

**Project 4/2009 – Air quality in Hong Kong: A supersite program for real-time characterization of Particulate Matter (PM) in Hong Kong’s air**

Project Number	04/2009									
Project Title	Air quality in Hong Kong: A supersite program for real-time characterization of Particulate Matter (PM) in Hong Kong’s air									
Principal Investigator (PI)	Prof. Chak K. CHAN, Department of Chemical and Biomolecular Engineering of Hong Kong University of Science and Technology									
Project summary	To develop a partnership program between academic institutions and the government to conduct intensive air quality research with state-of-the-art instruments to characterize the physical and chemical properties of particulate pollutants. The outcomes of the project will create a research-based foundation on which to build air quality improvement programs.									
Project Duration	42 months									
Proposed Budget	<p>The total budget is \$6,609,000 comprising the following items:</p> <table border="1" style="margin-left: 40px;"> <tr> <td>Manpower (includes 3 man-year of Postdoctoral Research Associates, 17.25 man-year of Research Assistants, and 2 man-year of Software Engineer)</td> <td style="text-align: right;">\$4,560,900</td> </tr> <tr> <td>Equipment (includes CO<sub>2</sub> analyzer, data control and management system, 3 wavelength nephelometer, Mid-Vol PM<sub>2.5</sub> sampler, fabrication and installation of rooftop shelter to house the equipments)</td> <td style="text-align: right;">\$1,454,000</td> </tr> <tr> <td>Consumables (includes station maintenance, instrument consumables, maintenance and support, chemicals, filters, transportation for field sampling, sundry and general expenses)</td> <td style="text-align: right;">\$495,000</td> </tr> <tr> <td>Workshop in HK</td> <td style="text-align: right;">\$100,000</td> </tr> </table>		Manpower (includes 3 man-year of Postdoctoral Research Associates, 17.25 man-year of Research Assistants, and 2 man-year of Software Engineer)	\$4,560,900	Equipment (includes CO <sub>2</sub> analyzer, data control and management system, 3 wavelength nephelometer, Mid-Vol PM <sub>2.5</sub> sampler, fabrication and installation of rooftop shelter to house the equipments)	\$1,454,000	Consumables (includes station maintenance, instrument consumables, maintenance and support, chemicals, filters, transportation for field sampling, sundry and general expenses)	\$495,000	Workshop in HK	\$100,000
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Assessments/Remarks	<p>Members of the RPSVC discussed the proposal at the meetings held on 10 September 2009 and 25 February 2010 and considered the revised version as presented by the PI at the meeting in February 2010 worthy of support.</p> <p>EPD considers the proposal worthy of strong support as it would generate useful information that complements EPD's air monitoring work and development of effective control programmes for implementing the upcoming new Air Quality Objectives for PM<sub>2.5</sub>.</p> <p>The Secretariat has checked with the Secretariat of the Innovation &amp; Technology Fund (ITF) who advised that HKUST had been funded to carry out a project in 2004-05 entitled "Satellite Informatics System for Surface Particulate Matter Distribution". The PI provided a summary of the ITF-funded project for Members reference and explained that the ECF project application focuses on the physical/chemical characteristics of the aerosols, its component species, its transformation mechanisms, all of which has not been looked at by the earlier project. The earlier ITF project focused mainly on the source, transport and the total mass concentrations. Hence, the two projects are very different, and scientifically complementary to each other.</p> <p>The project will be overseen by a Management Committee involving representatives from EPD to plan and evaluate the progress of the project and strengthen the collaboration with EPD. RPSVC took the view to send representatives to take part in the management committee of the project to monitor the progress of the project regularly.</p> <p>Members are invited to advise whether the application for ECF should be approved and if approved, the exact amount of fund to be granted.</p>
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Secretariat, Environment and Conservation Fund Committee  
March 2010