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6月號 JUNE 2023



AI提示工程師大熱 瑰寶或剎那芳華?

Al prompt engineers are gaining in popularity
A long-term career path or a flash in the pan?

BUILBUIL

6月號 JUNE 2023

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2021-2023年會員月報編輯委員會成員名單

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法律界嘗試透過ChatGPT生成協議及對客戶的答覆 The <u>legal profession ha</u>s tried to generate agreements and replies to clients through ChatGPT

最近人工智能聊天機械人ChatGPT取代NFT成為全球大熱,自去年11月發佈後,母公司OpenAI估值已漲至290億美元,上線兩個月後使用者逾億。ChatGPT能用於創作,甚至在各知識領域中可給予詳細回答,對就業市場造成巨大衝擊,儘管如此,這種技術衍生另一種職業——AI提示工程師。到底何謂AI提示工程師?這種職業的前景又如何?

Artificial intelligence (AI) chatbot ChatGPT has already replaced NFT in becoming the hottest topic around the world. Since ChatGPT's release in November last year, the valuation of its parent company, OpenAI, has sharply increased to US\$29 billion. The number of users exceeded 100 million just two months after the chatbot was launched. ChatGPT can be used for creation and to obtain detailed answers across different topics, exerting a huge impact on the job market. But the other of the coin is that this new technology has spawned another profession – AI prompt engineer. What is an AI prompt engineer, and what are their career prospects?

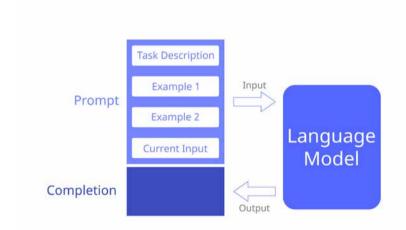
自然語言 難以模仿

要談論這個職業,先了解ChatGPT的運行原理:所謂GPT其實為一自然語言生成模型,人類透過腦部掌握語言;人工智能則透過大量學習語料庫,以統計方式生成自然語言。不論是詞彙、語法、語序的掌握,只要用戶的使用次數越多,GPT的語料庫會更加龐大,句子正確概率更高,回答將會更準確且像真。AI提示工程師的誕生是為了解決ChatGPT未能完全理解用戶所表達的問題和意願,好比如人類的腦部機制能視乎語境或語氣等因素來了解不同句子的表面及潛台詞,但ChatGPT缺乏此功能,故此用家需要以一種更精確的語言使ChatGPT回答更佳的答案,如「今天晚餐建議吃甚麼?」和「今天晚餐建議吃甚麼,請排除西餐、要方便煮、我對花生過敏」,問一樣的問題,但ChatGPT對後者的回答顯然會精確得多。



新興職業 湧現市場

為能更好運用ChatGPT,有企業開始招聘專門與AI溝通的工程師。在求職網站Indeed上,Google旗下的人工智能初創公司Anthropic以17.5萬至33.5萬美元(約港幣137萬至262萬元)作出招聘,要求為模型撰寫「提示詞說明書」及為企業客戶定制策略,招聘要求為熟悉大語言模型的運作和有一定編程能力。另外,有金融、法律公司亦開始招聘人才運用ChatGPT,招聘要求除了以上條件外,另需加上相關領域的專業知識,畢竟AI工程師需將概念提煉成有限的單詞。然而,亦有法律機構質疑ChatGPT能用於解決實際案例的可能性為多大,它的模型用於一般搜索雖然很方便,但在分析及判斷案例時,顯然不及人腦神經元優秀。亞馬遜Alexa語音互動引擎創辦人Tom Hewitson也認為市場定價「存在泡沫」,他傾向以產品設計師和商業分析師擔任此職位,並支付10萬至15萬英鎊(約港幣97萬至146萬元)的年薪。



語言生成模型主要透過用戶不斷輸入字句作為訓練

The language generation model is mainly trained and educated by the continuous input of words and sentences from users

長青職業 或是曇花

該新興職業的存續性亦為一個需要考量的問題。ChatGPT對某些職業有一定影響是事實,如行政、客服等重複性工作。OpenAI有研究指,美國8成勞動力將受到AI軟件發展的影響,有部分職業半數任務可被AI取代。有人擔心科技取代人類工作之說,但人類會否盲目容許機械徹底取代自身地位,而不向資本作出鬥爭?社會會否因為人工智能的誕生而產生撕裂?這是值得深思的問題。另一方面,當ChatGPT受到巨量的訓練之後,它的統計模型能完善到何種地步?會否進一步能透過統計「理解」語言底下的思想邏輯而進化至具有推理能力?圍棋人工智能AIphaGo Zero自學3天已達到大師水平,先不論AI提示詞工程師是否真的有其實際作用,我們認為人類到底是否有能力對其作出制約,使之有序發展,從而為社會創造更多價值?這將會是數年後面對的問題。

Natural language is difficult to imitate

Before we dig deeper into this profession, we must first understand the operating principle of ChatGPT. GPT is a kind of natural language generation model. As the brain controls our speech and language, Al generates natural language statistically through a large learning corpus. Regardless of the vocabulary, grammar, or word order, the ChatGPT corpus will become bigger with higher usage frequency, providing more accurate and authentic answers.

However, human brains can interpret the surface meaning and subtext of sentences depending on context and tone – a capability that ChatGPT lacks. Users need to use precise wording to allow ChatGPT to offer accurate answers. Compare, for example, "What do you recommend for dinner today?" and "What do you recommend for dinner today? Not Western cuisine, it has to be easy to prepare, and I am allergic to peanuts." While the same questions are asked, in the latter case, because it has more detail, ChatGPT's answer will be more specific. The role of Al prompt engineers is to solve ChatGPT's inability to fully understand the problems and intentions expressed by users.

