科技管理學院
College of Technology Management

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114 年吳大猷先生紀念獎得主 謝宗翰教授

莊怡萱 撰

左為經濟系助理教授 陳語寬；右為計量財務金融學系副教授 謝宗翰

「凡流淚播種的，必歡呼收割。」—詩篇 126:5

這句出自《聖經》詩篇的經文，靜靜地放在謝宗翰老師的研究網頁裡。對於同時獲頒國科會「吳大猷先生紀念獎」與清華大學「112 學年度教學傑出獎」的宗翰老師而言，這不僅是信仰的表達，更是他在學術研究中的孤獨、跨領域探索的冒險，以及為人師表的歷程中，真實的心路寫照。

走進計量財務金融學系謝宗翰老師的學術世界，會發現那裡充滿了「控制工程」的理性，也流動著對人與社會的感性關懷。最初自機械工程起步，隨後跨入電機工程並接受嚴謹的數學訓練，最終落腳於計量金融領域，宗翰老師的學術旅程宛如一條精心計算的軌跡，卻也充滿意想不到的轉折。

跨域的勇氣：當控制理論遇見金融市場

回首求學路，謝宗翰老師在美國威斯康辛大學麥迪遜分校（University of Wisconsin-Madison）攻讀博士期間，他逐漸體會到，控制理論本質上是一套強大的數學語言，它能駕馭機器人、穩定航空器，甚至引導自駕車系統。然而，真正改變他人生軌跡的，是來自他的博士班指導教授，強健控制理論（Robust Control）

的領軍人物 B. Ross Barmish 教授的一句洞見：「所有系統之中，最不確定也最隨機的，就是金融市場。」這句話如同一道閃電擊中了他。既然「強健控制」是處理動態系統高度不確定性的利器，何不將它應用到難以預測又高度雜訊的金融市場之中呢？基於這個想法，他進一步接受數學系與金融方面的嚴格訓練，試圖將控制工程的嚴謹邏輯，帶入由風險與報酬主導的商業金融決策領域。

這並非一條易路。不同學門有著不同的「語言」與邏輯，而跨領域往往意味著必須付出加倍的努力去適應與概念之間的轉譯。然而，憑藉著工程師實事求是的堅持，宗翰老師逐步在控制理論與財務工程的交會處建立起獨特的立足之地，將艱澀的理論轉化為金融決策中面對風險不確定性的堅實後盾。

強健控制的哲學：在最壞的時代做最好的準備

謝宗翰老師近幾年偏重的研究核心，在於「分佈強健最佳化」(Distributionally Robust Optimization, DRO)。這聽起來是艱澀的術語，其實其中蘊含的是高度務實的生存哲學。傳統的金融模型往往假設市場報酬的機率分佈已知，但在現實世界中，市場的運作不見得會按照模型的設定走，真實的分佈充滿各種變因與不確定性。

「我們能否在最壞的機率分佈下，仍能做出最優決策？」謝老師解釋，這不是悲觀地只看最差結果，而是希望透過數學模型，找出一個能夠在各種惡劣環境下都能「穩健」運行的策略。

他以自身在關於「跌幅控制」方面的研究為例，生動地說明了理論的應用。在交易中，投資人最在乎的往往不是學術意義上的變異數、夏普指數，而是一個簡單的問題：「我會不會賠錢」。宗翰老師的研究指出，透過引入限制條件，例如將從高點回落的最大跌幅預先限制在 5% 以內，那麼透過強健控制的策略，即便市場發生劇烈波動，系統也能自動調整投資組合配置，確保資產能夠被控制在預先設定的安全範圍內，同時仍能達到具有競爭力的長期穩定績效。於是原本冰冷的數學方程式，搖身一變成為專為投資人面對不確定性的實際防護層。

