

(依公司名稱筆畫順序排列)

- 02 部長序文 Foreword
- 04 互動資通股份有限公司 Teamplus Technology Inc.
- 05 百樂電池股份有限公司 Pilot Battery Co., Ltd.
- 06 亞太菁英股份有限公司 Asia Pacific Elite Corp.
- 07 亞帝發工業股份有限公司 Adiva Co., Ltd.
- 08 來永實業股份有限公司 Leyant Industry Co., Ltd.
- 09 和荷時際有限公司 Herher Synergy Corporation
- 10 拓誠機械股份有限公司 Toptran Machinery Co., Ltd.
- 11 昌泰科醫股份有限公司 Giant Power Technology Biomedical Corp.
- 12 長盛科技股份有限公司 Advanced Connection Technology Inc.
- 13 柏瑞醫股份有限公司 Biomdcare Corporation
- 14 皇廣鑄造發展股份有限公司 TEMC Metal & Chemical Corp.
- 15 特典工具股份有限公司 William Tools Co., Ltd.
- 16 雪蘿菲股份有限公司 Sheluphe Corporation
- 17 傑智環境科技股份有限公司 JG Environmental Technology Co., Ltd.
- 18 富鈞水資股份有限公司 Fenri Co., Ltd.

- 19 富達通科技股份有限公司 Fu Da Tong Technology Co., Ltd.
- 20 智高實業股份有限公司 Genius Toy Taiwan Co., Ltd.
- 21 衆程科技股份有限公司 Equiptop Hitech Corp.
- 22 圓嚮創意有限公司 Yuanxiang Development Co.,Ltd.
- 23 愛派司生技股份有限公司 APlus Biotechnology Co., Ltd.
- 24 愛瑪麗歐股份有限公司 Amaryllo International, Inc.
- 25 源星生醫科技股份有限公司 OSTAR Meditech Corp.
- 26 盟鑫金屬股份有限公司 Meng Sin Material Co., Ltd.
- 27 誠佳科紡股份有限公司 Creative Tech Textile Co., Ltd.
- 28 達佛羅企業有限公司 Buffalo Machinery Co., Ltd.
- 29 睿嘉生物科技股份有限公司 Rega Biotechnology Inc.
- 30 寫意達有限公司 WritePath Pte. Ltd.(Taiwan)
- 31 歐群科技股份有限公司 OCEAN Technologies Co., Ltd.
- 32 龍進自動機械股份有限公司 LONG Automatic Machinery Co., Ltd.
- 34 第 25 屆中小企業創新研究獎申請須知 Application Guide
- 38 第 25 屆中小企業創新研究獎評審委員會 Menber of the Review Committees





# 部長序文

我國產業結構以中小企業為主,在國家整體經濟發展中具有舉足輕重的地位,同時也是穩定就業人口的重要基石。目前中小企業已達 140 萬餘家,占全體企業家數將近 98%,相較於大型企業的資金與人才優勢,中小企業更須不斷提升自身的創新力與研發能力,以因應國際經濟變化,展現中小企業求新求變之企圖心。



經濟部辦理「中小企業創新研究獎」之目的在於獎勵自行從事創新研

發而有具體成效之中小企業,期鼓勵中小企業主投入創新研究發展,藉由研發資源的投入來提升技術與服務競爭力。本獎辦理至今已邁入第 25 屆,共有 4,031 件標的提出申請,歷屆所遴選出來的卓越標的共 860 件,實為中小企業創新研發之標竿。本屆申請參選標的區分為「資訊與電子類」、「機械與自動化類」、「材料與生技類」、「服務類」、「綜合類」等 5 大類,共計 116 件標的參選,透過初審、決審委員專業嚴謹的審查,最終選出 30 件優秀標的獲此殊榮,獲獎標的無論是創新性、實用性、數位化及設計研發等方面均有亮眼表現,展現臺灣中小企業在各領域創造新價值的研發的能力!

為因應經濟環境變化與產業發展所需,本部積極推動各項政策,包含產業創新研發,引領產業轉型升級;推動智慧機械產業發展,協助中小企業提高數位化能力;提升對外經貿格局與多元性,持續推動新南向政策,強化新興市場拓銷,協助產業提升競爭力,使中小企業得以永續經營、成長茁壯。

恭喜今年度獲獎企業,期許各位以「新事業、創新力、擁全球」的精神持續追求創新,也期盼中小企業互相交流與合作,將台灣優秀產品行銷全球。在此,謹對各得獎企業獻上最誠摯的恭賀,期盼大家再創佳績!



中華民國 107 年 11 月 20 日



## Foreword

Small and medium enterprises (SMEs) form the backbone of Taiwan' economic growth and employment stability. There are currently more than 14 million SMES in Taiwan, accounting for nearly 98% of the total number of companies in the country. Amid economic globalization and rapid technological development, "innovation" and "R&D" have become keys for the growth of SMEs. Compared with large enterprises which possess significant capital and talent advantages, SMEs must focus on continuously upgrading their innovative and R&D capabilities so as to be able to compete effectively.

The Ministry of Economic Affairs (MOEA) has held the "Taiwan SMEs Innovation Award" annually since 1993 with the aim of spurring Taiwan's SMEs to develop their innovative and R&D capacities and improve their technology and services so as to boost their overall competitiveness. A total of 860 outstanding entries from among 4,031 entries have been selected as winners since the award was first established. This year, following a rigorous process of professional and expert evaluation, 30 of the 116 entries were selected as winners in one of five categories, namely the "Information and Electronics," "Machinery and Automation," "Materials and Biotechnology," "Services," and "Miscellaneous" categories. These award-winning entries have demonstrated Taiwan SMEs' strong innovative R&D capabilities in terms of practicality, innovation, design and digitization, as well as their ability to create new value in a wide range of fields.

In response to changes in the economic environment and the needs of industrial development, the MOEA has been actively carrying out a range of policies, such as promoting innovation and R&D to spur industrial transformation and upgrading, fostering the development of the smart machinery sector, promoting the digitalization of SMEs, diversifying and expanding trade outlets, and enhancing links with New Southbound markets and emerging markets, with the overall aim of helping boost industry's competitiveness and, in turn, enabling SMEs to achieve sustainable business and growth.

I would like to express my warmest congratulations to all of this year's award-winning enterprises for their commendable achievements, while also encouraging them to continue actively engaging in innovative R&D, grasping global trends in industry development, and utilizing their innovative advantages to boost their international competitiveness and ensure enduring business success.

Jong-Chin Shen

Minister

Ministry of Economic Affairs

NOV. 20, 2018



team+私有雲企業即時通訊軟體 team+ On-Premises Enterprise **Instant Messenger** 

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### **互動資通** Teamplus Technology

### 互動資通股份有限公司

**Teamplus Technology Inc.** 

team+ 率先提供台灣原生「企業私有雲即時通訊」,獲國家政府及百大標竿企 業指定使用,累計4,000多家企業服務實績,穩居亞洲第一企業即時通訊領導 品牌。

以即時通訊與團隊社群為核心的 team+,溝通機制最完善,包括 API 整合企業 內部系統、網路電話、視訊會議、任務管理、單向公告、通訊錄等,滿足溝通 控管與流程 e 化數位轉型需求。純私有雲 team+ 具備高階資安管控功能,包含 後臺帳號管控、檔案保護、訊息加密、遠端刪除 app、訊息稽核等機制。任何 企業都能藉由team+大幅提升運作效能、降低經營成本,更能透過客製化服務, 打造最貼合企業的智慧協作應用管理。

本標的為非社交型企業級即時通訊軟體,解決企業可能遇到的資安風險,設計 多項專業功能提升企業內部溝通效率,讓公司在數位工作環境的資安防護更為 完善及便利,也讓員工取得公私分明的平衡生活。

#### Introduction =

As the first "instant messaging collaboration platform for enterprises" designed for internal corporate communications, team+ is the corporate-dedicated mobile message and management platform. It has a mobile information entrance platform for businesses, which provides comprehensive solutions for work management.

Surrounded around a core of instant messenger and working community discussions, team+ covers 95% of corporate collaborative communication needs and offers diversified functions and applications. Through this environment, all kinds of enterprises, organizations and teams can enhance their working efficiency, lower business costs and develop a one-stop communications and collaboration management application for themselves.

#### Commentary =

The subject is an enterprise instant messaging software for non-social use. It manages the information security risks that enterprises may encounter. It has several professional functions in its design that improves the efficiency of internal communication. Companies will have better protection of their information security and convenience in digital work environments. Employees will also have better work-life balance.





### 百樂電池股份有限公司

Pilot Battery Co., Ltd.



#### 三合一混合型鉛鋰鋯電池 Hybrid Battery

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#### 簡分

開發動力用高效能複合電池技術,藉由擷取鉛酸電池高穩定電流輸出、鋰離子電池高放電功率、與超級電容高充放電效率之特性,此三種元件組成的動力用蓄電池使用於電動堆高機,可以大幅提升目前市售電動堆高機之性能,滿足電動堆高機「瞬間放電」、「配重效果」、「一定程度性價比」的市場需求,相較於目前市場主流(以鉛酸電池作為動力用蓄電池),深具性能與價格之產品競爭力,必能成為未來市場主流。

#### 評辞

本標的結合「超級電容」、「鉛酸電池」、「鋰離子電池」組合成三合一動力用蓄電池,發揮高充放電效率、高穩定電流輸出、高放電功率等三大功能於單一產品,並已應用於堆高機,滿足市場上「瞬間放電」、「配重效果」、「性價比」之需求,將傳統電池工業導入新能源領域。

#### Introduction =

Development of high-performance energy composite battery technology, by retrieving the lead-acid battery of the highly stable current output, Li-ion battery high discharge power, and super capacitor high charge and discharge efficiency characteristics, the three components of the power battery used for electric stacker, can greatly improve the current market electric stacker machine performance, to meet the electric stacker "Instantaneous discharge "," counterweight effect "," a certain degree of cost-effective "market demand, compared to the current market mainstream (lead-acid batteries as a power battery), deep with the performance and price of product competitiveness, will be able to become the mainstream of the future market.

#### Commentary

The subject is a three-in-one power battery that has the concepts of "super capacitor," "lead-acid battery" and "lithium ion battery." It has a high charge and discharge efficiency, highly stable current output and high discharge power, and has been used on stackers. It meets the needs of "instant discharge," "weighting" and "price-performance ratio" and brings the traditional battery industry into the field of new energy.







### 亞太菁英股份有限公司

Asia Pacific Elite Corp.



