Press Release For Immediate Release

Hong Kong Computer Society Leads Hong Kong ICT Delegation to Glory – With Record Breaking Number of Eight Grand Winners Awards in Asia Pacific ICT Alliance Awards 2024 (APICTA 2024)

December 9, 2024 HONG KONG -- Led by Hong Kong Computer Society (HKCS), after fierce competition in Asia Pacific Information and Communication Technology Alliance Awards 2024 (APICTA 2024), which was held during December 4 to 7 in Bandar Seri Begawan, Brunei Darussalam, Hong Kong delegates won a total of eight Grand Winners Awards, four 1st Runner Up Awards, three 2nd Runner Up Awards and three Merits Awards this year, making it the biggest winner again in this international awards competition.

Dr Rocky Cheng, President of Hong Kong Computer Society, pointed out: "This year, a total of 25 local ICT Awards winning teams from local organisations, universities and schools, competed in APICTA 2024. HKCS selected, invited, nominated, coached and led the Hong Kong delegates to achieve the best and encouraging overall results again. This is another fruitful year for Hong Kong as in last year we won the highest number of 7 Grand Winners Awards in APICTA 2023 which was held in Hong Kong.

Hong Kong Winners and other awardees in APICTA 2024 (Listed by Award Category number sequence):

	Category	Winning Organisation	Product Name
Winner	Business Data Analytics	MTR Corporation Limited	Public transport ridership
		/ The Hong Kong	simulation - MTR to Keep Cities
		University of Science and	Moving
		Technology	The Unprecedented Strategy and
			Intelligence in Railway Planning
Winner	Consumer – Digital	InnoLab Limited	Try.Eat! - Influencer Matching
	Marketing / Advertising		Platform
Winner	Consumer - Tourism &	Maphive Technology	CityGeni - Smart City App
	Hospitality	Limited	Specializing in Barrier-Free
			Navigation
Winner	Inclusions & Community	Green AI Technology	AI-Driven Sorting System
	Services – Sustainability and	Limited	
	Environment		

Winner	Public Sector and	Transport Department, The	HKeToll
	Government - Government &	Government of the	
	Citizen Services	HKSAR / Autotoll Limited	
		/ Ove Arup & Partners	
		Hong Kong Limited	
Winner	Senior Student: Application	ELCHK Lutheran	A-EYE AI visual impaired
		Secondary School	shopping assistant
Winner	Tertiary Student: Application	Hong Kong Baptist	From Romanised Nepali to Pure
		University	Nepali: AI Transliteration Using
			Transformer
			Architecture for Low-Resourced
			Languages
Winner	Tertiary Student: Solution	Hong Kong Institute of	SAFERIN
		Information Technology at	
		IVE (Tuen Mun)	
1st Runner	Artificial Intelligence	Electrical and Mechanical	"ChillStream®" AI chiller
Up		Services Department, The	optimizer
		Government of the	
		HKSAR	
1st Runner	Business Data Analytics	Hong Kong Housing	Housing Authority Project
Up		Authority & Geosys Hong	Information Management and
		Kong Limited	Analytics Platform
1st Runner	Inclusions & Community	Medmind Technology	PhysioPlay gamified physical
Up	Services - Health &	Limited	training & monitoring system
	Wellbeing		
1st Runner	Public Sector & Government	Hong Kong Housing	Housing Authority Project
Up	- Digital Government	Authority & Geosys Hong	Information Management and
		Kong Limited	Analytics Platform
2 nd Runner	Industrial - Transport	MTR Corporation Limited	Public transport ridership
Up		/ The Hong Kong	simulation - MTR to Keep Cities
		University of Science and	Moving
		Technology	The Unprecedented Strategy and
			Intelligence in Railway Planning
2 nd Runner	Junior Student	St. Paul's Co-educational	Medisafe
Up		College	
2 nd Runner	Public Sector and	Electrical and Mechanical	Ball Type Rolling Robot for