數據背後的溫柔：從 COVID-19 看見社會責任

宗翰老師的「控制理論方法」，並不僅限於金融市場，更延伸至更廣泛的對社會議題。在 COVID-19 肆虐全球期間，他曾運用動態系統模型，進行了一項關於疫情控制的跨域研究。「這是一個典型的動態控制問題：政府手上的籌碼是政策，而我們想控制的變數是感染率與死亡率，但同時必須考量經濟停擺的代價。」

在這項研究中，他試圖量化「封城與否」對於公共衛生與經濟損失之間的權衡。透過建立動態模型，加入是否封城作為控制變數，計算出在不同情境下的最佳決策。這項研究展現了控制理論學者如何運用理工思維，回應當下迫切的社會議題，在冷靜的數據分析背後，顯露出一顆希望減少社會苦難的熱心。

孤獨與分享：
百萬人氣部落格的知識傳承

學術研究的本質，大多時候是極度孤獨的探索。「凡流淚播種」，不只是身體的勞累，更是心靈的孤寂。在海外求學期間，為了更好的釐清思緒，也為了內化透過英文吸收的知識，謝宗翰老師開始撰寫個人部落格。他將隨機分析、動態規劃、控制理論等抽象概念，一字一句轉化為條理分明的中文筆記。起初，這只是一個為了「證明自己懂了」的自我對話空間，沒想到無心插柳，竟成為了無數研究生學習路上的指引。

至今，該網站已累積超過三百六十篇技術文章、突破兩百多萬次的瀏覽。許多在論文苦海中掙扎的研究生、尋求解答的工程師，都在這裡找到了些許指引。謝老師淡淡地說：「這純粹是為了自己而整理的筆記，沒想到後來會幫助到滿多人。有些人寄信跟我說這些對他們很有幫助。我是蠻意外，但也很高興有幫助到大家。」部落格的撰寫，讓他看見了知識分享的力量，原本個人的流淚播種，最終化作了知識傳承的歡呼收割。

師徒制的溫度：
把每位學生視為獨特的個體

除了研究上獲得的肯定與佳績，榮獲清華大學「校級教學傑出獎」更映照出宗翰老師在教育現場的深切投入。宗翰老師自言他的教學風格深受留美時期指導教授「師徒制」的影響，因此，他將每一位學生視為獨立的個體，而非單純的數據點。

「做研究與解習題最大的不同，在於如何定義問題。」謝老師指出，課本習題多半有標準答案，但在研究要求的是提出有意義的問題。因此，他堅持「手把手」的帶領方式：和少數學生近距離合作，分享自

己有興趣的研究題目，在和學生探討的過程中不但能持續修正研究方向，也有機會讓學生發掘個人的研究興趣。「學生帶少少就可以對學生比較多認識啦，我覺得這樣是蠻好的」

他常對學生說：「儘早開始。」找一位適合的老師，哪怕只是每週讀一篇論文，都是在累積學術的底蘊。在他眼中，教學不只是知識的傳遞，更是一種幫助學生成為他們最好的樣子。每當看到學生申請上國內外的頂尖名校，或是找到理想的工作，那份成就感甚至超越了自己的論文發表。他深知學生終將離開，但他期許自己能成為那個將他們推向更遠目標的推手。

給學生的話：人生作為一個強健優化問題

面對當代學子對未來充滿焦慮、對不確定性感到恐慌，身為「不確定性決策」專家的謝宗翰老師，給出了一個充滿理工浪漫卻又極具哲理的譬喻。他將人生比喻為一個巨大的「強健優化問題」。每個人都試圖最大化自己的效用函數——可能是GPA、薪水、或是社會地位。然而，這個優化過程充滿了限制條件與隨機衝擊。

在訪談中，謝老師分享了自己的小故事：原本規劃好一週的工作進度，卻因為家中小朋友突然得了流感，需要在家照顧五天，所有的計劃瞬間被打亂。「這就是人生中的隨機衝擊」他笑著說，「即便我是研究強健控制的，面對生活中的突發狀況，我也常常覺得失衡。」