簡介

MC18/200 雙五軸動柱式超長行程高速龍門加工中心機為亞洲首創設計,採用單橫樑雙頭座雙二軸頭配置,雙二軸頭可同步加工相同雙工件或對稱工件,超長行程(20米)、高速、高效率、高金屬移除率、五軸同動之加工製程,協助客戶提升產能至原來的200%,此機台更是台灣工具機業首次達到航太最高端主軸能力需求,最高轉速30,000 rpm/高功率124 kw/高扭矩62Nm;進給速度40m/分,此機台搭配亞太菁英自行研發二軸頭,掌握自主技術,降低設備成本,並配有高速齒輪齒排驅動系統及完整的週邊單元,已成功打入韓國航太加工大廠被用來生產波音與空巴機翼衍樑與翼樑。

#### 評語 —

- 本標的為滿足客戶加長型工件加工需求而開發之設備,並以航太工業狹長型工件如飛機機翼樑為目標設計單橫樑雙頭座雙二軸頭之架構,且雙二軸頭能同步加工,提高2倍產能,並運用3D視覺輔助機器防撞與人員安全監控以預防設備撞車與保護人員安全。
- 本標的創新技術如 3D 視覺工具機智慧防撞安全系統已獲台灣發明專利。

MC18/200雙五軸動柱式超長行程高速龍門加工中心機 MC18/200 High speed moving column 5-axis machining center

#### 嚴瑞雄/董事長

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#### Introduction =

MC18/200 High speed moving column 5-axis machining center is the pioneer in Taiwan.

It is equipped with single cross beam and dual spindles. Two workpieces could be machined simultaneously via dual heads. Extra-long travel(20 meter), high speed, high efficiency, high material removal rate and 5-axis simultaneous machining features have contributed to increase the production capacity to 200%. The spec of the spindle is the best in Asia: Spindle speed 30,000rpm/Power 124kw/Torque 62Nm/Feed rate 40m/min. It is equipped with APEC self-developed 2-axis heads which means the core technology is fully controlled. The well-known Korean aircraft part manufacturers have already used MC18/200 to manufacture wing spar and stringer for Airbus and Boeing.

#### Commentary •

- The subject is a piece of equipment developed to meet the needs of customers for the processing of long workpieces. It has dual 2-axis head on single-beam and double-head architecture designed to process elongated workpieces, such as wing spars of airplanes, in the aerospace industry. The dual 2-axis head can work simultaneously to double the production capacity. 3D visual assistance is available for safety monitoring to prevent the machine from ramming and protect the safety of operators.
- The innovative technologies of the subject, such as the smart anti-ramming safety system for the 3D visual machine have obtained invention patents in Taiwan.





### 亞帝發工業股份有限公司

Adiva Co., Ltd.



#### 先進智慧安全三輪重型機車 AD1-200

#### KOMASATO RINDA/董事長

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#### 簡介

世界首創先進智慧安全三輪重型機車。本產品結合先進智慧 ADAS 系統與三輪機車架構,創造出全球獨步的全新產品,並以差異化提升整車附加價值。本產品結合台灣 IT 產業與車輛研究單位的技術實力,將三輪機車 /ABS 系統 /AEB 系統與行車資訊顯示等技術加以整合,打造高智慧、高安全、高價值之國產化重型三輪機車。

#### 評語 —

本標的為新型三輪機車,採前二後一的輪胎配置形式,前二輪具有依地面作同軸高低差的自動調控效益,俾利維持車身重心不致傾斜之機構設計(已獲專利),並結合 ABS 系統、AEB 系統與環境感知整合技術,打造相當具有競爭性與科技化之產品。

#### Introduction —

The first advanced intelligent three-wheeled vehicle in the world. This product combines the intelligent ADAS system with the three-wheeled architecture to create a new unique product, and to enhance the added value of the vehicle with differentiation. This product combines the technologies of IT industry and vehicle research unit to integrate three-wheel/ABS system/AEB system and driving information display technology to create a high-intelligence, high-security, high-value localized three-wheeled vehicle.

#### Commentary =

The subject is a new type of three-wheeled motorcycle that has two wheels in the front and one wheel in the back. The two wheels in the front provide the benefits of automatic coaxial height difference adjustment, so the center of gravity of the vehicle body can be maintained without any tilting (patented). ABS, AEB and environment sensors are integrated to create a highly competitive and technologically advanced product.





#### 太平洋蒸好洗排油煙機 PACIFIC Trusteam Rang hood

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· ¬ — =

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### PACIFIC

### 來永實業股份有限公司

Leyant Industry Co., Ltd.

#### 簡介-

太平洋首創「全自動蒸氣洗」抽油煙機,獨家「130°C超高溫全自動蒸氣洗」, 以超高溫蒸氣環繞去汙,再輔以熱水沖刷潔淨,全方位迅速除油,徹底殺菌、 除臭,自動清洗毫無死角,更配備全新「吸力霸靜音馬達」,給您超強吸力與 極靜音。

#### 評 辞

- 本標的為解決排油煙機長時間使用後之油汙及因油汙降低抽吸效果,而發展 出運用噴射 130℃超高溫蒸氣快速溶解封箱內的油汙,再輔以熱水沖洗與風 葉動力清洗油汙而達到除油汙、殺菌與除臭等三種功能。
- 本標的創新技術如蒸氣清洗式油煙機及排油煙機蒸氣清洗控制裝置已獲台灣、香港、中國專利。

#### Introduction =

We're proud to introduce our new TruSteam range hood packed which innovatived technology and unmatched features. TruSteam effortlessly cleans the hood interior by spraying 130°C high-temperature steam onto the fan blades and interior housing followed by a hot water rinse. This process efficiently removes grease, germs and odors without using harsh chemicals or scrubbing. In addition, our newly developed Whisper-Quiet motor increases performance while operating at nearly inaudible levels on working speed.

#### Commentary •

- The subject uses an ultra-high temperature jet spray steam at 130°C to quickly
  dissolve the oil grease inside the sealed box in order to solve the problem
  with a range hood that loses suction power due to the accumulation of
  grease. Supplemented by the use of a hot water rinse and turbine power,
  the technology achieves degreasing, sterilization and deodorization.
- The innovative technologies of the subject, such as the steam-cleaning range hoods and the control device have obtained patents in Taiwan, Hong Kong and China.



#### 和荷与時際 Herher Synergy Corporation

### 和荷時際有限公司

### **Herher Synergy Corporation**



MiniBle奈米微氣泡產生器
MiniBle Nanobubble Generator

阮慶源/執行長

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#### 簡介-

MiniBle 奈米微氣泡產生器,主要安裝於一般家用的水龍頭上,當水流通過時,水中會含有數以「兆」計的微細氣泡,利用微細氣泡的特性,可以提升我們的用水品質,讓一般自來水能夠具有深層清潔、殺菌、除農殘、產生負離子等功效。

MiniBle,長度不到3公分,是體積小、效能好的免動能微氣泡產生器。過去要取得大量且夠小的微細氣泡,通常需經過動力機械加壓、震動,且體積龐大、耗能,在浴室使用時有觸電的危險;MiniBle僅需一般自來水壓就可產生大量微細氣泡,且安裝容易,大幅提升民生使用的普及性。全材質以316醫療級鋼材製作,耐用、安全又可靠。

#### 評 語 —

本標的之氣泡產生方式已獲專利,僅需一般自來水壓即可產生大量微細氣泡, 平均每 cc 可產生數億個氣泡,且可存續 3 至 5 分鐘,不僅可以節省用水,也 利用微細氣泡的清潔力,減少清潔劑之使用。

#### Introduction —

MiniBle is a "microbubble" generator which can create a huge amount of tiny bubbles. As water surpass it, it will release anions which can improve cleaning efficiency, kill bacteria and smooth your skin.

All the components are made of SUS316 stainless steel. Releasable structure and filter also extended the service life. Moreover, MiniBle's M22 metric thread and M24 adapter fit most of taps of the world.

MiniBle works with only residential water pressure to create microbubbles, but the particle sizes of our microbubbles are almost the same as power generators sold at 20 times price.

MiniBle, the most powerful microbubble generator ever.

#### Commentary -

The subject has obtained a patent for its generation of bubbles. It can generate a huge amount of fine bubbles with regular tap water pressure. It can generate hundreds of millions of bubbles per cc and the bubbles can last 3 to 5 minutes. This can greatly save water use and the cleaning capability of fine air bubbles can also reduce the use of detergents.





### 拓誠機械股份有限公司

Toptran Machinery Co., Ltd.



拓誠機械研發出結合料架、整平機、送料機三機一體之完美組合。針對高抗張、 厚板鋼捲,合理提升生產效益,節省占地空間。

隨著造車工藝不斷精進,現代化汽車的車體,往往由數種強度不同的鋼鐵,或是金屬複合材料組合而成。這些材質物料的規格、物理特性極大不同、處理方式也有很大的不同。拓誠機械提供的三機一體 NC 伺服料架矯直送料機針對此類材料提供強力迴護裝置、強化機體安全結構。在穿戴過程中,強化對鋼捲的固定力及可微調鋼捲材料之散捲捲曲擺幅,引導板頭進入整平機,加速生產速度,為您提供高品質、高效率、全自動的送料設備系統。

#### 評語

- 本標的為解決傳統捲料送料機難以處理高強度鋼板,而發展出高強度鋼板的 伺服捲料整平與送料系統,以滾輪對捲料進行矯直,提升設備整理流線速度 及效率。
- 本標的創新技術如金屬線捲出料機構及送料機高度自動調整裝置等獲台灣及中國專利。



3 in 1 Servo Straightener Feeder

w/Uncoiler

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#### Introduction -

Toptran Machinery has developed a perfect combination of uncoiler, straightener feeder compact feeding machine. For the high tensile strength and heavy gauge material, our compact line could improve the production efficiency, and also improve the space requirement.

Due to the continuous innovation of automotive industry, many different tensile strength steels or bimetals are widely applied to the car frame manufacturing. TOMAC compact feeding line could provide strong protection device and strengthens the safety structure of the machine body for these kinds of material. During the threading process, special designed peeler system to guide the material tip into the straightener for user convenient which speeds up the production time. In the meantime, TOMAC offers the customer with high quality, high efficiency and fully automatic coil handling system.

#### Commentary =

- The subject is a servo coil leveling and feeding system developed for highstrength steel plates that are difficult to handle with the conventional rolling and feeding machinery. Rollers are used to level the rolled materials and improve the streamlining and efficiency of equipment.
- The innovative technologies of the subject, such as the metal coil discharging mechanism and automated height adjustment for the material feeding machine have obtained patents in Taiwan and China.



