

# The Sixth Annual Asia Pacific Mercury Monitoring Network Partners Meeting and 2017 Atmospheric Mercury Monitoring Training Workshop

May 15-19, 2017  
Taoyuan, Taiwan



**第六屆亞太地區汞監測網年會**

**暨**

**2017 大氣汞監測訓練研習會**

**The Sixth Annual Asia Pacific Mercury Monitoring Network  
Partners Meeting and  
2017 Atmospheric Mercury Monitoring Training Workshop**

**May 15-19, 2017**

**National Central University**

**Taoyuan, Taiwan**

**Sponsored by Taiwan EPA, MOFA, NCU**

**Organized by Department of Atmospheric Sciences, NCU**

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# About APMMN

## Mercury Concerns in Asia

Mercury (Hg), a persistent and bioaccumulative toxicant of increasing global concern, is dispersed worldwide primarily via long-range atmospheric transport. Methylmercury (MeHg), the most toxic species of Hg, is a neurotoxin that can cause long-term development delays in children. Because consumption of marine fish is the primary exposure route through which people are exposed to MeHg, methylation of inorganic Hg in aquatic environments and its subsequent accumulation in fish are major environmental concerns for human health. However, the main source of inorganic Hg is from the atmosphere for many aquatic systems, such as the open ocean worldwide.

Asia is the largest source region of atmospheric mercury and emissions continue to increase rapidly. The rapid growth of economic and industrial activities in Asia marked by the massive consumption of coal, petroleum, and fossil fuels has resulted in a dramatic increase of atmospheric mercury emissions. It is expected that mercury deposition within Asia will also continue to increase, leading to more mercury health issues in the region.

At present, scientists and decision-makers in the Asia-Pacific region must rely on limited information to understand and quantify the critical linkages between mercury emissions, environmental response, and potential human health concerns. As a primary mercury source region with limited mercury information and data, Asia is a particularly important region to further develop monitoring capacity.

The **Asia Pacific Mercury Monitoring Network (APMMN)** is a cooperative effort involving many different groups, including environmental ministries and federal government agencies, academic institutions, and scientific research and monitoring organizations. The goal of the APMMN is to systematically monitor wet deposition and atmospheric concentrations of mercury in a network of stations throughout the Asia-Pacific region. Objectives of the APMMN include:

- Determine the status and trends in: concentrations of ambient air mercury species - Gaseous Oxidized Mercury (GOM), Particulate Bound Mercury (PBM<sub>2.5</sub>), Elemental Mercury (GEM); and wet, dry and total atmospheric deposition of mercury.
- Assist partner countries in developing their mercury monitoring and assessment capacity by providing training on multi-media (e.g., air, precipitation, water, sediment, biota) sampling and analytical methods, and best practices.
- Provide a robust dataset for regional and global model input.
- Share data and monitoring information among network partners.



# Contact Information

## Environmental Protection Administration, Taiwan

Ms. Chia-Hui Lin (林佳慧)

E-mail: chiahui.lin@epa.gov.tw

Phone: +886-955264806

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Mr. Hung-Po Hsu (徐宏博)

E-mail: hpshu@epa.gov.tw

Phone: +886-926822341

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## National Central University

Mr. Da-Wei Lin (林達偉)

E-mail: dwlin515@gmail.com

Phone: +886-923607952

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Mr. Wei-Ti Tseng(曾韋迪)

E-mail: weiti.tseng@g.ncu.edu.tw

Phone: +886-935104105

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Mr. Chia-Yang Chiu (邱佳陽)

