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## Novel Waste Barrier Technology Wins International Award

Dr Irene Man-Chi Lo, Associate Professor in the Hong Kong University of Science and Technology (HKUST)'s Civil Engineering Department, has been awarded the 2004 J James Croes Medal by the American Society of Civil Engineers (ASCE) for her development of an innovative barrier technology for waste containment.

The ASCE Award Committee selected Dr Lo to receive this highly coveted and prestigious honor in recognition to her work in the area of waste containment barriers for subsurface pollution control. The presentation ceremony was held on 23 October at the ASCE National Convention in Baltimore, US.

Dr Lo's pioneering innovation allows engineers to construct thinner clay liners for applications where contaminated waste or leachate have accumulated- such as in hazardous waste landfills- and in turn presents savings on storage requirements for protection to subsurface environment.

The function of clay liners is to impede the movement of contaminated leachate. Traditional liners use bentonite clays which are less effective and can measure up to one meter in thickness. Dr Lo found that by adding an organoclay, the performance of the liners in terms of retarding the movement of contaminants is radically improved.

Dr Lo's research interests include the study of clay minerals for waste containment facilities and pollutant migration in saturated and unsaturated soils. She has published nearly 100 journal and conference papers. "I am honored to receive this prestigious award," said Dr Lo. "It also confirms that our research at HKUST is of an international standard and making a global impact."

Dr Lo joined HKUST in 1992 and is also the Associate Director of the University's Environmental Engineering Program. She received her MS and PhD degrees from the University of Texas at Austin in 1990 and 1992 respectively. In 2003, she received the Peter H K Chan Best Paper Award from the Hong Kong Institution of Engineers, and the Best Paper Award from the International Conference on Soil and Groundwater Contamination and Clean-up.

The J James Croes Medal was established in 1912 to recognize researchers with exceptionally meritorious achievements in civil engineering.



Dr Irene Lo receives the J James Croes Medal from ASCE President William Henry