# COMGO HEALTHCARE PRODUCT 昌泰科醫股份有限公司

### 昌泰科醫股份有限公司

### Giant Power Technology Biomedical Corp.



COMGO心血管趨勢健康儀 COMGO Healthcare Cardiovascular Services Device

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#### 簡介-

「COMGO 心血管趨勢健康儀」是基於預防醫學理念,結合 AI 人工智慧與雲端科技,融入醫學原理與電子資訊,打造出最先進的個人隨身型健康量測裝置,讓使用者掌握自己心臟與血管的健康狀態,異常者可及早就醫。

產品以夾測手指的方式,測量出血流動力學及心電圖等數據,立即傳送到COMGO 雲端 AI 平台進行判讀,結果再回送到受測者手機 APP,內容包括血管彈性、血管年齡、血管疲勞、血液濃稠、心律不整、生理壓力、生理疲勞等,以達到預防醫學目標。產品與三總、長庚等醫院合作進行臨床,驗證本產品與醫療設備量測結果一致,相關驗證所發表的論文獲得 IEEE 2018 最佳論文獎。

#### 評 語 —

本標的可以隨身攜帶,並量測心血管相關生理資訊,進行雲端 AI 演算,分析心律不整、血管彈性與趨勢、血管阻塞程度、血液濃稠程度、血氧濃度的數據計算,具相當的準確度,並提供多項額外的心血管趨勢健康分析資訊,與醫院用醫療等級儀器量測之數據相近。

#### Introduction -

"COMGO Healthcare Cardiovascular Services Device" is a product based on the concept of preventive medicine, medical principles and electronic information technology. It can provide cardiovascular health information and help users manage their health.

This device can measure cardiovascular physiological information and links the Al cloud platform to calculate the state of vascular elasticity, vascular age, vascular fatigue, blood thickening, arrhythmia, physiological stress, and physiological fatigue. Users can read these information and advice through the mobile APP system.

We cooperated with Tri-Service General Hospital and Chang Gung Memorial Hospital for clinical verification. The verification prove that the measurement results of the device are consistent with the medical equipment. We published this verification in academic papers and won the IEEE 2018 Best Paper Award.

#### Commentary =

The subject is portable and can measure cardiovascular-related physiological information and conduct cloud AI computation. It is quite accurate in analyzing the data for arrhythmia, vascular elasticity and occlusion, blood thickness and oxygen concentration of blood. It also provides several other trend analysis for cardiovascular health, offering data close to what medical-grade instruments have in hospitals.



運用於半導體廠測試機台之 微型化RFID自動管理系統 Miniature RFID Automated Management System for Semiconductor Plant Test **Benches** 

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### 長盛科技股份有限公司

### **Advanced Connection Technology Inc.**

#### 簡介 =

RFID 識別系統已應用於世界各地與產業多年,長盛科技因應半導體產業所 開發的 RFID 識別系統,有可以在充滿金屬物質的機台內運作與同時擁有輕 巧與辨識率極佳的優勢,此系統可以搭配不同公司的原始設計稍做調整軟硬 體即可有效的在測試機台與測試載板上運作,在現階段天線的尺寸上,長盛 科技擁有尺寸小與厚度薄的圓極化讀取天線,使得天線在不同空間的運用更 為方便,設計團隊也能有效的為不同產業環境下與不同應用中設計出最好的 RFID 客製需求。

- 本標的突破以往 RFID 思維,有效解決目前半導體業界環境不易使用無線射 頻管理之問題,在金屬環境中能有令人滿意的辨識率與讀取率。
- 其創新性在於功率可隨不同環境需求進行調整,與多種應用整合,如門禁卡, 應用廣泛多元,並具有完整專利佈局。

#### Introduction =

RFID identification system has been applied in different industry around the world for many years. For Semiconductor Industry, ACTT developed special RFID identification system which is light and has high reading rate in the metal surroundings. The system of ACTT could adjust software and hardware to meet every customer's requirement and perform well on the tester machine and loadboard. Nowadays, the circular polarization antennas of ACTT are small and thin, and the antenna can be used in unusual space well. RF Communication department of ACTT has ability to provide customize RFID products for different industry and application.

#### Commentary =

- The subject breaks through the conventional wisdom of RFID. It effectively solves the problems with using and managing a wireless frequency in the semiconductor industry and offers satisfactory identification and reading rates in metal environments.
- Its innovation is that the power can be adjusted according to different environmental requirements and integrated with a variety of applications, such as access control cards. In addition to the wide range of applications, it has a comprehensive patent portfolio.



#### Biomdcare Simple & Precise

### 柏瑞醫股份有限公司

### **Biomdcare Corporation**



#### 智慧化多功能理學檢查系統 QCheck

#### 張漢威/董事長

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#### 簡 介

本公司產品『智慧化多功能理學檢查系統 (QCheck)』以提供專業性的肌少症檢測服務為核心概念,提供包括準確的生物電阻抗原理測量肌肉質量(肌少症指標一),加上上臂的握力(肌少症指標二)及以電射測得的行走速度(肌少症指標三),有助於使用者及早診斷和監測肌少症。QCheck 同時為一整合多種專業型理學檢測產品的檢測站,可提供舒張壓、收縮壓、脈搏、身高、體重、體態、身體質量指數 (BMI)、體脂率、脂肪量、除脂肪量、肌肉量、體水分量、體水分率、基礎代謝率、骨骼肌量、骨量、體內年齡、理想體重、身體蛋白質含量等 19 個檢測參數值。

#### 評 語 ——

本標的為肌少症檢測及管理之平台,使用自行開發出之演算法,可檢測多項身體組成數據,並提供視覺化分析報告,讓使用者易於理解,同時也運用於預防醫學及衰弱老人照顧,相信對肌少症相關患者有所貢獻。

#### Introduction =

Sarcopenia is the degenerative loss of skeletal muscle mass, quality, and strength associated with aging that has been considered a precursor syndrome or the physical manifestation of frailty and cannot simply be determined by human eye.

QCheck focuses on providing professional sarcopenia screening service in order to conduce to early sarcopenia diagnosis and monitoring by quickly and accurately obtaining the three sarcopenia indicators: skeletal muscle mass, handgrip strength, and gait speed.

Besides sarcopenia screening, QCheck is also a multifunctional health check station to 19 physical examinations such as pulse, height, weight, body fat%, BMI, bone mass, metabolic age, basal metabolic rate, visceral fat index, total body protein mass, total body water mass, etc.

#### Commentary =

The subject is a platform for the detection and management of sarcopenia. It uses an algorithm developed in-house to inspect multiple body composition data and provides visual analysis reports for users to understand. It can also be applied to preventive medicine and elderly care, making contributions to patients with sarcopenia.



# The 25th Taiwan SMEs Innovation Award

# 皇廣鑄造發展股份有限公司

**TEMC Metal & Chemical Corp.** 



#### 高效高發熱冒口保溫套 High Performance Exothermic Riser Sleeve

#### 張豐國/董事長

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#### 簡介-

TEMC

經過研發部門持續 18 個月的努力不懈下,終於開發出高效高發熱冒口保溫套,與傳統冒口保溫套相比將更具有效率地將能耗與回爐料大幅度降低、增加保溫效能、降低鑄造缺陷,更因不使用疑似致癌性陶瓷纖維棉維護鑄造人員健康,以達社會責任。

同時皇廣為台灣首家鑄件材料廠投入大量資源進行高效高發熱冒口之開發, 在台灣本土自製自產,預期以在地本土化生產,大幅降低鑄造客戶端的生產 製造成本。

#### 評 語 🗕

本標的大幅改進傳統冒口以保溫為主的概念,改以高發熱為主的冒口產品。 利用純鋁粉、氧化鐵粉、矽粉與砂,混練自硬性樹酯利用創新混練技術與成型 技術,生產出性價比高的高發熱冒口,大幅降低鑄件冒口的體積與成本。

#### Introduction =

After 18 months of tireless effort, our R&D finally have developed newest high performance exothermic riser sleeve that have an enhanced MEF value of 1.8 . Compared with traditional riser sleeve, more effectively lowering energy consumption and foundry returns `increasing insulation performance `reducing defects of the casting and using bio soluble fiber that facilitate safer and lower toxicity working environments for those working in the casting industry.

TEMC is the first foundry material supplier in Taiwan to successfully develop this High Performance Exothermic Riser and localizing production in Taiwan will reduce production cost significantly for Taiwan Foundry.

#### **Commentary**

The subject greatly improves the conventional concept of using risers for insulation by making them high heating. Pure aluminum powder, iron oxide powder, strontium powder, sand and self-curing resin are put together in an innovative compounding and molding technology to produce high-heating risers with a desirable price—performance ratio, greatly reducing their size and cost.





### 特典工具股份有限公司

William Tools Co., Ltd.



#### 掀蓋式扭力起子 Screen Slipping T-handle Torque

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#### 簡 介

掀蓋式扭力起子由高品質矽鉻鉬合金鋼與環保複合材料打造而成,全新專利設計扭力調整與收納機構,能提供更精準的調整方式,握把採用新專利收納設計並結合放大視窗數字顯示功能,讓消費者操作使用更方便。以下為產品創新特色:1.產品特色:輕巧、精度高、堅固耐用、操作方便。2.扭力精度為 ±4%,可承受 30,000 次耐久性測試。3. 符合「國際標準 ISO6789:2017」、「國際標準 ISO9227(NSS)」…等。4. 握把採人因設計並結合放大視窗數字顯示功能,且材質可抵抗化學物質,適用於汽車業、機械製造業及重工業。5. 全新專利設計收納功能,可收納高達 12 種 BIT 頭,並加大開啟仰角,讓不同手型的消費者拿取更方便。

#### 評誤

本標的採T型握把造型,作為收納起子頭之空間,一次可攜帶 12 種不同形式 起子頭,並使用複合材料,比傳統扭力起子更為輕巧與耐用,且具有高精準度 防呆設計,大幅提升使用方便性與攜帶性。

#### Introduction =

Screen Slipping T-handle Torque Screwdriver was made by high tensile metal and Environmental materials. Its stronger and better than other products. Factory calibrated to +/-6% and our new mechanism ensures that the accuracy is retained for longer. Every wrench is supplied with a calibration certificate to satisfy the requirements of ISO 6789:2017 and ISO 9227(NSS). The features of product are:

- a. Numeric screen display is easy to read the torque value.
- b. Ergonomic grip offers a better feel than other brands.
- c. It can take 12 type Bits inside the tool.
- d. Alloy steel pawl reinforces product stability and reliability.
- f. 100% made in Taiwan

#### Commentary =

The subject adopts a T-shaped grip handle as a space to store screwdriver heads. It can carry 12 different types of screwdriver heads at a time. It uses composite materials, making it lighter and more durable than the traditional torque screwdrivers. It offers a high-precision foolproof design, greatly improving its convenience and portability.





