

**2014 Hong Kong Awards for Industries:  
Technological Achievement**

**2014 香港工商業獎：科技成就**

*Technological Achievement Grand Award*  
科技成就大獎

Solomon Systech Limited  
晶門科技有限公司

*Technological Achievement Award*  
科技成就獎

Advanced Card Systems Limited  
龍傑智能卡有限公司

China Hi-Tech Anti-Counterfeit Group Limited  
中國高新防偽技術集團有限公司

Nano and Advanced Materials Institute Limited  
納米及先進材料研發院有限公司

Vitargent (International) Biotechnology Limited  
水中銀（國際）生物科技有限公司

*Technological Achievement Certificate Of Merit*  
科技成就優異證書

Animae Studio

AP Photonics Limited  
愛佩儀光電技術有限公司

Eu Yan Sang (Hong Kong) Limited  
余仁生（香港）有限公司

Green Tomato Limited  
綠蕃茄有限公司

HealthBaby Biotech (Hong Kong) Co., Limited  
生寶生物科技（香港）有限公司

Liricco Technologies Limited  
旨豐科技有限公司

WowWee Group Limited  
智領高集團有限公司

## Chairperson's Message

### 主席的話

Technology is the enabler that propels growth of our society. Not only does technology underpin the efficiency and productivity of industries, it also contributes significantly to the wellbeing of mankind. The Technological Achievement Award recognises those who have made significant contribution to Hong Kong through innovative intellectual property development and successful application of technologies that enhance the competitiveness of Hong Kong and enable us to drive for sustainable growth.

The contestants have demonstrated excellence in diverse fields, from advanced components that redefine our experience of smart devices to robust applications that ensure product authenticity; from pioneering technologies that facilitate smart and environmentally friendly living to bio-chemical engineering that ensures good health and food safety; from exciting multimedia applications that stretch one's imagination to robotic toys that deliver a whole new form of interaction for children. I am truly delighted to see such outstanding quality amongst the entries and I am deeply impressed by their commitment to leverage on technology to bring stronger impetus to the growth and development of our community.

The Hong Kong Science and Technology Parks Corporation is committed to connecting industry partners and facilitating collaborations that will accelerate accomplishments of local innovators. We value this opportunity to work closely with Hong Kong Awards for Industries and appreciate the dedication and hard work from the panel of judges to make this event a great success.

**Fanny Law, GBS, JP**  
**Chairperson of Hong Kong Science and**  
**Technology Parks Corporation**

科技是帶動經濟增長、發展社會的重要引擎之一，不僅為各行各業提升效率、加強生產力，更為人類的福祉作出重大貢獻。一年一度的「香港工商業獎：科技成就」，正是為表揚默默耕耘的科技企業而設，以肯定他們透過創意專利發明及嶄新科技應用提升香港競爭力，促進社會可持續發展的不懈努力。

今年的參賽企業於不同範疇展示了非凡的創意和成就 — 智能裝置專用的先進配件，為我們重新定義用戶體驗；突破傳統的科技應用，穩健可靠，協助我們辨別貨品真偽；業界首創的先進技術，帶領我們邁向綠色生活，創建智能城市；革新的生物化學工程，確保食物安全，守護我們的健康；千變萬化的多媒體應用，更將我們天馬行空的想像帶到現實世界，透過機械技術及數碼系統，為孩子帶來前所未有的互動學習新體驗。這些科技項目水準之高、應用之廣，讓我十分興奮；而眾位企業家致力透過創新科技，為社會發展注入新動力的熱誠及投入，更讓我感到莫大鼓舞。

為了加快香港的創新科技發展，培育更多本地發明家，香港科技園公司一向致力連繫各界、推動交流合作。我們很高興藉著參與是次「香港工商業獎」活動，與社會領袖及專家學者共同合作，帶領業界發展更上一層。最後，我衷心感謝委員會各委員為籌備及評審工作盡心盡力，使是次活動圓滿舉行。

**香港科技園公司主席**  
**羅范椒芬 GBS, JP**

# Key Milestones of the Hong Kong Awards for Industries

## 香港工商業獎發展歷程

### 1989

The Governor's Award for Industry was established to recognise and to encourage excellence in industrial performance. It had rationalised the scope of the previous awards, including the Governor's Award for Hong Kong Design and the Hong Kong New Product Award, to avoid overlap and to recognise other important aspects of industrial performance. Two product-based categories were involved :

- 'Consumer Product Design'; and
- 'Machinery and Equipment Design'.

總督工業獎設立，以表揚及鼓勵有傑出成就的廠商。有關獎項將以往獎勵計劃（包括香港總督設計獎及香港新產品獎）的範圍加以整理，避免重複，並表揚其他重要的工業表現。獎項頒發予兩個以產品為獲獎單位的組別：

- 「消費品設計」；及
- 「機器及設備設計」。

### 1990

The scope of the Governor's Award for Industry was broadened to include two company-based categories to recognize endeavours by Hong Kong companies on achieving improved productivity and applying good quality management systems in their manufacturing process. The two new categories were :

- 'Productivity'; and
- 'Quality'.

總督工業獎範圍擴闊，增設了兩個以公司為獲獎單位的獎項組別，以表揚本港公司對提高生產力及在生產過程中採用良好品質管理系統所付出的努力。兩個新增的獎項組別為：

- 「生產力」；及
- 「品質」。

### 1992

The Governor's Award for Industry was further expanded to include two company-based categories to recognize endeavours by Hong Kong manufacturers on protecting or improving the environment through conservation of raw materials and pollution reduction, and to commend excellence in expanding and opening export markets. The two new categories were :

- 'Environmental Performance'; and
- 'Export Marketing'.

總督工業獎進一步擴展，增設了兩個以公司為獲獎單位的獎項組別，以表揚為保護及改善環境而致力節省原料及減少污染的本港製造商，及表彰在拓展及打開出口市場方面的傑出成就。兩個新增的獎項組別為：

- 「環保成就」；及
- 「出口市場推廣」。

### 1995

The 'Governor's Award for Industry' was renamed the 'Hong Kong Awards for Industry' to facilitate overseas promotion of the awards scheme and Hong Kong as a centre of high technology manufacturing in the Asia Pacific region.