Emerging careers in the open market

To get the most out of ChatGPT, some companies have begun to recruit engineers who specialise in communicating with Al. On job search websites such as Indeed, the Al start-up Anthropic, a Google affiliate, is offering US\$175,000–335,000 (approximately HK\$1.37–2.62 million) to recruit Al prompt engineers who possess good programming skills, an in-depth understanding of large language models (LLMs), and the ability to compose "prompt word manuals" for Al models and customise strategies for corporate clients. Some financial and legal companies have also started to recruit ChatGPT specialists with professional knowledge of relevant fields as well as the above-mentioned requirements as Al engineers need to refine complex concepts into limited words. Some legal organisations, however, are questioning the potential of ChatCPT's application in legal practice. Although the model offers users a convenient search engine experience, it is not as good as a human when interpreting and understanding legal principles and precedents. Similarly, Tom Hewitson, founder of Amazon Alexa, Amazon's conversation Al search engine, believes that there is a "bubble" in market pricing. He prefers to recruit product designers and business analysts by offering annual salaries of US\$100,000–150,000 (approximately HK\$970,000–1.46 million) to serve as Al prompt engineers.

Long-term career path or just a flash in the pan?

The sustainability of this emerging profession remains uncertain. ChatGPT is having, and will continue to have, a certain impact on occupations that involve repetitive tasks, such as administration and customer service. As indicated by OpenAl's research, 80% of the U.S. workforce will be affected by Al, which can replace half of the tasks in certain occupations. Some people may, therefore, worry about technology replacing human jobs. Will humans blindly allow robots to completely replace them and not fight against the threats? Will our society be torn apart by the birth of Al? We, as a society, need to consider these questions carefully. We are also uncertain about the tool's value and risks. For instance, when ChatGPT receives substantial training, how close to perfect will its statistical model become? Will it evolve to the point that it has reasoning ability through statistical "understanding" of the logic hidden beneath language? The go-game Al AlphaGo Zero reached master level after three days of self-study. In addition to considering the actual contributions of an Al prompt engineer, we must consider whether we have the ability to control Al development in an orderly manner to create more value for society. We need to answer this question in the years to come.

灣區科技集群待強化 補足先進製造業短板

To Strengthen the Tech Cluster of the Bay Area Make up the Weak Spots of Advanced Manufacturing Industry



特區政府官員和立法會議員今年四月組團訪問大灣區內地城市,訪問行程 的重點環節,是參觀多家著名創新及科技企業,包括港人所熟知的比亞 迪、華為和大疆等。百聞不如一見,在參觀過程中,大家都深深感受到灣 區內地城市科技發展神速,特別是在科技應用領域引領潮流,為人民創造 美好生活。

根據2021年全球創新指數(Global Innovation Index),由香港、深圳及 廣州的創新及科技業組成的廣深港科技集群位列全球「最佳科技集群」第 二位。香港與灣區內兄弟城市在科技產業方面,絕對可以「強強聯手」, 實現優勢互補。香港是國際金融中心,坐擁多家國內外知名創投及私募基 金。而且通過政府的資金配對支持,相信香港可以吸引更多國際資金到來 投資,孕育更多本地獨角獸公司。

同時,香港也有全球排名十分靠前的大學科研團隊。過去5年,香港在創 科方面已經投入超過1,300億元,最近政府再推出100億元「產學研1+計 劃」,希望支持最少100個科研成果轉化項目,幫助有關創科企業走完從 科研到產出的「最後一里路」。這些都有助於先進科技創新企業在香港孵 化,落地生根。但是,我們也應該要認識到一些不足之處,例如香港的人 才配套不足、生活成本高、市場規模小、應用場景不足等問題,從而努力 彌補這些不足和短板。

以本港正銳意發展的金融科技產業為例,目前香港有超過600間金融科技 企業,比起新加坡的1,000間,足足少了四成,香港的發展步伐明顯較為 緩慢。照理說,港星兩地的經濟體量和發展水平十分相近,具有很大的可 比性,上述提到香港創科領域的不足之處,也是新加坡同樣面對的問題。 然而,新加坡有一個明顯的優點,就是有雄厚的製造業基礎。2021年,製 造業貢獻了新加坡GDP的22%。相較之下,香港目前製造業的GDP佔比只 有約1%。沒有先進製造業作為支撐的創科發展,必然會受到極大的限 制。

此次考察讓大家看到了香港創科發展的希望。大灣區內地城市的 經濟充滿創新活力,且具備完整、高質的產業鏈,正可彌補本港 的不足。香港應與該幾個城市積極進行創科合作,全力打造科技 集群的最新平台,實現優勢互補,同時要補足先進製造業短板, 以支撐本地創科產業的發展。

The SAR government officials and Legislative Council members visited the Bay Area cities in April. One of the major section was to visit various famous innovative and technology enterprises, including BYD Auto, Huawei and Da-Jiang Innovations. During the visit, we deeply experience the high speed technological development of the Bay Area cities, especially the aspect of technological application in leading the trend to create better life for people.

According to the Global Innovation Index 2021, the Guangzhou-Shenzhen-Hong Kong science and technology cluster, which is composed of the innovation and technology industries of Hong Kong, Shenzhen and Guangzhou, is the second largest science and technology cluster in the world. Together with the Bay Area cities, we can definitely join forces and have complementary advantages. While Hong Kong is an international financial centre with many national and international venture capital and private equity. Moreover, with the support from the fund matching of the government, it is believed that Hong Kong could attract more international fund to invest and nurture more "unicorn business"

Apart from that, there are University research teams who have high global ranking. Hong Kong has invested more than 130 billion in the last 5 years. Hong Kong government launched the \$10 billion to launch a "Research, Academic and Industry Sectors One-plus Scheme", wishes to support at least 100 projects on commercialization of scientific and research findings, to help those innovation and technology enterprises to complete the projects from scientific researches. All these support advanced innovation and technology enterprises to incubate and establish the foundation in Hong Kong. However, we need to know the weak spots of Hong Kong, such as insufficient talent support, high living standard, small market scales and limited application scenario, so we would work on them.