#### 塑身衣改良結構 A corset with improved structure

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#### LOLINYA 蘿琳亞塑身衣

### 雪蘿菲股份有限公司

### **Sheluphe Corporation**

#### 簡介

「簡單穿、輕鬆塑」擁有24項專利技術

- 一體成型設計:含胸罩及褲底的連身一體成型塑身衣,精雕細琢 15 圍,完 全手工量身訂做。
- 非彈性布料:採用無感纖型布料,雕塑身材專用,不會變形,薄如紙張,柔軟透氣。
- S 拉繩專利技術:穿上腰圍立即少 6-8 时,單手即可調整自己喜歡的鬆緊度。
- 褲底平面設計:長時間穿著或運動時、不會勒入陰部而導致不舒服。
- 終身免費修改服務: VIP 服務專車提供到府服務,不需出遠門,電話預約即可到府量身定做或瘦後修改服務。

#### 評 語 ——

 本標的之創新性在於以褲底平面設計,採單拉鍊加左右外加二拉鍊來建構出 褲底平面的穩定結構,提升穿著者褲底之平整舒適程度,並可客製雙拉鍊來 維護穿著之隱私性,並已獲有專利。

#### Introduction =

- One-piece-molded design:One-piece molded corset which includes cup bra and bottom for exquisitely designed 15" waistline – totally tailor-made.
- Non-elastic cloth: Feeling-less fiber cloth being adopted for body shaping only.
- Patented S-string-pull technology:6~8" waistline is reduced immediately after putting on. Self-favorite tightness can be obtained by single-handed adjustment.
- Special design for bottom zipper:For going to the toilet, just pull down the zipper under the hips. It is unnecessary to wear a pair of knickers.
- A plain design for the crotch: While you are exercising or after you wear it for a long time, the crotch won't strap the private parts and cause an uncomfortable feeling.
- Lifetime free mending service:Our VIP service car will come over to your house. You don't need to go out. Just give us a telephone reservation and we'll measure you up at your house.

#### Commentary -

The subject is innovative in its design for the bottom part of pants. Left
and right zippers are added to the single zipper to construct the stable
structure of the pants bottom and improve the flatness and comfort of the
pants bottom for wearers. Double zippers can be customized to maintain
privacy. The subject has also obtained patents





### 傑智環境科技股份有限公司

### JG Environmental Technology Co., Ltd.



塗裝印刷作業之有機廢氣處理 淨化系統與技術 Waste Gas Purification and Treatment Technology for Painting Process

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#### 飾り

「塗裝印刷作業之有機廢氣處理淨化系統與技術」,系應用於處理表面塗裝或噴塗相關製程排放的揮發性有機廢氣 (VOCs) 之淨化處理,因為多屬於高風量、低濃度以及濃度變異性高(且含有漆粒)等特徵,考量 VOCs 處理效率、廢熱回收、設置成本、操作成本、二次污染之前提,與符合上述製程最佳可行控制技術 (Best available control technology,簡稱 BACT) 為原則下,結合多項自創之專利技術而組合設計之(漆粒)預過濾與三級過濾器+沸石濃縮轉輪+蓄熱式焚化爐(含廢熱回收技術)+尾氣攔截再處理。此系統設備特點在於對風量及濃度變異性高且含有漆粒的排氣,能維持穩定及高效率操作的系統設計及確保沸石轉輪之處理性能。

#### 評 語 =

- 本標的在於解決表面塗裝作業流程中有機溶劑之逸散或揮發至環境中造成空氣汙染,其特色為運用高濃縮倍率轉輪(環)設備及高效能蓄熱式(觸媒) 焚化爐進行噴塗室有機廢棄處理以降低整體系統設置及操作成本。
- 本標的創新技術如塗裝作業之有機廢氣物處理淨化系統及淨化方法,有機廢氣吸脫附濃縮淨化系統及方法等已獲台灣發明專利。

#### Introduction =

JG's professional "waste gas purification and treatment technology for painting process", which is mainly applicable to high gas flowrate, low and variable concentration VOCs of painting process waste gas.

Comprehensive consideration based on treatment efficiency, energy recovery, initial cost, operation cost and secondary pollution, that called 'BACT' rule, JG proudly provide the integrated proposal with several patent solution, including pre and three grade filtration + honeycomb type Rotor with RTO (with waste heat recovery device and re-purification). The system is applicable to surface coating or painting process waste gas treatment, and guarantee to achieve the stable and high performance base on the best system design and high efficiency of zeolite concentrator.

#### Commentary =

- The subject aims to resolve the air pollution caused by the escape or volatilization of organic solvents used in the surface treatment process. It is characterized by the use of high concentration ratio rotor and a high efficiency regenerative (catalytic) incinerator for the disposal of organic wastes from spray booths to reduce the setup and operating costs of the overall system.
- The innovative technologies of the subject, such as the purification system
  and method for the disposal of organic wastes from painting operations;
  and the purification system and method for the absorption, desorption
  and compression of organic waste gas have obtained invention patents in
  Taiwan.





#### 富鈞雲端智慧水環境 監測記錄器 Fenri Cloud Collection

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### 富鈞水資股份有限公司

Fenri Co., Ltd.

富鈞雲端智慧水環境監測記錄器為現今 IOT 趨勢應用產品,外觀設計遵照 「Less is More」的概念,內部搭載多功能電子元件,以銀灰色金屬外殼之科 技感,希望扭轉一般人對於水質監測相關設備繁多、連接操作複雜…等印象。 將感測器數據轉換蒐集、監控伺服器、數據分析等功能整合於同一設備,加上 原有技術優點,有效降低建置成本,應用於各類水體使用,以提供更安全潔淨 之水質,減少人為影響,支援多系統,兼具異地備援功能,適用自動監測(視) 及連線傳輸系統、再生水廠、河川湖庫、自來水廠、各機關廢(污)水等水位 或水質監測,連接各類感測器或監視影像,透過大數據蒐集分析,達成智慧化 管理。

本標的是一台多功能可相容之智慧模組,可將市場現有國內外之水質感測器, 透過其開發之模組來轉換並運送至雲端,而進行相關之監測及管理,不僅提升 作業效率,且便利性與安全性高。

#### Introduction —

Fenri Cloud Collection, FCC is IOT application product. The design follows the concept of "Less is More". It is equipped with multi-functional electronic components and silver-gray metal case. Hope to change the impression that the water quality monitoring equipment is numerous and connection operation is complicated.

Integrate sensor data conversion and collection, monitoring server, and data analysis into the same device that can be reduce the setup cost. It can be used in various water bodies to provide safer and cleaner water quality and reduce human error, support for multiple systems, and support for remote backup, which can be applied to water level monitoring or water quality monitoring of Continuous Water Monitor System(CWMS), water reclamation plants, rivers, lakes, water plants, and wastewater treatment plants. Connect various sensors or monitor images to achieve intelligent management through big data analysis.

#### Commentary =

The subject is a multi-functional smart module with compatibility. It converts and transmits data from water quality sensors at home and abroad to the cloud via its module developed in-house to conduct the related monitoring and management. It improves operational efficiency and offers good convenience and security.





### 富達通科技股份有限公司

### Fu Da Tong Technology Co., Ltd.



300W 高功率無線充電模組 300W High Power Wireless Charging Module

蔡明球/總經理

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#### 簡介

FDT 富達通科技無線充電技術領先者,核心服務:無線電力系統與其控制 IC。

- 全球唯一可低成本量產 300W 無線充電 超越 90% 電力傳送效率。
- 5W~300W 自動變頻對應調節電力輸出, DC24V 輸入、輸出為 24V 可達 13A。
- FOD 業界最強的金屬異物檢測功能。
- 已取得美國發明 28 張及其他多國專利,超過 100 張總計 1000 項以上專利 技術。
- 2009 量產 Wii 無線充電模組量化生產美國 Energizer 採用在 Walmart 上市。
- 2012 A3 無線充電 IC 獲日本知名品牌導入 POS 系統量產。
- 2017 CES 發表 A6 200W 無線充電 IC。
- 2018 CES 發表工業用 300W 無線充模組。
- High Power 無線充電,運用于無人機、機器人、工業電腦、AGV、電動車等市場。

#### 評 語 ———

本標的為可提供量產之 300W 無線充電技術,應用性廣,可內建也可獨立使用, 且擁有大量專利,不論是便利性、安全性、設計性、及特殊環境應用等考量, 均具創新性及市場競爭力。

#### Introduction =

FDT technology is a leader in wireless charging technology, core services: wireless power systems and their control ICs.

- The world's only low-cost mass production 300W wireless charging exceeds 90% power transmission efficiency.
- 5W~300W automatic frequency conversion corresponding to adjust the power output, DC24V input and output is 24V up to 13A.
- The strongest metal foreign object detection function in the FOD industry.
- Has obtained 28 inventions in the United States and other multi-national patents, and more than 100 patents totaling more than 1,000 patents.
- 2009 Mass Production Wii Wireless Charging Module Quantitative Production US Energizer is available at Walmart.
- 2012 A3 wireless charging IC was mass-produced by a well-known Japanese brand into a POS system.
- 2017 CES publishes the A6 200W wireless charging IC.
- 2018 CES publishes industrial 300W wireless charging module.
- High power wireless charging, used in markets such as drones, robots, industrial computers, AGVs, electric vehicles, etc.

#### Commentary =

The subject is a 300W wireless charging technology that can be put into mass production. It offers a wide range of applications and can be built-in as an option or used independently. It has many patents and is innovative and competitive in terms of convenience, safety, design and applications in special environment conditions.





#### 爬牆機器人 GECKOBOT

王麗珠/董事長

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### 智高實業股份有限公司

Genius Toy Taiwan Co., Ltd.

#### 簡介 —

本產品具有 7 種變化的智高積木 從組合爬牆機器人學習各種科學原理 透過設計吸盤機器手臂,挑戰各種 STEAM 任務 體會科學和工程原來有趣又如此簡單《爬牆機器人》用橫跨科學(S)、科技(T)、工程(E)、藝術(A)與數學(M)的知識,與強調協作自造的智高積木,透過知識應用與探究回饋,翻轉單向學習,打造專屬臺灣小學生的新世代學習方法。

#### 評 語 —

本標的具框架性、結構性(與樂高堆疊式不同)、仿生設計,並整合公司 664 種機械積木元件群與動力系統,打造適合不同年齡層的小朋友學習互動,已獲 得專利及紐倫堡玩具獎。

#### Introduction =

- Build your own Geckobot which can climb on smooth surfaces like windows!
- Learn the physics of pneumatics and suction, and observe the bionic-like motions.
- Understand the complexities of mechanical timing and its applications.
   The astonishing wall walking robot has a motorized air suction system that makes it able to walk directly vertical on a smooth surface.

