SEAWE12 Technical Program

The 12th International Symposium on Southeast Asian Water Environment
28 - 30 November 2016
Melia Hotel, Hanoi, Vietnam

Conference Topics

The following specific subjects related to Asian water environment, especially in Southeast Asia, are selected as the topics.

- Water Supply and Treatment
- Wastewater Treatment and Management
- Emerging Contaminants and Environmental Technology
- Urban Flood and Its Health Consequences
- Climate Change and Water Environment Management
- Urban Water Quality Management
- Appropriate Technology for Water and Sanitation
- Coastal and Marine Water Environment

A special session is organized by Water Environment Partnership in Asia (WEPA, Japan)

- Groundwater Pollution Control – to Prevent and Mitigate Impacts of Industrial Activities

Registration

Online registration had been available for participants on SEAWE12 website since Oct 26, 2016. Registration fee is collected at the venue of the symposium, only cash (Japanese yen or Vietnamese Dong) is acceptable. The fee includes attendance for the three-day activities, including technical sessions and technical tour, as well as symposium proceedings and other materials supplied by the symposium organizing office. Coffee break and lunch on Nov 29 and 30, as well as dinner on Nov 29, are included in the registration fee.

Registration Fee:

Normal participant: 20,000 JPY or 4,400,000 VND
Student: 5,000 JPY or 1,100,000 VND
Vietnamese only (both general and student): 1,100,000 VND
Accompanying person: 3,000 JPY or 660,000 VND

The registration periods are as followings;

28 November 08:00 – 18:00
29 November 08:00 – 17:30
30 November 08:00 – 12:00

Awards

Oral Presentation Award

Since the 7th SEAWE, the Award for Asian Young Professional on Water Research has been established with a support from the Ohgaki Scholarship fund. The Award is given to distinguished young professionals who demonstrate the most outstanding and promising performance in oral presentation, and will be invited to the next symposium (SEAWE13).

Excellent Poster Presentation Award

The Excellent Poster Presentation Award will be given for an outstanding presentation in poster session. The evaluation will be based on vote from all participants. Please take voting ticket at the venue for poster session and select Top 2 most outstanding presentation.

The awardees for both oral and poster presentation will be announced at the closing ceremony on 30 November (12.50~).

Instructions for Presentation

Oral Presentation

- Each oral presentation consists of **20 min of presentation** and followed by **5 min discussion (25 MINUTE IN TOTAL).**
- Each presentation room equips with a laptop PC, a screen, a projector, and a laser pointer.
  Internet connection will **not** be available in the laptop.
  Please do **not** bring your own laptop as switching computers as it will delay the processing.
- Prepare the presentation file with Microsoft PowerPoint.
  Laptop equipped with Window 7 and Microsoft Office 2010.
  Macintosh PC is not available.
- Bring your presentation file by USB memory (please bring more than one USB just in case).
  Install your presentation files to the laptop in the session at least by 10 min before the session start.
- The file name should indicate the presentation number and your name.
  Ex. Mr. Seawe and presentation number A1-4.
  The file name must be A1-4Seawe.

Ask SEAWE staffs for assistance in installation of your file.

Poster Presentation

- The panel for the poster should be **A0 size**.
  841 mm (width) X 1189 mm (height)
- Tape for fixing the poster are available at the poster board.
- Allocate the top of poster for the title, authors, and their affiliations as stated on the submitted manuscript.
  The text, illustrations and so on should be big enough to be read from a distance of two meters.
- The printer is not available for the presenter at the venue, please prepare the poster in advance.
- The poster session will be held from 14:45 to 16:00 on 29 Nov.
- Please fix your poster **before 13:00** on and **remove by 18.00** on 29 Nov.

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SEAW12 Program at a Glance

28 November 2016 (Monday)			
Time	**Program**		
08:00 – 18:00	**Registration**		
13:00 – 18:00	**Technical Tour**		
13:00 – 18:00	**UNU-IAS Special Workshop (Invitee only)**		
29 November 2016 (Tuesday)			
08:00 – 17:30	**Registration**		
09:00 – 10:30	**Opening Ceremony (Ballroom 1)**		
10:30 – 11:00	**Coffee Break**		
11:00 – 12:15	**Parallel Session 1**		
	A1 Water Supply and Treatment (1) (Room A)	**B1** Wastewater Treatment and Management (1) (Room B)	**C1** Emerging Contaminants and Environmental Technology (1) (Room C)
12:15 – 13:30	**Lunch**		
13:30 – 14:45	**Parallel Session 2**		
	A2 KURITA Session Water Supply and Treatment (2) (Room A)	**B2 UNU-IAS Session** Urban Flood and Its Health Consequences (Room B)	**WEPA Session** Groundwater Pollution Control to Prevent and to Mitigate Impacts of Industrial Activities (Room C)
14:45 – 16:00	**Poster Session (Foyer Ballroom 1)**		
15:00 – 15:30	**Coffee Break**		
16:00 – 17:40	**Parallel Session 3**		
	A3 KURITA Session Climate Change and Water Environment Management (Room A)	**B3 UNU-IAS Session** Urban Water Quality Management (Room B)	**WEPA Session (Cont'd)** Groundwater Pollution Control to Prevent and to Mitigate Impacts of Industrial Activities (Room C)
18:30 – 20:30	**Gala Dinner at Gia Vien Vietnamese Restaurant**		
30 November 2016 (Wednesday)			
08:00 – 12:00	**Registration**		
08:30 – 09:20	**Parallel Session 4**		
	A4 Appropriate Technology for Water and Sanitation (Room A)	**B4** Coastal and Marine Water Environment (Room B)	**WEPA Meeting** (Invitee only at Room C)
09:20 – 10:00	**Morning Lecture over Coffee** (Room B)		
10:00 – 11:40	**Parallel Session 5**		
	A5 Emerging Contaminants and Environmental Technology (2) (Room A)	**B5** Wastewater Treatment and Management (2) (Room B)	
11:40 – 12:40	**Farewell Lunch (Ballroom 1)**		
12:40 – 13:10	**Closing Ceremony (Ballroom 1)**		

Technical Tour

HALF-DAY FIELD TRIP TO ECOPARK AND BAT TRANG VILLAGE
November 28th, 2016

Planned itinerary includes stops at Ecopark and ends with a walk around Bat Trang Village.