Hong Kong is forging ahead with the development of financial technology industry. From this example, there are currently more than 600 FinTech enterprises in Hong Kong. It is 40% less than the number of Singapore, which there are 1000 FinTech enterprises. It is obvious that the development is slower. With the similar economic volume and development between the two places, there should be a great comparability. Singapore is also facing the weak spots mentioned above. However, the obvious advantage of Singapore is the solid foundation of manufacturing industry, which takes up 22% to the Singapore GDP. On the other hand, the manufacturing industry only takes up around 1% I Hong Kong. Without the support from advanced manufacturing industry to support the innovation and technology development, we would face huge limitation.

We see the hope in the Hong Kong innovation and technology development after the visit. The economics of Bay Area cities are full of innovation and vibrant. The complete and high quality industry chain can make up the weak spots of Hong Kong. Hong Kong should work with the Bay Area cities to create a brand new science and technology platform, make use of the complementary advantages, and make up the advanced manufacturing weak spot to support the development of local innovation and technology industry.



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廠商會接待來訪機構及活動

吉林省商務廳代表團訪會



吉林省商務廳副廳長呂繼偉(前排中)率領代表團一行14人於4月12日蒞會訪問,由本會吳國安副會長(前排右六)、 周瑞戲行政總裁(前排右二) 及常董會董等接待。

「2023珠海-香港經貿交流暨招商引資推介會」



「2023珠海-香港經貿交流暨招商引資推介會」於4月12日舉行,本會史立德會長(中)、胡詠琚常務會董(右一)及 尹德輝會董(左一)出席,並與珠海市人民政府副秘書長林日團(右二)合照。

東莞松山湖高新區管委會代表團訪會



東莞松山湖產業發展局副局長韓志祥(右六)率領代表團一行7人於4月12日蒞會訪問,由本會吳國安副會長(右五)、 周瑞戲行政總裁(右二)、鄧燾常務會董(右四)及錢耀棠會董(右三)等接待。

交通銀行代表團訪會



交通銀行香港分行吳曄行政總裁(前排左四)率領代表團一行9人於4月13日蒞臨本會,由盧金榮常務副會長副會長吳國安、施榮恆、行政總裁周瑞戲、龐超貽會董等接待。

廠商會兩岸四地經貿委員會與中聯辦台務部張強部長會面



中聯辦台務部部長張強(前排左四)及處長賴飛福(後排左一)於4月13日蒞臨本會,由史立德會長、吳永嘉議員、 盧金榮常務副會長、副會長吳國安、施榮恆、廠商會兩岸四地經貿委員會主席吳清煥常務會董及委員會成員等 接待。

珠海市人民政府代表團訪會



珠海市人民政府副秘書長林日團(左五)率領代表團一行8人於4月13日蒞會訪問,由本會史立德會長(左六)、常務會董李慧芬(右五)、鄧燾 (右六)、胡詠琚(右四)及錢耀棠會董(右三)等接待。

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27/4 廠商會會董晚宴

本會於4月27日假海關會所舉行4月份「會董晚宴」,當晚邀得香港特別行政區政府廉政專員胡英明親臨作出分享,增進交流。 晚宴共筵開7席,氣氛熱鬧。



9/5 會員樂Bar

會籍部於5月9日假尖沙咀海景嘉福洲際酒店Tiffany's New York Bar舉辦會員「樂」Bar聚會,讓不同行業的會員聚首一堂,暢飲交流,一同拓展廣闊的工商網絡!



15/5 CMA InnoDrive Hub呈獻:

「在商『研』商」交流會-3D+AI智能機器視覺技術

本會致力為會員提供嶄新的創科技術資訊及投資機遇,於5月15日舉辦了CMA InnoDrive Hub呈獻:「在商『研』商」交流會,經由本會轄下CMA Testing引薦益維科技有限公司執行總裁黎達博士,分享3D+AI智能機器視覺技術。





20/5 婦女委員會-送暖到社群「超強颱風」電影分享會

婦女委員會於5月20日聯同社會福利署合辦送暖到社群 – 「超強颱風」電影分享會,活動共招待深水埗區約200名長者及基層家庭欣賞電影,並安排派發福袋,送上愛心與關懷。



24/5 廠商會名人飯堂 - 黃家和副會長及陳國民副會長

會籍部於5月24日假上海總會舉行「廠商會名人飯堂」活動,是次活動邀得黃家和副會長及陳國民副會長擔任主持人,當日共筵開4席,除了兩位主持人外,多位本會首長,包括盧金榮常務副會長、吳國安副會長、周瑞戲行政總裁、陳鴻基名譽會長、多位常務會董及會董均有出席,與一眾會員午聚交流,氣氛愉快。



城大成為全球首家自行設計及生產 新一代電子顯微鏡的大學

CityU becomes world's first university to manufacture next-generation self-designed electron microscopes

香港城市大學(城大)的研究團隊率先研發先進技術,自主設計及 生產新一代電子顯微鏡,是全球首家擁有相關科研實力的大學。

在材料科學及工程學系講座教授陳福榮教授帶領下,團隊研發出的 電子顯微鏡系統包括脈沖電子源、超快相機、分段抽氣真空系統及 像差校正器。

團隊的最終目標是研發出一款小型高時空分辨「量子」電子顯微 鏡,用以研究光束靈敏材料的原子動態。

由於電子顯微鏡能以明顯高於光學顯微鏡的分辨率成像,並提供微 納米甚至原子尺度的測量及分析,因此在多個研究行業中廣受歡 迎,尤其在醫學、生命科學、化學、材料學、集成電路和其他研究 領域。