The battery driven motor gear function creates a rotation that makes legs move like on a real Gecko, and the suction pumps make the feet able to stick and release on a surface at the right moment.

While walking tail part moves from side to side and makes the robot look very alive.

You can build other animal designs on the same function and 6 alternative experiments with suction and learn about Bionic movements.

#### Commentary

The subject offers frames, structural (different from the stacking of LEGO) and bionic design and integrates 664 types of mechanical block components and power systems from the company to create learning and interaction toys for children of different ages. It has already obtained patents and won the ToyAward in Nuremberg.



#### **眾程科技** EQUIPTOP₀

### 衆程科技股份有限公司

**Equiptop Hitech Corp.** 



TD-PLUS(ADC)系列 智慧型 精密平面磨床 TD PLUS / ADC Series Smart Precision Grinder

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#### 簡介=

工業 4.0 時代來臨,產品本身的差異化與資料收集處理能力,需要透過優化才能在市場上勝出,TD-PLUS(ADC) 新世代智能磨床,擁有最佳的結構設計,其優良的自動加工參數補償設置與自動修砂回饋機制,都能為客戶打造最佳的產出。而此智能磨床內建多項資料庫,砂輪選用推薦、實機實圖導引、潤滑液使用週期預測、生產紀錄儲存,都能使操作者能掌握設備整體資訊,此外透過網際網路雲端的連結傳輸,衍生出全新模式的售服機制,藉由設備異常資訊的回饋及儲存,搭配設備內建實機實圖導引,降低設備在停機時所產生的成本,並藉由異常發生的頻率來做防範措施。

#### 評語 —

- 本標的為結合客戶需求導向及雲端數據回饋為基本而發展出智慧型設備,具備砂輪轉速監測及防撞系統、修整器參數回饋、砂輪切削電流感測及自動修整參數補償等功能。
- 本標的創新技術如具有冷卻環的主軸馬達,平面磨床的控制裝置,工具機用 之馬達散熱結構,及規矩機構臥式磨床之共用模組及其工作平台等獲台灣 事利。

#### Introduction =

With the advent of Industry 4.0, the product differentiation, big data collection, machining capabilities need to be upgraded to a top quality level. New TD/TD-PLUS/ADC smart grinders have best structure design & appropriate parameter adjust for automatic machining. Auto dressing, and smart compensation mechanism provide all best solution for customers. Multi-language selection gives no barrier of language communication. Built-in data base provides suggestion for grinding wheel selection, guidance for maintenance & lubrication time table, life cycle forecasting, and production record storage. It enables operators to understand and use the overall information for cost saving, and machine failure prevention.

#### Commentary =

- The subject is a piece of smart equipment developed to meet customer demand and provide cloud data feedback. It offers functions such as speed monitoring and an anti-collision system for the grinding wheel, parameter feedback for the trimmer, current detection for cutting and paring actions of the grinding wheel and parameter compensation for automatic trimming.
- The innovative technologies of the subject, such as the spindle motor with cooling rings, controller for surface grinder, heat dissipation structure of the motor used in the machine and common module and work platform of the horizontal grinder with ruler mechanism have obtained patents in Taiwan.



### 圓嚮創意有限公司

### Yuanxiang Development Co., Ltd.

### 簡介

在眾多知名的音響品牌中,唯有大膽的創新,才能吸引目光,整組 Ceramics Speakers 創新的基礎就是文化特色,在傳統樂器中如琵琶、胡琴等樂器中去找出創意的靈感。 改變傳統音響喇叭造型及材質的限制,利用多種材質如 陶瓷、木頭、藤編、金屬等將台灣一流的傳統工藝及加工技術融入,讓它呈現出高貴獨特且稀有的印象,Euodia 音箱想要表達的價值不僅在作品本身,而是整體台灣的人文素養及工藝技術的價值。

整組作品,從內到外部的結構是台灣無數的工藝及音響專業人員的知識經驗累積 而成的精華,不是只有外觀可看,內部更是一組絕對專業 high end 級音響喇叭。

#### 評辞

本標的以陶瓷為主體,結合其他材質塑造出具東方文化風格之音響外型,其 圓弧形造型可降低聲音反射頻率,適合聲音之傳導,已獲有專利及台灣工藝競 賽獎,未來發展值得期待。

#### Introduction =

How to survive between so many famous name brand stereos. It only to hold innovation with cultural foundation as a features. In the traditional instrument such as lute, and huqin to look for the creative inspiration to subversion the traditional stereo speaker's model and material ,unlimited use ceramic, wood, rattan and metal to assimilate into the Taiwanese first class traditional art crafts processing technology. Let works present noble rare unique impression. The works expression is not just the value. It also present the Taiwanese cultural literacy and art craft technology. Ceramic speaker is not only the external and internal structures. It takes a lot of expert to research development together. It's a professional high end level's stereo speaker.

#### Commentary =

The subject uses ceramic for the main body and adds in other materials to create a speaker system with an oriental style in appearance. Its circular shape can reduce the sound reflection and is suitable for sound transmission. It has obtained patents and won craft creation awards in Taiwan, and it is expected to have great potential and future growth.



#### 優諦雅陶瓷喇叭 Euodia Ceramic Speakers

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### **愛派司生技股份有限公司**

### APlus Biotechnology Co., Ltd.



#### 微創精準定位高位脛骨截骨手術 系統

Minimally invasive and precise positioning of high tibial osteotomy surgical system

#### 李泗銘/董事長

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#### 簡 介 •

對於骨關節炎(OA)膝蓋的內側退化,高位脛骨截骨手術(HTO)是一種有效的手術方式。不過,必須精確建立並分離截骨楔形並且在手術中使用 X 光影像,以便持續監控操作,才能得到滿意的結果。因此,HTO 非常需要高超的技術,並且需要接受大量的輻射。本申請標的改變以往徒手鋸切的操作,而是在手術前,整合了 2D 和 3D 的手術規劃,建立 PSI 導引,此導引可以產生幾乎等同於規劃的術後結果。PSI 導引是一種精確的程序,省時、減少輻射使用量、使用上相對較為簡單。使用 PSI 導引,可以精確截骨,並達到良好的短期結果。

#### 評辞

本標的依據東方人體脛骨截骨特質,搭配多種曲率的鎖定骨板,可客製化 3D 列印定位導板,以準確安全地進行手術,達到微創精準定位之高位脛骨截骨手術,並取代部分不需更換人工膝蓋之病患,以較輕便手術治療膝蓋關節病變。

#### Introduction =

For the medial degeneration of the knee in osteoarthritis (OA), High Tibial Osteotomy (HTO) is an effective surgical procedure. However, it is necessary to accurately establish and separate the osteotomy wedge and use X-ray images during surgery to continuously monitor the operation in order to obtain satisfactory results. Therefore, HTO is in great need of superior technology and need to receive a lot of radiation. The subject matter of this application changes the previous manual operation, but prior to surgery, 2D and 3D surgical planning is integrated to establish a PSI guide that can produce post-operative results that are almost identical to planning. PSI guidance is an accurate procedure that saves time, reduces radiation usage, and is relatively simple to use. With PSI guidance, you can accurately osteotomy and achieve good short-term results.

#### Commentary =

The subject offers a precise, safe and minimally invasive surgery for high tibial osteotomy by using locking plates in various curvatures and customized 3D printing positioning guides based on the characteristics of tibia bones on Asian people. It uses a lighter surgery to treat the knee joint lesion on some patients who do not require artificial knees.





#### AR4X - 全球首創人工智慧計數辨 識監控組

AR4X - World's First Al Powered Data Analytics Security Camera Set

#### 楊朝棟 / 總經理

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#### AMARYIIN

### 愛瑪麗歐股份有限公司

Amaryllo International, Inc.

搭配"數得利"人工智慧商店服務的 AR4X,榮獲美國最大消費性電子展 CES 2018年智慧城市類別創新獎全球首獎,是市場上首創不須主機並同時支援「計 數、辨識、儲存、監控」的四合一解決方案,藉由一秒快速人臉辨識技術,即 時分辨來客屬性如男女年齡層、分群定義如 VIP 或黑名單等,甚至提供熱區顯 示,讓業主得利用實用的大數據做精準行銷,也為資源調度或管理決策,提供 真實客觀的數據,而藉由串接無限多台智能攝影機,進行不同時間區間或跨越 區域的資料比較,讓業主不受限於時間、地點,輕鬆做好商業管理與店鋪保全。

本標的獨創無 server 的監測系統,將資料上傳雲端,並使用專利技術,隨時 調控拍攝頻率,節省儲存空間。主要針對商業系統,做顧客管理,並透過軟體 更新,可擴充未來之應用範圍,潛力極大。

#### Introduction =

Winner of the 2018 CES Best of Innovation Award under the Smart Cities category, Amaryllo's AR4X is the world's first standalone Al powered camera set designed to be used with Soteria, the patent-pending cloud-based data analytics service. Unlike conventional CCTV systems which only function as passive recording device, Soteria enables AR4X cameras to proactively capture and analyze video contents in real-time. As the solution is cloudbased, Soteria eliminates the need of expensive and bulky local equipment and server setup. Some distinctive features include: Real-time people counting, real-time traffic trend report, intelligent heat map analytics, fast facial recognition, gender/age distribution and more! Soteria utilizes the embedded high-power multi-core CPUs in the AR4X to support the highest military grade 256-bit encryption, ensuring end-to-end privacy protection. By leveraging artificial intelligence, Soteria and AR4X helps businesses discover consumer patterns, predict the success of future promotions, and increase revenue.

#### Commentary =

The subject is a unique monitoring system without a server that uploads data to the cloud and uses patented technologies to control the shooting frequency at any time and save storage space. It manages business clients and expands the scope of future applications via software updates and is expected to have great potential.