Schedule

13:00 Depart from Melia Hotel

13:45 Start a tour at Ecopark

15:00 Depart from Ecopark to Bat Trang Village

15:30 Start a tour at Bat Trang village (shopping, making ceramic pots)

17:30 Arrive Melia Hotel

Ecopark – Bac Hung Hai river

Ecopark is an urban township development on the outskirts of Hanoi. The town located near Bát Tràng village, about 4 km from Thanh Tri Bridge and 13 km from the Old Quarter. With the vision to create harmony between humans and nature, Ecopark brings together modern facilities of international standards in order to create the most enjoyable living environment for its residents[1]. The Park River Project was inspired by the Bac Hung Hai river. This river is the important water source for irrigation and drainage of the peri-urban of Hanoi, Hung Yen and Hai Duong province and has been polluted by untreated wastewater from the city and industries. The Ecopark project was built to revitalized one part of the Bac Hung Hai river that flows along the town. A wastewater treatment plant will be constructed in the next phase of town development.

[1] http://www.ecopark.com.vn/en/our-township/the-master-plan/our-concept

Bat Trang Village

Bat Trang, the seven-century old pottery village, is an interesting attraction in Hanoi that tourists should not ignore. Located in an area rich in clay, the village has advantage of ingredients to create fine ceramics. Moreover, lying beside the Red river, between Thang Long and Pho Hien, two ancient trade centers in the north of Vietnam during 15th-17th century, Bat Trang's ceramics were favorite products not only in domestic market, but also foreign ones thanks to Japan, Chinese and Western trading boats that passed by. Visiting Bat Trang, you can take a walk or join a buffalo tour for sightseeing and shopping. Besides many ceramic stores along the road in the village, tourists should visit Bat Trang Porcelain and Pottery Market where they can directly make pottery products by themselves. Many youngsters and foreign tourists are interested in in this pottery- making experience, and spend a whole day in the market to make a gift for family or friends.

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Technical Program

Day 1 - 28 November 2016

08:00 – 18:00	**Registration**
13:00 – 13:45	**Technical Tour** Depart from Melia Hotel to Ecopark
13:45 – 15:00	Visiting Ecopark
15:00 – 15:30	Depart from Ecopark to Bat Trang Village
15:30 – 17:00	Visiting Bat Trang Village
17:00 – 17:30	Depart from Bat Trang Village to Melia Hotel
13:00 – 18:00	**UNU-IAS Special Workshop (Invitee Only)** ***Room B***

Day 2 - 29 November 2016

08:00 – 17:30	**Registration**
09:00 – 10:30	**Opening Ceremony at *Ballroom 1*** **Opening remarks**: *Prof. Hiroaki Furumai (The University of Tokyo, Japan)* **Welcome remarks:** *Prof. Pham Duy Hoa (Rector, National University of Civil Engineering, Vietnam)* *Dr. Mai Thanh Dzung (Deputy Director General, Vietnam Environment Administration, Ministry of Natural Resources and Environment, Vietnam)* *Mr. Yasumasa Watanabe (Director, Ministry of the Environment, Japan)* **Keynote lectures:** *Prof. Shinichiro Ohgaki (President, Japan Water Research Center, Japan)* *Title: Water Infrastructure of Mega-cities under the Changeable World* *Dr. Tran Thi Viet Nga (Dean, National University of Civil Engineering, Vietnam)* *Title: Emerging Water Environment Issues in Vietnam: Multidimensional Challenges for Sustainable Development*
10:30 – 11:00	**Coffee break** ***At the Foyer***

	A1 Water Supply and Treatment (1) *Room A*	**B1 Wastewater Treatment and Management (1)** *Room B*	**C1 Emerging Contaminants and Environmental Technology (1)** *Room C*
11:00 – 11:25	**A1-1** Development of a Water Safety Plan for Vientiane City, Lao PDR ***Bishal Bhari***	**B1-1** Application of Taguchi method for Optimizing Nitrate Removal using Continuous Electro-Coagulation (CEC) Process ***M.R. Alavi Moghaddam***	**C1-1 F**actors Influencing Sorption and Biodegradation of 17α-Ethinylestradiol in Relation to Nitrification ***Liza Bautista-Patacsil***
11:25 – 11:50	**A1-2** Consumers' Perception of Intermittent Water Supply in Kathmandu Valley ***Bibas Guragai***	**B1-2** Treatment of Textile Wastewaters by Electrocoagulation Employing Fe-Al Composite Electrode ***Akshaya Kumar Verma***	**C1-2** Nanotechnology for in Situ Stabilization of Mercury Contaminated Aquifers ***Murugesan Devasena***
11:50 – 12:15	**A1-3** Comparative Assessment of Green Supply Chain Management (GSCM) in Drinking Water Service Industry in Lao PDR, Thailand, and South Korea ***Dong Hak Park***	**B1-3** Application of Direct Contact Membrane Distillation to the Treatment of Raw and Biologically Treated Municipal Solid Waste Leachate ***Pawinee Milintawisamai***	**C1-3** Occurrence of Perfluorinated Compounds (PFCs) in Surface Water and Groundwater near Unsuitable Disposal Sites in Thailand ***Chanidaporn Hongkachok***
12:15 – 13:30	**Buffet Lunch** ***at Hotel restaurant***		

Technical Program

Day 2 - 29 November 2016 (Cont'd)

