

## Environmental Research, Technology Demonstration and Conference Project

<b>ECF Project:</b>	ECF 2021-08
<b>Project Title:</b>	International Conference on Solid Waste 2023
<b>Principal Investigator:</b>	Professor Wong Woon Chung Jonathan, Institute of Bioresource and Agriculture, Hong Kong Baptist University
<b>Total Approved Grant:</b>	\$303,400, or 70% of the total actual expenditure, whichever would be the less.
<b>Duration:</b>	1/1/2022 to 30/6/2023
<b>Project Status/Remarks:</b>	Completed
<b>Project Scope:</b>	<p>Increasing urban population and industrialization are the key factors causing serious global environmental problems including increased solid waste generation, decreased soil quality, inadequate nutrient recycling, and increased emission of greenhouse gases. Hong Kong produces over 15,000 tonnes of MSW per day, consisting roughly 4,200 tonnes of waste paper, 2,500 tonnes of waste plastics and 3,500 tonnes of food waste. Landfilling is unable to cope with the waste generated and an integrated approach including incineration, biological treatments and other innovation technologies are being sought to provide efficient waste conversion for the production of chemicals, materials, energy and food in order to achieve the goal of circular economy. However, current situation of such technologies in Hong Kong and/or overall Asia is not very appealing and technologies are not well integrated to achieve the goal of sustainability.</p> <p>The proposed conference creates a timely platform to bring successful case studies and research innovations from developed and developing countries and devise strategies for waste management industry which is expected to face a huge transition with more business opportunities. Also, the conference will provide networking opportunities for young student researchers to exchange ideas with eminent scientists during the conference, which will ultimately benefit Hong Kong.</p>
<b>Summary of the Findings/Outcomes:</b>	<p>Adaption of circular and green economy in waste management sector is the key factor to curb the environmental pollution along with effective mitigation of climate change. However, the present global economy is only 8.6% circular as per Circularity Gap Report 2021 indicating a huge potential for promoting the circular economy across the world. The recent outbreak of the Covid-19 pandemic has further hindered sustainable waste management practices and resulted in elevated waste generation. Hence, green recovery and circular economy could be the cornerstone for future waste management practices to achieve United Nations Sustainability Development Goals.</p> <p>ICSWHK2023 provided a great opportunity and platform to exchange views, visions, and experiences on waste treatment technology, sustainable waste management, and environmental issues among scientists, academics, practitioners, and policymakers from all over the world. This conference</p>

can be a turning point for companies involved in waste and environmental issues to build up a network.

This was a unique opportunity for young scientists and researchers who are specialized in waste management. Outstanding papers will be published in special issues of SCI Journals after review. 10 Best Poster Awards and 2 Young Waste Researcher Awards were also presented to acknowledge and embrace the scientific contributions from the potential candidates in the field of waste management. The conference attracted an overwhelming 500 participants from 40 countries with four parallel platform sessions, and parallel poster sessions daily for 3 consecutive days with a total of 32 plenary presentations, 24 invited lectures, 84 oral presentations, and 64 short oral presentations, and 74 poster presentations.