Up	Government - Government &	Services Department, The	inspection and rescue
	Citizen Services	Government of the	
		HKSAR	
Merit	Junior Student	Pui Ching Middle School	Occupational safety guard
Merit	Senior Student: Application	Diocesan Girls' School	UMeta – Educational Metaverse
Merit	Senior Student: Solution	Good Hope School	Green Recycling



Caption: Hong Kong Computer Society Leads Hong Kong ICT Delegation, Winning Record Breaking Number of Eight Grand Winners Awards in Asia Pacific ICT Alliance Awards 2024 (APICTA 2024)



Caption: The Hong Kong Trade Development Council (HKTDC) sponsored 'Hong Kong Night' networking event for all the APICTA delegates, local officials and industry experts during the awards, providing an international platform for Hong Kong to showcase its entries.

Among those winning products, there are teams with double honours. MTR Corporation Limited / The Hong Kong University of Science and Technology has won one Winner Award and one 2^{nd} Runner Up while Hong Kong Housing Authority & Geosys Hong Kong Limited received two 1^{st} Runner Up awards.

As Executive Committee Member of APICTA, HKCS led the Hong Kong delegation comprised 25 local ICT award winners including recipients of the Hong Kong ICT Awards 2024, Common Spatial Data Infrastructure (CSDI) Awards 2024, Hong Kong Techathon+ 2024 and Pan-Pearl River Delta+ University IT Projects Competition 2024. With Ir Tony Wong, JP, Commissioner for Digital Policy, Digital Policy Office (DPO) of the Government of the Hong Kong SAR as the Honorary Head of Delegation; Mr Stephen Lau, JP, Secretary General (Honorary) of HKCS and Mrs Agnes Mak, MH, JP, Past President of HKCS as the Joint Heads of Delegation, Hong Kong triumphs once again reaffirming its standing as a major centre for ICT technology within the Asia Pacific region.

Dr Cheng said, "Among the strong delegation of 82 delegates are the participating 25 teams of Hong Kong come from local enterprises and educational institutions; among them, education institutions and NGOs have received subsidies from the DPO to participate in the awards. The Hong Kong Trade Development Council (HKTDC) also sponsors a 'Hong Kong Night' networking event for all the APICTA delegates, local officials and industry experts during the awards each year, providing an international platform for Hong Kong to showcase its entries. Such support from the Government of Hong Kong SAR and HKTDC, as well as other sponsorships from Hong Kong companies including past APICTA winners, are much welcome and appreciated by HKCS and the delegation."

Dr Cheng also remarked, "APICTA 2024 is hosted by Brunei this year. 17 entries, among the 25 entries, have received recognitions in APICTA this year, representing a winning ratio of over 68%. I am really delighted that Hong Kong continues to shine on the APICTA stage with this achievement. I convey my warmest congratulations to all of the award winners on behalf of HKCS.

Dr Cheng continued, "APICTA serves to promote ICT awareness and stimulate technological innovation in the Asia Pacific region. HKCS has been an Executive Committee Member of this high-profile annual industry event and Hong Kong as one of the member economies since 2001. As the largest and longest-standing IT professional body in Hong Kong with an in-depth understanding of local ICT industry development, HKCS conducts the nominations and co-ordinates the Hong Kong delegation for the awards. The Society also invites different industry experts to provide

presentation mentorship to the nominees, so as to best showcase Hong Kong's technological edge to the judges."

APICTA 2024 attracted contestants from Australia, Bangladesh, Brunei, China, Chinese Taipei, Hong Kong SAR, Indonesia, Malaysia, Myanmar, Nepal, Pakistan, Singapore, Sri Lanka, Thailand and Vietnam. These member economies take turns hosting the annual awards, and the next APICTA awards will be hosted by Chinese Taipei.

Dr Cheng explained that with delegates coming from so many different economies and territories across the Asia Pacific, APICTA will continue to provide valuable networking and learning opportunities for delegates and facilitate collaboration to advance ICT development in their respective communities. Members of the judging panel are seasoned executives and professionals appointed from the member economies to ensure an inclusive and knowledgeable judging process and enhance the credibility of the results.