儘管突發狀況是無法預期也不可控的，宗翰老師還是給出溫柔的建議：「我們能控制的，只有投入的時間與心力；我們不能控制的，是受隨機衝擊影響的結果。」他勉勵同學，不要因為害怕結果不如預期而停滯不前。就像強健系統一樣，我們應該專注於優化自己能掌握的決策變數，對於那些無法控制的雜訊與結果，則要學會設定心裡的停損點，接受隨機性波動作為人生的一部分。在變動的時代裡，保持內心的韌性，不被焦慮擊垮，在隨機的生命函數中，堅定地描繪屬於自己的最佳人生軌跡。

從控制理論的數學推導到教學的傳承，謝宗翰老師用他的學術經歷演繹出理性與感性間的交織。獲得吳大猷先生紀念獎，是對他過去流淚播種的肯定；而他對教育的熱忱，也預示了未來更多歡呼收割的時刻。在清華科管院這片沃土，他將繼續帶領學生，在不確定的未來裡，找出明確的方向。

本次訪談完整內容，已於「清華科管領航員」頻道播出。

Podcast

《造山者》導演蕭菊貞

莊怡萱 撰

左為計量財務金融學系副教授暨公共事務辦公室主任 潘虹華；右為蕭菊貞導演

在新竹這座科技城市，效率與產值往往是衡量成功的標尺。然而，在以理工見長的清華大學裡，有一雙眼睛，願意耗費數年，透過鏡頭去等待一個畫面的熟成，慢熬出一段獨特的故事。她是蕭菊貞，金馬獎最佳紀錄片導演，也是清華大學經濟系 94 級的校友，現任教於清大通識中心與人社院。

在訪談中，蕭菊貞導演以一種幾乎是反其道而行的姿態，在追求快速更迭的科技領域中，談論著慢活、無常，以及那些在 AI 時代或許會被視為「無用」卻最珍貴的人文價值。

清華的自由與自主：從經濟系到紀錄片導演

時光回溯至 1990 年代的清華。那是一個還沒有網際網路、校園裡還沒有便利商店，甚至連學生騎腳踏車上人社院都需要推車步行的年代。當年的蕭菊貞導演，還是一名經濟系的學生，她的身影常穿梭在水木書局、社團辦公室，以及位於「山上」的人社院。

「我覺得清大是一個校風很自由的地方」蕭菊貞回憶道，那份自由不僅是學風上，更是一種對自我探索的包容。當年，經濟系還隸屬於人社院，這讓她有機會接觸大量的人文課程。而真正改變她人生軌跡

的，並非供需曲線的計算，而是一堂由李道明老師開設的通識課——錄影帶製作。

在那個影像技術尚未數位化的類比時代，憑著對於文化藝術的熱愛，蕭菊貞大量選修中文系、通識課程，她認為「大量的、廣泛的去參與跟認識不同領域的學科，是一個很美好的事。」她在電影通識課上會告訴學生：「你們不要當導演，太辛苦了。但是你們要成為一個懂得欣賞電影、懂得欣賞藝術的人，這樣無論在哪個領域，你們都會是有文化底蘊的人。」 這段話，她不只用來期勉學生，也是自己奉行實踐的銘言，成為了她日後創作與教學的核心。她沒有往經濟學者的路走，而是拿起攝影機，開始記錄台灣的故事。她笑稱，雖然自己在經濟系的成績不算頂尖，但在通識課程與社團活動中，她找到了滋養生命的養分，那種在「正規之外」的探索，反而成為她日後創作最厚實的地基。

以時間釀造信任：紀錄片裡的「人」味

從《紅葉傳奇》到《銀簪子》，再到近年的《稻浪上的夢想家》與《南方寂寞鐵道》，蕭菊貞的紀錄片總有一種溫潤的穿透力。在訪談中，她也透露這份力量的來源，其實就是時間與信任。

