

香港中華廠商聯合會會長施榮懷太平紳士獻詞

Message by Mr Irons Sze, JP

President, The Chinese Manufacturers' Association of Hong Kong

廠商會一直堅持工業應作多元化發展，產品質素及設計更應力求完美和創新。本會十分高興能繼續參與由特區政府主辦的「香港工商業獎」，並作為「機器及機械工具設計」的主辦機構，藉此鼓勵和提高本港在機器及機械工具的設計水準，加強競爭力，並對傑出的產品予以獎勵。

香港的機器及機械工具製造商一向以生產靈活見稱，產品質素高而價格極具競爭力。廠商應抓緊綠色環保和高增值的新興趨勢，研發生產高精度且環保的機器和機械工具，並提供優質的售後服務，進一步提高競爭力。

今年的參賽產品中，不少產品兼具創新思維、成本效益、科技應用、及環保方面皆表現卓越。除價格合理外，品質更達國際標準。

在此，本人謹向評審委員會各委員致以衷心感謝，並特別感謝評審委員會主席陳繁昌校長領導委員會完成艱辛的評審工作，同時感謝各位參賽者和贊助機構，希望你們繼續支持這項意義非凡的比賽。

最後，本人謹向所有得獎公司致以熱烈祝賀。

香港中華廠商聯合會會長
施榮懷太平紳士

The Chinese Manufacturers' Association of Hong Kong has long been a strong advocate of industrial diversification and of product quality and design. We are honoured to take part in the "Hong Kong Awards for Industries" organized by the HKSAR Government and to be the organizer of the "Machinery and Machine Tools Design Competition". This competition aims, firstly, at encouraging the upgrading of the design of machinery and machine tools in Hong Kong with a view to enhancing our product competitiveness, and, secondly, at giving appropriate recognition to outstanding entries.

Hong Kong manufacturers of machinery and machine tools are well known for their flexibility in production. They are likewise highly acclaimed for their quality and competitive pricing. Grasping the current trend of green and high value-added products, manufacturers would do well to focus on applied research with a view to producing high precision and environmentally friendly machinery and machine tools. Prompt and quality after-sales service is also important in improving competitiveness.

We are greatly encouraged to note that this year's participants in our 'Machinery and Machine Tools Design Competition' have demonstrated their outstanding achievements in terms of innovation, cost effectiveness, application of technology and environmental protection. Indeed, pricing edge aside, the quality of our machinery and machine tools has reached world-class standards.

We wish to pay special tribute to the Judging Panel under the distinguished chairmanship of Professor Tony F Chan. The success of the Competition this year is due in no small measure to the dedication, professionalism and patience of each and every member of the Judging Panel, for which we are truly grateful.

We would also like to say a big “thank you” to all entrants and of course our sponsors whose support was at once welcomed and essential. We look forward to your continued support to this meaningful event in future.

Finally, we would like to warmly congratulate all winners of the Competition.

Iron Sze JP
President
The Chinese Manufacturers’
Association of Hong Kong

2012 香港工商業獎：機器及機械工具設計組別最終評審委員會

2012 Hong Kong Awards for Industries :

Machinery and Machine Tools Design Final Judging Panel

朱立強博士（技術小組成員）、陳雲青博士、鐘寶璇教授、張志剛工程師、陳繁昌教授（最終評審委員會主席）、曾漢奇教授、任揚教授、薛永恆先生、潘永生先生（技術小組成員）

Dr L K Chu (Technical Team Member), Ir Dr Lawrence W Chan, Prof P S Chung, JP, Ir Victor Cheung Chi Kong, Prof Tong Chan (Chairman of the Final Judging Panel), Prof Hon Ki Tsang, Prof Yeung Yam, Mr Sit Wing hang, Alfred, Mr Joseph Poon (Technical Team Member)

2012 香港工商業獎：機器及機械工具設計組別最終評審委員會

2012 Hong Kong Awards for Industries :

Machinery and Machine Tools Design Final Judging Panel

陳繁昌教授（最終評審委員會主席）

Prof Tony F CHAN

(Chairman of the Final Judging Panel)

香港科技大學校長

President,

The Hong Kong University of Science and Technology

陳雲青博士

Ir Dr Lawrence W CHAN

職業訓練局副執行幹事

Deputy Executive Director,

Vocational Training Council

張志剛工程師

Ir Victor CHEUNG Chi Kong

香港工程師學會副會長

Vice President,

The Hong Kong Institution of Engineers

鍾寶璇教授

Prof P S CHUNG, JP

香港城市大學電子工程學系講座教授

Professor (Chair), Department of Electrical Engineering,

City University of Hong Kong

郭始剛教授

Prof Paul KWOK

香港公開大學全日制本科生院院長

Director, College of Full-time Studies,

The Open University of Hong Kong

麥鄧碧儀女士

Mrs Agnes MAK

香港生產力促進局總裁

Executive Director,

Hong Kong Productivity Council

麥啟寧教授

Prof K L MAK

香港大學工程學副院長

Associate Dean, Faculty of Engineering,
The University of Hong Kong

丘立教授

Prof Li QIU

香港科技大學電子及計算機工程學系教授

Professor, Department of Electronic and Computer Engineering,
The Hong Kong University of Science and Technology

