



PRESS RELEASE

Issued by Communications and Public Affairs Office

17 July 2008

PolyU's environmental improvement project receives support of HSBC

The Hong Kong Polytechnic University (PolyU) has recently received a generous donation of HK\$2 million from HSBC Insurance to kick off an environmental education and improvement project. It is planned that premises of 10 non-profit making schools will be paved with "eco-block", a new environmentally friendly construction material which can remove air pollutants, such as nitrogen oxides.

The project's first beneficiary organization is the Hong Kong Society for the Protection of Children, which will use the eco-blocks in its Mongkok headquarters and Ma Tau Chung Service Building. The two-year project is expected to benefit 3,000 students and 200 teachers in Hong Kong.

Prof. Teng Jin-guang, PolyU's Associate Vice President and Dean of Faculty of Construction and Land Use, thanked HSBC Insurance for its generous support. "PolyU is excited to work with HSBC Insurance on this project that brings multiple environmental benefits. HSBC Insurance and its customers are making a relevant and lasting impact on the environment by supporting this project," he said.

The eco-block was developed by a team of PolyU researchers under the leadership of Prof. Poon Chi-sun of the Department of Civil and Structural Engineering in 2002. The eco-blocks make use of recycled waste glass derived from beverage containers and construction and demolition waste to replace sand and stone which would not only alleviate the waste disposal pressure in Hong Kong, but also minimize the environmental degradation due to extraction of natural materials.

"We have tested these eco-blocks and proven that they can convert air pollutants into non-hazardous materials," explained Professor Poon, who is also the Director of Research Centre for Environmental Technology and Management at PolyU. "The use of recycled waste glass in the blocks has, in particular, aided the air pollutant removal effect. Experiment results show that at least 20 per cent of nitrogen oxides can be effectively removed under laboratory conditions."

According to Prof. Poon, the new material also meets the Hong Kong Government's civil engineering work standard. Compared with conventional blocks, the eco-blocks not only have similar life-span but also better performance in terms of water absorption, hardness and aesthetic values.

"Used as a paving and partitioning material for buildings, streets and pavements, the eco-block contributes to improved air quality by removing air pollutants emitted by buses, cars and other vehicles," Prof. Poon added. "Furthermore, it not only reduces the disposal of waste glass, but also conserves the use of natural materials, such as river sand. This makes the eco-block a truly environmentally friendly product."

Press Contact: Prof. Poon Chi-sun

Tel: 2766 6024

Department of Civil and Structural Engineering



香港理工大學

新聞稿

傳訊及公共事務處

電話：二七六六 五一〇一至二
圖文傳真：二三六四 〇二四六

理大環保教育項目獲滙豐保險支持

香港理工大學近獲滙豐保險慷慨捐助二百萬元支持，展開一項環保教育及促進計劃，為十間非牟利學校鋪設一種名為「環保再造磚」的嶄新環保建築材料，該種建材能分解空氣中的氮氧化物等污染物，從而改善學校校園環境。

香港保護兒童會是該計劃首間受惠機構，將在其旺角總會和馬頭涌服務大廈內使用「環保再造磚」。整項計劃為期兩年，預期可惠及本港最少三千名學生和二百名老師。

理大協理副校長兼建設及地政學院院長滕錦光教授對滙豐保險的慷慨支持表示衷心感謝。他說：「理大很高興與滙豐保險合作，推行這個能為保護環境帶來多重好處的項目。滙豐保險及其客戶支持這個項目，對有效而長遠地改善環境大有幫助。」

「環保再造磚」由理大土木及結構工程系潘智生教授領導的研究小組於二零零二年所開發，採用從飲品器皿提取的循環再用玻璃廢料和建築廢料，取代沙石而製成；製造和使用環保磚不但可紓緩本港堆填區的負荷，更可減輕由於開採天然物料而造成對環境的破壞。

身兼理大環境科技及管理研究中心主任的潘教授說：「我們測試了『環保再造磚』，證實它能夠將空氣污染物轉變成無害物質；而使用循環再造玻璃廢料，則特別有利於消除空氣污染物，測試結果顯示，在實驗室條件之下，百分之二十以上的氮氧化物能被有效地消除。」

潘智生教授指出該種新建材符合香港政府土木工程工作標準，較諸傳統的磚塊，環保磚不但同樣耐用，而且在吸水力、硬度和美觀等方面均更勝一籌。

潘教授續稱：「『環保再造磚』可用作建築物、街道和行人道的鋪設和間隔物料，能去除巴士、汽車和其他交通工具所排放的空氣污染物，有助改善空氣質素。它減少玻璃廢料的同時，也減低河沙等自然物料的消耗，是真正的環保產品。」

(完)

查詢詳情：土木及結構工程學系潘智生教授

電話：二七六六 六零二四

日期：二零零八年七月十七日