敏盛醫藥與陽明交大建立精準大健康生態系

文／鍾乙君

隨著科技的不斷發展，智慧醫療正成為全球醫療產業的主要趨勢之一。盛弘醫藥於 2023 年 9 月 28 日宣布推動智慧醫療及健康創新應用邁入全新里程碑。策略聯盟發表會邀請了敏盛醫療體系的產學研合作夥伴共同參與，包括：電電公會、資策會、陽明交大資訊學院、陽明交大護理學院、陽明交大藥學院等。敏盛醫療體系建立了精準大健康生態系，將傳統線下實體醫療服務整合轉型到線上、虛擬與遠距照護，服務區域遠遠超過桃園地區，未來將與合作夥伴朝精準醫療、智慧醫療及 AI 應用醫療做出貢獻。

在這股浪潮中，台灣微軟混合雲服務平台的關鍵推動者之一，盛弘醫藥股份有限公司副總經理同時也是本院資工系 79 級的學長何偉光，扮演著引領者的角色。目前，何偉光擔任資訊工業策進會數位服務創新研究所的主任，致力於運用數位技術為傳統產業開創新服務機會，並協助新創產業蓬勃發展。而他早在 2021 年就提出，遠距服務不僅應局限於偏遠地區的醫療需求，更應擴展至慢性病患者及行動不便的病患。

盛弘與台灣微軟將合作打造中文版醫護專用 ChatGPT，由醫電數位以 Hermes 語音輸入平台，整合微軟 Azure OpenAI ChatGPT，由於是醫護人員專用的，由醫護人員輸入的資訊是正確的，未來將以此為基礎共同研發 CRM for Healthcare（客戶健康管理服務），可以提供相對精準的服務。而在此基礎下，未來的應用上也將和陽明交大資訊學院與護理學院合作發展銀光科技與全齡照護的智慧醫護平台。

未來，隨著台灣微軟與盛弘集團以及陽明交大攜手合作，將進一步推動智慧醫療技術的發展，從智慧醫療平台建置到產品開發，為民眾提供更便利、高效的智慧醫療健康服務，共同開創智慧醫療的新時代。期待未來的科技醫療發展。相信在學長的帶領下，跨足範圍將從智慧醫療平台建置到產品開發，能為民眾提供更為便利、高效的智慧醫療健康服務，也希望將這些服務推廣到全球醫療場域的客戶，共同開創智慧醫療新時代。

Building a Precision Health Ecosystem: Missioncare Medicine Co. Medicine and National Yang Ming Chiao Tung University Collaboration

With the continuous advancement of technology, smart healthcare is becoming a major global trend in the healthcare industry. On September 28, 2023, Missioncare Medicine Co. Medicine announced a significant milestone in promoting smart healthcare and innovative health applications. Thus, Missioncare Medicine Co. Medicine's industry-academic-research collaboration's partners were invited to participate in the ecosystem, including the Taiwan Electrical and Electronic Manufacturers' Association, National Yang Ming Chiao Tung University's College of Computer Science, College of Nursing, and College of Pharmaceutical Sciences.

They aim to transform traditional offline medical services into online, virtual, and remote care. The service coverage extends far beyond the Taoyuan region. Additionally, they look forward to future collaborations with partners involved in developing precision medicine, smart healthcare, and AI applications in healthcare.

Missioncare Medicine Co. Medicine 's Deputy General Manager, Mr. Wei-Guang He, is one of the key promoters of Taiwan's Microsoft hybrid cloud service platform. He is also an alumnus of the 79th class of the Department of Computer Science at National Yang Ming Chiao Tung University. Mr. He plays a leading role in guiding this initiative, currently serving as the director of the Digital Service Innovation Institute at the Institute for Information Industry. Mr. He is dedicated to using digital technology to create new service opportunities for traditional industries and assisting the flourishing development of startups. In 2021, he proposed that telehealth services should extend beyond addressing medical needs in remote areas to also include chronic patients and patients with limited mobility across all regions.

Missioncare Medicine Co. Medicine and Microsoft Taiwan will collaborate to create a Chinese version of a healthcare-specific ChatGPT. This will involve utilizing the Hermes voice input platform by MedTech Digital and integrating Microsoft Azure OpenAI ChatGPT. The resulting healthcare professional-exclusive tool aims to ensure the accuracy of information input by healthcare personnel. Building upon this foundation, future joint development efforts will extend to Customer Relationship Management (CRM) for improved healthcare service provision. Furthermore, upcoming applications will include collaboration with the College of Computer Science and the College of Nursing at National Yang Ming Chiao Tung University to develop a smart healthcare platform for silver technology and all-age care.In the future, as Microsoft Taiwan, Missioncare Medicine Co., and National Yang Ming Chiao University collaborate, there will be further advancements in smart healthcare technology, from building smart healthcare platforms to product development. This collaboration aims to provide the public with more convenient and efficient smart healthcare services. It is believed that, under the leadership of Mr. Wei-Guang He, our senior alumni, the expansion from building smart healthcare platforms to product development will provide more convenient and efficient smart healthcare services for the public. The goal is also to extend these services to customers in the global healthcare arena, as it pioneers a new era of intelligent healthcare.
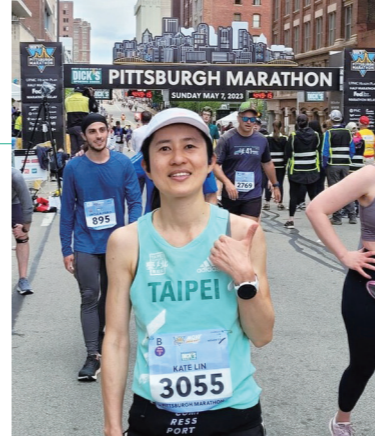
林靖茹教授榮獲 111 年度國科會傑出研究獎