E-mail: jense\_chiu@mail2000.com.tw

Phone: +886-920661642

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# Hotel Information

## **Kuva Chateau Hotel (古華花園飯店)**

No. 398, Minchuan Road, Taoyuan City 320, Taiwan

+886-3-2811818

<http://www.kuva-chateau.com.tw/>

# Emergency Services

## **119**

Ambulance and fire

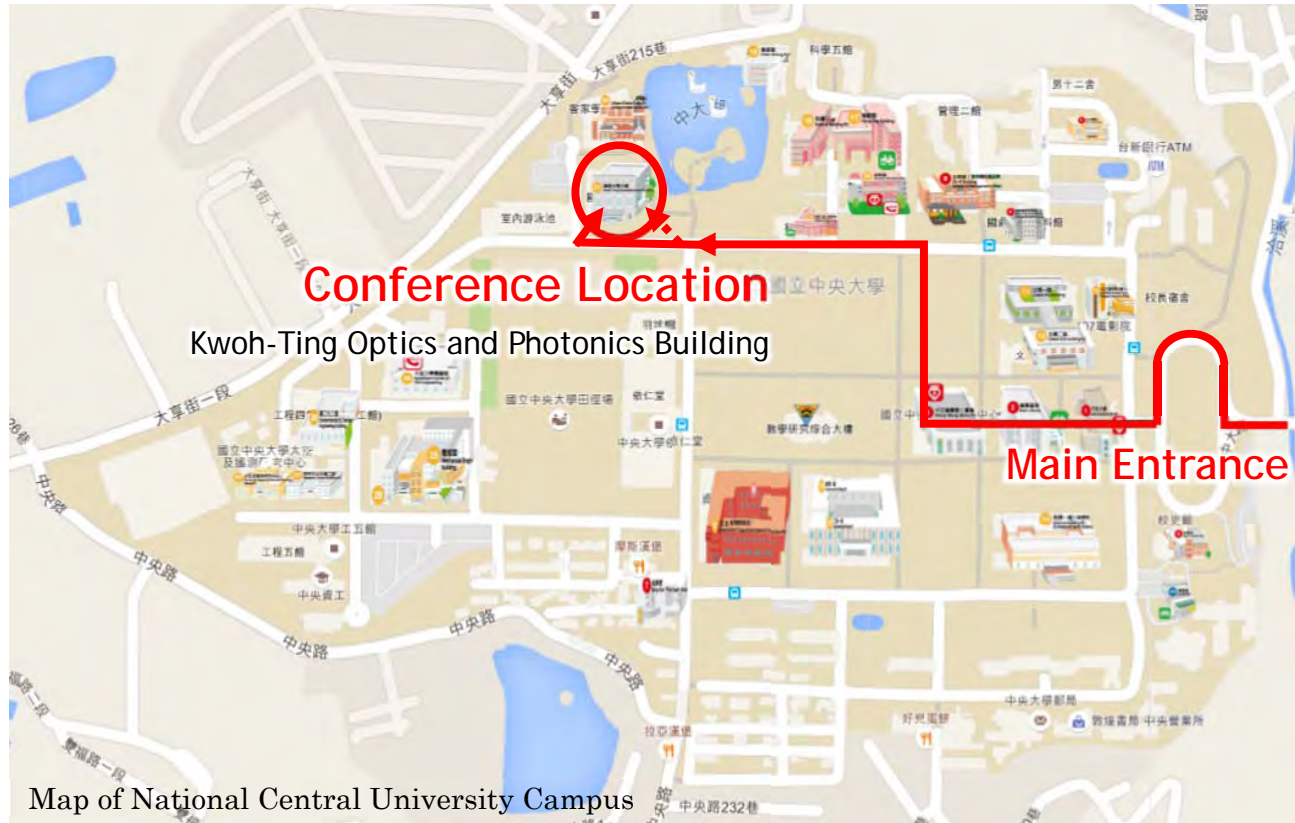
## **110**

Police

# Venue

## International Conference Room, Kwoh-Ting Optics and Photonics Building, National Central University

No. 300, Zhongda Road, Zhongli District, Taoyuan City 320, Taiwan



May 15<sup>th</sup> : International Conference Room, Kwoh-Ting Optics and Photonics Building

May 16<sup>th</sup> : Room 205, Kwoh-Ting Library and Archives

May 17<sup>th</sup> and 18<sup>th</sup> : Room 306, Hakka Studies Building

# Agenda

## 14<sup>th</sup> May (Sunday)

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08:00 – 18:00      Arrival

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18:00 – 20:00      Ice breaker / Pre-meeting discussion

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## 15<sup>th</sup> May (Monday)

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08:30 – 09:30      Registration

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09:30 – 10:15      **Opening Ceremony**

09:30 – 10:00      Remarkd by:

*Ying-Yuan Lee, Minister, EPA, Taiwan*

*Martin Dieu, Chief-of-Staff, EPA, USA*

*Jing-Yang Jou, President, NCU, Taiwan*

*Distinguished guests*

10:00 – 10:15      Presentation of Wet Deposition Sampler for Mercury  
by *Minister Ying-Yuan Lee, EPA, Taiwan*

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10:15 – 10:25      Group photo

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10:25 – 10:50      Coffee break

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10:50 – 12:05      **Plenary Presentations**

*Chaired by Neng-Huei (George) Lin*

10:50 – 11:15      Concerns over Mercury Pollution in Asia

*Guey-Rong Sheu, National Central University, Taiwan*

11:15 – 11:40      MercNet – A Vision for Monitoring Spatial and Temporal Changes in Environmental Mercury Loads

*David Schmeltz, EPA, USA*

11:40 – 12:05      Data Collection, Analysis and Application of Speciated Atmospheric Mercury