薛永恒先生

Mr SIT Wing-hang, Alfred

機械工程署副署長／規管服務

Deputy Director / Regulatory Services,
Electrical and Mechanical Services Department

曾漢奇教授

Prof Hon Ki TSANG

香港中文大學電子工程學系教授，系主任

Professor and Chairman,
Department of Electronic Engineering,
The Chinese University of Hong Kong

任揚教授

Prof Yeung YAM

香港中文大學機械與自動化工程學系主任

Professor and Chairman,
Department of Mechanical and Automation Engineering,
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阮邦志教授

Prof P C YUEN

香港浸會大學計算機科學系系主任及教授

Head and Professor, Department of Computer Science,
Hong Kong Baptist University

張大鵬教授

Prof ZHANG Dapeng David

香港理工大學電子計算學系講座教授

Chair Professor, Department of Computing,
The Hong Kong Polytechnic University

2012 香港工商業獎：機器及機械工具設計大獎

2012 Hong Kong Awards for Industries :

Machinery and Machine Tools Design Grand Award

產品名稱：DCC3000U 大型冷室壓鑄機

Product Name : DCC3000U Cold Chamber Die-Casting Machine

公司名稱：力勁科技集團有限公司

Company Name : L. K. Technology Holdings Limited

設計者：劉相尚先生及力勁工程設計團隊

Designer Name: Mr S.S.Liu and L.K. Engineering Design Team

評審委員會意見：

DCC3000U 結合創新及高性能表現擁有強大的市場潛力。其獨有的快速換模系統可實現快捷的模具更換，配合油壓式抽哥林柱和快速頂針連接可將整個換模時間大大縮短百分之 60 以上。高性能打料部分使用雙伺服壓射控制，出入口處均採用伺服閥，令加減速同時進行，提高控制打料速度的精度。為增加網絡可延性和彈性，利用 Ethernet/Devicenet 分佈式輸入/輸出模塊可減少連線數目，配上易插座式（M12-4pins）的感應器和驅動元件亦有利維修。本機器可提供達 3000 噸的鎖模力和 7.6 米/秒的壓射速度，以最短的周期生產不同類型的金屬合金汽車鑄造零件。DCC3000U 亦可配上各機械手來輸送材料及成品，使用圍欄配合光柵及維修門等安全設備，達成一個緊密及全自動化的生產單元。

General Comments on the product :

The system has innovative design, high performance and strong marketing potential. The machine features a novel Quick Die Change System that executes a die change in a short period of time. The system utilizes an extraction mechanism of two hydraulic tie bars together with a Quick Die Clamping and a Quick Ejector Coupling setup. As a result, the whole process of die changing is shortened by over 60%. The machine is equipped with a high performance shot control system supported by the simultaneous movement of two servo valves at the inlet and a third one at the outlet of the casting chamber for accurate tracking of the injection speeds. The machine adopts a distributed I/O control system to link up different modules via Ethernet or Devicenet, leading to reduced wire connections and enhanced flexibility for reconfiguration. Sensors and actuators are M12 plugged in for easy maintenance. The machine produces a maximum clamping force of 3000 ton and an injection speed of 7.6m/s. The cycle time of this machine is reduced by large extent, and is capable of manufacturing a wide range of metal alloy casting automotive products. The machine can also be expanded to become a highly automated and compact production cell with the incorporation of robotic devices for component loading and processing, enclosed by a fence with access gates and light curtains for safe operation.

2012 香港工商業獎：機器及機械工具設計獎

2012 Hong Kong Awards for Industries : Machinery and Machine Tools Design Award

產品名稱：視覺圖案辨別雙切割頭切布系統

Product Name : Dual Head Cloth Cutter with Pattern Recognition

公司名稱：鋒華科技有限公司、城動科技（香港）有限公司、樂善創意有限公司

Company Name : APS Technology Limited, DynaCity Technology (HK) Limited, Ronabi Innovation Limited

設計者：鋒華科技有限公司技（陳建良先生）、城動科技（香港）有限公司技（孫東教授）、樂善創意有限公司（陳偉雄先生）

Designer Name : APS Technology Limited (Mr Chan Kin Leung), DynaCity Technology (HK) Limited (Prof Sun Dong), Ronabi Innovation Limited (Mr Anthony Chan Wai Hung)

