



(from left) Vice President of Green Power Industrial Ltd Mr Jacky Lau, General Manager of Swire Coca-Cola Hong Kong Mr Lance Wright, PolyU President Prof. Timothy W. Tong and Prof. Eric Cheng showcase the solar energy panel installed on the top of a truck.
(左起) 陽光動力有限公司副總裁劉潤康先生、太古可口可樂香港總經理衛能智先生、理大校長唐偉章教授及鄭家偉教授展示安裝在車頂部位的太陽能電池板。

Innovative use of solar energy to supply air-conditioning for trucks 嶄新的太陽能汽車冷氣系統

Prof. Eric Cheng of the Department of Electrical Engineering recently worked together with Green Power Industrial Ltd to develop an automobile air-conditioning system powered by solar energy. The system has been installed on the top of a beverage truck with the support of Swire Coca-Cola Hong Kong, and it works well on the road.

電機工程學系鄭家偉教授最近與陽光動力有限公司，合力研發了一套以太陽能供電的汽車冷氣系統，並獲太古可口可樂支持，將該系統安裝在一輛汽水車的頂部，路面測試證明成效非常理想。



Prof. Eric Cheng explains the operation of the solar energy panel.
鄭家偉教授解釋太陽能電池板的運作。

With the system installed, a solar energy panel made up of photovoltaic modules sits on the top of the truck. When the truck is moving, the panel automatically collects solar energy for storage in a specially designed battery system supported by an optimized control system.

The solar energy collected can support a stand-alone air-conditioner that can be switched on even when the truck's engine is not running. The sophisticated system can also operate on cloudy or rainy days because solar energy collected during sunny weather is automatically stored in the battery system.

在安裝了太陽能驅動冷氣系統的貨車車頂部位，設有配合光電模組使用的太陽能電池板。當貨車行駛時，它便會自動收集太陽能，並將之轉化為電能儲存在一個特製和靠優化控制板支援的電池系統中。

收集了的太陽能可以支援一個單機的電氣冷氣系統，即使在關掉汽車引擎後，亦能開啟太陽能驅動的冷氣系統。在晴天時收集的太陽能將自動儲存在電池中，所以即使在陰天或雨天，這套精密的系統也可以運作自如。❖