「總督工業獎」易名為「香港工業獎」，以助在海外推廣這項獎勵計劃，及建立香港在亞太區作為高科技製造中心的形象。

## 1997

The 'Hong Kong Awards for Industry' added a new company-based category to underscore the importance of technological development and application of new technologies in Hong Kong's manufacturing sector, and to recognise achievements of local companies in high technology sectors. The new category was :

- 'Technological Achievement'.

In the same year, the 'Hong Kong Awards for Services' was established to showcase outstanding achievements of the services sector and to raise the standard of the service industries in Hong Kong. Five categories were involved :

- 'Innovation';
- 'Customer Service';
- 'Export Marketing'.
- 'Productivity';
- 'Tourism Services'; and

「香港工業獎」增設一個以公司為獲獎單位的獎項組別，以突顯本港製造業發展和應用新科技的重要性，並表揚本地公司在高科技行業中的傑出成就。新增的獎項組別為：

- 「科技成就」。

同年，「香港服務業獎」設立，以表揚本地服務業的卓越表現，藉以提高業界的水平。獎勵計劃涵蓋五個獎項組別：

- 「創意」；
- 「優質顧客服務」；
- 「出口市場推廣」。
- 「生產力」；
- 「旅遊服務」；及

## 2005

The 'Hong Kong Awards for Industries (HKAI)' was officially launched by merging the former 'Hong Kong Awards for Industry' and 'Hong Kong Awards for Services'. The HKAI rationalised and updated the two award schemes, and continued to recognize the outstanding achievements of Hong Kong enterprises in pursuit of high technology and high value-added activities, and to commend excellence in various aspects of their performance.

The merged awards scheme covered seven categories :

- 'Consumer Product Design';
- 'Customer Service';
- 'Innovation and Creativity';
- 'Technological Achievement'.
- 'Machinery and Equipment Design';
- 'Environmental Performance'<sup>Note</sup>;
- 'Productivity and Quality'; and

「香港工業獎」及「香港服務業獎」合併為「香港工商業獎」。「香港工商業獎」將兩個原有獎勵計劃進行重整和革新，繼續致力表揚香港企業在邁向高科技、高增值的過程中取得的成就，以及在不同範疇的傑出表現。

合併後的獎勵計劃包括七個獎項組別：

- 「消費產品設計」；
- 「顧客服務」；
- 「創意」；
- 「科技成就」。
- 「機器及設備設計」；
- 「環保成就」<sup>註</sup>；
- 「生產力及品質」；及

## 2014

With its 25th anniversary, the HKAI has now developed into an important annual event for Hong Kong's manufacturing and services industries and is a stimulus to progress and improvement in the industries. Over the years, the award scheme has recognised and commended the exemplary performance of about 930 companies.

The award scheme comprises six categories :

Product-based Categories

- 'Consumer Product Design';
- 'Equipment and Machinery Design';

Company-based Categories

- 'Customer Service';
- 'Innovation and Creativity';

- ‘Productivity and Quality’; and
- ‘Technological Achievement’.

香港工商業獎成立25周年，現已發展成為本港製造業及服務業一年一度重要的盛事，為業界的發展和改進起了莫大的鼓勵。多年來，獲表揚的優秀企業共有約九百三十間。

獎勵計劃涵蓋六個獎項組別：

以產品為獲獎單位的組別

- 「消費產品設計」；
- 「設備及機器設計」；

以公司為獲獎單位的組別

- 「顧客服務」；
- 「創意」；
- 「生產力及品質」；及
- 「科技成就」。

**Note** As there was a certain degree of overlap between the HKAI and the Hong Kong Awards for Environmental Excellence which recognises organisations that excel in environmental performance, the HKAI no longer included the 'environmental performance' category since 2011 so as to avoid duplication of resources.

**註** 鑑於「香港工商業獎」當中的「環保成就」獎項組別在某程度上與表揚機構在環保方面有卓越表現的「香港環保卓越計劃」有所重疊，自2011年，「香港工商業獎」不再涵蓋該組別，以免資源重疊。

**2014 Hong Kong Awards for Industries :  
Customer Service, Innovation and Creativity, Productivity and  
Quality, and Technological Achievement**

**Final Judging Panel**

**2014 香港工商業獎：**

**顧客服務、創意、生產力及品質、科技成就組別最終評審委員會**

**Ms Ruth Yu**

余麗姚女士  
Executive Director  
Hong Kong Retail Management Association  
香港零售管理協會執行總監

**Mr K C Leung**

梁廣泉先生  
Chairman, Industry and Technology Committee  
Hong Kong General Chamber of Commerce  
香港總商會工業及科技委員會主席

**Mrs Agnes Mak**

麥鄧碧儀女士  
Executive Director  
Hong Kong Productivity Council  
香港生產力促進局總裁

**Prof Tony F Chan**

陳繁昌教授  
Chairman of the Final Judging Panel  
最終評審委員會主席  
President  
The Hong Kong University of Science and Technology  
香港科技大學校長

**Ir Allen Yeung**

楊德斌先生  
Vice President  
Business Development and Technology Support  
Hong Kong Science and Technology Parks Corporation  
香港科技園公司企業拓展及科技支援  
副總裁

**Ms Belinda Wong**

王婉蓉女士  
Assistant Director - General of Trade and Industry  
Trade and Industry Department  
工業貿易署助理署長  
(not judging panel member)  
(非評審委員會成員)

**2014 Hong Kong Awards for Industries:  
Technological Achievement**

**Judging Panel**

**2014 香港工商業獎：科技成就**

**評審委員會**

**Prof Ping-kong Alexander WAI**

衛炳江教授

Vice President (Research Development)