About the Asia Pacific Information and Communication Technology Alliance Awards (APICTA)

APICTA is an annual flagship event of the ICT industry in the Asia Pacific region. Founded in 2001 by Multimedia Development Corporation in Malaysia, it has become a renowned international award today. APICTA aims to recognise organisations and individuals in the Asia Pacific region who have made a significant contribution to the ICT industry; increase ICT awareness in the community; stimulate ICT innovation; provide opportunities for business matching between IT innovators and investors; and facilitate technology transfer and application.

APICTA is represented by 17 countries and territories across the Asia Pacific region, including: Australia, Bangladesh, Brunei, China, Chinese Taipei, Indonesia, Japan, Hong Kong SAR, Macao SAR, Malaysia, Myanmar, Nepal, Pakistan, Singapore, Sri Lanka, Thailand and Vietnam. These member economies take turns hosting the annual awards each year, which is won through a bidding process. For more information, please visit www.apicta.org.

Since APICTA was established in 2001, the Hong Kong Computer Society, as the largest and most well-established IT professional association of its kind with an in-depth understanding of local ICT industry development, has been responsible for nominating Hong Kong's ICT talents to participate in the event.

About the Hong Kong Computer Society (HKCS)

Founded in 1970, the Hong Kong Computer Society (HKCS) is a recognised non-profit professional organisation focused on developing Hong Kong's Information Technology (IT) profession and industry. Their members come from a broad spectrum of Hong Kong's IT community, from corporations to like-minded individuals, all coming together to raise the profile and standards of the IT profession and industry. As a well-established IT professional body, the Society is committed to professional and industry development as well as community services to ensure the IT sector continues to make a positive impact on peoples' lives with three main goals, namely, 1) talent cultivation and professional development, 2) industry development and collaboration, and 3) the effective use of IT in our community. For more details, please visit http://www.hkcs.org.

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Appendix: Introduction of Hong Kong Winners

附錄:香港代表隊大獎得主簡介

Appendix: Introduction of Hong Kong Winners

附錄:香港代表隊大獎得主簡介

• APICTA 2	024 Winner 大獎得主
Category	Business Data Analytics
類別	業務數據分析類別
Organisation	MTR Corporation Limited / The Hong Kong University of Science and Technology
得獎者	港鐵公司及香港科技大學
Product	Public transport ridership simulation - MTR to Keep Cities Moving
得獎產品	The Unprecedented Strategy and Intelligence in Railway Planning
	「鐵路營運客流量預測及規劃」以港鐵推動城市前行」
Description	MTR and HKUST applied a big data calibrated digital twin to plan a resilient metro
產品簡介	public transit network, adaptive to service disruptions and crowding conditions. Our
	advanced large-scale dynamic simulation model is a digital twin of Hong Kong's entire
	public transportation system, this agent-based digital twin is currently the largest model
	of its type to have ever developed for Hong Kong. It can simulate the daily trips of over
	4 million active travellers within the city throughout the day.
	The model was calibrated with an extensive dataset, it used over 6 million time-precise
	daily station entry-exit trips of more than 8000 station pairs within the MTR metro
	network.
	This method of forecasting ridership affords MTR déjà vu intelligence, it was applied
	to a planned service disruption; it generated projections that are precise to the second,
	which have never been available before, and enabled MTR operators to actively devise
	action plans ahead of time, better allocate finite resources and staffing. As such, MTR
	can ensure a safe operational environment, conduct future planning intelligently and
	systematically to keep cities moving.
	香港科技大學-港鐵聯合實驗室的項目團隊,應用大數據校準的數位孿生來規劃
	地鐵網絡,以應對服務中斷和擁擠狀況。
	該先進的大規模動態模擬模型是香港整個公共交通系統的數位雙胞胎,這個基於
	代理的數位雙胞胎,目前是香港有史以來開發的最大型模型。它可以模擬超過 400
	萬名活躍旅客在城市內全天的日常出行。該模型是基於一個廣泛的數據集進行校
	準的,使用了超過 600 萬個精確時間的每日車站進出行程,涵蓋了超過 8,000 對
	車站之間的港鐵地鐵網絡。