Air Cargo Processing System improves air freight forwarding operation

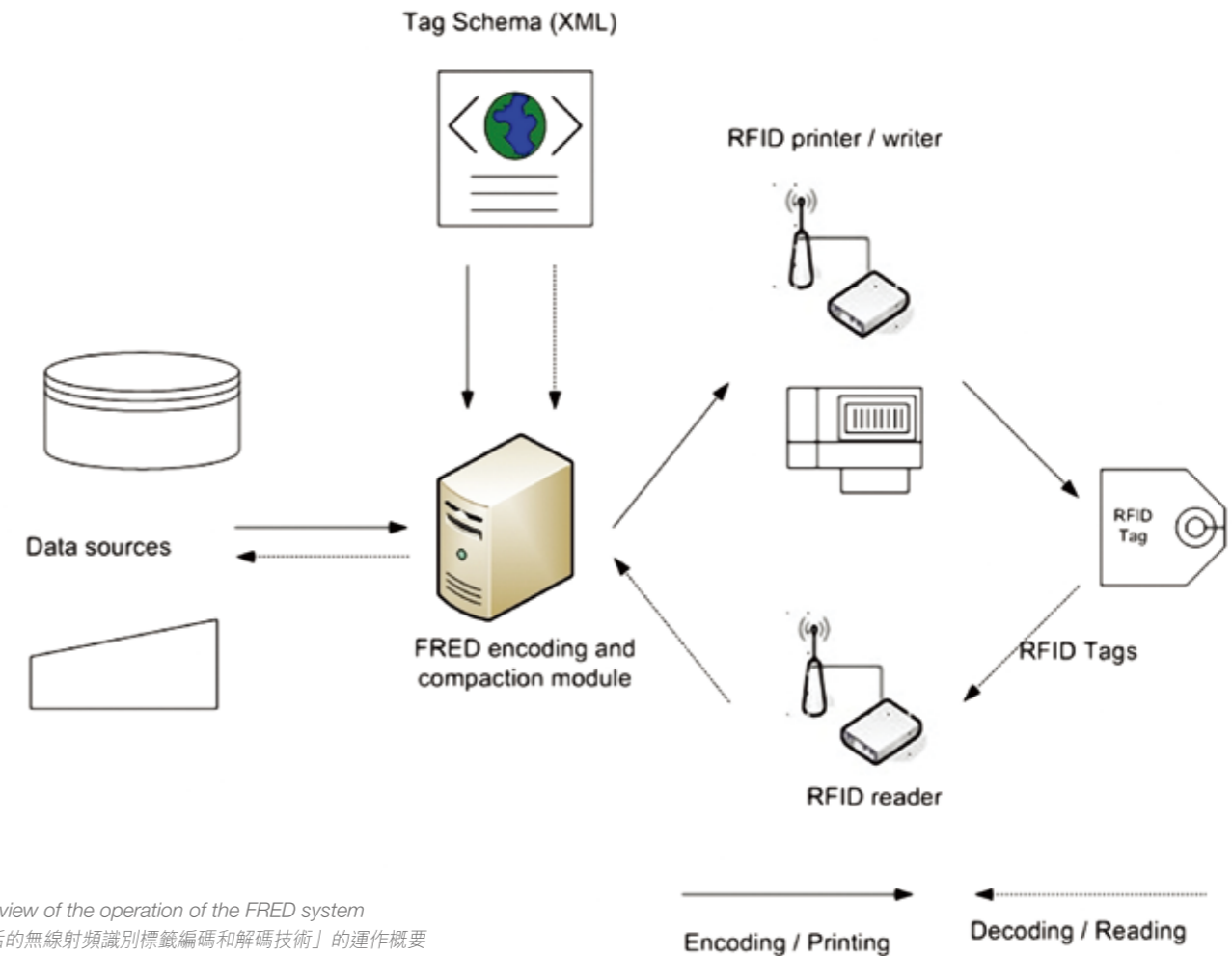
空運貨物處理系統改善空運業的運作

Dr Henry Chan, an Associate Professor in the Department of Computing, and his team have developed an Air Cargo Processing System using radio frequency identification (RFID) technology to help enhance Hong Kong's competitiveness in the air freight forwarding industry.

理大電子計算學系副教授陳峻斌博士及團隊研發了一套採用無線射頻識別技術 (RFID) 的空運貨物處理系統，有助提升香港在國際空運業中的競爭力。



Dr Henry Chan (middle) and his research team
陳峻斌博士(中)及其研究團隊



Overview of the operation of the FRED system
「靈活的無線射頻識別標籤編碼和解碼技術」的運作概要

The system has three distinctive features. First, it is equipped with a flexible RFID encoder and decoder (FRED) so that essential air cargo data can be written onto RFID tags for identification and processing. FRED won a Silver Medal at the 38th International Exhibition of Inventions in Geneva. Second, the system comes with an integrated RFID gateway with movement detection capability for both air cargo check-in and check-out operations. Third, the system has a tag rewriting mechanism for the flexible updating of RFID data.

With the support of DHL Global Forwarding and the Janel Group of Hong Kong Limited, the research team has successfully conducted local and overseas pilot runs of the system.

該系統有三項特點。第一，它配備一套「靈活的RFID標籤編碼和解碼技術」（簡稱FRED），重要的貨物數據通過此技術便可靈活寫入RFID標籤中，作為識別和處理貨物之用。FRED技術更於第三十八屆日內瓦國際發明展中奪得銀獎。第二，系統亦配備一套雙向使用的RFID閘道技術，自動檢測貨物的移動方向，方便進行貨物入倉及出倉的操作。第三，透過標籤重寫機制，RFID數據可以靈活更新。

研究團隊在DHL全球貨運物流及翰汶國際物流有限公司的支持下，成功地進行了系統測試。❖

PolyU takes the lead to host first Knowledge Transfer Conference

理大牽頭主辦首屆「知識轉移論壇」



The conference was kicked-off by (first row from left) Miss Janet Wong, Commissioner for Innovation and Technology, Innovation and Technology Commission, HKSAR; Prof. Timothy W. Tong, PolyU President; Dr Zhang Jing'an, Chief of Science and Technology Daily and Member of the Leading Party Group, Ministry of Science and Technology, People's Republic of China; Dr Ronan Stephan, General-Director for Research and Innovation, French Ministry of Higher Education and Research, France; and Mr Michael Stone, Secretary-General, University Grants Committee, HKSAR.

揭幕儀式由（前排左起）香港特區政府創新科技署署長王榮珍女士、理大校長唐偉章教授、中華人民共和國科學技術部黨組成員兼科技日報社長張景安博士、法國科研教育部研究和創新司長Ronan Stephan博士，以及大學教育資助委員會秘書長史端仁先生聯袂主持。

On 8-9 November 2010, over 400 academics, business executives, industrial personnel and policy makers from around the world participated in the first Knowledge Transfer Conference in Hong Kong. The Conference aimed at promoting Hong Kong as the regional hub for innovation, knowledge transfer and entrepreneurship, and sought to build Hong Kong's leadership role in knowledge transfer.

Themed "Partnering for Success: Mastering Innovation, Leveraging Opportunities, Engaging Community", the Conference consisted of business matching sessions and non-technology sessions. The business matching sessions provided local universities and research and development centres with a platform to showcase their potential projects and facilitate the commercialization of research outputs. The non-tech sessions promoted knowledge transfer in other aspects to the community.

Supported by the Innovation and Technology Fund and the University Grants Committee of the HKSAR, the Conference was jointly organized by PolyU, Hong Kong Baptist University, the Chinese University of Hong Kong, City University of Hong Kong, the Hong Kong Institute of Education, Lingnan University, the Hong Kong Science and Technology University, the University of Hong Kong, and the Hong Kong Science and Technology Parks Corporation.

四百多位來自世界各地的學者、工商界領袖、業界人士及政策制訂者於二零一零年十一月八至九日齊集香港，參加第一屆「知識轉移論壇」，希望藉此提升香港作為創新、知識轉移及企業精神之都，並建立香港在知識轉移方面的領導地位。

是次論壇以「共建佳績：掌握創新、互利機遇、社區參與」為題，活動包括商貿配對會議及非技術層面的知識轉移專題討論。商貿配對會議為本地大學和研究發展中心提供一個平台，展示有潛力的項目及促進科研產品和技術商業化；而專題討論則推動社區善用非技術層面的知識。

論壇獲得創新及科技基金與大學教育資助委員會的支持，並由理大、香港浸會大學、香港中文大學、香港城市大學、香港教育學院、嶺南大學、香港科技大學、香港大學及香港科技園公司聯合舉辦。



Dr Wang Jianzhou, Chairman of China Mobile Communications, delivers keynote speech.

中國移動通信集團公司董事長王建宙博士發表主題演講。