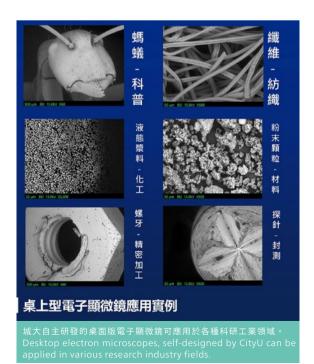
不過,目前的電子顯微鏡未能解決長久以來有關幅射損害及靜態圖 像樣本的樽頸問題,窒礙研究微小原子及電子光束靈敏的材料。此 外,現行電子顯微鏡的體積也難以應用於空間有限的環境,例如太 空穿梭機、深海及深地研究船及器具。

為克服上述問題,城大團隊設計出可供桌面版電子顯微鏡使用的脈 沖電子源和快速相機。在快速相機上加裝偏向器,令成像速度不再 受制於成像輸出時間,這一概念在桌面電子顯微鏡系統上首次得到 證實。此外,團隊設計的像差校正器更進一步提升成像的解像度。

由於團隊擁有相關的知識產權,並可自由設計系統,因此未來將可 用較低成本生產特定的小型電子顯微鏡。例如,六硼化鑭(LaB6)桌 面電子顯微鏡將可以目前市場同類產品的六成價格出售。

同時兼任城大高時空分辨電子顯微中心主任及深圳福田研究院院長 的陳教授說:「高端儀器微型化是工業發展無可避免的趨勢。」

團隊得到福田區政府支持,是唯一成功製造多個高端電子顯微鏡的 大學研究團隊。





陳福榮教授(左)、薛又峻博士及團隊成功研發出的電子顯微鏡系統,包括脈沖電子源、超快相機、分段抽氣真空系統及像差校正器。 Professor Chen Fu-rong (left), Dr Hsueh Yu-chun, and the research team have developed an electron microscope system composed of a pulsed electron source, a fast camera, a staged pumping vacuum system, and an aberration corrector.

A research team at City University of Hong Kong (CityU) is pioneering advanced technology for the next-generation self-design and manufacture of electron microscopes (EMs). CityU is the first university in the world to achieve this.

An EM system composed of a pulsed electron source, a fast camera, a staged pumping vacuum system, and an aberration corrector has been developed by a team led by Professor Chen Fu-rong, Chair Professor in the Department of Materials Science and Engineering.

The team's ultimate goal is to develop a miniature high space-time resolved "quantum" EM that can be used to study atom dynamics of beam-sensitive materials.

Since EMs are capable of imaging at a significantly higher resolution than light microscopes and provide measurements and analysis at the micro-nano, and even the atomic scale, they are much sought after, especially in medicine, life science, chemistry, materials, integrated circuits and other research industries.

The team has also overcome some longstanding problems in the development of EMs. Currently, EMs cannot overcome the scientific bottleneck of radiation damage and a static view of the sample, hindering their capability for studying small molecule and electron beam-sensitive materials. Furthermore, their size limits their application in space-expensive environments, such as space shuttles, and deep sea and deep earth research ships and devices.

To overcome these limitations, the CityU research team designed pulsed electron sources and the fast camera that can be used with a desktop EM. By equipping the fast camera with a deflector, the speed of imaging is not limited to the readout time. This is the first time that such a concept can be verified on a desktop EM system. The team also designed an aberration corrector, which can further improve imaging resolution.

In the future, with the ability to independently design and hold intellectual property rights, the team will be able to produce customised miniature EMs at a lower cost. For instance, the LaB6 desktop electron microscope is expected to be sold at 60% of the price of similar products on the market.

"The miniaturisation of high-end instruments is an inevitable trend in industrial development," said Professor Chen, concurrently Director of the Time-Resolved Aberration-Corrected Environmental EM Unit and Director of the Shenzhen Futian Research Institute at CityU.

With the support of the Futian District Government, the team is the only university-based research group to have produced several high-end EMs.





發還產假薪酬計劃

Reimbursement of Maternity Leave Pay Scheme

《僱傭條例》下的法定產假已由10個星期延長至14個星期。透過發還產假薪酬計劃,僱主可申領發還已支付的第11至第14個星期的法定產假薪酬,以每名僱員80,000元為上限。

The statutory maternity leave (ML) under the Employment Ordinance (EO) has been extended from 10 weeks to 14 weeks. Through the Reimbursement of Maternity Leave Pay Scheme, employers may apply for reimbursement of the 11th to 14th weeks' statutory maternity leave pay (MLP) paid, subject to a cap of \$80,000 per employee.





- ✓ 申請人僱用與申請相關的僱員受《僱傭條例》保障 the employee pertinent to the application employed by the applicant is covered by EO
- ✓ 僱員符合資格根據《僱傭條例》享有產假及產假薪酬 the employee is entitled to ML and MLP under EO
- ✓ 僱員已放取產假及申請人已向僱員支付14個星期的 產假薪酬

the employee has taken her ML and the applicant has paid 14 weeks' MLP to the employee

- (僱員於2020年12月11日或之後分娩 the employee's confinement occurs on or after 11 December 2020
 - 已支付予該僱員的新增四個星期產假薪酬不曾 / 將不會獲其他政府撥款支付 / 補貼 the additional four weeks' MLP paid to the employee has not been / will not be covered / subsidised by other government funding



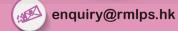
•「發還易」網站 "Reimbursement Easy Portal" www.rmlps.gov.hk



 電郵、傳真、郵寄或親身遞交 by email, fax, post or in person









生產力局科研成果屢創佳績 囊括多項國際獎項嘉許

HKPC Attains Numerous International Awards for its Outstanding Research and Development Achievements