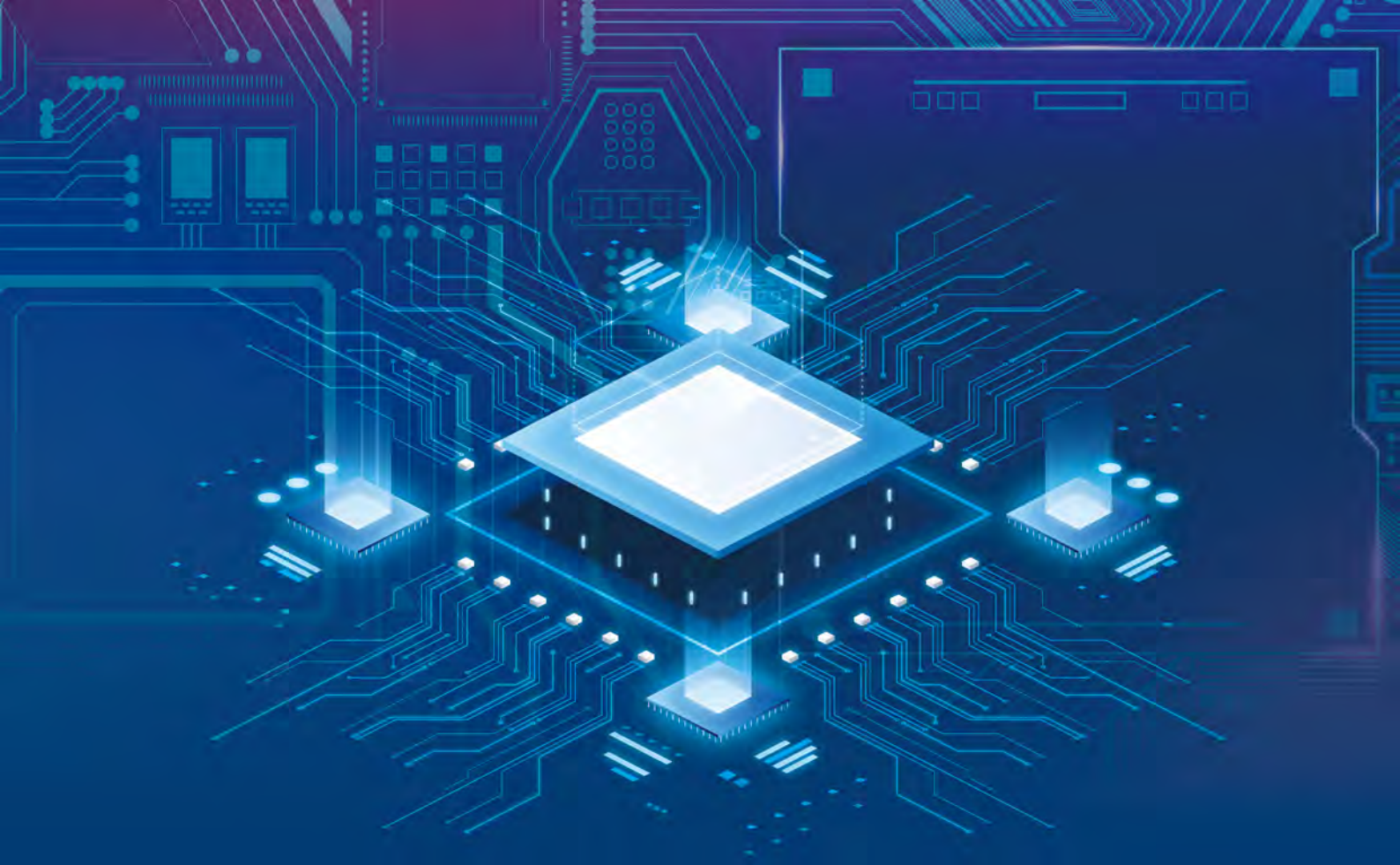
與講求效率的新聞採訪不同，紀錄片的拍攝往往是一場漫長的馬拉松。蕭菊貞提到，面對受訪者，最難的不是技術，而是如何讓對方卸下心防，將最私密、最脆弱的一面交付給你。這不是拿著麥克風問幾個問題就能達成的，而是像交朋友一樣，需要時間去經營。「你不可能跟一個剛認識的人說：『嘿，我們來當好朋友吧，快把你的心事告訴我。』」蕭菊貞比喻道，若抽離了時間的醞釀，沒有了那份信任感，拍攝的對象在鏡頭前只會變得像木頭一樣僵硬，或者只是在背誦官方說詞。