文／鍾乙君

本院資訊與工程學系林靖茹教授榮獲 111 年度國科會傑出研究獎，評審委員對她近年來在雲端無線接取網路核心技術研究方面的成果給予高度肯定和讚揚。林教授的研究成果在 5G 網路發展上發揮了重要的作用，尤其是她的研究在整合軟體定義網路和人工智慧技術方面具有開創性的意義。這一成果將在未來對於經濟社會和民生福祉產生重要的應用和影響。

林教授帶領團隊在研究中提出了協同式雲端接取網路關鍵技術，該技術垂直整合了前端和後端網路技術，以滿足 5G 網路對於大規模裝置和高系統容量的需求。透過協同式設計，林教授成功加速了 5G 網路加值服務的部署，同時也解決了大規模高容量議題所帶來的挑戰。她的研究在行動通訊網路領域能有效地統籌管理分散式基地台，並為行動通訊產業引入了雲端接取網路。

此外，林教授還開創了新型態智能網路架構，將深度學習和軟體定義網路兩項技術結合起來，實現了彼此之間的互惠互利和效能優化。她提出的智慧軟體定義網路（AI-SDN）讓交換機不僅僅是資料傳輸平台，還能通過即時的模型預測提供智慧運算和服務，使網路架構不再限於裝置串連，具有更高的智能化能力。

林靖茹教授在得獎後，感謝國科會對於推廣資訊科技研究的支持，並表示很榮幸能夠獲得這項殊榮。她認為這份肯定和鼓勵將使她更加有信心和使命感，將繼續在科技研究的路上努力，為國人貢獻微薄之力，推動網通資訊科技的發展，並協助提升國際能見度。

林教授的研究成果不僅對於推動 5G 網路技術發展和智能網路設計具有重要意義，也為未來社會福祉領域帶來了巨大的影響，。我們期待她在未來的研究中取得更多突破和成就，也再次恭喜林靖茹教授獲得此等殊榮。

Professor Kate Ching-Ju Lin Won the 2022 NSTC Outstanding Research Award

Professor Kate Ching-Ju Lin, from the Department of Computer Science at our college, has been honored with the 2022 National Science and Technology Council (NSTC) Outstanding Research Award. The expert panel of judges praised her recent accomplishments in research on core technologies related to cloud-based wireless access networks. Professor Lin's achievements have had a substantial impact on the evolution of 5G networks, particularly due to her pioneering efforts in the integration of software-defined networking and artificial intelligence technologies. This accomplishment will result in notable applications that will influence the economy, society, and the future well-being of the people.

In her research, Professor Lin and her team presented pivotal technologies aimed at enhancing collaborative cloud access networks. These technologies involve the seamless integration of front-end and back-end network solutions, specifically tailored to the requirements of 5G networks, which encompass large-scale device deployment and high-capacity demands. Leveraging a collaborative design approach, Professor Lin achieved a noteworthy acceleration in the deployment of value-added services within the 5G network domain, effectively addressing the intricate challenges associated with extensive high-capacity requirements. Her research coordinates the management of distributed base stations within the mobile communication network sector, ushering in the introduction of cloud-based access networks to the broader mobile communication industry.

Furthermore, Professor Lin has pioneered a novel intelligent network framework that integrates deep learning and software-defined networking methodologies. This innovative solution led to mutual benefits and enhanced performance. The AI enabled Software-Defined Networking (AI-SDN) she proposed empowers switches not only to be in charge of data transmission but also to deliver intelligent computing and services through real-time predictive models. This innovation enables network equipment to not only perform simple data forwarding but also provide computing services.

After being honored with the award, Professor Lin conveyed her appreciation to the National Science and Technology Council for their support in advancing research in information technology. She additionally expressed her deep sense of pride in receiving this prestigious recognition. This acknowledgment and motivation will bolster her confidence and sense of purpose to continuously dedicate herself to technology research, making meaningful contributions to the country and advancing the growth of communication and information technology, while actively assisting in increasing international prominence.

Professor Lin's research holds great importance, not only in driving the development of 5G network technology and smart network design but also in leaving a substantial impact on the social welfare sector in the future. We look forward to more breakthroughs and accomplishments in her future research. Once again, congratulations to Professor Kate Ching-Ju Lin for receiving such an honor.