)		
	University)			
	Current situation on the	The megadisaster of the		
	utilization of industrial by-	mountain region of the Rio		
	products for construction in	de Janeiro State, Brazil,		
	Vietnam	and advances of knowledge		
	Nguyen Hoang Giang	about debris flows in Brazil		
	(National University of Civil	Ingrid Ferreira Lima		
	Engineering)	(Federal University of Rio		
		de Janeiro)		
	Multiphase model for			
	predicting temperature-			
	dependent pozzolanic			
	reaction of low-calcium fly			
	ash in cement systems			
	Tetsuya Ishida (The			
	University of Tokyo)			

Day3 (4/18) 11:00 - 12:30			
TS6-5	GS-2	GS-4-1	
Chairs: Mitsuyasu	Chairs: Akiyuki Kawasaki	Chairs: Kuniaki Sasaki	
Iwanami (Tokyo Institute	(The University of Tokyo),	(Waseda University),	
of Technology)	Jinwoo Lee (The Hong	Arnab Jana (Indian	
Thomas W. Smith, III	Kong Polytechnic	Institute of Technology	
(ASCE)	University)	Bombay)	
Enhancing citizens'	Computational calculations	Analysis of basic	
understanding on	of different heavy metal	characteristics of ETC2.0	
importance of infrastructure	binding onto magnetic	probe data	
based on Infrastructure	cored dendrimer	Toshikazu Mathushima	
Health Report	Jae-Woo Park (Hanyang	(Chuo Fukken Consultants	
Mitsuyasu Iwanami	University)	Co., Ltd.)	
(Tokyo Institute of			
Technology)			
Trial version of	Forest fire severity in the	The impact of truck lane on	
Infrastructure Health	2017 Kamaishi Forest Fire	vehicular flow along an	
Report on river sector	using remote sensing and	arterial road in Metro	
Yuji Toda (Nogoya	post-fire observations	Manila	
University)	Grace Puyang Emang	Alexis Morales Fillone	
	(Tohoku University)	(De La Salle University)	
Enhancing citizens'	Model design of	Analysis of vehicle behavior	
understanding on	concentrator photovoltaic	under heavy snowfall using	
importance of infrastructure	with thermal and waste	commercial vehicle probe	
based on Infrastructure	heat recovery system	data	
Health Report	Chi Xu (University of	Hiroshi Inagaki (Fujitu	
Thomas W. Smith III	Florida)	Traffic & Road Data Service	
(ASCE)		Ltd.)	

Day3 (4/18) 11:00 - 12:30				
Infrastructure Health	Dependence of drag	Analysis of requirements of		
Report of JSCE	coefficient on sea spray,	data used for grasping the		
Hikaru Nakamura	raindrop and wave state	situation of urban spaces		
(Nagoya University)	Hiroki Okachi (Hokkaido	and aging of population		
	University)	Takato Uehara (Tokyo		
		City University)		
Australian infrastructure	Heat storage in salinity			
development	aquaculture ponds			
Shalendra Ram (ACECC	observed in the tropics			
EA Rep)	Akinori Ozaki (Institute of			
	Tropical Agriculture,			
	Kyushu University)			

Day3 (4/18) 11:00 -	Day3 (4/18)	14:00 - 15:30
GS-6-3	TS7-4	TS5-2
Chair: Kazuyoshi	Chair: Minoru Yoneda	Chairs: Tadashi Hara
Tateyama (Ritsumeikan	(Kyoto University)	(Kochi University), Rihong
Univesity)		Zhang (Ningbo University)
Next step of worksite model	Quantifying the	Wood utilization in civil
utilizing ICRT	environmental impacts of	engineering
Hiroshi Yamamoto	structural elements of	Tadashi Hara (Kochi
(Komatsu Ltd.)	standard bidge designs	University)
	Andres Winston C. Oreta	
	(PICE)	
Initatives for the use field	Role of civil engineering in	Development of timber
robots and AI in	mitigation of climate	guardrail using round logs
infrastructure management	change - proposal from	of Japanese cedar
Yasushi Nitta (Public	Japan Society of Civil	Rihong Zhang (Ningbo
Works Research Institute)	Engineers -	University)
	Minoru Yoneda (Kyoto	
	University)	
An study on understanding	Carbon footprint	Climate change mitigation
the behavioral phenomenon	· • • • • • • • • • • • • • • • • • • •	potential of wood use in
of transportation	Infrastructure construction	civil engineering in Japan
engineering by	using discrete-event	through 2050
implementation of AI: an	Isimulation	Chihiro Kayo (Tokyo
apporach to provide	Jakkawarn	University of Agricultura
effective solutions of a	Somboonpisan (Kasetsart	and Technology)
complex problem in	University)	and recimology)
transportation engineering	OTHVETSILY)	
Rafiur Rahman Khan		
(European University of		
Bangladesh)		
Danglaucsii)		