她曾遇到一位記者在金馬獎後台問她：「導演，妳能不能用一句話分享這次拍紀錄片的收穫？」當時蕭菊貞愣住了。她花了數年時間，在田野間蹲點，去理解農民看天吃飯的無奈與堅韌，去感受生命的複雜，怎麼可能用「一句話」就概括完畢。最終她回答：「我覺得生命很無常。」結果那位記者聽完後默默收起錄音筆離開，蕭導演事後回想，或許這個答案太過沈重，不夠娛樂，不夠「吸睛」。

這段插曲，其實就精準映照出當代社會的焦慮，我們渴望在一分鐘內獲得懶人包，渴望將複雜的人生簡化為幾個hashtags。但蕭菊貞堅持，人與人的相處、故事的厚度，是無法被簡化的。這也是為什麼她的作品總能讓觀眾淚流滿面，正式因為裡面有著無法被 AI 演算出來的真實情感與溫度。

無常是日常：像農夫一樣面對生命

無常，是管理科學裡不常見的關鍵詞。管理學追求的是預測、控制與風險極小化，但蕭菊貞的導演生涯，卻可說是與「失控」共處的過程。拍紀錄片就像種田，蕭菊貞在拍攝《稻浪上的夢想家》時，深刻體會到這一點。農夫辛勤耕作，但一場颱風、一陣病蟲害，就能讓整季的收成化為烏有。電影製作亦然，資金不到位、



天候不佳、受訪者反悔，甚至前些年的 COVID-19 疫情，都可能讓長達數年的心血付諸流水。

「這五年來，從地緣政治升溫、美中貿易戰、俄烏戰爭，到 AI 的橫空出世，哪一件事在我們的年度計畫裡？」蕭菊貞反問。她引用台積電創辦人張忠謀的話，從《造山者》開拍的 2019 年到 2024 年，台積電真正成為意義上的「兵家必爭之地」，而這些劇變都發生在短短五年內。

面對世界隨時的變化，蕭菊貞自我開展出一套應對方法。她認為，生命是一個有機體，不是一張按表操課的檢查表格。如果把人生視為必須精準執行的腳本，那麼任何一個意外都會造成巨大的痛苦與焦慮。但如果將生命視為一場有機的生長過程，那麼風雨是養分，挫折是修剪，所有的「無常」都是生命故事中獨特的篇章。

這也是她給予年輕學子的建議：不要試圖去控制所有變數，因為那是不可能的。真正的力量，來自於面對變局時的轉念與適應，就像拍攝紀錄片的過程裡，總有意料之外的情節，在剪輯台上，她就必須將這些預期之外的素材，重新編織成動人的故事。

AI 時代的「無用之用」

因為《造山者》，訪談的話題來到人工智慧。在這個生成式 AI 能寫劇本、能繪圖、甚至能生成影片的時代，人類的位置會產生什麼改變？作為一位創作者與教育者，蕭菊貞並不排斥科技，但她提出自己的憂心與提醒。

「現在的學生，比我們那個年代更焦慮，也更不自由」蕭菊貞觀察道。科技雖然帶來了便利，但也帶來了隨時隨地的干擾與比較。大家急著要結果，急著要成名，急著要變現，媒體採訪往往只給三分鐘，甚