### OSTAR

### 源星生醫科技股份有限公司

### **OSTAR Meditech Corp.**



#### 心臟病演算法人工智慧數據雲 平台

Heart Disease Algorithm Artificial Intelligence Cloud Data Platform

#### 張國源/董事長

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#### 簡分

源星生醫發展心臟頻譜其核心技術皆為自行研發,其中心臟診斷核心演算法; 大數據人工智慧中心,皆為源星獨立發展自有技術。

透過手臂量測可找到心律不整、心房顫動、心房早期收縮、心室早期收縮,這些可能造成腦部血栓中風的原因,也同時提前預警心肌梗塞及中風。

使用雲端傳輸技術將居家或心臟病人的肱動脈心臟射血脈動紀錄傳輸至雲端, 經過大數據人工智慧運算心搏跳動是否存在異常頻率,並比對 IRB 臨床大數據 資料庫得到使用者心臟正常或是何種心臟疾病提供給醫院醫師快速診斷結果。

#### 評語

本標的是利用 AI 大數據來預防心肌梗塞及中風,主要應用於各類心臟、血壓等病患,利用血壓量測來找到心律不整、心房顫動等異常進行 IRB 臨床,並透過 AI 大數據平台,建構雲端資料庫大數據,進行心臟病預測之功能,未來具有持續擴大應用的潛力。

#### Introduction =

The OSTAR Heart Spectrum Blood Pressure Monitor is used to measure cardiovascular pressure change with FFT analysis to obtain heart rate frequency variability and accurate blood pressure data. We compared the diagnostic efficacy of the Heart Spectrum BPM to a 12-lead ECG for patients with Atrial fibrillation (AF). This clinical trial was conducted in the emergency department of Taipei Medical University Hospital and published in PLOS ONE journal.

In addition, telecare technology can be used to transmit the patients' records at home or hospital to the cloud. Through the cloud big data and artificial intelligence analysis, it provides the comparison result of the IRB clinical database to the hospital physician for rapid diagnosis.

#### Commentary —

The subject uses AI and big data to prevent myocardial infarction and stroke. It is mainly used in patients with heart and blood pressure problems. Through blood pressure measurement, it finds arrhythmia, atrial fibrillation and other abnormalities to conduct IRB clinical examination. By using the platform of AI and big data, it builds a cloud database to predict heart disease, showing the potential to expand to other applications in the future.





### 盟鑫金屬股份有限公司

Meng Sin Material Co., Ltd.



應用於屋頂型太陽能發電系統 之PVF覆膜鋼品 The PVF Laminated Steel that Applied in Roofing Photovoltaic System

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#### 簡介-

盟鑫金屬精密覆膜技術與杜邦公司共同開發 PVF 覆膜鋼品,鋼品保固耐用 20 年。運用 PVF 覆膜鋼品超強抗腐蝕、耐酸鹼、耐候性、耐溫濕、耐磨耗等優 越特性作為屋頂型太陽能發電系統之基底,再鏈結特殊扣件螺絲施工,以創新 系統性的解決方案,確保太陽能發電系統底下所搭載的屋頂鋼板抗鏽蝕與整體 安全。

#### 評 語 —

本標的具有極優良的耐蝕性,覆合於鍍鋅鋼板後成型性良好,沒有裂紋產生,可耐強酸,強鹼與大氣腐蝕。PVF薄膜是氟炭分子的共聚體,是一種表面極為鈍化的材料,其應用於太陽能屋頂與發電系統上具有長效保固的優點。

#### Introduction =

Meng Sin Material's precision laminating technology partnered with Dupont to develop a PVF laminated steel sheet. Our PVF products are backed by a joint 20-year warranty and have anti-corrosion, anti-acid, anti-alkali, weather resistant, wear resistant, and insulation properties. Coupled with special fasteners and screws for assembly work, the total solution guarantees the anti-corrosiveness and safety of all the foundational steel plates beneath the solar panels.

#### Commentary

The subject offers excellent corrosion resistance. It has good formability after Laminated with galvanized steel plates, so there are no cracks. It can withstand strong acid, alkali and atmospheric corrosion. PVF film is an interpolymer of fluorocarbon molecules and a material that is extremely passivated on the surface. It has the advantages of long durability and warranty if used on solar roofs and power generation systems.





### 誠佳科紡股份有限公司

Creative Tech Textile Co., Ltd.



海毛紗保暖棉 Smawarm Seawool Polyester

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#### 簡介

SMAWARM<sup>®</sup> 是秉持著環保理念利用奈米化的蚵殼結合回收水瓶,所開發出多功能合一頂級天然無添加化學助劑的新材料。纖維細度僅羽毛的 1/3,輕柔保暖、透氣且耐洗滌,還可以消除菸臭、汗臭等異味。SMAWARM<sup>®</sup> 海毛紗保溫棉採多層不同低熱傳導材質複合,良好的螺旋彈力營造出蓬鬆空間,讓微米寬的中空風道蓄積身體輻射熱能,達到舒適保暖的功效。纖維充分混練天然礦物粉,具有永久性的抗菌效果並減少過敏原;粉末的多孔性材質能起過濾作用,消除空氣中各種異味及細菌等有害物質,因含有微量金屬及吸濕快乾特性,能夠減少冬天衣物穿著時,所帶來的靜電困擾。

#### 評 辞

本標的運用廢棄蚵殼、能量礦物及微量金屬做奈米化並結合回收寶特瓶做重新抽絲,採用多層不同低熱傳導材質複合,可替代羽絨填充物,不僅具有柔軟、保暖效果,良好的螺旋回彈力營造出蓬鬆空間,並具有羊毛般手感及抗靜電等特性。

#### Introduction —

Smawarm® and Seawool's raw materials are derived from nanonized oyster shell and recycled PET bottles. Fused by nano technology to create eco-friendly fibers with permanent functions. Redefining performance insulation, Smawarm® is packed with functions to shield you from discomfort in any condition. The climate adaptive insulation retains warmth when wet, anti-static even when humidity drops below 30%, anti-odor suitable for long outdoor adventures without washing, further hygiene protection with anti-bacterial. Compress to store and take out at any moment when situation gets cold, wet and ugly.

#### Commentary =

The subject applies nano-crystallization of discarded oyster shells, energy minerals and trace metals and conducts re-spinning fibers from recycled PET bottles. With multiple layers of composites that have different low thermal conductivity materials, the products can serve as an alternative to down fillings. They have a soft and wooly feel, offer a good warming effect and bouncing resilience for fluffiness, and are antistatic.





符合工業4.0自動化應用智慧型五軸加工中心機 Adapting to Industry 4.0 Automated and Smart 5-Axis Machining Center

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### **AXILE**

### 達佛羅企業有限公司

**Buffalo Machinery Co., Ltd.** 

#### 簡介

「符合工業 4.0 自動化應用智慧型五軸加工中心機」具備高階、高精度五軸同動加工技術,搭配專利之 SMT™ 智慧型應用技術確保機器加工精度及節省能源成本,並導入符合工業 4.0 應用之 ART™ 可靠度工程技術,即時監控並分析機台狀態,使用者可透過簡單易讀的操作平台,獲得即時的機台狀態分析資訊及問題診斷,進行預知性服務,並取得有效的管理數據。同時透過與組織之智能 ERP 連結,確保零組件及耗材的及時送達,使產線達到 24/7 全自動化零停機的運作,提高組織盈利效率。

#### 評辞

- 本標的運用 IoT 資料收集使供應端與消費端的價值鏈緊密結合,具有「智慧 耗材自動採購系統」,連線到用戶 ERP 系統,進行自動化採購形成一具特 色之加工機。
- 本標的創新技術如軸承監測裝置、溫度控制補償及刀具磨耗檢測模組等獲台 灣新型專利。

#### Introduction ——

" Adapting to Industry 4.0 Automated and Smart 5-Axis Machining Center is not only equipped with high-end, high-precision 5-axis simultaneous machining technology and the patented Smart Machining Technology, SMT<sup>TM</sup> to ensure the machining accuracy and energy and cost efficiency, but also with the industry 4.0 application AXILE Reliability Technology ART<sup>TM</sup>, the real-time monitoring technology and analyzed machine state data allow users to obtain real-time machine data and problem diagnosis. Through an easy-to-read and easy access operating platform, the users can arrange predictive maintenance, and attain effective management data for better strategy. At the same time, through the connection with the intelligent ERP of the organization to ensure the in-time delivery of components and consumables. Therefore, the production line can achieve 24/7 fully automated zero-downtime operation and further to enhance the profitability of the organization.

#### Commentary •

- The subject uses IoT data collection to bring the supplier end and customer
  end on a value chain closer. It has a "Smart Automatic Purchasing System
  for Consumables" that links to the ERP systems of users to conduct
  automated purchasing to make unique processing machinery.
- The innovative technologies of the subject, such as the monitoring devices for bearings, temperature control compensation and inspection modules for tool wear, have obtained patents of utility models in Taiwan.





### 睿嘉生物科技股份有限公司

### Rega Biotechnology Inc.



食品過敏原快速檢測試劑系列 Food Allergen Rapid Test Kits

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#### 簡イ

食品過敏原快速檢測試劑能準確偵測特定食品過敏原。產品檢測閥值符合歐美 及台灣相關法定規範,設計上具備操作簡便、不需儀器、現場或居家即可檢測 的優點,產業應用或居家消費皆為適用的範圍。系列產品已行銷世界多國。

- 協助食品加工製造過程之品質管控,針對進料、生產、成品、清潔進行檢測
- 協助餐廳或中央廚房對於食材的管控以確保客戶的消費安全
- 協助有過敏體質的消費者辨識不適合的、標識模糊或包裝不明的加工食品
- 尖端免疫層析技術,全程自主開發平台,產品品質值得信賴
- 高專一性、高靈敏度、使用簡便、反應快速的檢測試劑產品

#### 評 語 ——

本標的為十項食品過敏原快速檢測試劑,利用抗原/抗體反應,其專一性及靈敏度均優,不僅反應快速(5-15min),操作容易,且不須儀器與人員訓練,品質與價格具競爭力,並已獲得多項相關專利,在國際上具競爭力。

#### Introduction —

Food Allergen Rapid Test Kits accurately detect specific food allergens. The product complies with the regulations of EU, US and Taiwan. It is designed with advantages of easy to operate, without the need for instruments, onsite or home use. The product suitable to food processing industry and home consumption application. The series products have been marketing to many countries in the world.

- Assist in quality control in food processing plants, testing raw materials, ingredients, production, final products and cleaning regimes verification
- Assisting people with allergies to recognize unknown ingredient or ambiguous labeling in processed food
- Advanced immunochromatography technology, mature development skills and platform, product quality is trustworthy
- A high specificity, high sensitivity, easy to use, fast reaction lateral flow diagnostic product

#### Commentary =

The subject is a quick detection reagent for 10 food allergens. It uses antigen/antibody reactions and offers excellent specificity and sensitivity. It has a quick reaction time (5 to 15 minutes), is easy to operate and does not require instrument and personnel training. It has a competitive quality and price in the international market and has already obtained several patents.



