

Futuristic Technologies 交大日歡慶回娘家

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今年四月上旬，搭上陽明交大合校後首個「交大日」歡慶氛圍，本院資工系亦於盛會舉辦期間推出「Futuristic Technologies 系列活動」，一併進行「台灣電腦資訊發展館」的揭牌開幕儀式，同時頒發傑出系友獎項，廣邀各界資工系友回娘家，共襄盛舉。系列活動不僅獲得「資工人」的熱烈迴響，亦吸引媒體朋友、對相關領域有興趣之莘莘學子出席參與。

傑出系友頒獎典禮中，於各領域執牛耳的受獎學長們「返回主場」，踴躍出席本次盛會，為的就是與學弟妹們分享寶貴的學涯、職涯經驗，希望透過回娘家傳統，實踐「交大人幫交大人」精神，將自身經歷轉化為學弟妹們茁壯成長養分。獲頒傑出系友的 70 級林順喜學長憶起因緣際會到學校任教的過程，喜歡棋牌等益智遊戲的他，將對自身興趣的熱忱轉移至研究領域，結合所學，與學生們開發出棋力、牌力名列世界前茅的程式，其演算能力可達每秒展開上億個牌面，各程式應用領域橫跨中西，從麻將、橋牌到黑白棋皆有相對應技術得以運用，令人驚嘆。林順喜學長以自身喜好為動力，持續思考如何於 AI 技術領域求新求變，如此崇實篤行精神實為各學子之表率。

而 80 級的黃維中學長也在分享中提到，自身於開發軟體過程中的獨到觀察：「在這一波比較新的資訊科技浪潮下，要靠各領域的大家通力合作；換句話說，單一個專長的團隊絕對沒有辦法產出理想成品。不管是在資訊領域、人文社會科學領域，或是醫療領域，多面向相互合作、各展所長，才有可能把成品做得更好。」黃維中學長也期許在座的未來新星們，能多累積跨域合作經驗，與各專長人才共築合作生態系，帶領資訊科技產業向前衝！相信傑出系友們的經驗分享皆讓與會師生獲益良多，也再次恭喜本次獲獎的林榮賜學長、林順喜學長、王介呈學長、黃維中學長、陳儒寬學長、江孟峰學長與馮彥文學長。

除去傑出系友頒獎典禮，本次盛會另一大重頭戲便是由聯發科技資深處長梁伯嵩博士、台積電 IT 企業系統整合處林均彥處長主講的 Futuristic Technologies 講座。梁伯嵩博士自三階

段 Computing Platform 的轉換切入，透過技術發展歷程，依照時序、由淺入深引導聽眾進入「未來運算趨勢：從積體電路到人工智慧與虛實宇宙」主題。談及現代人普遍對「AI 是否會超越人類大腦」問題所生的擔憂，梁博士應用具體舉例與圖解，點出「目前人工智慧的運算效能，對比人類大腦還差得遠。」同時勉勵在場師生，目前技術的不足、運算效能的瓶頸，正是學界與業界研究突破的動機與目標，儘管現階段好比「觀察鳥兒，欲學習飛行的人類」般，進展有限；但在科技發展日新月異的當代，假以時日，在座的各位都有可能是「高效飛行原理」的開發者。屆時，人工智慧應用的深度與廣度將超出我們目前所能認知的範疇。

講座下半場，任職台積電，81 級的林均彥學長自產業現況切入，提出如何用更低的耗能，做到更強運算的問題思考，與梁博士的演講內容相呼應。談及企業皆須面臨的數位轉型難題，林均彥學長道出「業務價值思考、軟體轉產品的思維建構、清楚的藍圖與願景」三大成功關鍵，搭配上相關業務單位的支持，才會是真正有效益的「好的轉型」。「沒有人能確定目前正在做的是否正確，但我可以肯定方向是明確的，我們也會繼續努力。」林均彥學長以樂觀態度面對轉型挑戰，順勢為講座收尾。再次感謝梁伯嵩博士、林均彥學長豐富精彩的分享，和與會貴賓的熱情響應，讓本次活動圓滿結束，期待明年再會！



資工系「系友回娘家」活動圓滿成功，除了三間教室座無虛席，線上亦有逾 400 人觀看直播。

Futuristic Technologies: NYCU Alumni Day

In early April this year, with the festive atmosphere of the first "NYCU Alumni Day" after Yang Ming Chiao Tung University was merged, the Department of Computer Science launched the "Futuristic Technologies Series Activities" during the event, and jointly unveiled the "Taiwan Computer Information Development Center". At the same time, the Outstanding Alumni Award were awarded. All friends and alumni were invited to join the great feast. The activities not only received enthusiastic response from "Computer Science guy", but also attracted both media friends and students who are interested in related fields to attend.