至要求導演用一句話總結。這種對「速度」與「效率」的極致追求，正不知不覺的逐漸掏空我們的靈魂。

蕭菊貞認為，AI 可以是很好的工具，能幫助我們處理繁瑣的數據、優化流程，但它無法取代那些「無用」的事物。「藝術有什麼用？看著雲發呆有什麼用？跟朋友漫無目的地聊天有什麼用？」在功利主義的視角下，這些都是浪費時間。但在蕭菊貞眼中，正是這些「無用」的時刻，構建了人的情感厚度與創造力。

如果我們只追求像機器一樣的精準與效率，那我們終將被機器取代。因為比運算、比記憶、比邏輯，人類永遠贏不了 AI。人類唯一的勝算，在於我們能感受痛苦，能同理他人的眼淚，能欣賞一朵花開的緩慢。蕭菊貞在課堂上告訴學生：「不要當導演，要當一個懂得欣賞藝術的人。」這句話在 AI 時代顯得更加震耳欲聾。我們不需要更多像機器人一樣的人類，而是需要更像「人」的人類。

結語：找回自己的敘事

蕭菊貞導演從清華經濟系出發，用鏡頭記錄了台灣棒球的起落、老兵的鄉愁、農民的汗水，以及科技產業的榮光。她的每一次創作，其實都是對「效率至上主義」的一種抵抗。

對於科管院的師生而言，蕭菊貞的故事提供了一個非典型的成功範本。管理不只是數字與績效，更要記得將關懷視角放到「人心」與「意義」。在這個充滿變數的時代，蕭菊貞導演的思維：保持好奇，建立信任，接納無常，在看似無用的事物中，挖掘出最動人的價值。或者走進電影院，花兩個小時，將自己交給一個故事。正如導演所言，這些才是 AI 無法演算出來的，屬於生命的真實滋味。

完整訪談內容將於 2026 年 3 月 CTM 清華科管領航 Podcast 上架，敬請期待！

Podcast

教師研究亮點 -
科技法律研究所林勤富教授

本文由科法所林勤富教授提供

科法所林勤富教授與吳建輝及劉漢威兩位教授合著的《爭議主權背景下的經濟合作》（Economic Cooperation in the Shadow of Contested Sovereignty）學術專書，2025 年由英國 Bloomsbury / Hart Publishing 出版。

聚焦國際法與國際政治中棘手卻長期缺乏系統性研究的議題：主權爭議與政治對立的地緣政治脈絡下，國家如何以特殊法律與制度設計進行經濟合作。本書透過三個代表案例——臺灣與中國、南北韓、南北賽普勒斯——以實證比較與跨領域的方法論融合法律、經濟、政治與歷史視角，重思經貿互動在地緣政治緊張背景下的可能性、形貌與界限。

經濟合作可作為對話與穩定的橋樑，但主權問題與地緣政治競爭設下重重限制。合作的深度取決於國內政治、國際法與全球權力格局，儘管潛在經濟利益可觀，政治現實往往決定合作的邊界，使經濟互動成為不停演變的複雜過程。如本書分析，影響主權爭議國家經貿互動的關鍵因素包括：主權爭端與承認問題、文化族裔與語言的相似性與多樣性、國內輿論與政治意願、參與多邊國際組織的成員資格如何形塑這些國家的經濟機會與限制，以及主要大國的影響等。

本書提出的理論框架，填補了國際經濟與政治研究中的重要罅隙，在當前地緣政治迅速變遷且主權概念日益複雜的時空，尤為重要。本書可供未來預測政治敏感與主權爭議國家間經濟合作的模式，根據歷史趨勢、法律協議設計方式及國內外政治動態，指出潛在進展取徑、主要阻礙以及相關政治、經濟、社會變因，並對經濟合作的利弊進行規範性評估，妥適考量經濟利益與主權風險。

跟著台商世界走：學生海外實習計畫心得分享

由科管所林雅芳、吳彩瑜、彭湘淇、張恬瑜提供

計畫簡介：

2025 年暑假，由科管院副院長暨科管所教授劉玉雯主持「海外暑期實習計畫」順利完成。 本計畫以海外市場為實習場域，並以「連結學術訓練與國際實務」為核心目標，透過海外實習機制，協助學生理解臺灣企業在國際市場中的營運情境，培養其跨文化適應能力與實務問題解決能力。