	A2 KURITA - Water Supply and Treatment (2) *Room A*	B2 UNU-IAS - Urban Flood and Its Health Consequences *Room B*	
13:30 – 13:55	**A2-1** Defluoridation of Water using Aluminum Oxide/hydroxide Nanoparticles: Optimization of Process Parameters and Management of Spent Adsorbent ***Vineet Kumar Rathore***	**B2-1** Simulation of Flood Inundation in the Mega Cities of Southeast Asia, Case Study: Metro Manila ***Ammar Rafiei Emam***	**WEPA Session** **Groundwater Pollution Control to Prevent and to Mitigate Impacts of Industrial Activities** *Room C*
13:55 – 14:20	**A2-2** Application of the Simultaneous Process of Nitrification and Denitrification by using Moving Bed Biofilm Reactor for Groundwater Treatment in Ha Noi ***Trinh Xuan Duc***	**B2-2** Estimating Probability of Infection by Noroviruses in Floodwater: A Case Study in the Ciliwung River Basin, Indonesia ***Yoshifumi Masago***	
14:20 – 14:45	**A2-3** Mechanisms Driving Water Exchange Processes and Circulation in Sakai Channel, Japan ***Muchebve Edwin***	**B2-3** Does Urban Flood Fecally Contaminate Agricultural Fields at the Downstream? - A Case in Central Vietnam ***Jian Pu***	
14:45 – 16:00	**Poster Session at Foyer Ballroom 1** **Coffee Break (15:00-15:30)**		**Coffee Break**
	A3 KURITA **Climate Change and Water Environment Management** *Room A*	**B3 UNU-IAS** **Urban Water Quality Management** *Room B*	
16:00 – 16:25	**A3-1** Climate Change Induced Impact on Agriculture and Food Security in Southwest Coastal Region of Bangladesh ***Khondoker Mahbub Hassan***	**B3-1** Fostering Regional Cooperation and Collaboration Frameworks between Researchers and Policymakers through Policy-Relevant Nexus Research: *Experiences of Nexus Observatory Regional Workshops in Asia* ***Kristin Meyer***	**WEPA Session (Cont'd)** **Groundwater Pollution Control to Prevent and to Mitigate Impacts of Industrial Activities** *Room C*
16:25 – 16:50	**A3-2** Foreign Investment in Vietnam's Water Sector: Lessons from Bangladesh ***Kimberley Thomas***	**B3-2** An Initial Economic Evaluation of the Surface Water Quality Improvements in Metro Manila, the Philippines ***Shokhrukh Jalilov***	
16:50 – 17:15	**A3-3** Application of SIPHER Model in Analyzing Present and Future Water Temperature in Takasaki River, Chiba, Japan ***Hiroaki Furumai***	**B3-3** Quality Assessment and Scenario Modeling for Water Resource Management in the Context of Future Climate and Development Changes: Case of Jakarta City, Indonesia ***Pankaj Kumar***	
17:15 – 17:40	**A3-4** Simulating Impacts of El Niño and Climate Change on Rainfed Corn in Isabela Province, Philippines using Aquacrop Model ***Orlando F. Balderama***	**B3-4** The Estimation of Water Quality Based on New Scheme of Streeter-Phelps Equation for Upstream Site of Citarum River ***Nguyen Thi Ngoc Anh***	
18:30 – 20:30	**Gala Dinner *at Gia Vien Vietnamese Restaurant*** *Bus to the restaurant available at the entrance of Melia Hotel. Please gather punctuanlly at 17:50.* *Bus on the way back is available at 20:45.*		

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Day 3 - 30 November 2016

	A4 Appropriate Technology for Water and Sanitation *Room A*	B4 Coastal and Marine Water Environment *Room B*	
08:30 – 08:55	**A4-1** Biochemicals Content of *Aphanothece sp* Cultured in Photobioreactor Originated from an Urban Lake and its Dried Biomass Capability to Uptake Cadmium Ion in Aqueous Solution ***Awalina Satya***	**B4-1** Siltation along Hinadkaban Bay, Surigao Provinces, Philippines: Impact of Nickel Laterite Mining on Coastal Water Quality ***Dahlia C. Apodaca***	
08:55 – 09:20	**A4-2** Zyclone Cube as a Potential Sanitation Technology for Southeast Asian Countries ***Saroj Kumar Chapagain***	**B4-2** Industrial Activities and Its Effects to River Water Quality (Case Study Citarum, Bengawan Solo and Brantas), An Evaluation for Java Island as an Economic Corridor in Master Plan of Acceleration and Expansion of Indonesia Economic Development (MP3EI) 2001-2025 ***Mochamad Adi Septiono***	
09:20 – 10:00	**Morning Lecture over Coffee - *Room B*** **Morning lecture 1***: Dr. Do Thuan An* (Water Resources University, Vietnam) *Title: Efficiency of Common Point of Use Water Treatment Systems in Hanoi* **Morning lecture 2: *Dr. Kumiko Oguma*** (The University of Tokyo, Japan) *Title: Water Quality in Drinking Water Supply Systems in Hanoi*		
	A5 Emerging Contaminants and Environmental Technology *Room A*	**B5 Wastewater Treatment and Management** *Room B*	
10:00 – 10:25	**A5-1** Diffusive Leaching Behaviour of Sulfamethoxazole in Selected Soils ***Neelancherry Remya***	**B5-1** Metronidazole Removal in Freely-Suspended-Biomass and Carrier-Supported-Biomass Systems ***Mathava Kumar***	**The Twelfth Annual Meeting of WEPA (Invitee Only)** *Room C*
10:25 – 10:50	**A5-2** Development of Activated Adsorbent from Water Treatment Sludge: Application for Constructed Wetland Media Treating Ammonium Nitrogen ***Jedsada Chuiprasert***	**B5-2** Comparison of Nitrogen Removal Capability by Anammox Process in Fluidized Bed Reactor and Fix Bed Reactor ***Nguyen Thi My Hanh***	
10:50 – 11:15	**A5-3** Fate and Removal of Priority Phthalates in UASB + Polishing Pond Based Full Scale Wastewater Treatment Plant- a Sustainable Treatment Scheme of Developing Countries ***Khalid Muzamil GANI***	**B5-3** Degradation Behavior of Polyhydroxyalkanoates Accumulated in Activated Sludge as a Possible Source of Bioenergy ***S. M. Shamsul HUDA***	
11:15 – 11:40	**A5-4** Biodegradation of Tiamulin by Bacterial Consortia Enriched from Swine Wastewater under Different Substrates ***Nguyen Thi Kim Xuan***	**B5-4** Performance Evaluation of a Submerged Anaerobic Membrane Bioreactor (AnMBR) Treating Slaughterhouse Wastewater in Hanoi city ***Duong Thu Hang***	
11:40 – 12:40	**Farewell Lunch** ***at Ballroom 1***		
12:40 – 13:10	**Closing Ceremony *at Ballroom 1*** - *Award ceremony* - *Announcement of SEAWE13* - *Closing remarks*		