評審委員會意見：

此切布系統是為不同尺寸及形狀圖案對花的高級手袋及相關產品之布料切割工序而設計。切布系統代替傳統使用手工圖案目視對花，使用刀模及沖壓機床切割布料減低工序出現的人為錯誤及低產能。

此系統之功能包括：

- 1) 視覺圖案辨別系統能在辨別不同圖案後計算出精確的形狀切割刀路，其公差為 $\pm 1\text{mm}$ 。
- 2) 雙切割刀頭提供高性能的切布速度及增加生產量。
- 3) 真空工作台提供穩定的真空吸力使布料能在工作台上進行視覺辨別及切割布料的工序。

而比較人手生產和機器生產的好處為：

可減省刀模費用，高達 90%；減省人手高達 30%；減低 60% 週期生產時間；如需要進行緊急生產，系統可通過視覺辨別及排版系統產生切割刀路程序而立即進行切割工序，不需等待製造刀模。（備註：刀模製造週期為 3-5 天）

General Comments on the product :

The product is a machine that is designed to produce cloth patterns of different sizes and shapes for luxury ladies handbags. The Cutter replaces the traditional manual method of cutting the patterns using press brakes, which is slow and prone to human errors. It has the following distinctive features : a) a vision system generates a precision cutting path for the production of various cloth patterns to within a dimensional tolerance of $\pm 1\text{mm}$. b) dual head cutters are deployed to increase the throughput rate of the machine and c) a vacuum system is applied to hold the cloth in a fixed position on the cutting table while in operation. When comparing the performances between the Cutter and the manual operation, the former can save 90% in tooling costs, 30% in manpower costs, and achieve 60% reduction in cycle time. In addition, the manufacturer can take on urgent production runs without the need for waiting the completion of the press die, which could take 3-5 days.

2012 香港工商業獎：機器及機械工具設計獎

2012 Hong Kong Awards for Industries : Machinery and Machine Tools Design Award

產品名稱：護理適尿片及電子化尿濕護理系統

Product Name : CAREASE Inductive Diaper and Integrated Wetness Care System

公司名稱：啟通科技有限公司

Company Name : Ckicom Technology Limited

設計者：黃新凱先生

Designer Name : Mr Kevin Wong

評審委員會意見：

護理適尿片及電子化尿濕護理系統是一類全新的解決方案－它透過科技為長者創造出的尿片產品。

它結合了獨特的尿濕傳感技術與無線監測系統，能夠監測在安老院舍或醫院病房內的尿片使用者尿濕狀態。傳統的以人手檢查尿濕往往會令尿片使用者感到煩厭和尷尬，而該系統不僅能有幫助減少上述的問題，還能減輕護理人員的工作負擔。減省了的工作量，將抵銷尿濕感應尿片和該系統運作所構成的額外成本。

業務模式分為租賃或直接購買。租賃模式是由安老院舍定期支付租金及尿片費用；而直接購買模式，就是由安老院舍支付購買一次性該系統的費用及尿片的費用，業務模式與辦公室的咖啡供應套餐服務類似。

General Comments on the product :

The System is a one-of-a-kind solution demonstration the application of technology to create a new diaper product for the senior population.

It combines a wetness sensing technology with a wireless system to monitor the state of wetness of diapers of residents in a nursing home or hospital wards. Not only does it do away with the manual checking of wetness which is a nuisance to the users, it also reduces the workload of nurses or helpers. The workload reduction will offset the additional cost of the wetness sensing diaper and the system's operation cost.

The business model can take the form of a leasing contract where a nursing home pays a rental fee for the system and a fee for the supply of diapers. Another model is for the nursing home to purchase the system and pay for the recurrent supply of diapers. Similar models can be found in the coffee-making package service available to offices.

2012 香港工商業獎：機器及機械工具設計獎

2012 Hong Kong Awards for Industries : Machinery and Machine Tools Design Award

產品名稱：全數碼化磁懸浮位移測量系統

Product Name : Germanjet Digital Control System

公司名稱：德敏哲有限公司

Company Name : Germanjet Company Limited

設計者：陳同文先生

Designer Name : Mr Raymond Chan

評審委員會意見：

該系統是一種用於產業機械的全數碼化位移測量系統。它允許產業機械的所有磁懸浮位移傳感器共用一個 CANBus 接口。這項技術使用到最新自主研發的經濟型網絡“Absobus”。此系統首先集成所有位移數據，然後用一個高效的方法傳送到產業機械的主電腦。這種創新而突破性的設計更可延伸到其他機械設備上。

德敏哲有限公司以此低成本高效益的解決方案，為業界提供一個嶄新的全數碼化無接觸式位移測量平台。在技術和性能方面，該系統大大提高了傳統產業機械的價值。而在成本方面，相對歐美機械而言，更能提升行業競爭力。

General Comments on the product :

The system is a customized design for manufacturing machinery. It allows all position transducers on the machinery to share one CANbus interface. This technology makes use of the new economical network “Absobus” to consolidate all small to medium size control data and to dedicate a signal module to transfer the consolidated data to the programmable logical controller (PLC) via the CANbus.

