# WAQRM 2009 Workshop on Air Quality Research in Macao

Date: November 4, 2009

**Venue:** Auditorium, the Science and Technology Development Fund, Macao

**Time:** 15:00 – 16:00: Conclusion report and press conference for the FDCT funded project

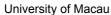
"Monitoring Air Quality in Macau using Mobile In-situ Platform" and keynote

presentation

16:00 - 18:00: Workshop

## Jointly Organized by







Meteorological and Geophysical Bureau



環境保護局 DIRECÇÃO DOS SERVIÇOS DE PROTECÇÃO AMBIENTAL

**Environmental Protection Bureau** 

# Supported by

ntro de Tur



Science and Technology Development Fund

#### **About the Workshop**

The air quality in Macao is influenced by both local and regional factors. Continuous monitoring of the local air quality in the past years shows that it has been deteriorating along with the rapid economic development, growing population, increasing flows of visitors and goods, and higher demand for electricity. One of the major local sources affecting the air quality, especially on street level, is the increasing busy land traffic in Macao. Although there are currently five fixed automatic monitoring stations being distributed at different locations in the city to provide high resolution temporal variations of the air quality, detailed spatial distribution of it within the complex urban street network is still not comprehended. In light of this, a local research group was formed by the University of Macau, the Meteorological and Geophysical Bureau, and the Environmental Protection Bureau in 2009 to carry out a pilot study funded by the Science and Technology Development Fund. The project was to monitor the air quality in Macao for seven consecutive days using a mobile in-situ platform. Analysis of the results indicates that both traffic and regional meteorological conditions would impose effects on the air quality level of the whole area. This set of benchmark data is proved to be valuable for further analysis leading to researches and applications of different aspects. The purpose of this workshop is to bring together scientists, practitioners, government officials and other relevant researchers to share their experiences and information, as well as to consider how to best use these data to address the needs and requirements to meet the challenges of balancing air quality goals and development in Macao. The workshop organizers also invite suggestions and ideas to stimulate future collaboration among interested parties in Macao.

The workshop is open, without registration fee, to all. Those who are interested in participating, please contact Miss Dorothy Choi at the Honours College of the University of Macau. Tel: 83974973 or 83974974 and Fax: 83974976.

Time	Workshop Program
14:45	Registration
15:15	KEYNOTE: Monitoring Air Quality in Macao using Mobile In–situ Platform MOK Kai Meng University of Macau
15:50	Break
16:00	Summary of Air Quality in Macao LAI Chi Hou Meteorological and Geophysical Bureau
16:10	Mobile Measurement Technology CHENG Yuk Sun Meteorological and Geophysical Bureau
16:20	Mapping of Air Quality in Macao HOI Ka In University of Macau
16:35	Aerosol Size Distribution in Macao CHAO Ka Man University of Macau
16:45	Retrieving Density of Atmospheric Aerosols Using Co-location Measurements of WPS and TEOM PUN Man Hou University of Macau
16:50	Comparison of MAP and Monitoring Station Result CHAN Cheng Hou Meteorological and Geophysical Bureau
17:05	Interpretation of Air Quality from Meteorology CHANG Sau Wa Meteorological and Geophysical Bureau
17:20	Assessment of Black Carbon Pollution in Macao HOI Ka In University of Macau
17:30	Measures to Improve Air Quality in Macao AO Chi Tan Environmental Protection Bureau
17:40	Conclusion and Discussion MOK Kai Meng, University of Macau António VISEU, Meteorological and Geophysical Bureau VONG Man Hung, Environmental Protection Bureau
18:00	End

# **Workshop Chairpersons**

MOK Kai Meng, University of Macau António VISEU, Meteorological and Geophysical Bureau VONG Man Hung, Environmental Protection Bureau

# **Organizing Committee**

#### Chairpersons

YUEN Ka Veng, University of Macau CHENG Yuk Sun, Meteorological and Geophysical Bureau FONG Weng Chin, Environmental Protection Bureau

#### Members

# University of Macau

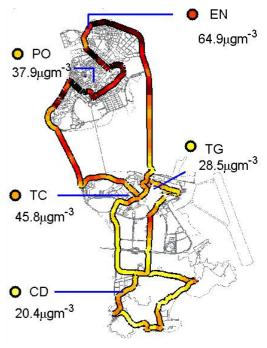
HOI Ka In, PUN Man Hou, LU Jie Lin, PAN Mei Qiao, CHAO Ka Man, CHEONG Kuok Hou, FUNG Woon Kee, LIU Ho Yan, CHOI Si U

# Meteorological and Geophysical Bureau

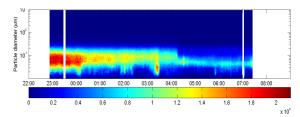
CHANG Sau Wa, CHAN Cheng Hou, MAK Choi San, VONG Va Sam, LAM Hak Keng, TAM Kin Seng, MAK Peng Kin, LAM Chi Hong, VONG Chon Kuan, UN Kam Cheng, LEONG Ka Hang, LAI Chi Hou, LAU Cheng Man

### **Environmental Protection Bureau**

MOK Tin Choi, AO Chi Tan



Spatial distribution of nitrogen dioxide



Aerosol number size distribution from Wide-Range Particle Spectrometer