The 12th International Symposium on Southeast Asian Water Environment (SEAWE12)
28 - 30 November 2016,
Hanoi Vietnam

Keynote Lecture 1

Title:

"Water Infrastructure of Mega-cities under the Changeable World"

Name:

Shinichiro Ohgaki

Position:

President

Organization:

Japan Water Research Center

Professional Experience:

1974 Doctor of Eng. The University of Tokyo (UT)

1974-1977 Research Associate, Dept. of Civil Eng., Tohoku University, Japan

1977-1989 Associate Prof., Dept. of Urban Eng. UT, Japan

(1983-1985) Associate Prof., Asian Institute of Technology (AIT), Thailand

1989-2009 Professor, Dept. of Urban Eng. UT

(2006-2008) Vice President, International Water Association (IWA)

2009-2013 President, National Institute for Environmental Studies (NIES)

2013-present, President, Japan Water Research Center (JWRC)

Awards:

1999 Academic Award, Japan Society on Water Environment

2007 Grand Award, Japan Society on Water Environment

2012 IWA Outstanding Service Award

Main Research Field:

Water supply & environment technology, health related water microbiology

Brief Description of the Keynote Lecture:

The world faces structural changes as well as unpredictable discontinuous changes. The structural changes are continuing urbanization, over-age of social infrastructure etc. The unpredictable discontinuous changes are earthquake/tsunami, abnormal weather (flooding etc.), and others. The water infrastructure of urbanized area is easily threatened by these changes. How can we design the water system in the future city? How can we propose the vision of sustainable water use?

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Keynote Lecture 2

Title:

"*Emerging Water Environment Issues in Vietnam: Multidimensional Challenges for Sustainable Development*"

Name:

Tran Thi Viet Nga

Position:

Associate Professor

Dean of Faculty of Environmental Engineering

Organization:

National University of Civil Engineering

Professional Experience:

07/1996 - 12/1997	Assistant Lecturer, Department of Environmental Engineering, Hanoi University of Civil Engineering, Vietnam
10/2002 - 04/2003	Project Researcher, Environmental Engineering Program, Department of Urban Engineering, University of Tokyo, Japan
1/2004 - 12/2005	JSPS-UNU Postdoctoral Researcher Fellow, Environment and Sustainable Development, United Nations University, Tokyo, Japan
12/2007 - 12/2008	Researcher Fellow, IR3S, the University of Tokyo, Japan
1/2009 - 3/2015	Lecturer (Course: Water and wastewater Engineering; Water Chemistry and Microbiology; Integrated Water Resources Management), Division of Water Supply and Sanitation. Faculty of Environmental Engineering
3/2015 - present	Dean of Faculty of Environmental Engineering, National University of Civil Engineering, Vietnam. Associate Professor, Senior Lecturer Faculty of Environmental Engineering

Main Research Field:

Advanced technologies for nutrients recovery, biogas generation, wastewater reuse and sludge minimization in wastewater treatment, appropriate water and wastewater technologies for developing countries, water quality monitoring and pollution control, heath risk assessment related to water environment quality

Brief Description of the Keynote Lecture:

There are severe evidences of pollution of Viet Nam's surface waters both inland lake/river and coastal waters due to rapid urbanization and industrialization. The lecture will talk upon some recent cases and challenges for managing the country's water resources in a sustainable way.

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Morning Lecture 1

Title:

"*Efficiency of Common Point of Use Water Treatment Systems in Hanoi*"

Name:

Do Thuan An

Position:

Head of Department of Environmental Engineering,

Organization:

Department of Environmental Engineering,
Environment Faculty, Thuy Loi University

Main Research Field:

Water treatment technologies, Water supply systems, Sewerage and drainage system

Essence of the morning lecture:

The main water source for Hanoi city is from groundwater having high potential of arsenic and iron contamination. Many point-of-use (POU) water treatment units and devices have been used in households in Hanoi City to improve tap water quality at home. However, the efficiency of these units is quite different and not every types of POU can improve water quality. The data of current water quality and efficiency of POU in Hanoi will be shown for further discussion with audience and seeking for effective and feasible solutions for water supply systems in growing Asia.

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Morning Lecture 2

Title:

"Water Quality Deterioration in Drinking Water Supply Systems in Hanoi"

Name:

Kumiko Oguma

Position:

Associate Professor,

Chief Secretariat of 12th SEAWE

Organization:

Research Center for Advanced Science and Technology, The University of Tokyo

Main Research Field:

Water treatment technologies, Water supply systems, Disinfection, Water-related health issues in developing countries

Essence of the morning lecture:

In central Hanoi, we found the decay of residual chlorine and microbial contamination on the way from water treatment plants to tap at households. The data will be provided in this lecture to initiate active discussion with audience, seeking for effective and feasible solutions for water supply systems in growing Asia.

List of Papers for Oral Presentation on 29 November 2016

A1: Water Supply and Treatment (1)
[11:00 – 12:15 at Room A]

A1-1 **Development of a Water Safety Plan for Vientiane City, Lao PDR**
*Bishal Bhari, Sinbandid Phommachack and Chettiyappan Visvanathan**
Asian Institute of Technology, Thailand

A1-2 **Consumers' Perception of Intermittent Water Supply in Kathmandu Valley**
Bibas Guragai, Satoshi Takizawa and Kumiko Oguma*
The University of Tokyo, Japan

A1-3 **Comparative Assessment of Green Supply Chain Management (GSCM) in Drinking Water Service Industry in Lao PDR, Thailand, and South Korea**
Dong Hak Park and Chettiyappan Visvanathan*
Korea Water Resource Corporation (K-water), South Korea

B1: Wastewater Treatment and Management (1)
[11:00 – 12:15 at Room B]

B1-1 **Application of Taguchi method for Optimizing Nitrate Removal using Continuous Electro-Coagulation (CEC) Process**
Elnaz Karamati Niaragh, Mohammad Reza Alavi Moghaddam and Mohammad Mahdi Emamjomeh*
Amirkabir University of Technology, Iran