跨境電商多語言翻譯管理系統 Cross-Border E-Commerce **Multilingual Translation** Management System

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### 寫意達有限公司

WritePath Pte. Ltd.(Taiwan)

#### 簡介

WritePath 雲翻譯®經營線上翻譯平台,緣與台灣經貿網長期配合,我們應用 AI 人工智慧的快速、一致性與學習性及真人翻譯的準確性,

開發「跨境電商多語言翻譯管理系統」以解決電子商務於跨境/多語化時碰到 的兩大問題:

- 1.機器翻譯的在地化及關鍵字不佳,以致流量與購買率低落。
- 2. 電商網頁動輒上千萬字量,以人工翻譯將產生鉅量作業成本及時間(以 \$1.8/ 字計→總成本 1,800 萬)。

「多語言翻譯管理系統」結合應用程式介面 (API) 串接電商內容管理系統 (CMS)、Warren 類神經機器翻譯 (NMT) 及 T-Booster ® 語料庫引擎。

WritePath 雲翻譯® 改變翻譯產業,以整包解決方案提供更完整的多語化服務。

#### 評 語 —

本標的之系統採半自動方式運作,先使用機器自動翻譯再以人工修正,可以節 省人力及時間成本,大幅提升譯者之生產力。可用於在網頁及文字報導之翻譯, 對於跨境電商之拓展具實質效益,並擁有許多客戶的應用實績。

#### Introduction =

WritePath® operates an online platform using the speed, consistency, and high learning ability of AI translation with the accuracy of human translation. Long-term cooperation with Taiwantrade Network has led to development of a "Cross-Border E-commerce Multi-Language Translation Management System" which solves:

- 1. Poor localization and inadequate keywords of machine translation resulting in low traffic and purchase rates.
- 2. Manual translation for the tens of millions of words on E-commerce sites generate huge operating costs and is time-consuming (E.g. 1.8/word  $\rightarrow$  total cost: \$18 million).

By combining Application Interface (API) with a Content Management System (CMS), Warren Neural Machine Translation (NMT), and the T-Booster® corpus engine. WritePath® changed the translation industry by providing a packaged solution with more complete multilingual services.

#### Commentary =

The subject adopts a semi-automatic approach in its operations. It first uses a machine for automated translation and then uses manual labor for correction. It saves manpower and time, greatly improving the productivity of translators. It can be used for the translation of websites and reports, offering substantial benefits for the expansion of cross-border e-commerce. It currently has many customer results.





### 歐群科技股份有限公司

### **OCEAN Technologies Co., Ltd.**



HP1 plus (HP1<sup>+</sup> )高速放電迴路 HP1 plus (HP1<sup>+</sup> ) High Performance Discharge Circuit

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#### 簡介

細孔放電加工機為一種基於放電加工之延伸加工機種,為三軸或五軸運動床台與放電加工單元所組合之加工母機,其使用管狀銅製電極與刀具中心出水功能對導電性材料進行瞬間加熱與冷卻,進而達到材料移除與孔洞加工的目的,歐群科技獨特的  ${\rm HP1}^+$  新世代高速放電迴路可有效進行  $0.1{\rm mm}$  至  $6.3{\rm mm}$  尺寸加工,深徑比可達 10 倍至 200 倍。

HP1 高速放電迴路相較於傳統迴路,可提升加工速度快 40%、節省能源 30%,達到高效能、效率及綠色節能環保之目的,對此,歐群仍是持續致力於 研發及推動,於 2017 年再次成功提升迴路性能 HP1<sup>+</sup>,小尺寸加工速度提升 30~50%,使放電迴路功能更加完整。

#### 評誤

- 本標的為提升直徑 0.5mm 以下的放電加工速度 30~50% 以降低生產時間增加產能而研發高頻高功率脈衝放電電源,放電間隙控制技術及異常加工保護 迴路,並成功整合為高速放電迴路。
- 本標的創新技術如放電加工電流控制裝置正申請歐洲及台灣發明專利。

#### Introduction =

The small hole drilling EDM machine is an extended processing machine based on electric discharge machining. It is a processing with a three-axis or five-axis moving bed and an electric discharge machining. It uses electrode tube and a tool center water discharge function to instantaneously conduct a conductive material by heating and cooling, in order to achieve the purpose of material removal and hole processing. OCEAN Technologies innovate HP1<sup>+</sup> new generation high-speed discharge circuit can effectively process 0.1mm to 6.3mm size, depth to diameter ratio of 10 to 200 times.

Compared with the traditional circuit, the HP1 high-speed discharge circuit can increase the processing speed by 40% and save energy by 30%, achieving the goal of high efficiency, green energy conservation and environmental protection. In this regard, OCEAN Technologies is still committed to research and development and promotion. In 2017, the circuit performance HP1+ was successfully improved again. And the processing speed of small size was increased by 30~50%, which made the discharge circuit function more complete.

#### Commentary =

- The subject develops a high-frequency and high-power pulse discharge power supply, discharge interval control and loop protection for abnormality processing to reduce the manufacturing time, increase the production capacity and improve the speed of electrical discharge machining by 30 to 50% for a diameter under 0.5mm. It is also successfully integrated into a high-speed discharge circuit.
- The innovative technologies of the subject, such as the current control devices for electrical discharge machining, are applying for invention patents in Europe and Taiwan.







### 龍進自動機械股份有限公司

LONG Automatic Machinery Co., Ltd.



繞線電感陶瓷晶片0201(inch) 斜沾創新技術 Development of SMD 0201(inch) Skew Dipping Process

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#### 簡介-

電子元件尺寸愈來愈小,既有晶片平沾技術已不符拉力及電鍍品質要求,晶片 斜沾需求因此產生。市場雖已有販售 0201(inch) 斜沾芯片,但價格昂貴,且技 術獨占,無斜沾設備可提供給零件商自行生產。龍進公司以現有設備與技術, 研發出繞線電感陶瓷晶片斜沾製程技術,使生產產品大量化、商品化,為第一 家提供 0201(inch) 斜沾創新技術的公司。

應用龍進斜沾創新技術的機器及治具,可提高產量、品質及良率,以符合未來市場大量需求,以自動化設備大量製造、更加精準控制塗布精度及標準化、提升產量及拉力值並降低加工成本、增大焊接於電路板之焊接面積以增強拉力需求。

#### 評語

- 本標的克服繞線電桿陶瓷晶片傳統平沾銀電極可能產生之溫度差異化及震動 所產生脆裂的不穩定性,發展出 0201(inch) 晶片斜沾技術,且配合相關之設 備、冶具及載具組成創新之生產系統。
- 本標的創新技術如電子零件沾銀加工方法,晶片沾銀機之銀料控制裝置等已 獲台灣發明專利。

#### Introduction =

The necessity for skew dipping process is presented because the traditional terminal dipping process cannot meet quality requirements of tension and plating due to the trend that passive components are getting smaller in the market. However, the 0201(inch) skew dipping chips sold in the market is expensive and technical monopoly, and there is no equipment available for component companies to produce SMD 0201(inch) skew dipping by themselves. Therefore, LONG leveraged its own equipment and knowledge to become the first company to provide 0201(inch) skew dipping process, enabling mass production and commercialization of skew dipping SMD 0201(inch).

LONG's equipment and peripheral products of skew dipping process can promote output, quality and yield rate, meeting high demand in the future. Component companies then are able to mass produce through automatic equipment, control dipping precision and standardization more precisely, leading to increasing output and tension, reducing processing costs, and increasing the welding area on the circuit board to enhance tension requirement.

#### Commentary •

- The subject overcomes the temperature variance and the instability of brittle cracks from vibration associated with the conventional silver flat electrodes of wirewound inductors and ceramic chips and develops 0201 (inch) chip slanting dipping technology. It is an innovative manufacturing system consisting of the related equipment, fixtures and vehicles.
- The innovative technologies of the subject, such as the silver dipping
  process of electronic parts and the control device for silver materials on the
  silver dipping machine for chips, have obtained invention patents in Taiwan.





## **薈昇企業有限公司**

### Perseidas Enterprise Co., Ltd.



改良型低振動減噪運動地墊 Advanced Low Vibration and Noise Reduction Exercise Mat

林姿吟/負責人公司通訊地址:

833高雄市鳥松區美山路77巷5號

公司電話:07-7353093 公司傳真:07-7353102

E-mail: perseidas.lin@gmail.com Website: perseidas.taiwantrade.com.tw

Judy Lin / President

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No.5, Ln. 77, Meishan Rd., Niaosong Dist., Kaohsiung City 833, Taiwan

(R.O.C.)

Tel: +886-7-7353093 Fax: +886-7-7353102

#### 簡介 •

「改良型低振動減噪運動地墊」具有良好的振動與噪音吸收能力。在舉重或健力訓練時,積鈴摔落於傳統地墊會因重力撞擊而產生巨大噪音與振動傳遞,對運動員與周邊住戶造成身心的影響。本產品透過材料與結構設計,較傳統運動地墊具有 40% 減噪、30% 減振及縮短振動衰減時間 40% 的能力,可以有效改善振動與噪音問題。

產品另有槽扣結構設計並已取得國內新型專利。使用者可以輕鬆容易的組合與 拆解,組合後可以緊密結合,防止地墊因受積鈴撞擊產生彈跳鬆脫造成運動員 受傷。本公司尚有不脫色的橡膠印製技術,可以為客戶於地墊客製印刷所需要 的文字圖騰。

#### 評 語 =

本標的為舉重用地墊之結構改良與創新設計,以模塊化、複合化橡膠組裝來增進方便性,並在上層凹陷處,使用不織布結構來提升減振、減噪效果。可依照客戶需求做客製化商標印刷處理,相當具有競爭優勢,並獲得有專利。

#### Introduction =

"Advanced Low Vibration and Noise Reduction Exercise Mat" has good ability to reduce vibration and noise. In the weightlifting and powerlifting trainning , it will cause huge noise and vibration when barbell falls on the normal mats ,and too much noise and vibration could cause damage to athletes in physical and mental health . Our new design mats can effectively improve this problem , with new design in material and structure , provide this new mats get the excellent result , it can reduce 40% noise , 30% vibration and 40% vibration decay time more than normal rubber mat .

The mat with new cross-lock system design provide users easy to assemble and disassemble the mats, and prevent those mats move in huge impact .We have very profession printing technology to customize logo on mats .

#### Commentary =

The subject adds structural improvement and innovative design to floor mats used for weightlifting. The modular design and composite rubber assembly improve its convenience. The depression part on the upper layer has a nonwoven fabric structure to improve the reduction in vibration and noise. It can have customized logos and printing according to customer needs. It is quite competitive and has already obtained patents.