香港生產力促進局(生產力局)一直致力推動新型工業化,以 先進技術和創新服務促進香港建設成為國際創新科技中心及智 慧城市。近日,生產力局於科研路上再創佳績,接連獲得多項 國際獎項,其中於「2023年日內瓦國際發明展」共有28項創 新研發成果獲嘉許,包括四項最高榮譽「評審團嘉許金獎」、 兩項「金獎」、七項「銀獎」和15項「銅獎」,成績斐然。



隨著全球踏上復常之路,「2023年日內瓦國際發明展」共吸引 逾40個國家及地區超過1,000個項目參加,競爭十分激烈。生 產力局的科研團隊在展覽上向評審及參觀者展示了一系列創新研 發成果,其中包括利用人工智能及工業物聯網等先進技術分析工 業設備狀態及預測故障發生的「智能故障監測系統」,以及利用 工業元宇宙預先調整和分析生產線參數的「在元宇宙中的虛擬生 產系統」等,引起廣泛關注。於生產力局獲得的28項嘉許由 變查及記錄高桿燈鏽蝕狀況的「高桿燈檢查機械人」、有效協 動物油脂提取時間及提高效率的「應用於生物柴油生產的微波輔助提取動物油脂技術」、用於環保塑膠表面預處理的「快速一步 塑膠金屬化技術」及使用離子液體代替傳統水性電解液進行中步 塑膠金屬化技術」及使用離子液體代替傳統水性電解液進行中 電鍍的「無水鉑金電鍍工藝」。而獲肯定的研發項目當中, 75%已落地應用,有效協助合作夥伴解決行業痛點,進一步抓 緊商機。



生產力局團隊親赴「日內瓦國際發明展」,向世界各地參觀者說好香港創科故事。 The HKPC team attended the Geneva International Exhibition of Inventions and told good innovation and technology stories of Hone Kong to visitors from around the world

The Hong Kong Productivity Council (HKPC) has been committed to promoting new industrialisation, bolstering Hong Kong's development as an international innovation and technology (I&T) centre and a smart city, through advanced technologies and innovative services. Recently, HKPC was once again recognised for its remarkable achievements in research and development (R&D), by winning multiple international awards. At the 2023 Geneva International Exhibition of Inventions, HKPC has attained 28 awards for innovation, including four Gold Medals with Congratulations of Jury - the highest accolade, two Gold Medals, seven Silver Medals and 15 Bronze Medals, demonstrating exceptional performance.

As the world embarks on the road to recovery, the 2023 Geneva International Exhibition of Inventions attracted over 1,000 projects from over 40 countries and regions, making the competition fierce. At the exhibition, HKPC showcased a range of innovative R&D results to judges and visitors, including the "Intelligent Fault Catcher" that leverages advanced technologies such as Artificial Intelligence (AI) and Industrial Internet-of-things to monitor status of industrial equipment while detect and predict faults, and the "Virtualised Manufacturing in the Metaverse" which enables pre-adjustment and analysis of parameters in production line with industrial metaverse, etc., attracting extensive attention. Among the 28 award-winning projects, four of them have attained the top glory, the "Gold Medal with Congratulations of Jury". These include the "High Mast Inspection Robot" which can inspect lamp poles and rust status of high masts using cameras and make records, the "Microwave-assisted System for Bio-diesel Extraction from Animal Waste" which increases the oil extraction rate and shortens extraction time, the "Rapid One-step Plastic Metallisation Technology" which facilitates an eco-friendly pre-treatment of plastics, and the "Waterless Platinum Electroplating Process" which replaces conventional aqueous electrolyte with ionic liquid for platinum electroplating. Among the recognised R&D projects, 75% have been applied in practice, enabling partners to address industry pain points and seize further business opportunities.

Earlier, three of HKPC's homegrown technological innovations, including "Innovative Services & Software Solutions – Manufacturing Process Optimisation", "Critical Human Infrastructure – Intelligent Modelling" and "Engineering & Robotics – Enhanced Automation", have achieved excellent results in the 2023 Edison Awards with one silver and two bronze accolades, amidst fierce competition among nearly 400 entries worldwide. The Edison Awards honour excellence in new product and service development, marketing, design, and innovation. It is a globally recognised programme with past award recipients include Steve Jobs and Elon Musk, as well as leaders and their R&D innovations from global corporations such as Coca-Cola, Genentech, General Electric, etc. Not only has HKPC garnered this international award for the first time, but it has also become the most-awarded research institution in Hong Kong in 2023.

請掃描二維碼了解生產力局得獎 研發詳情。

Please scan the QR code to learn more about HKPC's award-winning technologies.









較早前,生產力局三項自家研發成果,包括「通過工業元宇宙優化 生產線性能」、「運用邊緣人工智能及傳感器融合的智能隧道表面 檢測系統」及「塑造智能醫藥產業:中醫藥產業產品多樣化形狀和 包裝尺寸的新型包裝系統與方法」更於2023年「愛迪生獎」創下 一銀兩銅佳績,在全球近400項技術/產品參與角逐下脫穎而出。 「愛迪生獎」旨在表揚於新產品和服務開發、市場推廣、設計和創 新方面有卓越成就的公司或機構,過往得獎者包括喬布斯、馬斯 克,以及來自可口可樂、基因泰克、通用電氣等跨國企業的領袖和 研發項目,獎項廣受全球認可。生產力局除了首次奪得此頂級國際 獎項,更成為2023年獲獎最多的香港科研機構。

除此之外,生產力局亦於全球極具權威的跨業界科研盛事 「TechConnect世界創新會議暨博覽會」中,憑著四項與製造業 和人工智能相關的創新研發奪得「TechConnect 全球創新獎」。 本屆得獎者匯集全球科研精英團隊的研發成果,包括來自各地研究 所、實驗室及知名學府如史丹福大學、德薩斯州立大學、賓夕凡尼 亞大學創新中心、澳洲國立大學、南韓能源研究所及美國能源部屬 下的國家實驗室——埃姆斯國家實驗室等。