This innovative breakthrough provides an economical network which can be further developed to connect other machine devices. Germanjet brings a cost-effective solution to manufacturers for adopting the digital and CANbus technology to machinery.

In terms of technology and performance, this system greatly increases the value of conventional machines so that functionally they are comparable to the European machines, yet the low cost can keep them competitive in the industry.

2012 香港工商業獎：機器及機械工具設計獎

2012 Hong Kong Awards for Industries : Machinery and Machine Tools Design Award

產品名稱：ISAC 自動停車熄匙及輔助空調系統

*Product Name : Automatic Engine Idlestop and Supplementary Air Conditioning System
(ISAC System)*

公司名稱：香港生產力促進局－環境管理部

Company Name : Hong Kong Productivity Council, Environmental Management Division

設計者：王小偉先生、廖立培先生

Designer Name : Mr Kenny Wong, Mr Desmond Liu

評審委員會意見：

ISAC 自動停車熄匙及輔助空調系統的設計特點在於能有效控制汽車引擎在汽車停定後自動停止引擎運作，並在引擎停止期間繼續而供應長達一小時的冷氣。系統適用於多種類別的商業及私家車輛，包括的士、小巴、輕型貨車以及私家車。

此產品創新的地方是結合了本地研發的引擎自動停車熄匙技術和混合驅動汽車冷氣等高階工程技術，達致有效省油減排，同時保持車廂溫度舒適。此產品亦為首個本地研發的技術方案，可以安裝在新型車輛上；而更重要是此產品亦可加裝在現時路面行走的車輛，而獲得環境及經濟效益，並為香港發展成綠色及低碳都市作出貢獻。

General Comments on the product :

The system (ISAC) is specifically designed to efficiently and automatically turn off the idling vehicle engine when the vehicle is safely stopped on road, and to continue providing cool air up to 1 hour during this idlestop period. The system can be applied in a variety of commercial and private automobiles including taxis, minibuses, light goods vehicles, and passenger cars.

This product innovatively integrates a locally developed engine idlestop technology together with a highly engineered hybrid-driven automotive air conditioning technology to effectively achieve fuel saving and emission reduction while maintaining thermal comfort inside the vehicle cabin. This is a first-of-its-kind locally developed technical solution that can be adopted in the design of new cars and more importantly retrofitted to existing automotives to gain the environmental and economic benefits and contribute to develop Hong Kong as a greener and low carbon city.

2012 香港工商業獎：機器及機械工具設計獎

2012 Hong Kong Awards for Industries : Machinery and Machine Tools Design Award

產品名稱：三物料模具系統

Product Name : 3 Material Mold System

公司名稱：鴻利達模具有限公司

Company Name : Hongrita Mold Limited

設計者：蔡俊杰先生、王偉光先生、陳福明先生

Designer Name : Mr Felix C K Choi, Mr Jeffrey W K Wong, Mr William F M Chen

評審委員會意見：

這是一套用於生產多物料高爾夫球鞋釘模具系統，此模具是由 3 個部份以圓形方式排列。產品是由 3 個步驟注塑而成。在每一步驟，模具會旋轉到相關位置，另一種物料便在原本的物料上注塑成型。如此類推，經過 3 個步驟便型成了高爾夫球鞋釘。這種技術可排除了傳統生產過程中多次轉換生產設備和相關額外工序，降低生產周期，人手和注塑機數量投入，同時增強了產品的性能。此外，這模具系統能更容易控制產品的熔融溫度，尤其是由不同塑膠材料組成的產品。

General Comments on the product :

The system is a multi-material mold for the production of golf spikes. The mold is in three parts arranged in a circle. The golf spike is produced in three steps. In each step, the part of the mold is rotated into position and the material is formed on top of the previous material. After three steps, the multi-material golf spike is formed. This technology eliminates machine-to-machine transfer and secondary operations, and reducing manual operations, production cycle time and injection equipment while enhancing the performance of the product.

Moreover, it enables easier control of the melt temperature of the product, especially when the product is composed of different plastic materials.