校準後的數位孿生模型被用來模擬港鐵觀塘線計劃於 2024 年 7 月 28 日部分關閉的影響。該模型預測每秒鐘的列車負載、月台負載和轉運模式,分析各轉乘站的人流分布及擁擠情況。團隊發現太子站在高峰會聚集大量乘客,因此港鐵採取對應積極措施鼓勵乘客分流至其他轉乘站。

在數位孿生中可以模擬預設場景,從新地鐵線的開通、至車站或線路服務暫停。 模型中如此精確的流量預測是前所未有,港鐵能夠從此作適當規劃,調度資源如 列車頻率和車站人員來滿足運營的需要,並推動城市前行。

• APICTA 2	024 Winner 大獎得主
Category	Consumer – Digital Marketing / Advertising
類別	消費者類別-數碼市場推廣/廣告
Organisation	InnoLab Limited
得獎者	
Product	Try.Eat! - Influencer Matching Platform
得獎產品	「Try.Eat!人氣網紅配對平台」
Description	Try.Eat! is an incredibly easy-to-use influencer matching platform, empowering brands
產品簡介	and merchants to seamlessly collaborate with verified influencers through a SaaS
	service. On Try.Eat!, merchants can efficiently connect with suitable influencers,
	achieve marketing goals effortlessly, and enjoy flexible pricing models, starting with a
	free option. Leveraging advanced technology, Try.Eat! simplifies influencer marketing,
	helping brands and merchants attain significant marketing success. Since its launch in
	2021, Try.Eat! has rapidly grown, featuring over 8,000 verified influencers and KOLs
	across major social media platforms such as Instagram, Facebook, YouTube, OpenRice,
	Dianping, and Xiaohongshu. Currently trusted by over 500 F&B merchants and brands,
	notable clients include Grand Emperor Hotel, UNY Hong Kong, APITA, Jurlique,
	SuperFood Lab, Green Common, Ruby Tuesday, Outback Steak House, Brick Lane,
	HABITŪ, A Nice Gift, and Mammy Pancake.
	Try.Eat!是一個極易使用的網紅行銷配對平台,讓客戶能輕鬆地與經過驗證的網紅合作。Try.Eat!提供靈活的收費模式並從免費開始,幫助商戶快速找到合適的
	網紅,更輕鬆達到行銷目標。自 2021 年推出以來,Try.Eat! 迅速成長,擁有超過
	8,000 名經過驗證的網紅,覆蓋 Instagram、Facebook、YouTube、OpenRice、大眾
	點評和小紅書等主要平台,並受到超過500家餐飲商戶與品牌的信賴,包括英皇
	娛樂酒店、UNY Hong Kong、APITA、Jurlique、SuperFood Lab、吃茶三千、Green
	Common、Rube Tuesday、Outback Steak House、Brick Lane、HABITŪ、賞茶和媽
	咪雞蛋仔等。

• APICTA 2	024 Winner 大獎得主
Category	Consumer - Tourism & Hospitality
類別	消費者類別-旅遊與款待
Organisation	Maphive Technology Limited
得獎者	蜂圖科技有限公司
Product	CityGeni - Smart City App Specializing in Barrier-Free Navigation
得獎產品	CityGeni「智慧城市應用程式,為旅客和市民提供無障礙導航」
Description	Mapxus is a leading GIS Intelligence Platform and PropTech Solutions Provider
產品簡介	specializing in indoor mapping and navigation. Focused on creating barrier-free,
	inclusive urban environments, Mapxus uses advanced technology to deliver seamless
	indoor-outdoor connectivity, helping businesses, individuals, and city planners navigate
	complex spaces efficiently.
	With a strong focus on accessibility, Mapxus offers adaptable solutions that serve users
	of all abilities. Its software-based, sustainable approach to indoor mapping is
	cost-effective and easy to implement, breaking traditional barriers to entry. Mapxus
	equips businesses and communities to unlock their full potential using existing indoor
	location data, transforming spaces and enriching urban living experiences worldwide.
	Mapxus 是領先的 GIS 智慧平台與房地產科技解決方案供應商,專注於室內地圖
	與導航技術。透過無縫連接,Mapxus 協助企業及城市規劃師導航空間,推動無
	障礙環境。其解決方案具成本效益,幫助善用室內定位數據,提升城市生活質量。