In the Alumni awards ceremony, the seniors who are outstanding in various fields "came back home" and proactively participated in this event to share their precious academic and career experience with young students. Following the tradition of "back home", they hope to practice the "NYCU guys support each other" Spirit and transform their experiences into nutrients for the growth of young students. Shun-Shii Lin ('70), who was awarded the Outstanding Alumni award, recalled the process of embracing teaching as a career. Since he is passionate about puzzle games such as chess and cards, he integrated his enthusiasm with the research. Applying what he has learned, he and his students have developed a program which is ranked among the best in the world in chess and card games. The calculation efficiency can handle hundreds of millions of game states per second. The applications of core technology amazingly span from East to West games, such as Mahjong, bridge, and Othello. Lin, driven by his own passions, keeps on seeking further innovations and changes in AI fields. Such spirit is truly a role model for all students.

Wei-Chung Hwang ('80) also shared his unique observation while developing software: "Under this new trend of information technology, it is necessary for everyone in various fields to collaborate with each other; in other words, it is impossible to develop a perfect product by a team with single expertise. No matter whether it is in the information field, the humanities and social sciences field, or the medical field, cooperating with each other in various fields and exerting their strengths is mandatory to create better products." Huang hoped that the future talents will accumulate more experience in cross-domain cooperation, build a cooperation ecosystem with talents of various expertise, and bring forward the information technology industry. We believe that the experience sharing of outstanding alumni will benefit the faculty and students a lot. Congratulations again to the winners of this award,

Rong-Shy Lin, Shun-Shii Lin, Jie-Cheng Wang, Wei-Chung Hwang, Ju-Kau Chen, Mike Jiang, and Yenwen Feng.

Apart from the Outstanding Alumni Award Ceremony, another main focus event is the Futuristic Technologies speech given by Dr. Liang Bor-Sung, Senior Director of MediaTek, and Frank Lin ('81), Director of TSMC IT Enterprise System Integration Department. Dr. Liang started from three paradigm shifts of Computing Platform. Through the technological development process in chronological order, he guided the audience, from the shallower to the deeper, to the theme of "Future Computing Trend: From Integrated Circuits to Artificial Intelligence as well as the Metaverse". Responding to people's concerns about "whether AI will surpass the human brain", Dr. Liang took specific examples and diagrams to point out that "the current capability of artificial intelligence is far worse than that of the human brain." He also encouraged the faculty and students: The existing primitive level of technology and the bottleneck of computing performance may become the target of research breakthroughs and motivation in academia and industry. We are currently in a stage as if "while observing birds, human beings want to learn to fly" and the progress in the fields advances sluggishly; however, in an era of rapid technological development, some of you may be the developers of "the principle of efficient flight" in the near future. At that time, the depth and breadth of artificial intelligence applications will exceed the scope of our current knowledge.

In the second half of the speech, Frank Lin, a director at TSMC, cut into the current state of the industry and raised a question for everyone: how to achieve stronger computing with lower energy consumption. This statement echoes Dr. Liang's speech. Referring to the digital transformation challenges all enterprises face, Lin pointed out "business value thinking, mindset of product associated with software, and clear blueprint and vision" are the three key factors to success. Combining with the support of relevant business units, it will be an effective "good transition". "No one can assure whether we are doing the right things; however, I am sure that we are on the right track and will continue our best endeavors." Lin ended the speech with an optimistic attitude towards the challenges of transformation. Once again, we thank Dr. Liang Bor-Sung and Mr. Frank Lin for such wonderful sharing, as well as the distinguished guests for their enthusiastic response, which brought this event to a perfect conclusion. Looking forward to seeing you again next year!