2012 香港工商業獎：機器及機械工具設計獎

2012 Hong Kong Awards for Industries : Machinery and Machine Tools Design Award

產品名稱：高清3D 照片系統

Product Name : HD 3D Photographic System (Glasses Free)

公司名稱：香港數碼立體影像科技有限公司
Company Name : LO 3D Company Limited

設計者：勞國華先生
Designer Name : Mr Allen Lo

評審委員會意見：

一般 3D 照片的製法是將光柵貼上由電腦合成的 3D 印刷圖片上，光柵將編織的左右影像分別反射至左及右眼模擬觀看現場實境的 3D 感覺，缺點是貼光柵時不可能將光柵與編織的左右影像準確配對，導致 3D 照片失真，模糊不清。

LO3D 高清 3D 照片的優點是免貼光柵程序，應用光學影像編織技術，影像透過光柵直接合成於光柵聚焦平面的光敏膜上，光柵與 3D 影像自動準確配對，成為最完美的一體式高清 3D 照片。

General Comments on the product :

Conventional 3D photographs are based on the lamination of two or more images onto a plastic microlenticle sheet which restricts the field of view to a linear combination (interlaced) of the two images, and thus allow the view to change at different viewing angles and produce a 3D effect. The conventional approach suffers from misalignment problems, as it is difficult to ensure that the different images are exactly aligned with each other and with the micro-lenticle sheet in the laminatin process, and any misalignment will result in blurring and low image resolution.

This system avoids the need for laminating different images but instead prints 3 images directly onto the microlenticle covered emulsion sheet. This completely eliminates any misalignment problem and the resultant 3D image is clearly sharper than the competing products.

2012 香港工商業獎：機器及機械工具設計獎

2012 Hong Kong Awards for Industries : Machinery and Machine Tools Design Award

產品名稱：大功率LED射燈

Product Name : Macostar LED Spotlights

公司名稱：祐圖香港有限公司

Company Name : Macostar Hong Kong Limited

設計者：祐圖研發隊伍

Designer Name : Macostar R & D Team

評審委員會意見：

祐圖的新型大功率 LED 電視與舞台射燈標誌了創意科技的新方向：增強產品效能同時減少能源消耗與降低對環境的衝擊。設計有效平衡了產品性能、安全與價格。從研發過程中取得的專利成果，包括散熱控制與訊息反饋以及增強光效的複合非球面鏡，引證了科技含量豐富。

產品通過市場考驗並為公司帶來了可觀盈利。客戶包括中央電視台，北京新大樓與倫敦奧運倫敦會現場演播室，產品前景一片光明。

General Comments on the product :

Macostar's new type of LED spotlights for TV stations and stages represents the new direction in technological innovation: enhancing product functionality with reduced energy consumption and environmental impact. The design well balances product performance, safety, and cost. The technical content is rich, as evidenced by the number of patents filed in the product development process, ranging from feedback control systems for heat dissipation to complex aspheric lenses for enhanced lighting quality.

The products have been tested in the market and have brought considerable profit to the company. The customers include the China Central television (CCTV). The market potential is bright.

2012 香港工商業獎：機器及機械工具設計獎

2012 Hong Kong Awards for Industries : Machinery and Machine Tools Design Award

產品名稱：C8 全自動固晶機

Product Name : C8 Automatic LED/COB Epoxy Die Bonder

公司名稱：恒睿智能技術有限公司

Company Name : The Cathay A I Robotics Corporation Limited

設計者：區大公先生

Designer Name : Mr Au Tai Kung

評審委員會意見：

C8 系列固晶機產品是一款應用了多項新理念新技術的新型 LED 固晶封裝設備，其優秀的工程工藝與系統集成的設計方案，實現了目前國際上同類產品中超卓的精度控制及工作速度。

C8 系列產品中大量應用的直線電機都是選用日本品牌廠商的定制型號，能夠滿足芯片尺寸範圍在 0.1-5mm 之間，固晶精度要求在 $\pm 33\mu\text{m}$ 的應用需求的前提下，仍達到每固晶週期 160 毫秒的工作速度，實現了該級別設備的世界最快速度等級。新穎的直線驅動電機及控制技術，使得邦頭在能夠達到最大 30G 的加速度情況下仍然可以保證準確性。而且其為音圈馬達專門設計的可編程運動控制力反饋系統，也切實的保證了該設備穩定的工作品質。C8 系列產品優秀的整合了運動控制技術，圖像幾何識別技術，速度阻抗測量和軌道搜索技術等手段，在顯示圖形 SPC 和統計數據分析的過程中能夠實時顯示，並且軟件內置多語言界面以滿足不同區域的適用需求。

總體來說，C8 系列產品憑藉其出色的工程設計能力和成熟的系統集成方案，真正的實現了一台超卓市場競爭力的高品質高技術的先進 LED 封裝設備。

General Comments on the product :

The product is a result of excellent engineering design and system integration to achieve the outstanding speed and accuracy to meet the requirements of the very competitive LED market.