The Hong Kong Polytechnic University

香港理工大學副校長（科研發展）

**Mr Andy Liu**

劉安庭先生

Vice Chairman – International Affairs

Hong Kong Biotechnology Organization

香港生物科技協會副主席 – 國際事務

**Mr Dennis WONG**

黃振斌先生

Principal Consultant, IT Industry Development

Hong Kong Productivity Council

香港生產力促進局資訊科技業發展部首席顧問

**Mr Hailson YU**

余梓山先生

Deputy Director, Technology Transfer Office

The University of Hong Kong

香港大學技術轉移處副處長

**Mr H.Y. WONG**

黃漢儀先生

Ex-Advisor to Vice-President (Research and Technology),

City University of Hong Kong

前香港城市大學副校長（研究及科技）顧問

**Prof Joseph H.W. LEE**

李行偉教授

Vice-President for Research and Graduate Studies

香港科技大學副校長（研發及研究生教育）

Chair Professor of Civil and Environmental Engineering

The Hong Kong University of Science and Technology

土木及環境工程學系講座教授

**Ir Allen YEUNG**

楊德斌工程師

Vice President, Business Development and Technology Support

Hong Kong Science and Technology Parks Corporation

香港科技園公司企業拓展及科技支援副總裁

**Ir Stephen K.M. LAU, JP**

劉嘉敏工程師太平紳士

Vice President (Executive), Hong Kong Computer Society

香港電腦學會副會長（執行）

**Mr Johnny YEUNG, MH**

楊志雄先生

Chairman, The Hong Kong Electronic Industries Association

香港電子業商會會長

**Ir Victor NG**

吳國豪工程師

Chairman, Hong Kong Electronics & Technologies Association

香港電子科技商會主席

**Prof On Ching YUE**

余安正教授

Science Advisor, Innovation and Technology Commission, HKSARG

香港特別行政區政府創新科技署科學顧問

**Dr Ken FONG**

方健僑博士

Honorary Chairman (Life),

Hong Kong Wireless Technology Industry Association

香港無線科技商會永遠名譽主席

**Ir Dr Vincent To-yee NG**

吳道義博士

Chairman, Information Technology Division

The Hong Kong Institution of Engineers

香港工程師學會資訊科技部分部主席

# Technological Achievement

## Grand Award

### 科技成就大獎

*Solomon Systech Limited*

晶門科技有限公司

*www.solomon-systech.com*

Founded in 1999, Solomon Systech Limited ("Solomon Systech") is a leading semiconductor company providing display IC products and system solutions on an international basis under its own global brand. Adopting a "fabless" business model, Solomon Systech specializes in the design, development and sales of proprietary IC products and system solutions that enable a wide range of display applications for smartphones, smart TVs and other smart devices, including consumer electronics products, portable devices, industrial appliances and green energy applications.

Solomon Systech has built technology and business centers in Hong Kong, China and Singapore. It also has direct offices in major countries as well as a worldwide network of distributors and sales representatives. Solomon Systech (International) Limited's shares have been listed on the main board of the Stock Exchange of Hong Kong Limited since April 8th, 2004 (stock code: 2878).

Research and development has always been the cornerstone of Solomon Systech. We are committed to driving the development of display technologies and boosting the Hi-Tech industry. We have been developing advanced technologies with self-developed IPs and patents, and the Grand Award winning High-Definition TFT LCD Driver for Metal Oxide Panels is one recent innovation.

This innovative technology is highly costeffective, ideal for meeting the growing demand for low power, high resolution and high performance smartphone applications.

The key competitive advantages of the technology include:

**Enables lower system cost** – the technology facilitates the reduction in panel production costs compared to other commonly used technologies, like LTPS/AMOLED.

**Supports high resolution (up to 400ppi) and enables display of vivid images** - images are processed and enhanced by the Solomon Systech IP technology of Color Enhancement, which enables enhancement of color (saturation), contrast, sharpness and sunlight readability, making the images as vivid and clear as the higher cost AMOLED and LTPS displays.

**Enables low power consumption** – with self-developed IP technologies of "frame skipping", "interlaced mode" and patented technology of Contents Adaptive Backlight Control (CABC), the average display power consumption of metal oxide panels can be reduced by 25% and increases the smartphone's operating time by 10%.

**Highly flexible** – the technology supports a wide range of resolutions and panels for various smartphone applications.

**Achieves narrow bezel design and maximizes screen display area** – the compact design of the IC together with the high electron mobility characteristic of metal oxide panels enable modules with narrow bezel design (<1mm), which in turn maximizes the display area of the screen in smartphones. This makes a perfect match with the current trend of smartphone design.

This is China's first commercialized TFT LCD Driver IC supporting High Definition metal oxide panels. With its innovative functions, this technology overcomes some of the challenges that current panel technologies are facing. It has played an important role in marking a key milestone and boosting the

technological advancement of the display industry in China. The solution has successfully designed-in with top tier China smartphones. It is expected to become a dominating technology with great potentials to capture the growing smartphone market.

As a Grand Award winner of Technological Achievement Award, Solomon Systech will continue to strive to innovate and develop more proprietary products and technologies for all customers.