• APICTA 2	● APICTA 2024 Winner 大獎得主	
Category	Inclusions & Community Services – Sustainability and Environment	
類別	社區共融及社會服務類別-可持續性與環境	
Organisation	Green AI Technology Limited	
得獎者	綠色人工智能科技有限公司	
Product	AI-Driven Sorting System	
得獎產品	「基於人工智能的分揀系統」	
Description	Green AI, dedicates its effort to deliver the first AI-driven sorting system that holds	
產品簡介	over 500k waste data images in its own database, and covering more than 40 waste	
	categories in Hong Kong.	

The AI-driven sorting system is compatible with various types of sorting equipment, including optical sorters and robotic arms. Two key features distinguish Green AI's system from existing high-tech recognition units on the market. First, it integrates multi-sensors into its AI vision unit, allowing it to perceive waste similarly to human eyes. This capability enables it to recognize not only material information but also attributes such as colour, brand, size, food and non-food grades, and functional use. Second, the system's precise recognition abilities are significantly enhanced by its AI self-learning capability. The AI sorting algorithm developed can automatically identify localized features of items using deep filters and incorporates part attention mechanisms (that determines the relative importance of each part in a sequence relative to the other parts) This allows the AI to focus on specific parts of objects, thereby streamlining data collection, training, and learning times.

As a result, these two key features of the AI-driven sorting system are well-equipped to address different types of waste management challenges and pave the way for improved recycling practices.

Green AI 致力於提供首個人工智慧分類系統,該系統的自有資料庫中擁有超過50萬張廢物資料圖像,涵蓋香港40多個廢物類別。

人工智慧分類系統可與各種類型的分類設備相容,包括光學分選機和機械臂。 Green AI 的系統與市場上現有的高科技識別裝置有兩個關鍵特點。首先,它將多 感測器集成到其人工智慧視覺單元中,使其能夠像人眼一樣感知廢物。此功能使 其不僅能夠識別材料資訊,還能識別顏色、品牌、尺寸、食品和非食品等級以及 功能用途等屬性。其次,該系統的精確識別能力因其人工智慧自學能力而得到顯 著增強。開發的人工智慧分類演算法可以使用深度篩檢程式自動識別物品的局部 特徵,並結合部分注意機制(確定序列中每個部分相對於其他部分的相對重要 性),這使人工智慧能夠專注於物體的特定部分,從而簡化資料收集、訓練和學習 時間。

因此,人工智慧分類系統的這兩個關鍵功能能夠很好地解決不同類型的廢物管理挑戰,並為改善回收實踐鋪平道路

● APICTA 2024 Winner 大獎得主		
Category	Public Sector and Government - Government & Citizen Services	
類別	公營機構及政府類別-政府及市民服務	
Organisation	Transport Department, The Government of the HKSAR / Autotoll Limited / Ove Arup	