B1-2 **Treatment of Textile Wastewaters by Electrocoagulation Employing Fe-Al Composite Electrode**
Akshaya Kumar Verma, Puspendu Bhunia and Rajesh Roshan Dash*
Siksha 'O' Anusandhan University, India

B1-3 **Application of Direct Contact Membrane Distillation to the Treatment of Raw and Biologically Treated Municipal Solid Waste Leachate**
Pawinee Milintawisamai, Samunya Sanguanpak, Chart Chiemchaisri, Wilai Chiemchaisri and Chettiyappan Visvanathan*
Kasetsart University, Thailand

List of Papers for Oral Presentation on 29 November 2016

C1: Emerging Contaminants and Environmental Technology (1)
[11:00 – 12:15 at Room C]

C1-1 **Factors Influencing Sorption and Biodegradation of 17α-Ethinylestradiol in Relation to Nitrification**
Liza Bautista-Patacsil, Aileen H. Orbecido, Analiza P. Rollon and Jiangyong Hu*
Malayan Colleges Laguna, Philippines

C1-2 **Nanotechnology for *in Situ* Stabilization of Mercury Contaminated Aquifers**
Murugesan Devasena and Indumathi M Nambi*
Sri Krishna College of Technology, India

C1-3 **Occurrence of Perfluorinated Compounds (PFCs) in Surface Water and Groundwater near Unsuitable Disposal Sites in Thailand**
Chanidaporn Hongkachok, Suwanna Kitpati Boontanon, Narin Boontanon, Nawatch Surinkul, Apisara Boonya-atichat and Rattanaporn Tanjai*
Mahidol University, Thailand

List of Papers for Oral Presentation on 29 November 2016

A2: KURITA Session: Water Supply and Treatment (2)
[13:30 – 14:45 at Room A]

A2-1 **Defluoridation of Water using Aluminum Oxide/hydroxide Nanoparticles: Optimization of Process Parameters and Management of Spent Adsorbent**
Vineet Kumar Rathore and Prasenjit Mondal[*]
Indian Institute of Technology Roorkee, India

A2-2 **Application of the Simultaneous Process of Nitrification and Denitrification by using Moving Bed Biofilm Reactor for Groundwater Treatment in Ha Noi**
Trinh Xuan Duc[*] *, Tran Duc Ha , Le Anh Tuan, Nguyen Thị Thanh Hoa and Nguyen Thị Viet Ha*
Viet Nam Construction and Environment JSC, Vietnam

A2-3 **Mechanisms Driving Water Exchange Processes and Circulation in Sakai Channel, Japan**
Muchebve Edwin[*]*, Nakamura Yoshiyuki, Suzuki Takayuki, and Kamiya Hiroshi*
Yokohama National University, Japan

B2: UNU-IAS Session: Urban Flood and Its Health Consequences
[13:30 – 14:45 at Room B]

B2-1 **Simulation of Flood Inundation in the Mega Cities of Southeast Asia, Case Study: Metro Manila**
Ammar Rafiei Emam[*]*, Binaya Kumar Mishra, Pankaj Kumar, Yoshifumi Masago and Kensuke Fukushi*
United Nations University – Institute for the Advanced Study of Sustainability, Japan

B2-2 **Estimating Probability of Infection by Noroviruses in Floodwater: A Case Study in the Ciliwung River Basin, Indonesia**
Yoshifumi Masago[*]*, Biyana Kumar Mishra, Pankaj Kumar, Ammar Rafiei Emam, and Kensuke Fukushi*
United Nations University – Institute for the Advanced Study of Sustainability, Japan

B2-3 **Does Urban Flood Fecally Contaminate Agricultural Fields at the Downstream? - A Case in Central Vietnam**
T. Watanabe[*]*, Y. Takada, H. V. Duong, L. K. Pham and J. Pu*
Yamagata University, Japan

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List of Papers for Oral Presentation on 29 November 2016

A3: KURITA Session: Climate Change and Water Environment Management [16:00 – 17:40 at Room A]

A3-1 **Climate Change Induced Impact on Agriculture and Food Security in Southwest Coastal Region of Bangladesh**
Khondoker Mahbub Hassan[*] and Hillol Chakma
Khulna University of Engineering & Technology, Bangladesh

A3-2 **Foreign Investment in Vietnam's Water Sector: Lessons from Bangladesh**
Kimberley Thomas[*]
University of Pennsylvania, USA

A3-3 **Application of SIPHER Model in Analyzing Present and Future Water Temperature in Takasaki River, Chiba, Japan**
Rajendra Khanal[*], Yuichi Nagano, Kenji Taniguchi and Hiroaki Furumai
The University of Tokyo, Japan

A3-4 **Simulating Impacts of El Niño and Climate Change on Rainfed Corn in Isabela Province, Philippines using Aquacrop Model**
Edgardo E. Tongson, Orlando F. Balderama[*], Engr. Lanie A. Alejo, Vladimir A. Malabanan and Rhia T. Pantola
Isabela State University, Philippines

B3: UNU-IAS Session: Urban Water Quality Management [16:00 – 17:40 at Room B]

B3-1 **Fostering Regional Cooperation and Collaboration Frameworks between Researchers and Policymakers through Policy-Relevant Nexus Research: *Experiences of Nexus Observatory Regional Workshops in Asia***
Kristin Meyer[*] and Mathew Kurian
United Nations University – Institute for Integrated Management of Material Fluxes and of Resources, Germany

B3-2 **An Initial Economic Evaluation of the Surface Water Quality Improvements in Metro Manila, the Philippines**
Shokhrukh Jalilov[*] and Kensuke Fukushi
United Nations University – Institute for the Advanced Study of Sustainability, Japan

B3-3 **Quality Assessment and Scenario Modeling for Water Resource Management in the Context of Future Climate and Development Changes: Case of Jakarta City, Indonesia**
Pankaj Kumar[*], Yoshifumi Masago, Binaya Kumar Mishra, Ammar Rafiei Emam, and Kensuke Fukushi
United Nations University – Institute for the Advanced Study of Sustainability, Japan