晶門科技有限公司 ("晶門科技") 成立於1999年，是一家具有領導地位的半導體公司，為全球客戶提供自有品牌的顯示集成電路晶片產品及系統解決方案。晶門科技採用「無晶圓廠」的業務模式，專門設計、開發及銷售專有集成電路晶片產品，以推動一系列的顯示器應用，晶門科技的顯示器集成電路晶片及系統解決方案，廣泛應用於各類智能手機、智能電視及其他智能產品，包括消費電子產品、便攜式裝置、工業用設備及環保能源應用。

晶門科技有限公司在香港、中國及新加坡分別設有科技及業務中心。集團在全球多個主要城市均設有辦事處，並擁有一個龐大的分銷網絡。Solomon Systech (International) Limited 於2004年4月8日在香港聯合交易所有限公司主板上市，股份編號為2878。

晶門科技一向以研發作為基石，致力推動顯示科技發展，進一步開拓高科技產業。集團積極發展先進科技，自主研發知識產權並獲頒專利。是次獲頒科技成就大獎的高清金屬氧化物TFT 液晶顯示屏驅動器正是集團最近其中一項創新科技。

此創新科技極具成本效益，正好迎合市場對低功耗、高解像度及高效智能手機應用之需求。

是次得獎的科技具備多個創新的競爭優點：

**有效降低系統成本**—此創新技術促使面板生產成本較LTPS/AMOLED等其他常用技術低。

**支持高解像度（高達400ppi）及生動鮮明圖像顯示**—採用晶門科技自主研發的“圖像顯示強化引擎”技術，令色彩飽和度加強，對比度、清晰度及日光可讀性亦增強，使圖片更顯鮮艷，效果媲美採用AMOLED或LTPS 等較高成本技術。

**降低功耗**—透過自主研發的“跳幀”及“交錯模式”知識產權技術及背光控制專利技術，將金屬氧化物面板平均功耗大幅降低25%，令智能手機的備用時間平均增加10%。

**高度靈活**—此科技支持大範圍的面板和解像度，適用於不同智能手機。

**支持面板實現窄邊框設計，達至顯示面積最大化**—得獎產品設計緊湊，配合金屬氧化物面板的高電子流動性，能達至窄邊框的設計 (<1毫米)，有助於將屏幕的顯示面積最大化，完全迎合目前智能手機的設計潮流。

此得獎產品乃國內首發支持高清金屬氧化物TFT 液晶顯示屏的商品化驅動晶片。其創新功能有效克服現時面板技術所面對的部份挑戰，為中國業內及顯示模組技術發展奠定重要里程碑，並取得國內頂尖智能手機的設計開發項目，充分把握智能手機日益增長的市場潛力。

作為科技成就大獎得主，晶門科技將會繼續致力為客戶發展更多自主研發的產品及科技。

# Technological Achievement

## Award

### 科技成就獎

*Advanced Card Systems Limited*

龍傑智能卡有限公司

[www.acs.com.hk](http://www.acs.com.hk)

Advanced Card Systems Limited (ACS) develops a wide range of high-quality smart card reading/writing devices, smart cards and related products and distributes them to over 100 countries worldwide. As a leader in the smart card industry, ACS has the technology, expertise and global resources to facilitate easier adoption of smart card applications in different industries across the globe.

With its background, ACS has developed the contactless smart card reader module based on 13.56MHz RFID, ISO14443 and ISO18092 contactless technology. ACS contactless reader modules are always one of the earliest in the market to be certified with the latest international standards. ACS introduced the first mobile card reader supporting both magnetic cards and contactless cards, the first NFC reader certified by NFC Forum in Greater China, and bus validators accepting both closed-loop and open-loop EMV (Europay, MasterCard and Visa) contactless payment cards on the field.

Contactless smart card reader module technology facilitates secure contactless smart card transactions that are faster than those performed by contact technologies, thereby increasing user convenience. NFC (Near Field Communication), a subset of contactless technology, widens the possibilities for users because it can emulate a card, read or write information, and perform P2P (peer-to-peer) functions, for intuitive interaction not only between traditional cards and readers, but also among mobile phones and/or NFC-enabled devices.

ACS applies NFC technology to develop contactless readers, for applications in both payment and non-payment areas, e.g. access control, customer loyalty, retail payment, automatic fare collection (AFC), and mobile payment.

The reader module platform enables customization based on different customers' needs, and is scalable.

ACS believes its technologies can bring revolutionary changes to the public by enabling simple, convenient, fast and secure transactions.

龍傑智能卡有限公司（ACS）致力於開發一系列優質 的智能卡讀寫器、智能卡及其相關產品，產品遠銷至全球一百多個國家。ACS 作為智能卡行業的領導者，憑藉先進的技術、專業的知識以及遍布全球的網絡，令智能卡廣泛地應用於不同行業之中。

近年ACS 研發了基於13.56MHz RFID、ISO14443及ISO18092 技術的非接觸式智能卡讀寫器模塊。ACS 的非接觸式讀寫器模塊一直是市場上最先通過各項國際新標準認證的產品。我們推出了首款可支持磁條卡及非接觸式卡的移動設備讀卡器，還研發了大中華區首款通過NFC 論壇認證的NFC 讀寫器，以及首款接受閉環驗證和開環驗證EMV (Europay、MasterCard 和Visa) 非接觸式支付卡的車載機。

非接觸式智能卡讀寫器模塊技術實現了快速並安全的交易模式，能夠提高用戶使用時的便利性。NFC（近場通信）是非接觸式技術的一種應用，它具有三種模式，分別是卡模擬、資訊讀寫以及產品間通信（P2P），為用戶帶來更多的應用可能性，既能促進傳統卡片與讀寫器之間的溝通，也能實現流通電話與/ 或NFC 設備之間的訊息傳遞。

ACS 利用NFC 技術開發的非接觸式讀寫器能夠應用在支付及非支付領域，例如訪問控制、客戶積

分優惠、零售支付、自動收費（AFC）系統以及移動支付。

ACS 的讀寫器模塊平台可以根據不同的客戶需求進行定制，也可進行擴展。

ACS 相信這個技術必定能實現簡單、方便、快捷和安全的交易模式，為公眾帶來革命性的變革。

# Technological Achievement

## Award

### 科技成就獎

*China Hi-Tech Anti-Counterfeit Group Limited*

*中國高新防偽技術集團有限公司*

*www.chacg.com*

China Hi-Tech Anti-Counterfeit Group Limited (CHAC), founded in 2010, is a high-tech company whose work encompasses research & development, production and sales. The company aims to be an innovative market leader and technology niche provider for commodity information and security.