泪蚣土	0 Darton II V I ''4-1
得獎者	& Partners Hong Kong Limited 香港特別行政區政府運輸署、快易通有限公司及奧雅納工程顧問
Product	HKeToll
得獎產品	「不停車繳費系統『易通行』」
Description	Hong Kong's first free-flow tolling system – HKeToll – is a key smart mobility
產品簡介	initiative promulgated in the Hong Kong Smart City Blueprint, aimed at utilising
	technologies to enhance the overall efficiency of the city's transport system. It replaced
	the traditional manual and automatic toll booths, allowing motorists to pay tunnel tolls
	without stopping at toll booths. Construction of new roadside structure is not required,
	reducing capital cost and time for implementation.
	The service mainly consists of HKeToll system and Toll Tag. Utilising Radio
	Frequency Identification (RFID) technology, combined with Automatic Number Plate
	Recognition and LiDAR, the system reads the unpowered Toll Tags affixed to vehicles'
	windscreens, and tolls are automatically collected from the pre-set payment accounts.
	Additionally, the back-end system running in the Government Cloud is flexible,
	allowing for rapid addition of new functions to enhance service efficiency.
	Motorists can manage their accounts and settle tolls conveniently through HKeToll website or mobile app, using various electronic payment methods. By seamlessly integrating advanced technologies and innovative solutions, HKeToll provides a brand new experience of smart mobility for all motorists in Hong Kong.
	「易通行」不停車繳費系統是《香港智慧城市藍圖》其中一項智慧出行措施,旨在運用科技提高運輸系統的整體效率。此系統全面取代傳統的人手及自動收費亭,讓車輛無須在收費亭停車便可繳費,並無需新建道路建築物。
	它主要由「易通行收費系統」及「繳費貼」兩部分組成。透過無線射頻識別技術,配合自動車牌識別技術和光學雷達,系統可讀取貼於車輛擋風玻璃上無須接駁電源的繳費貼,便可從預設的繳費戶口中自動扣除隧道費。同時,在政府雲端上的「易通行」後台系統具靈活性,能視乎情況快速增設新功能,進一步提升服務效率。
	駕駛者可透過「易通行」網站或流動應用程序,選擇使用多種電子支付方式,方便管理帳戶及付費。透過無縫整合先進技術和創新解決方案,「易通行」為香港所有駕駛者提供全新的智慧移動體驗。

	2024 Winner 大獎得主
Category	Senior Student: Application
類別	學生類別-高中學生:應用
Organisation	ELCHK Lutheran Secondary School
得獎者	基督教香港信義會信義中學
Product	A-EYE AI visual impaired shopping assistant
得獎產品	「人工智能視障人士購物助理」
Description 產品簡介	A-EYE is a revolutionary assistive technology designed to enhance the convenience and independence of visually impaired individuals during their everyday shopping
	experiences. By integrating advanced technologies such as Python, YOLOv8, PyTorch, OpenCV, and Raspberry Pi, A-EYE offers a comprehensive range of functionalities,
	including product recognition, price comparison, discount inquiry, currency
	recognition, navigation guidance, and safety assurance, enabling them to confidently take control of their shopping process.
	The A-EYE product series includes three different versions to meet various usage scenarios and needs
	In addition to providing convenience for visually impaired users, A-EYE can also bring positive value to partnering merchants. By integrating with the A-EYE system, merchants can better understand the needs of visually impaired consumers, offer targeted services and discounts, and gain valuable user insights and shopping data to support business development. We welcome more merchants to join the A-EYE partnership.
	「A-EYE 人工智能視障人士購物助理」是一項革命性的輔助技術,旨在增強視障人士在日常購物體驗中的便利性和獨立性。通過整合 Python、YOLOv8、PyTorch、OpenCV 和 Raspberry Pi 等先進技術,A-EYE 提供了一系列全面的功能,包括產品識別、價格比較、折扣查詢、貨幣識別、導航指導和安全保障,使他們能夠自信地掌控購物過程。
	A-EYE 產品系列包括三個不同版本,以滿足各種使用場景和需求。
	除了為視障用戶提供便利外,A-EYE 還可以為合作商家帶來積極的價值。通過與A-EYE 系統的整合,商家可以更好地瞭解視障消費者的需求,提供針對性的服務和折扣,並獲得有價值的使用者資料及購物數據,以支援業務發展。我們歡迎更多商家加盟成為 A-EYE 的合作夥伴。