生產力局能再次獲得多項國際殊榮及專家評審團認同,充分印證了 研發團隊具備將世界級研發落地應用及技術商品化的能力,以解決 行業痛點。未來,生產力局會繼續配合特區政府,積極吸引並培育 海內外科研人才,全力推動本港創科及高增值產業發展。



In addition, four HKPC's technologies related to manufacturing and AI have been awarded TechConnect 2023 Innovation Awards at the globally-recognised multi-sector R&D signature events, TechConnect World Innovation Conference and Expo 2023. The event awarded innovators from renowned research institutes, laboratories, and universities around the world, such as Stanford University, Texas State University, University of Pennsylvania-Penn Center for Innovation, the Australian National University, Korea Institute of Energy Research (KIER), Ames National Laboratory — a US Department of Energy National Laboratory, etc.

Having once again received numerous accolades and recognition from experts from around the world, HKPC has demonstrated fully its world-class R&D capabilities and efforts to promote practical applications and commercialisation of innovative technologies to address industry pain points. Moving forward, HKPC will continue collaborating with the HKSAR Government to attract and nurture R&D talent from both local and overseas regions, and advance the growth of I&T and high value-added industries in Hong Kong.

資料提供:香港生產力促進局

Information provided by: Hong Kong Productivity Council

廠商會多媒體頻道 Hashtag CMA

CMA Multi-media Channel Hashtag CMA













廠商會星馬考察團 **Business mission to** Singapore and Malaysia





廠商會星馬考察團 - 團長總結 President to conclude the business mission to Singapore and Malaysia





香港經濟復甦之路 | 專訪丘應樺 The road to economic recovery in Hong Kong | Mr Algernon Yau



企業網絡漏洞攻略 定期做足安檢3步曲

3 Steps to Safeguard Your Enterprise Network: A Guide to Tackling Cyber Vulnerabilities

許多企業都曾遇到安全漏洞或遭受網絡攻擊的危機,例如新加坡航空公 司網站因軟件錯誤,導致大量會員帳戶個人資料和飛行資料外洩;美國 銀行Capital One遭科技公司工程師入侵,泄露1億多名用戶的信用卡數 據。大企業容易成為攻擊目標,中小企保安漏洞相對較多,更容易讓黑 客有機可乘。

數據顯示單是香港,每周每家企業遭受網絡攻擊 達1.168次!! 面對日益嚴重的網絡保安機危,企業 應該如何自處?網絡保安分析師建議,定期執行 企業網絡安全3步曲,是最有效的方法去保障企 業網絡安全。



第一步 網頁安全

企業網頁是企業與外界互動的重要接口,也是潛在的攻擊目標。定期 進行網頁安全測試和漏洞掃描,可以發現並修補現有的漏洞,並確保 網頁系統的完整性和安全性。

第二步 公司程式

許多企業擁有自己開發的軟體和應用程式,這些程式可能存在安全漏 洞,被黑客利用進行攻擊。定期進行程式安全和代碼審查,可以確保 程式符合最新的安全標準。

第三步 內部系統

企業內部系統包括內部網絡、數據庫和內部應用程式等。這些系統可 能包含重要的業務數據和客戶信息,必須受到嚴格的保護。定期進行 系統安全審查、設置強大的身份驗證和訪問控制機制,以及監控系統 活動和異常行為,都是維護內部系統安全的重要措施。

簡單評估,了解業務是否屬於高危群組!

1. 業務是否包含處理客戶敏感數據或私隱資訊,例如信用卡資料或客戶通訊地 址等?

□是□否

2. 業務是否會處理金融交易、信用卡支付或其他涉及財務數據?

3. 業務是否涉及公眾基礎設施、公共服務或政府合約?

4. 業務是否會與第三方合作進行數據共享或敏感信息交換,例如接串第三方支 付平台等?

□是□否

5. 公司行業是否存在激烈競爭,會成為對手攻擊對象?

6. 業務是否需符合國際安全標準或法規要求?

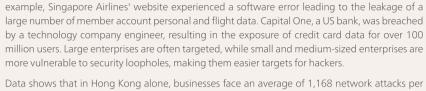
□是□否

7. 曾否遭受過網絡攻擊、數據洩露或其他安全事件?

8. 業務是否缺專業安全團隊專責網絡安全措施?

如有多於3個<是>的答案,即需安排定期專業網絡安全評估; 如有多於5個<是>的答案,務必要盡快進行全面網絡安全滲透測試!

緊記自以為安全最危險!黑客不是不攻擊你,只是有可能還未攻擊 你!保障企業網絡安全刻不容緩,如有需要可聯絡UD網絡保安分析師 Chris 提供專業的網絡安全建議。



Many businesses have faced crises involving security vulnerabilities or network attacks. For

week! Faced with the escalating threat of network security, how should businesses protect themselves? According to cybersecurity analyst suggests, implementing a three-step approach to enterprise network security on a regular basis is the most effective method to safeguard network security.

Step 1: Web Security

Regular web security testing and vulnerability scans ensure the integrity and safety of corporate websites, preventing potential attacks.

Step 2: Application Security

Conducting regular security and code reviews for in-house software and applications ensures compliance with the latest security standards.

Step 3: Internal Systems

Internal systems, including networks, databases, and applications, hold critical business data and customer information. Strict security measures, such as regular system audits, robust authentication and access controls, and monitoring for unusual activities, are essential to safeguard these systems.