The product is able to handle fine die size ranging from 0.1 to 5mm. with 160 ms cycle time and accuracy of $\pm 33\mu\text{m}$. Innovative engineering technologies of direct drive motor and control enables the bond head to achieve the accuracy and the acceleration of 30G. The voice coil motor offers an accurate programmable motion and bond force control with feedback system ensuring consistent quality bonds. It is worth mentioning that the linear motor is custom developed by their partners from Taiwan and Japan to meet the functional specifications. The product has adopted technologies of motion control, image pattern recognition, impedance measurement for speed and track search. The machine has a built-in multilingual interface showing graphic SPC and analytical data which offers real time performance of the process.

2012 香港工商業獎：機器及機械工具設計優異證書

2012 Hong Kong Awards for Industries :

Machinery and Machine Tools Design Certificate Merit

產品名稱：注塑機群控系統

Product Name : iSee Mobile Apps

公司名稱：大同信息科技有限公司

Company Name : Cosmos i-tech Solutions Limited

設計者：劉元貴先生、梁子紅女士、葉叡智先生、馮偉康先生、陳偉東先生

Designer Name : Mr Liu Yuan Gui, Ms Moon Leung, Mr Maverick Yip, Mr Fung Wai Hong, Mr Chen Wei Dong

評審委員會意見：

注塑機群控系統是一個實時遠程監控注塑機生產的集成整體解決方案。此群控系統利用網絡和移動設備把不同地區的注塑機的各種數據實時採集及統一監控。此群控系統移動應用程式支援現時兩種流行的 iOS 和 Android 作業系統。它可以儲存注塑機的各種歷史生產數據，從而更有效地共用資訊，並提供準確的資料分析。

General Comments on the product :

The iSee Mobile Apps is an integrated total solution for remote production monitoring of injection molding machine. This product integrates the molding machine, database, networking and mobile devices. The mobile application supports the two popular operating systems, namely iOS and Android. It can store historical production data, share information more effectively and provide accurate data analysis.

2012 香港工商業獎：機器及機械工具設計優異證書

2012 Hong Kong Awards for Industries :

Machinery and Machine Tools Design Certificate Merit

產品名稱： 高清影像管理系統

Product Name : High Definition Video Management System

公司名稱：行信科技有限公司

Company Name : HIS Technologies Limited

設計者：陳日良先生

Designer Name : Mr Boris Chan

評審委員會意見：

系統採用高清技術，以 1920 x 1080P、每秒 30 幀的全高清質素拍攝影像。支援「雙向高清視頻通信」，能在多個地點同時進行影像通信，而時間延遲更少於 0.8 秒。還具有實時高清視頻編碼、轉碼、解碼、串流、多流分發和錄影等技術。高清攝像機提供高質素影像，其覆蓋範圍比傳統標清攝像機廣闊近 4 倍。《高清視頻監控系統》可作雲端服務，為用戶提供遙距實時顯示和回放。

General Comments on the product :

The system uses the High Definition technology to capture video at HD quality (1920 x 1080P, 30fps). It supports two-way HD video communication between multiple locations with low latency (~0.8 sec) and allows for real time HD video encoding, transcoding, streaming, decoding, multi-stream dispatching and recording technologies. The HD camera can provide high video quality and can cover the surveillance scene almost 4-times more than the traditional one does. HD surveillance system can serve user as a cloud service which provides remote access for real-time display and playback.

2012 香港工商業獎：機器及機械工具設計優異證書

2012 Hong Kong Awards for Industries :

Machinery and Machine Tools Design Certificate Merit

產品名稱：牛仔服裝的臭氧處理系統

Product Name : Ozone Treatment System for Denim Wear

公司名稱：香港生產力促進局－材料及製造科技部

Company Name : Hong Kong Productivity Council, Materials and Manufacturing Technology Division

設計者：陳敏強先生、何光忠先生、莫崧鷹博士、鄭啟明先生、何會賢先生

Designer Name : Mr Raymond Chan, Mr Sam Ho, Dr Sam Mo, Mr Cheng Kai Ming, Mr Ho Wui Yin

評審委員會意見：

該項目應用臭氣化學物作為氧化劑能使牛仔服裝營造仿舊或潮流的效果。該臭氧脫色系統比傳統使用高錳酸鉀作脫色處理有許多優越性。第一，系統並不產生任何廢水，也沒有任何化學物需要後處理。第二，系統構造並不昂貴，操作費用低。

General Comments on the product :

This product uses the chemical compound ozone as a deoxidizing agent to achieve aged-look or antique finishing effects on denim wear. The ozone-based de-colouring system offers a number of advantages over the traditional one that uses potassium permanganate. Firstly, the system does not produce any waste water and no chemical is needed for further treatment. Secondly, the system is inexpensive to build and the operating cost is low.