B3-4 **The Estimation of Water Quality Based on New Scheme of Streeter-Phelps Equation for Upstream Site of Citarum River**
Nguyen Thi Ngoc Anh[*] and Priana Soedjono
Bandung Institute of Technology, Indonesia

List of Papers for Oral Presentation on 30 November 2016

A4: Appropriate Technology for Water and Sanitation

[08:30 – 09:20 at Room A]

A4-1 **Biochemicals Content of *Aphanothece sp* Cultured in Photobioreactor Originated from an Urban Lake and its Dried Biomass Capability to Uptake Cadmium Ion in Aqueous Solution**
Awalina Satya[*]*, Andhini Nurulfadillah, Ardiyan Harimawan and Tjandra Setiadi*
The Indonesian Institute of Sciences LIPI-Cibinong Science Center, Indonesia

A4-2 **Zyclone Cube as a Potential Sanitation Technology for Southeast Asian Countries**
Thammarat Koottatep, Saroj Kumar Chapagain[*]*, Atitaya Panuvatvanich, Araya Wicheansan, Isha Manandhar and Chongrak Polprasert*
Asian Institute of Technology, Thailand

B4: Coastal and Marine Water Environment

[08:30 – 09:20 at Room B]

B4-1 **Siltation along Hinadkaban Bay, Surigao Provinces, Philippines: Impact of Nickel Laterite Mining on Coastal Water Quality**
Dahlia C. Apodaca[*]*, Justine Perry T. Domingo, William R. Yuson, Carlo Dacera, Renato C. Tacubao, Junrey Lacorte, Carlos Primo C. David and Sevillo D. David Jr.*
Mines and Geosciences Bureau, Philippines

B4-2 **Industrial Activities and Its Effects to River Water Quality (Case Study Citarum, Bengawan Solo and Brantas), An Evaluation for Java Island as an Economic Corridor in Master Plan of Acceleration and Expansion of Indonesia Economic Development (MP3EI) 2001-2025**
Mochamad Adi Septiono, Dwina Roosmini[*]*, Indah Rachmatiah Siti Salami, Herto Dwi Ariesyadi, and Lufiandi*
Institut Teknologi Bandung, Indonesia

List of Papers for Oral Presentation on 30 November 2016

A5: Emerging Contaminants and Environmental Technology (2) [10:00 – 11:40 at Room A]

A5-1 **Diffusive Leaching Behaviour of Sulfamethoxazole in Selected Soils**
Neelancherry Remya, Ankit Singh, Chitransh Sharma, Gadde Naveena, Kunsoth Harith and Lakshmi P V*
Indian Institute of Technology Bhubaneswar, India

A5-2 **Development of Activated Adsorbent from Water Treatment Sludge: Application for Constructed Wetland Media Treating Ammonium Nitrogen**
*Jedsada Chuiprasert, and Nawatch Surinkul**
Mahidol University, Thailand

A5-3 **Fate and Removal of Priority Phthalates in UASB + Polishing Pond Based Full Scale Wastewater Treatment Plant- a Sustainable Treatment Scheme of Developing Countries**
Khalid Muzamil GANI and Absar Ahmad KAZMI*
Indian Institute of Technology Roorkee, India

A5-4 **Biodegradation of Tiamulin by Bacterial Consortia Enriched from Swine Wastewater under Different Substrates**
Nguyen Thi Kim Xuan, Parinda Thayanukul and Onruthai Pinyakong*
Chulalongkorn University, Thailand

B5: Wastewater Treatment and Management (2) [10:00 – 11:40 at Room B]

B5-1 **Metronidazole Removal in Freely-Suspended-Biomass and Carrier-Supported-Biomass Systems**
Mathava Kumar and Gattum Sowjanya Rani B*
Indian Institute of Technology Madras, India

B5-2 **Comparison of Nitrogen Removal Capability by Anammox Process in Fluidized Bed Reactor and Fix Bed Reactor**
Nguyen Thi My Hanh, Tran Thi Hien Hoa, Nguyen Thuy Lien and Tetufumi Watanabe*
Hanoi Architectural University, Viet Nam

B5-3 **Degradation Behavior of Polyhydroxyalkanoates Accumulated in Activated Sludge as a Possible Source of Bioenergy**
S. M. Shamsul HUDA, Hiroyasu SATOH and Takashi MINO*
University of Chittagong, Bangladesh

B5-4 **Performance Evaluation of a Submerged Anaerobic Membrane Bioreactor (AnMBR) Treating Slaughterhouse Wastewater in Hanoi city**
*Duong Thu Hang and Tran Thi Viet Nga**
National University of Civil Engineering, Vietnam

The 12th International Symposium on Southeast Asian Water Environment (SEAWE12)
28 - 30 November 2016
Melia Hotel, Hanoi, Vietnam

List of Papers for Poster Presentation

14:45 – 16:00 at Foyer Ballroom 1 on 29 November 2016

P01 **Effect of Gel Bead Size on Nitritation by Polyvinyl Alcohol Entrapped Cells Treating Nitrogenous Wastewater**
*Darak Bootrak, Tunyakamon Jaidumrong, Lada Mathurasa and Chaiwat Rongsayamanont**
Prince of Songkla University, Thailand

P02 **Methylene Blue Adsorption onto Functionalized Multi-Walled Carbon Nanotubes: Optimization through Response Surface Methodology**
Farshid Shoushtarian, Mohammad Reza Alavi Moghaddam and Elahe Kowsari*
Amirkabir University of Technology

P03 **Cultivation of Rice for Animal Feeding with Continuous Irrigation of Treated Municipal Wastewater**
Dong Duy Pham, Sumiko Kurashima, Jian Pu and Toru Watanabe*
Iwate University, Japan

P04 **Preliminary Assessment of VIC Hydrological Model Performance for Simulating Daily Streamflow of Red River System, Vietnam**
Nguyen Duc Luong, Nguyen Hoang Hiep, Faisal Hossain, Hyongki Lee, and Bui Du Duong*
National University of Civil Engineering, Vietnam