Evaluate Your Business:

Assess if your business falls into the high-risk category with the following questions:

1. Does your business handle sensitive customer data or private information, such as credit card

2. Does your business involve financial transactions, credit card payments, or other financial data

□YES □NO

3. Does your business operate in public infrastructure, public services, or government contracts?

4. Does your business collaborate with third parties for data sharing or sensitive information exchange, such as integrating with third-party payment platforms?

□YFS □NO

5. Does your industry face fierce competition, making it a potential target for attacks? DYFS DNO

6. Does your business need to comply with international security standards or regulatory requirements?

□YES □NO

7. Has your business experienced previous network attacks, data breaches, or other security

□YES □NO

8. Does your business lack a dedicated security team responsible for network security measures?

If you answered "yes" to more than three questions, consider scheduling regular professional network security assessments. If you answered "yes" to more than five questions, prioritize comprehensive penetration testing for your network security.

Remember, thinking you are secure is the most dangerous mindset. Hackers may not have attacked you yet, but safeguarding your enterprise network is crucial. Contact UD's cybersecurity analyst, Chris, for professional network security advice.

資料提供: UDomain Web Hosting Company Limited

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粤港澳工商界代表共商大灣區高質量發展

Guangdong-Hong Kong-Macau Business Community discussed the High Quality Development of the Greater Bay Area

4月15日,廣東省工商聯、廣州市 工商聯聯合舉辦慶祝第133屆中國 進出口商品交易會(廣交會)開幕 宴會暨「灣區同心‧商會聚力」粤 港澳工商界助推大灣區高質量發展 啟動儀式。活動現場還舉行了穗港 澳商會協作中心首批成員單位授牌 儀式,廣州市領導為香港中華廠商 聯合會(廠商會)、香港中華總商 會、澳門中華總商會等25家三地 商會頒牌,本會常務會董鄧燾先生 代表廠商會上台領取。

《廣州南沙深化面向世界的粤港澳 全面合作總體方案》出台以後,廣 州市工商聯聯合廣州市南沙區委統 戰部組建穗港澳商會協作中心,旨 在以商會協作交流為平台,大力促 進穗港澳擴大交流合作。據廣州市 工商聯介紹,穗港澳商會協作中心 自2022年7月籌建以來,已組織 17場商會對接活動,成功促成一 批商會開展合作交流。未來,該中

心將繼續協同三地商協會,助力穗港澳產業合作走深走實,共同助力 大灣區高質量發展。

活動現場發出了「灣區同心·商會聚力」粤港澳工商界助推粤港澳大灣 區高質量發展倡議,號召粵港澳工商界要進一步推動新時期大灣區融 合發展,深度強化灣區合作共建。在互利共用、互惠共贏、互補共 進、互通共融的基礎上,為推動區域經濟高質量發展作出更積極的貢 獻。

廠商會作為穗港澳協作中心首批成員單位之一,將充分運用這個平 台,加強宣傳香港在大灣區建設下所擔當「引進來、走出去」的雙向 平台角色,攜手其他商協會全方位推進香港與內地企業的交流合作。



粵港澳丁商界助推大灣區高質量發展啟動儀式

Launching Ceremony of the Guangdong, Hong Kong and Macao Business Sector's Contribution to the High-quality Development of the Greater Bay Area



穗港澳商會協作中心首批成員單位



調查顯示第一季度營商信心強勁反彈

大灣區指數報告 最新一期已經發佈



閱讀完整報告







報告重點

- 大灣區指數在第一季度的按季升幅創下 新紀錄,確認疫後復甦迅速而且廣泛
- 預期指數反映第二季度會進一步加速; 信貸指數顯示現金流改善
- 受訪者認為復常還有很大空間;





已提高 2023 年的業務目標

資料來源: 香港貿發局、渣打銀行全球研究部

渣打大灣區營商景氣指數由渣打銀行與香港貿發局合作進行,每一季度,指數報告將集中表現1,000多家大灣區商業企業的經營形勢及信用狀況。

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折出兩萬多隻紙飛機 成功打破世界紀錄

Breaking the World Record with Twenty Thousand Planes



世界紀錄大挑戰暨第三屆STEAM比賽頒獎典禮

廠商會蔡章閣中學一直重視學生的全人發展, 近年更致力推動 STEAM教育。為了表揚在STEAM領域有傑出表現的學生,同時讓更 多人感受紙飛機競技的魅力,該校於2023年4月29日舉行了「世界 紀錄大挑戰暨第三屆STEAM比賽頒獎典禮」。

活動由廠商會會長史立德博士主禮,香港電台創作總監馬浚偉先生擔 任嘉賓,陳植森博士與蔡詩贊博士作為見證人。參與者來自40多間中 小幼學校和機構,總參與人數超過350。所有參與者齊集學校禮堂, 在一小時內共同折出21,294隻紙飛機,成功打破世界紀錄。

每位參與者朝著刷新世界紀錄這個共同目標,投入百分百的專注力和 毅力;縱然參與者能力不一,卻成功展現共融與合作的力量。當大會 宣佈挑戰成功時,大家的歡呼聲與掌聲,將現場氣氛推至高峰。



CMA Choi Cheung Kok Secondary School has long emphasized on holistic student development and endeavors in promoting STEAM education has been made in recent years. To commend outstanding students in STEAM and share the fascination of paper plane competition, the school held the 'World Record Challenge cum Third STEAM Competition Award Ceremony' on 29 April, 2023.

The event was held with astounding success with CMA President Dr. Allen Shi Lop-tak officiating, RTHK Creative Director Steven Ma Chun Wai as guest of honor and Dr. Chan Chik Sum and Dr Clifford Choy Sze-tsan as independent witnesses. Participants from more than 40 kindergartens, primary and secondary schools and institutions joined the event amassing a total of over 350 participants. Gathering at the hall, a total of 21,294 paper airplanes were collaboratively folded, shattering the world record.