CHAC has been collaborating with a worldclass research team from The Hong Kong Polytechnic University for four years to develop a novel ink technology, namely Nano Anti-erasing (ATE) inks and their printing systems, to address various long-standing and urgent problems concerning printing indelible marks on plastics and metal surfaces. We have already developed a series of breakthrough ink products including solvent-, oil-, water-and alcohol-resistant inks for printing indelible product information on plastic and metal surfaces using continuous ink jet (CIJ) printers. One of our breakthrough products is the double-layer-double-colour (DLDC) printing for fast-moving consumer goods. The resultant mark can leave irremovable inner coloured print on the package. The new tamper-resistant inks are also easy to implement and operate in packaging lines, allowing manufacturers to take effective action against counterfeiting. Our innovative ink products and printing systems are pivotal in tracing product information, preventing counterfeiting, and protecting consumers against buying counterfeit or expired goods unwittingly.

A number of companies from the dairy, beverage, food processing, drug, daily consumer product, cosmetic, electric cable, and textile industries in Hong Kong, China and overseas have already expressed their keen interest in using the indelible inks for printing on their products. Meanwhile, one of the largest dairy producers in China, China Mengniu Dairy Company, is using this novel printing technology for a variety of its dairy products.

中國高新防偽技術集團有限公司成立於2010年，是一家集研發、生產和銷售於一身的高新科技公司。公司的目標是成為科技和市場領先的商品信息安全技術供應商之一。

為解決業界急需的防偽打印技術，中國高新防偽技術集團有限公司與香港理工大學研發團隊經過四年的研究，成功研發了全新納米抗擦墨技術和其打印配套。我們已成功研發出一系列可用在連續式噴碼機上使用的突破性油墨產品，其中包括抗溶劑、抗油、防水、抗醇油墨，可在膠面及金屬表面上打印不可抹掉的信息碼。其中一種突破性的產品是用於打印在快速消費品上的雙層雙色的油墨，其打印的信息碼擁有難以去掉的防偽標記。在使用這種新型油墨打印技術時，無需改變現有的生產程序，容易使用及操作，並能幫助產品生產商有效地防止偽冒。我們的創新抗擦墨產品和打印技術可解決快速消費品不可追溯的難題，對杜絕假貨、過期產品及轉售貨品，發揮了關鍵作用。

目前已有多家香港、中國及海外公司對納米抗擦墨系列產品抱有極大興趣，部份公司已開始使用和處於測試階段。涉及的行業包括乳業、飲品、食品加工、藥品、日用品、化妝品、服裝輔件、電纜和電線等。其中中國領先的乳製品生產商之一：中國蒙牛乳業，已全面使用納米抗擦打印技術在其乳制產品上。

# Technological Achievement

## Award

### 科技成就獎

*Nano and Advanced Materials Institute Limited*

納米及先進材料研發院有限公司

[www.nami.org.hk](http://www.nami.org.hk)

The Nano and Advanced Materials Institute Limited (NAMI), established in 2006, was designated by the Innovation and Technology Commission as a Research and Development Center for nanotechnology and advanced materials. NAMI undertakes and provides support for market-oriented research in nanotechnology and advanced materials, and strives for commercialization of the technologies to promote the economic growth of Hong Kong as a knowledge-based economy. NAMI plays the role as the Materials Expert for Hong Kong Industries, supporting them from frontier research to pilot scale production and technology transfer.

NAMI is tasked to collaborate with local industries to conduct applied research that can lead to product commercialization. Based on the local Hong Kong and Pearl River Delta business environment, we have identified five focused market sectors in Sustainable Energy, Solid State Lighting & Display, Construction & Building Materials, Environmental Technologies, and Bio & Healthcare.

#### **NAMI's DAA: Conducts and Dissipates Heat Faster and Prolongs Life**

As the LED market grows rapidly, NAMI is focusing on developing advanced thermal management materials for more reliable LED and display devices.

Utilizing novel nano fillers with optimal shape, sizes and surface properties for uniform dispersion within the adhesive, NAMI has developed a low-cost Die Attach Adhesive (DAA) with high thermal conductivities of  $\geq 30\text{W/mK}$ . Besides, the NAMI DAA is able to activate at a low curing temperature of  $\leq 100^\circ\text{C}$  and has a high storage temperature of  $\geq 10^\circ\text{C}$ .

NAMI aims to establish a technology platform to enhance thermal management of not only HB-LED but also other high power electronic devices. Application opportunities include plasma lighting, solar panels, pumps and motors and printed circuit boards especially where high power devices are involved.

納米及先進材料研發院有限公司（NAMI），由創新科技署於2006年指定為納米技術和先進材料的研發中心。NAMI 進行及支持市場主導的納米技術和先進材料研發工作，並致力達成技術商品化，從而推動本港可持續發展的知識型經濟。NAMI 為本港各行業擔當先進材料專家的角色，支援嶄新研究以至小規模生產以及技術轉移。

NAMI 備受訓練的科研人員，與全球學界及跨國企業的人員合作，開發市場所需的應用技術。

NAMI 的研發集中在五個核心領域，包括可持續能源、環保技術、建築及屋宇材料、固態照明及顯示，以及生物及保健。

#### **NAMI 固晶膠水：加快導熱及散熱速度，延長產品壽命**

因應LED市場的迅速增長，NAMI 致力研發用於LED及顯示器件的先進散熱管理材料，以確保有關器件的可靠性。

NAMI 運用嶄新的納米填料，配以其合適的形狀、尺寸及表面特質以使其在膠水內均衡分佈，成功

開發低成本且導熱率超過30W/mK的固晶膠水。此固晶膠水更具備低固化溫度 ( $\leq 100^{\circ}\text{C}$ ) 及高存儲溫度 ( $\geq 10^{\circ}\text{C}$ ) 等卓越特性。

NAMI 致力為提升高亮度LED 以至其它大功率電子裝置的散熱管理提供一個技術平台，應用範圍包括等離子照明、太陽能板、泵及發動機、印刷電子線路等需要高功率輸出的器件。

# Technological Achievement

## Award

### 科技成就獎

*Vitargent (International) Biotechnology Limited*

水中銀（國際）生物科技有限公司

[www.vitargent.com](http://www.vitargent.com)

Vitargent (International) Biotechnology Limited (Vitargent) was established in 2010 by scholars and scientists from state key laboratories and City University of Hong Kong and outstanding international management team. R&D team has started the research project since 2001. Members of management team are graduates from Wharton School of the University of Pennsylvania, Massachusetts Institute of Technology, University of Cambridge, Stanford University and the University of Hong Kong etc. Research projects have won several regional and international awards include HSBC Young Entrepreneur Award, Lee Kwan Yew Global Business Competition Award, Korean International Invention Award.