Day3 (4/18) 11:00 -	Day3 (4/18)	14:00 - 15:30
Basic study on prepararion	A fundamental study on	Working principles and
method of road map using	development of	future prospects of timber
three-dimensional data of I-	construction standard code	pile dykes for alluvial river
Construction results	considering 4th industrial	management
Minori Yamada (Tokyo	revolution technology	Hao Zhang (Kochi
City University)	Yeonggyeong Ju (Korea	University)
	Institute of Civil	
	Engineering and Building	
	Technology)	
	Role of civil engineering in	Study on liquefaction
	mitigation of climate	countermeasure technique
	change	using logs based on field
	Barry Ronald Tonkin (EA)	investigation and shaking
		table test
		Masaho Yoshida (National
		Institue of Technology)
		An application example of
		log piling method for
		liquefaction mitigation and
		carbon stock
		Atsunori Numata
		(Tobishima Corp.)
		Future perspectives of
		sustainable bioenergy
		development in Japan with
		local woody biomass
		Chun Sheng Goh
		(Institute for the Advanced
		Study of Sustainability,
		United Nations University)

Day3 (4/18) 14:00 - 15:30			
TS6-13	GS-7	GS-4-2	GS-6-4
Chair: Hiromasa Iwai	Chairs: Tetsuya Ikeda	Chairs: Kuniaki Sasaki	Chairs: Satoshi Kubota
(Nagoya Institute of	(ICHARM), Chjeng-Lun	(Waseda University),	(Kansai University)
Technology)	Shieh (National Cheng	Arnab Jana (Indian	
	Kung University)	Institute of Technology	
Study of failure on civil	Hydrological frequency	Determining high risk road	Using text-mining skills to
engineering	analysis introducing	segments using spatial	establish concept maps for
Hiromasa Iwai (Nagoya	confidence interval based	statistical analysis case	construction fatality
Institute of Technology)	on probability limit method	study: Mount Lebanon	assessment and control
	test	Francesco Rouhana	applications
	Keita Shimizu (Chuo	(Notre Dame University)	Shang-Hsien Hsieh
	University)		(National Taiwan
			University)
Study of failures in civil	Establishment of smart	Street resilience modeling	Basic study on
engineering - a Pakistani	drainage toolbox for	for Beirut disaster	measurement of empirical
perspective	Taoyuan City	Dima Jawad (Notre Dame	knowledge of skilled
Hiba Nuzhat Lodi (The	Hsuan Yu Lin (Sinotech	University)	workers in concrete
Institution of Engineers,	Engineering Consultants,		placement
Pakistan)	Ltd.)		Takuya Yokota (Tokyo
			City University)
	Sampling downscaling using	Optimal inspection,	Visualization system of
	pattern recognition: A case	maintenance, and	suspended load area for
	for Baiu rainfall over	reconstruction policies for	crane operator
	northern Kyushu	pavement system under	Masaya Nakahara (Kansai
	Dzung Nguyen-Le	model uncertainty	University)
	(Hokkaido University)	Jinwoo Lee (The Hong	
		Kong Polytechnic	
		University)	
	Rainfall-runoff analysis	Cable protecting system	Underwater unmanned
	considering uncertain	using DAS (Distributed	construction machine
	conditions based on	Acoustic Sensing) and	system for port and airpot
	stochastic process theory	FOC(Fiber Optic Cable)	Muneo Yoshie (Port and
	Daiwei Cheng (Chuo	Ahri Lee (AP Technologies)	Airport Research Institute)
	University)		

Day3 (4/18) 14:00 - 15:30			
Application of	SEC-HY21		On exploring optimal route
Model on tsu	nami		about bulldozer spreading
simulations g	enerated by		work using deep learning
underwater v	olcanic		reinfocement learning with
explosions or	landslides		bulldozer spreading smilator
Arthur T.H.	Perng		Daisuke Tajima (Kajima
(Sinotech Eng	(Sinotech Engineering		Corp.)
Consultants,	Ltd.)		