With every participant's aim aligned at creating a new world record and every mind determined and focused, disparities in ability were insubstantial at diminishing the power of cooperation and inclusion. The declaration of our success at the challenge brought on the climax of the event with overwhelming applause and cheer.

Subsequent to the World Record Challenge, the school held the third STEAM Competition Award Ceremony and presented the Hong Kong Inter-School Creative Paper Airplane Competition and One Student One Invention Innovative Design Contest awards in recognition of the awardees' passion and competence in STEAM.

Hong Kong Inter-School Creative Paper Airplane Competition has accumulated over 7,000 times of participation to date. 'Longest Distance', 'Longest Airtime' and 'The Design of the Paper Wings and the Creative Concepts of the Story' are awards most presented. The participant's dedication and excitement are unfalteringly imprinted in the memories of the

One Student One Invention Innovative Design Contest was first held in 2021 with the aim of providing a platform on which primary school students could express their creativity. The latest round saw 253 submissions from Hong Kong, Macau, Mainland, and overseas students. It is hoped that this competition will encourage more teenage inventors to participate in the event and boost exchange between students from around the world.

The school principal Mr Lau Sai Chong expressed that the school shall continue holding STEAM activities such that students could enjoy the fun of STEAM learning. The school also looks forward to students getting a sense of satisfaction and success through participating in the competition, viewing STEAM as a personal interest and becoming science innovators for the country



啟發學生創新思維 積極培育科創人才

「世界紀錄大挑戰」活動結束後,該校隨即舉行第三屆「STEAM比賽頒獎典禮」,頒發「香港學界創意紙飛機競技大賽」及「一生一發明創意設計大賽」的獎項,藉此肯定獲獎學生對STEAM的熱情與能力。

「香港學界創意紙飛機競技大賽」至今累積的報名參賽人次已超過7,000。參與者在「飛行距離最遠」、「滯空時間最長」及「紙飛機造型設計及創意故事演繹」三個項目中競逐多個獎項。即使決賽日距今已經有五個多月,但籌委會成員仍然深深記得一眾參賽者投入和興奮的神情。

「一生一發明創意設計大賽」於 2021 年首辦,旨在提供一個可以讓小學生發揮創意的平台。是次的參賽作品共有 253 份,分別來自香港、澳門、內地和世界其他城市,希望藉此機會讓更多青年發明家參與這個比賽,促進各地學生的交流。

該校劉世蒼校長表示,未來會繼續舉辦STEAM活動,讓學生體會到 學習STEAM的樂趣,亦希望學生在訓練過程和比賽中獲得成功感, 把STEAM視作個人興趣,日後成為國家的科創人才。



參與者來自40多間中小幼學校和機構,總參與人數超過350 Participants from 40 kindergartens, primary and secondary schools and institutions





建力士世界紀錄證書 Guinness World Record Certifica



OUR MEMBERS 會員Ve come!



尚朋堂香港有限公司 **Sunpentown Hong Kong Limited**

代表:黃家俊先生(總經理)

產品:家庭電器

Representative: Mr Wong Ka Chun (General Manager)

Product: Home appliances



致豐工業電子集團有限公司 **Trio Industrial Electronics Group Limited**

代表:黃思齊先生(集團主席)

Product: Electronic manufacturing service



意匠設計營造有限公司 APEX-I Design and Engineering Limited

代表:呂嘉茵小姐(董事)

產品:各類家具的生產及加工、各類布料加工業務

Representative: Ms Lui Ka Yan(Director)

Product: Furniture design, manufacturer, distributor

for domestic and commercial sectors



產品:電子製造服務

Representative: Mr Wong Sze Chai Cecil (Chairman)



專業食材香港有限公司 P & J Food HK Limited

代表:蕭弼先生(董事)

產品:凍肉

Representative: Mr Siu But, Albert(Managing Director)

Product: Frozen meat



恒智供應鏈管理有限公司 Smart Chain Enterprises Limited

代表:余遠茂先生(執行董事)

產品:服裝

Representative: Mr Yu Yuen Mau Banny

(Executive Director)

Product: Garment



凱盈興業有限公司 **Hanoman International Limited**

代表:薛沅雯小姐(行政代表)

產品:防水透氣功能衣服、滑雪衣、羽絨 Representative: Ms Sit Yuen Man(Executive) Product: Functional garment, ski, down



朗盈塑膠五金廠 **Longtech Plastic and Metal Works**

代表:陳文傑先生(經理)

產品:OEM及ODM塑膠五金、電子產品代工 Representative: Mr Leslie Chan(Manager) Product: OEM/ODM(Plastic, metal, electronics)



凱滙香港有限公司 Kyle Lance (HK) Limited

代表:林清華小姐(總監)

產品:茶類產品

Representative: Ms Lam Ching Wa

(Managing Director)

Product: Tea products



陳喆兒 **Chan Chit Yee Portia**

代表:陳喆兒小姐(大中華區業務拓展經理)

產品:網上旅行社

Representative: Ms Chan Chit Yee Portia

(Business Development Manager)

Product: Online travel agent



海昌號 **Hoi Cheong Ho**

代表:麥惠昌先生(東主)

產品:環球海味、土產雜貨

Representative: Mr Mak Wai Cheong Michael

(Shop Owner)

Product: Dried seafood & groceries



澳太科技(香港)有限公司 **Telstra PBS Limited**

代表:甄志達先生(總經理)

產品:提供電信服務及綜合解決方案

Representative: Mr Yan Chi Tat (Chief Executive Officer)

Product: Provide telecommunications services &

integrated solutions



DIGITAL HEALTH SOLUTIONS

科能三維技術(醫療)有限公司

Koln 3D Technology (Medical) Limited

代表:丘榮豐先生(創辦人及行政總裁)

產品:三維醫療打印

Representative: Mr Yau Wing Fung Edmond

(Founder & CEO)

Product:3D medical printing