The 25th Taiwan SMEs Innovation Award

2018



# 中間類知 Application Guide



# 申請須知

#### 一、目的

為鼓勵中小企業從事創新研究發展、提升技術與服務水準、增強競爭力,經濟部依據「創新研究獎-中小企業發展基金獎助中小企業創新研究作業要點」針對持續以有組織、有系統之方法,自行從事創新研究而有具體成效之中小企業,甄選傑出者予以適當之獎勵,以期技術生根,進而達到產業升級與健全發展之目的。

#### 二、申請資格

(一)獎勵對象

合於行政院核定「中小企業認定標準」且目前仍在營運中之中小企業。

(二)獎勵範圍

自行研發之創新性產品、技術、製程、流程、服務(包含技術服務、知識服務、商業服務)等項,於民國 106 年完成,並已商業化運用或量產者。

#### 三、獎勵方式

- (一)申請企業前一屆未曾獲本獎項獎助金,經評審通過者獲頒證書及獎助金新臺幣 15 萬元正,以 30 名為限。其中以員工數認定之中小企業得獎名額以不超過 15 名為原則,確實得獎名額視申請審查情況核定(獎助金須依稅法相關規定辦理扣繳)。
- (二)申請企業前一屆如已獲本獎獎助金,經評審通過者僅頒證書,不提供獎助金,以不超過 10 名為原則。
- (三)申請獎勵之標的已(曾)獲得政府機關補助,經評審通過者僅頒證書,不提供獎助金, 以不超過 10 名為原則。但其獲得補助並執行完畢後,再自行創新及研發程度高者,不 在此限。
- (四)同一企業當年度同時有兩項(含)以上之標的獲獎,僅頒發獎助金新臺幣 15 萬元正, 不得累加獲獎金額。

#### 四、申請手續

- (一)申請方式
  - 1. 檢附申請資料紙本、電子檔各一份。申請書請以電腦繕打,以 A4 規格裝訂整齊,另 以電子檔形式儲存於光碟(含附件掃瞄)交寄,申請資料概不退件,送審前請自行影 印留存。
  - 網路報名後通訊寄件,請將申請資料掛號郵寄至:
     「106臺北市大安區羅斯福路二段95號6樓 創新研究獎工作小組收」
  - 3. 網路報名及下載申請書請至經濟部中小企業處 (www.moeasmea.gov.tw)、中華民國全國中小企業總會 (www.nasme.org.tw) 及創新研究獎專屬網站 (http://tsia.moeasmea.gov.tw)。
  - 4. 洽詢電話: (02)2366-0812 分機 217 創新研究獎工作小組 劉小姐。



#### (二)送審資料

- 1. 申請書
- 2. 公司登記資料影本(註1)、製造業請加附工廠登記(或臨時工廠登記)證明文件影本(註2) 註1:可逕行至全國商工行政服務入口網 http://gcis.nat.gov.tw 查詢列印。
  - 註 2:製造業之廠房面積及電力容量、熱能未達「工廠從事物品製造加工範圍及面積電力容量熱能規模認 定標準」第 3 條規定之規模者免附工廠登記證明文件,惟需檢附切結書。
- 3. 申請獎勵標的之商業化或量產之相關證明文件影本(於 106 年申請標的研發完成後至 107 年 5 月 31 日前銷售之發票、合約書、訂單等,若為醫療或食品需檢附相關主管機關核可之證明文件)
- 4. 其他申請獎勵標的之相關證明文件影本。(如:專利、獲獎記錄、標準、認證、著作權、相片及型錄等〔請參選企業儘量提供〕)
- 5. 以員工人數認定之中小企業,請附 106 年 1~12 月勞保局核發之「勞工保險局保險費 繳款單及明細表」影本。

註:以資本額或營業額認定之中小企業免附。

- 6.106 年度營利事業所得稅結算申報書影本。(包含資產負債表及損益表;此項資料最遲應於107年6月15日前掛號寄達)
- (三)申請期間

即日起至 107 年 5 月 31 日 17:30 止 (通訊寄件以掛號郵戳日期為憑)。

#### 五、評審

(一)評審方式

分為資格審、初審與決審 3 階段:

- 1. 資格審:由創新研究獎工作小組進行基本資料審查,缺件者應於期限內完成補件。
- 2. 初 審:由初審委員會進行書面審查,並視實際狀況需要,派員實地查核。
- 3. 決 審:由決審委員會進行書面審查,並決定得獎名單。
- (二)評審標準

基本評審項目及權重:

1. 申請獎勵標的之創新性	35 %
2. 申請獎勵標的之實用性	35 %
3. 申請獎勵標的之國內外競爭力	20 %
4. 申請企業之目前及中長期研發構想及營運	10 %

100 %

#### (三)評選原則

當申請標的之評審積分相若時,以未曾獲本創新研究獎之企業優先考慮,惟仍由評審委 員會議決之。

#### 六、得獎企業之義務

得獎企業有配合蒐編專輯、提供相關資訊及參加頒獎典禮、成果展示會與中小企業創新研究 獎聯誼會等相關活動之義務,並有建立與傳承本獎項之精神與樹立學習典範之責任,得獎企



業若經查證有違反本須知規定、不實陳述或違反環保與工安衛、智慧財產權等相關法規情節重大者,或其他爭議事件致影響社會大眾及本獎項形象者,主辦單位得撤銷得獎資格,其證書及獎助金應繳回,並自負法律責任。

#### 七、其他

得獎名單預計於 107 年 11 月底前公佈,並以專函通知所有申請企業。

#### 附錄 1: 行政院核定之中小企業認定標準相關規定

- ◆ 中小企業係指依法辦理公司或商業登記,並合於下列標準之認定:
  - 一、製造業、營造業、礦業及土石採取業實收資本額在新臺幣八千萬元以下者。
  - 二、除前款規定外之其他行業前一年營業額在新臺幣一億元以下者。
- ◆ 另就經常僱用員工數為中小企業認定標準,則不受前項規定之限制:
  - 一、製造業、營造業、礦業及土石採取業經常僱用員工數未滿二百人者。
  - 二、除前款規定外之其他行業經常僱用員工數未滿一百人者。
- ◆ 具有下列情形之一者,視同中小企業:
  - 一、中小企業經輔導擴充後,其規模超過第二條所定基準者,自擴充之日起,二年內視同中小企業。
  - 二、中小企業經輔導合併後,其規模超過第二條所定基準者,自合併之日起,三年內視同中小企業。
  - 三、輔導機關、輔導體系或相關機構辦理中小企業行業集中輔導,其中部分企業超過第二條所定基準者,輔導機關、輔導體系或相關機構認為有併同輔導之必要時,在集中輔導期間內,視同中小企業。

#### 附錄 2: 申請標的分類定義標準

類別	定義
資訊與電子類	含通訊設備、電腦通信、資訊軟體、資訊硬體、消費性電子、半導體製造、電子機械器材製造修配、視訊產品、視聽電子製造、電子零組件製造、光電器材、積體電路設計、其他電子資訊製造等資訊與電子相關之標的。
機械與自動化類	含機械設備製造、運輸工具製造,模組開發製造、航太製造、自動化機械、物流/倉儲設備、動力傳動/制動設備及零組件等機械與自動化相關之標的。
材料與生技類	含生物化學、纖維材料、工程塑膠材料、金屬材料合金、鑄造材料、化學品製成、生化技術、藥品製造、食品加工製造、醫療器材等材料結構製造及生化科技等材料與製程相關之標的。
服務類	含知識服務、技術服務與商業服務模式等,其成功經營模式、服務方式或行銷方法具有前瞻性、示範性及可提昇工作效率之標的(例如:環保服務類、能源服務類、檢測服務類等)。
綜合類	含一般民生用品、消費性產品、創意設計及非前述類別之申請標的物皆納入綜合類之範圍。

註:請企業先依上列分類定義填寫申請之標的所屬類別,審議過程中評審委員會得依標的內容與性質確認或更動申請類別。





# 決審委員名單

決審委員召集人:吳明機委員 經濟部中小企業處處長

王錫福 國立台北科技大學校長

呂正華 經濟部工業局局長

李育家 社團法人中華民國全國中小企業總會理事長

李 鎂 經濟部商業司司長

林全能 經濟部能源局局長

林建甫 財團法人台灣經濟研究院院長

林廣宏 科技部綜合規劃司司長

黃文谷 經濟部加工出口區管理處處長

賴坤成 財團法人台灣中小企業聯合輔導基金會董事長

謝明達 財團法人中衛發展中心董事長

羅達生 經濟部技術處處長

蘇慧貞 國立成功大學校長

(上述名單除召集人外,依姓氏筆畫排列)



# 初審委員名單

初審委員總召集人:廖啓成委員

類別	姓名	服務單位/職稱
資訊 與 電子類	詹文男 (分組召集人) 王永和 陳信宏 廖婉君	財團法人資訊工業策進會產業情報研究所所長 國立成功大學電機工程學系教授 國立交通大學副校長暨電機工程學系教授 國立臺灣大學電機工程學系教授
機械 與 自動化類	蔡新源 (分組召集人) 林孟儒 蔡宏營 賴永祥	創智智權管理顧問股份有限公司董事長 逢甲大學機械與電腦輔助工程學系教授兼系主任兼所長 國立清華大學動力機械工程教授兼系主任 財團法人精密機械研究發展中心總經理
材料 與 生技類	廖啓成 (總召集人) 余騰耀 何長慶 彭裕民	財團法人食品工業發展研究所所長 財團法人中技社執行長 嘉德技術開發股份有限公司董事長 財團法人工業技術研究院副院長暨材料與化工研究所所長
服務類	方至民 ( <sub>分組召集人)</sub> 翁崇雄 張瑞芬 陳銘崑	國立中山大學企業管理學系教授 國立臺灣大學資訊管理學系暨研究所教授 國立清華大學工業工程與工程管理學系特聘教授 國立臺北科技大學服務與科技管理所副教授
綜合類	官政能 (分組召集人) 巴白山 林鑫保 張文智	實踐大學工業產品設計學系教授 國立臺北教育大學數位科技設計學系教授 財團法人臺灣創意設計中心副執行長 國立臺灣科技大學工商業設計系教授

(上述名單除召集人外,依姓氏筆畫排列)





電子

# 中小企業創新研究獎

The 25th Taiwan SMEs Innovation Award

# 得獎專輯

發 行 人:沈榮津

總 編 輯:吳明機

副總編輯:蘇文玲、陳國樑、戴麗芬

主 編:雷世謙、文中元、郭玲琳、張惠雯

編 輯 群:姚怡君、胡劍銘、陳博鍊、周毓玲、

劉欣潔

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