Vitargent is dedicated to providing the world's leading and innovative testing technology which is applied in food, pharmaceuticals, cosmetics and water environment. Vitargent has successfully developed and commercialized the innovative technologies such as “transgenic fluorescent fish technology”, “DNA technology to identify endanger shark fin species”, “DNA technology to detect turtle DNA in turtle jelly” and etc.

Transgenic medaka is designed for testing Estrogenic Endocrine Disruptors (EEDs), a major group of harmful substances. When the fish detect EEDs, it will produce green fluorescent light; the intensity of the light is used to quantify the EEDs. By applying this technology in the screening stage of the testing process, 60% of time and money can be saved, while it can also detect unknown substances belonging to the group of EEDs.

Vitargent has been accredited the international standard “ISO17025” and is the only accredited Asian laboratory that provides “Fish embryo toxicity” (FET) test that is internationally recognized. We are providing service to international testing organizations such as SGS, Fugro (MaterialLab), CMA, BGI, world's leading cosmetic, food and beverage conglomerates, various inspection & quarantine bureaus and government divisions in Europe, Hong Kong and Mainland China. With the firm support of these groups, the technology/protocol is being developed as regional and international standards.

水中銀（國際）生物科技有限公司（簡稱“水中銀”）是由來自中國國家重點實驗室與香港城市大學的傑出學者、科學家與國際優秀管理團隊於2010年成立。科研團隊從2001年開始相關研發，全部擁有研究生或博士學位。管理團隊擁有沃頓商學院、麻省理工、劍橋、斯坦福大學、香港大學等院校的學歷。項目獲得多個地區與國際性大獎，包括滙豐青年企業家大賽亞洲總冠軍、李光耀全球商業大賽季軍、韓國發明金獎、最佳中小企業獎，並入選香港政府評選的“過去十年最優秀的科技公司”。

水中銀致力提供世界領先及創新的檢測方法，加強食品、藥品、化妝品與水體環境的安全，成功研發並把多項全球首創的技術推出市場，例如轉基因發光魚，鑒定瀕臨絕種魚翅技術，驗證龜苓膏中含有龜的成分等等。

轉基因發光魚（發光魚）可以用來檢測雌激素內分泌干擾物（簡稱“EEDs”），當發光魚與雌激素接觸時，便會發出不同強度的綠色螢光，從而量化其含量。將這項技術應用於篩選階段，可以節省60%以上的時間與成本，同時也可以提高準確性。

水中銀獲得國際標準ISO17025 認可證書，是亞洲唯一一家可以提供魚卵毒理測試(FET)，實驗結果受官方認可的測試中心。我們正在服務的對象包括國際領先的檢測中心，政府機構與全球大型的化

妝品集團，食品集團，相關技術在這些集團與政府的支持正在發展做地區性與國際性標準，是香港本土研發的技術成功被國外頂尖科研與商業機構採納，並發展做國際標準的經典案例。

# Technological Achievement

## Certificate of Merit

### 科技成就優異證書

*Animae Studio*

*www.animaestudio.hk*

Founded in Hong Kong in 2013, Animae Studio is a multimedia design and production company, specialized in entertainment software development and interactive installations.

We have developed an interactive control and input system for touch screens including device and application, which allows identification, navigation, orientation and dynamic inputs on touch-sensitive devices. Besides, the interactive system allows multiple users operating on the same touch screen simultaneously. Moreover, the control device can simulate multi-touch input gestures. Also, our design mitigates the inconsistencies and inaccuracies caused by using bare fingers on touch-sensitive devices. This interactive system and related technologies have been filed for patents in several territories and countries.

To apply our technology, we have developed a play set of interactive toy and mobile game based on a local brand image, which generates users different play experience and tactile sensation. Apart from entertainment and marketing, our interactive system enables a wide range of applications in other fields such as mobile commerce, health care, etc.

Animae Studio 是一間於2013 年成立的多媒體設計及製作公司，從事娛樂軟件開發和互動裝置設計。

我們研發了一套在觸摸屏幕上使用的互動控制和輸入系統包括裝置和程式，允許在觸摸屏幕上進行身份識別、定位、辨識方向和輸入可變數值。另外，系統支援多用家在觸摸屏幕同時進行操作。而且，裝置可用來模擬多觸摸輸入的手勢，設計亦改善了在觸摸屏幕上以手指觸控所造成不□致和不準確的問題。這互動系統和相關技術已經在多個地區和國家申請了專利。

我們首先把技術應用於互動遊戲製作，並與本地原創品牌合作，為其肖像打造一套互動玩具及遊戲，為玩家帶來嶄新的遊戲體驗。我們的互動系統促成實物與虛擬世界的結合，而且應用性廣泛，除了應用於娛樂及廣告外，還可應用於其他範疇，例如：流動商務、健康護理等。

# Technological Achievement

## Certificate of Merit

### 科技成就優異證書

*AP Photonics Limited*  
*愛佩儀光電技術有限公司*  
*www.app-hk.com*

AP Photonics Limited (APP) is a world leading designer and manufacturer for products applied in the field of optical image stabilization (OIS). Utilizing our patented OIS technologies, APP successfully designs and produces the smallest and most energy efficient OIS voice coil motor (VCM), this product is particularly suitable for use in portable mobile camera products, such as mobile phones, tablets and wearable devices. Our product greatly improves the camera capabilities, allowing users to take good pictures using mobile devices even in lowlight and hand-shaking conditions.