P05 **Inactivation of Vancomycin-Resistant Enterococci and Their Resistance Gene Using Chlorine Disinfection**
Takashi FURUKAWA, Atsushi JIKUMARU and Takahisa UENO*
Oita College, Japan

P06 **One-Year Monthly Monitor of Human Noroviruses in Oyster in Vietnam**
Gia Thanh Nguyen, Hiroaki Ito, Jian Pu, Nguyen Van An and Toru Watanabe*
Iwate University, Japan

P07 **Strategic Assessment of the Key Stakeholders' Roles in the Irrigation Governance in Cambodia through Comparative SWOT Analysis**
Hironori HAMASAKI and Kong SOPHEAK*
Nagasaki University, Japan

P08 **Establishment of Influent Parameters for Urban Sewerage Treatment Plant Design in Hanoi Area, Vietnam**
TRAN Duc Minh Hai, TRAN Duc Ha*
National University of Civil Engineering, Vietnam

P09 **Application of Filtration Process to Improve the Quality of River Water Receiving Industrial Discharges in Majalaya, West Java, Indonesia**
Indah R S Salami, Farida Nurul I Yusriyani and Annisa Athifah*
Bandung Institute of Technology, Indonesia

P10 **Typhoons Xangsane and Ketsana in Repectives of Hydrological and Agricultural Impacts**
Hong Quang NGUYEN, Duc Anh NGO, Thi Thu Hang LE and Thi Thanh Nga PHAM*
Vietnam Academy of Science and Technology, Vietnam

P11 **The Potential for Small Hydropower Development with JCM Co-benefits in Vietnam**

Lan Huong Nguyen and Kensuke Fukushi*
The University of Tokyo, Japan

List of Papers for Poster Presentation

P12 **Current Situation of Pig Manure and Effluent Management in Vietnam**
D.T.H. Van, V.H. Cong, C.T. Son, N.T. Lam, P.N. Bao and T. Kuyama*
Vietnam National University of Agriculture, Vietnam

P13 **Role of Acinetobacter sp. B 051 Inoculation on Enhancing 17αMethyltestosterone Degradation in Biofiltration System**
Parinda Thayanukul, Satoshi Matsumoto, Halutay Saylun, Jonkolnee Praditpong, Pimvarat Srikwan, and Sudtida Pliankarom Thanasupsin*
King Mongkut's University of Technology Thonburi, Thailand

P14 **Removal Lead from Wastewater in Battery Recycle Village of Vietnam by Low Cost Adsorbent Created from Treated Fly Ash and Polyurethane Foams**
Pham Thi Hong, Nguyen Duc Long, Bui Thi Mai Huong and Do Thuan An*
Thuy Loi University, Vietnam

P15 **Desalination of Brackish Water for Agriculture: Challenges and Future Perspectives for Highly Drought and Salt Intrusion Areas in Vietnam**
*Nguyen Lan Anh and Vo Huu Cong**
Vietnam National University of Agriculture, Vietnam

P16 **Heavy Metals Distribution in Water and Sediment at Bengawan Solo River on Wonogiri-Sragen Segment**
*Husna Muizzati Shabrina and Dwina Roosmini**
Bandung Institute of Technology, Indonesia

P17 **Bioaccumulation and Enzyme Activity Inhibition of Profenofos in Japanese medaka (Oryzias latipes Temminck and Schlegel, 1846)**
Rosalyn L. Pascual-Alburo, Jiro Koyama, Seiichi Uno and Eugene T. Bacolod*
Cebu Technological University, Philippines

P18 **Effect of Operation Mode, Hydraulic Retention Time and Air Flow Rates on Textile Wastewater Treatment by Aerobic Granular Sludge**
*C. Choerudin, Iskandar Fauzi, and Tjandra Setiadi**
Bandung Institute of Technology, Indonesia

P19 **River Partition Coefficient and Bioaccumulation of Selected Trace Metals in *Poecilia Reticulata* (Peters, 1859)**
Lora Mae G. Villegas, Leonila N. Adarna, Marilyn D. Piandong, Estherlina S. Ginete, Jill R. Quitayen, Rosemay N. Almirante, and Josephine M. Castañares*
University of San Carlos, Philippines

P20 **The Prediction of Nitrogen in the Effluent of Intensive Shrimp Ponds**
Priana Sudjono and Purna Hindayani*
Bandung Institute of Technology, Indonesia

P21 **Behavior of Humic Acid Recovery during the Mg^{2+} Concentration Method for Drinking Water Samples**
V. D. Canh, H. Katayama and H. Furumai*
The University of Tokyo, Japan

P22 **Climate Change and Watershed Management in the Banaue Rice Terraces, Philippines, A World Heritage**
Maria Rebecca A. Campos
University of the Philippines Open University, Philippines

The 12th International Symposium on Southeast Asian Water Environment (SEAWE12)
28 - 30 November 2016,
Hanoi Vietnam

WEPA Session

Groundwater Pollution Control - to Prevent and Mitigate Impacts of Industrial Activities

Program timetable: 13:30 – 17:40, 29 November 2016
Facilitator: Mr. Tetsuo Kuyama (IGES), Task Manager (Water Resource Management), Natural Resources and Ecosystem Services Area, Institute for Global Environmental Strategies (IGES)

13:30 **Framing Presentation**

Mr. Tetsuo Kuyama, Task Manager (Water Resource Management), Natural Resources and Ecosystem Services Area, Institute for Global Environmental Strategies (IGES)

13:50 **Keynote Presentation: Groundwater Pollution and its Mitigation Technologies (Tentative title)**

Dr. Sangam Shrestha, Associate Professor, School of Engineering and Technology, Asian Institute of Technology

14:30 **Prevention and Mitigation of Groundwater Pollution caused by Inadequate Industrial Wastewater/Waste Management (1)**

Mr. Masaki Suehisa, Deputy Director, Water Environment Division, Environmental Management Bureau, Ministry of the Environment, Japan
Dr. Chayawee Wangcharoenrung, Director of Industrial Wastewater Division from Water Quality Management Bureau, Pollution Control Department, Ministry of Natural Resource and Environment, Thailand
Dr. MoonSu Kim, Senior Researcher, Soil and Groundwater Division, National Institute of Environmental Research, Republic of Korea