	2024 Winner 大獎得主	
Category	Tertiary Student: Application	
類別	學生類別-專上學生項目:應用	
Organisation	Hong Kong Baptist University	
得獎者	香港浸會大學	
Product	From Romanised Nepali to Pure Nepali: AI Transliteration Using Transformer Architecture for	
得獎產品	Low-Resourced Languages	
	「由羅馬化尼泊爾語到純尼泊爾語:為資源匱乏語言應用 Transformer 神經網絡架構的人	
	工智能翻譯」	
Description	This innovative transliteration system bridges the gap between Romanized Nepali and	
產品簡介	the Devanagari script, addressing the challenges faced by low-resource languages like	
	Nepali. With over 35 million speakers, Nepali's digital presence is limited, primarily	
	due to the predominance of Romanized text in informal communications. The system	
	employs advanced tools and techniques, utilising Python, TensorFlow, and PyTorch,	
	along with transformer-based architectures like mT5, mBART, Llama 3 and GPT 3.5	
	Turbo. These technologies facilitate high-accuracy, context-aware transliteration while	
	overcoming the limitations of traditional rule-based systems.	
	By leveraging attention mechanisms, the system adapts to the fluid nature of informal	
	language, ensuring accurate transliterations even for variations like "babu" and	
	"baabu." Key achievements include the creation of the world's largest dataset of pure	
	Nepali and Romanized Nepali sentence pairs and the development of a novel Nepali	
	sentence-level deduplication technique. Additionally, the integration of	
	Parameter-Efficient Fine-Tuning (PEFT) and Low-Rank Adaptation (LoRA) techniques	
	ensures computational efficiency while maintaining high performance. This project not	
	only enhances the digital accessibility of Nepali speakers but also sets a precedent for	
	expanding similar solutions to other low-resource languages globally.	
	這種創新的音譯系統彌合了羅馬化尼泊爾語和梵文文字之間的差距,解決了尼泊	
	爾語等資源匱乏語言所面臨的挑戰。尼泊爾語的使用者超過 3,500 萬,其數位影	
	響力有限,這主要是由於羅馬化文本在非正式交流中佔主導地位。該系統採用先	
	進的工具和技術,利用 Python、TensorFlow 和 PyTorch,以及基於 Transformer 神	
	經網絡的架構,如 mT5、mBART、Llama 3 和 GPT 3.5 Turbo。這些技術促進了高	
	精度、上下文感知的音譯,同時克服了傳統基於規則的系統的限制。	
	透過利用注意力機制,該系統適應非正式語言的流動性,即使是「babu」和「baabu」	
	等變體也能確保準確的音譯。主要成就包括創建了世界上最大的純尼泊爾語和羅	

馬化尼泊爾語句子對資料集,以及開發了一種新穎的尼泊爾語句子級重複資料刪除技術。此外,參數高效微調(PEFT)和低秩適應(LoRA)技術的整合確保了運算效率,同時保持高效能。該計畫不僅增強了尼泊爾語使用者的數位可近性,還開創了將類似解決方案擴展到全球其他資源匱乏語言的先例。

	Tertiary Student: Solution
Category 類別	學生類別-專上學生項目:方案
Organisation	Hong Kong Institute of Information Technology at IVE (Tuen Mun)
得獎者 D 1	香港資訊科技學院(屯門)
Product	SAFERIN
得獎產品	「智護老」
Description	Elderly care homes face severe staff shortages, with each caregiver handling up to 20
產品簡介	seniors. SAFERIN for Elderly integrates three key functions into a one-stop automated
	solution that reduces caregiver workload, improves service quality, and ensures proper
	care for the elderly.
	SAFERIN can reduce seniors' waiting times by 60%, enabling faster response to their
	needs. The saved time allows caregivers to assist more seniors, improving productivity.
	Concurrently, SAFERIN provides the manpower equivalent of a 75% headcount
	increase while saving 55% in labor costs, effectively alleviating understaffing.
	SAFERIN functions include proactively analyzing seniors' needs with voice and AI to
	automatically prioritize tasks; detecting falls and anomalies via sensors; monitoring
	health data through IoT and assessing risks via machine learning for clinicians.
	智護老為安老院舍提供一站式自動化解決方案,以減輕護理員負擔,提高服務素
	質,確保長者得到適當照顧。智護老能把長者等候時間減少六成,需求得以更快
	回應;節省時間讓護理員可協助更多長者,提升工作效率。與此同時,智護老相
	當於為院舍額外增聘了75%人手,節省約55%人力成本,有效緩解人手短缺。
	ENALUSING ENALUS AND CONTRACT OF THE PROPERTY
	 智護老運用語音及人工智能,主動分析長者需求並整理優先次序;利用傳感器檢
	測長者跌倒等異常;通過物聯網監察長者健康數據,並利用機器學習評估風險,
	供醫護人員參考。