2012 香港工商業獎：機器及機械工具設計優異證書

2012 Hong Kong Awards for Industries :

Machinery and Machine Tools Design Certificate Merit

產品名稱：有源射頻識別 (RFID) 電子交油記錄系統

Product Name : RFID-based Electronic Delivery Record System (EDRS)

公司名稱：香港射頻有限公司

Company Name : Hong Kong RFID Limited

設計者：香港射頻有限公司

Designer Name : Hong Kong RFID Limited

評審委員會意見：

此產品用於記錄建築地盤裡各車輛的燃油添加量，並記錄每輛車引擎的工作時間及由此計算燃料效能。

此系統能幫助建立強大且系統化的數據庫，儲存大量有用、精確的數據用於分析。此系統更有方便使用的手持式設計及可調節無線通訊功能，方便用戶使用。較之傳統的條碼系統，它將人為錯誤減到最低並保證了更高的精確性及效率。

General Comments on the product :

This is a product to record the amount of fuel pumped to each vehicle in a construction site, and to extract the on-times of the engine of each vehicle. The fuel efficiencies of the vehicles can then be determined.

The system helps establish a great systematic database, which stores many useful & accurate data for analysis. Moreover, it is user-friendly with convenient handheld design and adjustable range of wireless communication. When comparing with the conventional Barcode system, it minimizes the human errors and ensure a greater accuracy and efficiency.

2012 香港工商業獎：機器及機械工具設計優異證書

2012 Hong Kong Awards for Industries :

Machinery and Machine Tools Design Certificate Merit

產品名稱：基於射頻識別技術的手持式閱讀器

Product Name : HOMAC[®]RD-200AB ISO15693 Handheld Antenna Reader

公司名稱：RF Tech Limited

Company Name : RF Tech Limited

設計者：梁永康先生、蕭劍雄先生、黃榮享先生

Designer Name : Mr Leung Wing Hong David, Mr Siu Kim Hung, Mr Wong Wing Heung

評審委員會意見：

該手持式閱讀器透過藍牙和射頻別技術（"RFID"）來實現應用在圖書館管理系統的裝置，是一部輕便、易攜，並專為簡化圖書館日常搜索圖書、資料更新、排序上架及追尋失書的手提裝置。閱讀器可透過嵌入式模塊與配備 Android 系統的平皮電腦連接，輕易搜索、更新及排序已貼上射頻識別標籤的書籍。該產品極具成本效益且全由參賽公司獨力自主研發。

General Comments on the product :

The product design is lightweight, fully portable and embedded with a RFID-based system which addresses some of the key daily operation challenges of the libraries to keep track and find out the missing items in the library. The reader communicates with the host device such as a modem PC or a lightweight Android portable device via Bluetooth interface to easily track RFID tagged items. The product is cost-effective with locally sourced components.

2012 香港工商業獎：機器及機械工具設計優異證書

2012 Hong Kong Awards for Industries :

Machinery and Machine Tools Design Certificate Merit

產品名稱：自動化穿光纖機

Product Name : Auto Fiber Optics Sewing Machine

公司名稱：豐卓（香港）有限公司
Company Name : Superior (HK) Limited

設計者：王其健先生
Designer Name : Mr Charles Wong

評審委員會意見：

該機器是一種自動化鑲嵌插入工具，其用途是把光纖自動嵌到賀卡中。透過光纖傳輸發光二極管發出的光到紙製品上，形成不同亮燈效果。該公司現時使用這種機器為世界著名的賀卡公司進行生產。這最新的機器已經顯著提高生產產量達每小時 49-52 張賀卡（跟老式手工和勞動力密集的過程相比增加了 500% 的生產力），該公司仍持續不斷地為該機器升級。其功能可以適用於把光纖自動鑲嵌到布料等產品的大批量生產。

General Comments on the product :

This machine is a kind of automatic insertion tool, whose purpose is to insert optical fibres into paper products. The optical fibres serve to transmit lights emit by LEDs to produce various light patterns on a paper product. The company is using such machines to produce a wide range of paper products for a globally famous greeting card firm. The new machine has significantly increased the production rate to 49-52 cards per hour (increased 500% on production rate as compare with the old fashion process one by one insert by hand) and continuous upgrade of the machine is being made. This machine can be applied to install optical fibres on different material like fabric.

2012 香港工商業獎：機器及機械工具設計優異證書

2012 Hong Kong Awards for Industries :

Machinery and Machine Tools Design Certificate Merit

產品名稱：MMS 模具製造進度及成本管理系統

Product Name : Mould Management System MMS

公司名稱：冠理科技顧問公司

Company Name : Top Team Technology Consultant Company

設計者：黎展朋先生

Designer Name : Mr Wyman Lai

評審委員會意見：

此模具管理系統是管理模具製造行業內的進度流程，目的就像一般的企業資源管理系統（ERP），是針對中國模具製造行業而研發出來的，有一定的獨特性。此系統的創辦人用他的管理哲學及基本原理而設計出來，不但適用於高層管理者，還適用於中層管理及技術人士，是一個導向管理方案，並且已售出超過百家客戶。

General Comments on the product :

This product is a software for managing the workflow in the mould industry. While the objective of the managing system is very much the same as that of existing enterprise resource planning (ERP) systems, this management system is tailor-made for the mould industry in China, which is something unique. The founder of this software system do have his own philosophy/rationale in designing mould management system, not only for senior management, but also for workers, technicians as well as line managers. Moreover, this product has been sold to 100 clients which is also a positive indicator.