15:40 **Coffee Break**

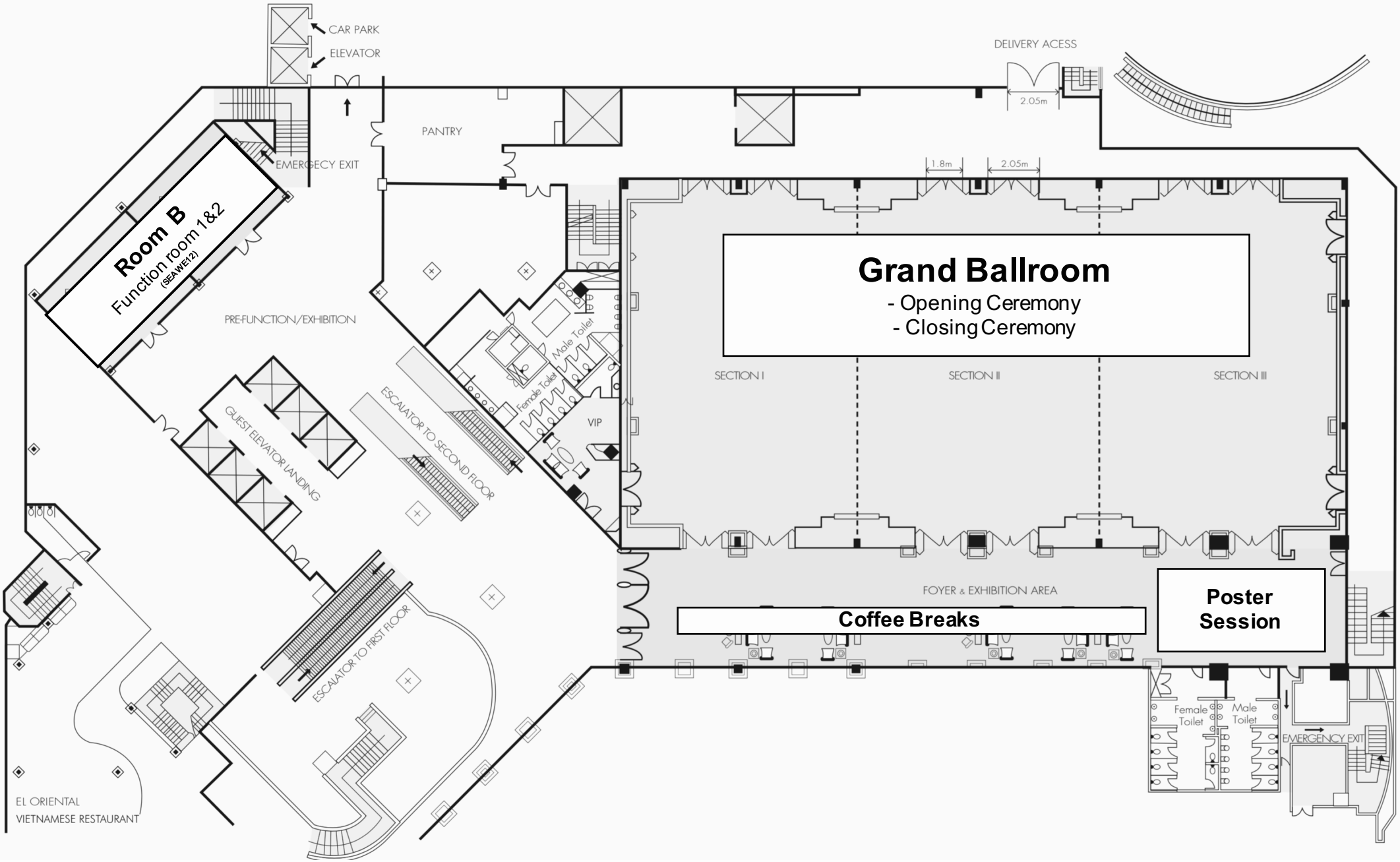
16:00 **Prevention and Mitigation of Groundwater Pollution caused by Inadequate Industrial Wastewater/Waste Management (2)**

Ms. Duong Quynh Anh, Staff of Water Management Department, Ministry of Natural Resources and Environment (MONRE), Vietnam
Mr. Ismail Hj. Tawnie, Senior Research Officer, Hydrogeology Research Centre, National Hydraulic Research Institute of Malaysia (NAHRIM), Malaysia
Dr. Jia Yongfeng, Chinese Research Academy of Environmental Science, China
Mr. IiM Ibrahim, Section Head for Processing Industries Water Pollution Control, The Ministry of Environment and Forestry, Indonesia

17:30 Summary by Facilitator

17:40 Closure of the Meeting

First Level


CAR PARK
ELEVATOR
DELIVERY ACESS
2.05m
PANTRY
EMERGECY EXIT
1.8m
2.05m
Room B
Function room 1&2
(SEAWE12)
Grand Ballroom
- Opening Ceremony
- Closing Ceremony
PRE-FUNCTION/EXHIBITION
Male Toilet
Female Toilet
VIP
SECTION I
SECTION II
SECTION III
GUEST ELEVATOR LANDING
ESCALATOR TO SECOND FLOOR
FOYER & EXHIBITION AREA
Coffee Breaks
Poster Session
ESCALATOR TO FIRST FLOOR
Female Toilet
Male Toilet
EMERGENCY EXIT
EL ORIENTAL
VIETNAMESE RESTAURANT


SECOND LEVEL
CAR PARK
ELEVATOR
Female Toilet
Male Toilet
CAR PARK
EMERGENCY EXIT
SECRETARIAL ROOM
Room C
Function room 7
(SEAWE12)
SEAWE12
Secretariat room
ESCALATOR
SECRETARIAL ROOM
GUEST ELEVATOR LANDING
Room A
Function room 3
(SEAWE12)
Female Toilet
Male Toilet
LOTUS PANTRY
LOTUS PRIVATE ROOMS
PRIVATE ROOM I
PRIVATE ROOM II
PRIVATE ROOM III
PRIVATE ROOM IV
PRIVATE ROOM V
PRIVATE ROOM VI
PRIVATE ROOM VII