APP is leading in OIS VCM technology by having more compact and simple designs than those using the traditional lens-shift technology. The advanced control algorithms that are designed by our engineers enable fast and accurate AF and OIS.

APP has developed a patented semi-automatic manufacturing technology that is low-cost, reducing the labor number and improving efficiency. APP has also made significant breakthrough in VCM testing technology. APP adopts a patented optical approach in VCM testing that is highly accurate, efficient and non-intrusive, resulting in high throughput, high yield rate and low contamination. With the capability of producing three million OIS VCMs per month, APP has successfully deployed her products on flag-ship mobile devices.

愛佩儀光電技術有限公司，擅長設計及生產高精密光學防震產品。透過專利的光學防抖技術，成功設計及生產了全世界最小型及最省電的OIS VCM(音圈馬達)。此產品特別適用於手提移動攝像產品，如手提電話、平板電腦及可戴式裝置等，大大改善了這些產品的拍照及錄影功能，即使在光線不足或震動的情況下亦能拍攝專業影像，為用家留下美麗回憶。

在技術層面，VCM 設計不論在體積和結構精簡度上，比起傳統的鏡片平移技術優勝；而對焦速度及防抖技術更是由我們工程師的精心設計，達致快而精準，領先業界。

生產技術上亦有很大突破，專利的半自動生產技術，減少人手操作，精密而低成本；專利的測試技術，利用精密光學設備測試並驗證 VCM 的特徵和性能，準確、高效、無污染及無損害，提高良率及生產效能，令愛佩儀能成功每月量產超過三百萬台OIS VCM 並應用於旗艦級手機。

# Technological Achievement

## Certificate of Merit

### 科技成就優異證書

*Eu Yan Sang (Hong Kong) Limited*

余仁生(香港)有限公司

[www.euyansang.com](http://www.euyansang.com)

Many parents nowadays use a folk formula named as “Kai Nai Cha” to feed their infants for reducing heat in stomach and intestines caused by prolonged consumption of dairy products.

However, most Kai Nai Cha granules in the market contain excipient, usually starch, lactose and even sucrose which may affect health when it is taken over a long period of time. In traditional manufacturing processes, most concentrated formulas (granules) require sugar as a solid carrier ingredient. Concentrates require solid carriers in order to be made into instant powder form. Eu Yan Sang has made the breakthrough to produce Infant’s Digestive Support Formula, a concentrated product without excipient and sugar which is made in teabag form.

When using Eu Yan Sang Infant’s Digestive Support Formula, simply infuse in water to consume. The concentrated medicinal extract in teabag is released into the water within a few seconds. Compared with the grounded herbs in teabag, the medicinal ingredient is released more directly. The entire manufacturing and R&D process was completed in a GMP-certified food factory in Hong Kong.

This new method in preparation is expected to extend to health products for the treatment of diabetes and gout.

傳統華南地區及香港父母均讓嬰孩服用開奶茶，減低他們攝入奶類產品而產生腸胃熱氣的問題。

市場上即沖開奶茶大部分含輔型劑，一般為澱粉及乳糖，有些甚至使用蔗糖。嬰兒長期攝取此類物質會對身體有影響。在傳統工藝上，沖劑／濃縮產品大多需要輔料式糖作為固體載體，濃縮液需附在載體後才能成為即沖的沖劑。余仁生突破了傳統，除了改用方便茶包裝，更確保嬰孩可以在無輔料糖下，一樣吸收到高效的產品！

使用產品時，只要以開水浸泡，濃縮藥液便能馬上釋放，藥液成份完全擴散至水中。相比起直接使用「磨碎的藥材」入茶包內，有效成份更易於釋放。由於本發明採用了中藥製劑領域非常成熟及先進的製備工藝和設備，因此，所述製備方法易於實施，而且全程香港GMP食品廠房製造及研發。

# Technological Achievement

## Certificate of Merit

### 科技成就優異證書

*Green Tomato Limited*

綠蕃茄有限公司

[www.greentomato.net](http://www.greentomato.net)

Green Tomato Limited, a regional leader in mobile enterprise solutions and mobile innovation powerhouse. We are proud of our sustainable creativity and innovativeness on mobile. GreenTomato is a Hong Kong Business Awards Company, Computerworld Tech Company of the Year, Red Herring Global 100 & Red Herring Asia 100 company, being a proud winner of over 50 local and global awards including Hong Kong ICT Awards & Asia Pacific ICT Alliance grand award winner.

We are a team of over 180 passionate and young developers and designers across 5 regional offices, who share the devotion to innovate. GreenTomato is treasured and respected by clients as a trusted consultant. Established in 2003, over 500 mobile apps, web services and over 150 long-term partnerships were formed with many MNCs including, Hong Kong Disneyland, Philips, Apple Inc., BMW, etc. To amplify GreenTomato's sustainable creativity, the launch of an inhouse R&D team, Farm, leads to the creation of multimillion-user cross-platform applications, Hong Kong Movie, TalkBox Voice Messenger, etc. Green Tomato Limited acquired part of Senstation Limited and its core technology in 2012. Green Tomato Limited, who repositioned the technology and launched the SDK-based communication product, Pointcast Mobile Connector with the first successful commercial showcase in September 2012.