2012 香港工商業獎：機器及機械工具設計優異證書

2012 Hong Kong Awards for Industries :

Machinery and Machine Tools Design Certificate Merit

產品名稱：USe 超大注射量成型工藝及其設備

Product Name : USe Series Ultra-Large Shot Volume Injection Moulding Machine

公司名稱：華大機械有限公司

Company Name : Welltec Machinery Limited

設計者：李向東先生、張春林先生、陳志雄先生、謝雄飛先生、何承剛先生

Designer Name : Mr Li Xiang Dong, Mr Zhang Chun Lin, Mr Chan Chi Hung, Mr Xie Xiong Fei, Mr He Cheng Gang

評審委員會意見：

該產品為塑料製品成型設備，能夠成型 300kg 以上超大型塑料產品。該設備由華大機械有限公司開發及生產，結構保持單射台設計，但能夠同時兼具擠出及注塑兩種成型工藝。首先利用擠出方法將熔融膠料擠注入模腔直到特定壓力，然後利用慣常注塑工藝保壓至製品成形所需壓力。

General Comments on the product :

The product is a plastics parts moulding machine for producing large or ultra-large plastic parts of up to 300kg. The machine developed by Welltec Machinery Ltd. Still maintains a single injection unit but employs both extrusion and injection moulding in forming a part via two stages. In the first stage, the mould cavity is filled up with plastics materials by means of extrusion – up to a certain pressure. Then in the second stage, the usual injection moulding technique is applied to achieve the required pressure for the formation of the final product.

2012 香港工商業獎：機器及機械工具設計

2012 Hong Kong Awards for Industries:

Machinery and Machine Tools Design

主辦機構

Organizer

香港中華廠商聯合會
**The Chinese Manufacturers'
 Association of Hong Kong**

簡介

香港中華廠商聯合會創立於 1934 年，歷史悠久，為本港最大及最具代表性的非牟利工商團體之一，擁有各行各業會員超過 3,000 家，致力服務社會，維護公眾利益。

本會對世界市場最新發展趨勢及可能影響香港工商業的內外情況，均予密切注視。本會雖為工商業團體，但一切活動與服務，均以香港福祉為依歸，亦重視促進國際間的了解與合作。

宗旨

本會主要宗旨為：

- 促進香港工業與貿易的發展；
- 就政府政策的訂定與執行代表工業界發表意見；
- 參與社會發展工作；以及
- 促進國際間的了解與合作。

Introduction

Established in 1934, the Chinese Manufacturers' Association of Hong Kong (CMA) is a not-for-profit chamber of commerce and one of the most representative industrial associations in Hong Kong. With over 3,000 member companies from various sectors of industry and trade, the CMA is committed to serving the community and safeguarding public interest.

The CMA constantly keeps itself up-to-date with commercial and industrial trends on the international market, and watches closely the domestic conditions which may affect trade and industry. The CMA's activities and services are directed at the well-being of Hong Kong as a whole, and it places equal emphasis on fostering international understanding and co-operation.

OBJECTIVES

The CMA's primary objectives are :

- To promote Hong Kong's trade and industrial development;
- To represent industry in the formulation and implementation of Government policies;
- To participate in community development work; and
- To foster international understanding and co-operation.

2012 香港工商業獎：機器及機械工具設計

2012 Hong Kong Awards for Industries: Machinery and Machine Tools Design

宗旨

Objectives

是項比賽旨在鼓勵和提高本港生產機器及機械工具設計的水準，藉此提高產品競爭力，及對傑出的產品加以獎勵。

The competition aims to encourage and upgrade the design and promotion of machinery and machine tools in Hong Kong so as to improve competitiveness and to give recognition to outstanding achievement.

評審標準

Judging Criteria

創新 Innovation
應用新技術 Application of technology
性能 Functionality
方便使用 Ergonomics
成本效益 Cost-performance
安全 Safety
對環境的影響 Environmental impact
市場銷售性 Marketability

2012 香港工商業獎：機器及機械工具設計

2012 Hong Kong Awards for Industries:

Machinery and Machine Tools Design

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主辦機構：香港中華廠商聯合會

2013 Hong Kong Awards for Industries:
Machinery and Machine Tools Design
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Machinery and Machine Tools Design

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Name of Company

業務性質
Nature of Business

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