*Leiming Zhang, Environment and Climate Change Canada, Canada*

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12:05 – 14:00      Lunch

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<b>14:00 – 15:15</b>	<b>Invited Presentations</b> <i>Chaired by Guey-Rong Sheu</i>
14:00 – 14:25	Management Strategies on Mercury in Taiwan <i>Yu-Chi Lin, Toxic and Chemical Substances Bureau, EPA, Taiwan</i>
14:25 – 14:50	Air Quality Control Strategies <i>Department of Air Quality Protection &amp; Noise Control, EPA, Taiwan</i>
14:50 – 15:15	Overview of Biomass Burning Spring Campaigns of Seven SouthEast Asian Studies (7-SEAS) <i>Neng-Huei (George) Lin, National Central University, Taiwan</i>

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<b>15:15 – 15:40</b>	Coffee break
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<b>15:40 – 16:55</b>	<b>APMMN Partner and Stakeholder Updates</b> <i>Chaired by David Schmeltz</i>
15:40 – 16:05	Taiwan <i>Guey-Rong Sheu, National Central University</i>
16:05 – 16:30	Korea <i>Rhokho Kim, NIER</i>
16:30 – 16:55	Thailand <i>Hathairatana Garivait, ERTC</i>

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<b>17:00 – 18:00</b>	Heading for the Welcome Banquet venue
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<b>18:15 – 20:30</b>	<b>Welcome Banquet</b> <i>Hosted by Minister Ying-Yuan Lee, EPA, Taiwan</i>
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## 16<sup>th</sup> May (Tuesday)

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**09:00 – 10:15**      **APMMN Partner and Stakeholder Updates (continued)**

*Chaired by Guey-Rong Sheu*

09:00 – 09:25      Vietnam

*Nguyen Van Thuy, Vietnam Environmental Administration*

09:25 – 09:50      Indonesia

*Aisyah Syafei, Ministry of Environment and Forestry*

09:50 – 10:15      Philippines

*Teresita Peralta, Department of Environment and Natural Resources*

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**10:15 – 10:40**      Coffee break

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**10:40 – 11:55**      **APMMN Partner and Stakeholder Updates (continued)**

*Chaired by David Schmeltz*

10:40 – 11:05      Sri Lanka

*Senarath Mahinda Werahera, Ministry of Mahaweli Development and Environment*

11:05 – 11:30      Bangladesh

*Shaheda Begum, Department of Environment*

11:30 – 11:55      Mongolia

*Sarantuya Ganjuur, National Agency for Meteorology and Environment Monitoring (NAMEM) of Mongolia*

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**11:55 – 13:30**      Lunch

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**13:30 – 15:00**      **Future Network Directions Discussion**

*Chaired by David Schmeltz and Guey-Rong Sheu*

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**15:00 – 15:30**      Coffee break

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**15:30 – 17:00**      **Future Network Directions Discussion (continued)**

*Chaired by David Schmeltz and Guey-Rong Sheu*

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**18:00 – 20:00**      Dinner

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## 17<sup>th</sup> June (Wednesday)

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**09:00 – 09:30**      **Overview of Sampling and Analysis of Ultra-Trace Hg**  
*Guey-Rong Sheu*

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**09:30 – 10:30**      **Training Session: Wet Deposition Sampling**  
*Da-Wei Lin and Guey-Rong Sheu*

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**10:30 – 10:50**      Coffee break

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**10:50 – 12:00**      **Training Session: Ultra-Trace Level Hg Analysis**  
*Da-Wei Lin and Guey-Rong Sheu*

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**12:00 – 13:30**      Lunch

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**13:30 – 15:00**      **Training Session: QA/QC and Data Process**  
*Da-Wei Lin and Guey-Rong Sheu*

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**15:00 – 15:20**      Coffee break

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**15:20 – 17:00**      **Training Session: Manual Atmospheric Hg Sampling**  
*Da-Wei Lin and Guey-Rong Sheu*

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**18:00 – 20:00**      Dinner

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## 18<sup>th</sup> May (Thursday)

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**09:00 – 09:30**      **Invited Lecture**  
Estimates of Speciated and Total Mercury Dry Deposition  
*Leiming Zhang, Environment and Climate Change Canada*

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**09:30 – 10:30**      **Training Session: Continuous Atmospheric Hg Sampling**  
*Da-Wei Lin and Guey-Rong Sheu*

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**10:30 – 10:50**      Coffee break

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**10:50 – 12:00**      **Questions and Discussion**

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**12:00 – 14:00**      Lunch

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**14:00 – 17:00**      **Laboratory Tour and Demonstration**

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**18:00 – 20:00**      Dinner

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## 19<sup>th</sup> May (Friday)

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**09:00 – 12:00**      **Field Study Tour**

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**12:00 – 13:30**      Lunch

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**13:30 – 18:00**      **Field Study Tour**

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**18:00 – 19:30**      Dinner

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## 20<sup>th</sup> May (Saturday)

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Departure

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**APMMN**

Asia Pacific Mercury Monitoring Network