GreenTomato 為一企業流動方案顧問公司，不斷創新和構思與眾不同的流動方案，為客戶提供最適切的諮詢。GreenTomato 曾獲Hong Kong Business Awards, Computerworld 頒發年度科技公司大獎、紅鯡魚全球100 強公司及亞洲100 強公司，亦取得超過50 個本地及國際獎項，包括亞太通訊及資訊科技大獎等。

超過180 名設計及科研專才的GreenTomato團隊，在香港和位於四個不同地區的分公司，一同秉承創新精神，積極為客戶提供專業及值得信賴的諮詢服務。由2003 年至今，GreenTomato 已開發超過500 個流動電話應用程式及網站，並與超過150個企業及跨國公司建立長遠的合作關係，當中包括香港迪士尼樂園、Apple Inc.、寶馬等。為了進一步發揮GreenTomato 的無限創意，科研部門Farm專門開發和推出以廣大用戶群為對象的跨平台應用程式，Hong Kong Movie 和TalkBox Voice Messenger 實為其中佼佼者。GreenTomato 於2012 年推出了基於SDK的通信產品。

# Technological Achievement

## Certificate of Merit

### 科技成就優異證書

*HealthBaby Biotech (Hong Kong) Co., Limited*

生寶生物科技（香港）有限公司

[www.healthbaby.hk](http://www.healthbaby.hk)

HealthBaby Group has established for 13 years and committed to providing quality cord blood and umbilical cord banking services with “Only Quality & Fidelity is Worthy of a Lifetime Trust” as the company philosophy. HealthBaby adopted state-of-the-art stem cells storage and processing facilities and is regularly inspected by various international accreditation organizations to ensure the long-term storage quality of each sample.

HealthBaby attained U.S. patented technology which exclusively extracting the whole cord tissue as well as the unique processing, storage and culture technologies can fully enhance the quantity and viability of tissue cells after thawing to help patients in need.

HealthBaby is recommended by most O&G doctors<sup>1</sup> and also entrusted by most parents for 6 consecutive years<sup>2</sup> in Hong Kong.

Source:

1. IMS 2010 Cord Blood Bank Market Research in Hong Kong (with Private O&G physicians)
2. Ipsos Healthcare 2009-2014 Cord Blood Bank Survey

生寶集團（生寶）成立13周年，一直以「唯有誠信與品質，才值得終身信賴」為宗旨，致力提供最專業優質的臍帶血及臍帶儲存服務。生寶高度重視品質，堅持採用全球最頂尖的幹細胞儲存及處理系統，並定期接受不同國際認證機構的審查，以確保樣本長期處於最佳質量，給予客戶最大的保障。

生寶亦投放大量資源在研發項目上，不斷開發幹細胞醫療用途，提升人類健康質素。生寶獨家研發的臍帶處理、儲存及培養技術，成功取得美國專利及商標註冊處認可。此專利涵蓋完整臍帶組織，可全面促進解凍組織內細胞數量及活性，以幫助有需要的患者進行移植。

至今生寶已成為全港最多婦產科醫生推薦<sup>1</sup>的臍帶血庫，同時連續6年獲最多父母選擇<sup>2</sup>，證明生寶一直對品質的重視和堅持獲得專業人士和客戶的肯定。

資料來源：

1. IMS 2010 香港臍帶血庫市場調查報告
2. Ipsos Healthcare 2009 至2014 臍帶血庫調查報告

# Technological Achievement

## Certificate of Merit

### 科技成就優異證書

*Liricco Technologies Limited*

旨豐科技有限公司

[www.liricco.com](http://www.liricco.com)

Liricco Technologies Limited was founded in 2011 with a focus on leveraging connected devices to help optimize user's energy usage, and enhance overall lifestyle. The company became member of the incubation program of the Hong Kong Science Park in 2012 and is also part of MaRS, the largest incubation program in Canada. Liricco Technologies designs, produces, and markets a series of energy management/home automation products under the brand name of Valta.

Valta is an energy management platform that identifies savings opportunities, and allows users to tailor their environment to optimize savings without compromises to their lifestyle. The system is cloud based and app driven. It includes a v-Hub, Sockets, LED Lights, and meter reader. The solution is user-centric with emphasis on intuitive design. It allows users to truly understand their usage profile and let them do something about it. Our first product, the Valta Socket Starter Kit has been commercialized as of Feb of 2014.

旨豐科技有限公司成立於2011年，專注開發能源管理系統（品牌：Valta），2012年，旨豐進入香港科學園之科技創業培育計劃，並在同年加入加拿大MaRS（加拿大最具規模之培育計劃）。Valta系統包括：控制盒、智能插座、智能燈泡、電表閱讀器、雲服務器及應用程式。Valta系統的設計以用戶為中心，讓用戶透過智能手機或電腦找出能源浪費的原因，幫助用戶改善用電習慣，在不影響用戶生活品質的前題下節約能源，為生活帶來方便。Valta第一代產品在2014年初面世。

# Technological Achievement

## Certificate of Merit

### 科技成就優異證書

*WowWee Group Limited*

智領高集團有限公司

[www.wowwee.com](http://www.wowwee.com)

MIP™, the balancing robot that utilizes a unique balancing algorithm, GestureSense™ Technology, is able to balance on two wheels all on its own and interact with user's hand gestures for different movements. The mode of MIP™ could be changed by lifting it up and spinning its wheel so that the color of the chest plate will change. Under the pink "Stack" mode, MIP™ will be able to balance up to twice its own weight on its balancing tray. While using the red "Tricks" mode, MIP™ will be able to deliver drinks across a table. Users can also use a smart device to connect via blue tooth to expand its gameplay with activities such as path tracing, battling other MIP™s, dancing to music from your music library, or taking MIP™ for a spin by using the soft-touch controls.

MIP™ 是使用了獨有的平衡技術，GestureSense™ 而發明的機器人。MIP™ 不但可以平衡在其配備的兩個車輪上，更可以因應用家的手勢而產生互動。

MIP™ 具有多種模式及遊戲。只要把MIP™ 提起及旋轉其車輪，他的心口便會展示不同的顏色而轉到不同的模式。若轉到粉紅色的"Stack"模式時，用家可以把物件放在MIP™ 的平衡盤上，MIP™ 可以攜帶比自己重兩倍的物件。當轉至紅色的"Tricks"模式時，MIP™ 便會為用家傳送飲品。用家還可以使用智能裝置（如智能手機），通過藍牙連接，增加遊戲種類，例如路徑跟蹤、與其他MIP™ 對戰、隨著用家從智能裝置播放的音樂跳舞、或使用輕觸模式令MIP™ 旋轉。

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