本年度為海外實習計畫首度推動，首年以泰國作為起點，共選送四位學生前往泰國兩家具代表性的臺商企業實習。計畫結合校內跨領域訓練與海外臺商企業之實務需求，提供學生於國際產業現場中進行深度學習與實作的機會。實習內容涵蓋資訊系統導入、營運流程優化、生產力提升與自動化相關實務，學生在實習期間實際參與企業日常運作與專案任務，並於跨部門、跨文化的工作情境中，觀察並回應海外營運所面臨的管理與溝通挑戰。

首屆計畫的執行成果顯示，參與學生在國際視野、專業培養與職涯認知等面向，皆獲得實質的學習經驗與反思機會。在企業端，本計畫亦促進校園與產業之間的互動交流，讓企業能透過實習制度接觸具潛力之青年人才，並在實務合作過程中累積後續產學合作的基礎。未來將持續爭取實習名額與合作國家，規劃拓展至馬來西亞、印尼與美國矽谷，透過多元產業的實務參與，深化學生對國際市場與海外臺商營運環境的理解。

計畫主持人劉玉雯教授的話：

本次海外暑期實習計畫為首屆推動，嘗試在既有教學架構之外，建立一套結合海外產業實務的學習機制。2025 年可視為本計畫的起點，從規劃、媒合到實際執行，相關制度與流程皆在摸索中逐步建構完成。透過學生實際進入海外臺資企業的工作場域，本計畫希望協助學生更具體地理解國際產業環境中的營運現實，並將課堂所學與實務經驗相互對照與反思。

首屆計畫的順利完成，仰賴校內外多方人士的支持與協助。感謝台達電子文教基金會、國立清華大學校方與科技管理學院在行政與資源層面的支持，使計畫得以順利推動；也感謝合作企業在實習安排與指

導上的投入，讓學生能夠實際參與企業運作，並順利適應海外職場環境。

整體而言，本次海外實習計畫促成了學界、產業界與學生之間的密切互動，累積了首屆執行的實務經驗。未來，期望透過逐步優化與調整，讓海外實習成為學生探索國際職涯與深化實務能力的穩定管道之一。期許本計畫未來能讓更多學子們勇敢踏出國門，親赴海外累積職涯能量，更希望透過此平台，持續深化產學合作，為臺灣企業在世界的佈局，提供具備國際競爭力的優秀人才，達成學術研究與產業實務的共贏。

實習公司簡介：泰創工程股份有限公司

泰創工程創立於 1993 年，至今已深耕超過 30 年，並在海外設立七個營運據點，遍布越南、印度、泰國等東南亞國家。本次實習所在的泰國分公司成立於 2022 年，位於曼谷，為公司近年積極拓展海外市場的重要據點。

泰創工程的主要服務範疇涵蓋高科技廠房、生技醫療、飯店商辦及公共工程等領域，提供無塵室、機電空調、氣體與化學供應系統、廢水與排氣處理、半導體製程管線、消防安全等多元技術的規劃設計、採購發包、工程建造、系統整合，以及教育訓練與保固維修等完整服務。

公司以「一條龍式」、「一站式」的整合性工程統包服務著稱，是無塵／無菌室、水電、消防、冷凍空調及實驗室設備領域的專業工程公司。泰創工程致力於追求「安全、品質、速度與成本」的最佳組合，並以「您的理想工程，我的工程理想」為企業使命，持續為客戶提供高品質與高效能的工程服務。

林雅芳｜
實習工作環境

▶ 學生心得：林雅芳

走出舒適圈：
海外實習的成長累積與職涯探索

本次實習是於泰創泰國分公司的管理部。該部門在整體營運中扮演核心角色，負責跨部門流程協調、行政管理統籌、支援專案需求，以及推動營運效能提升等任務。透過在該部門的學習，我得以從更宏觀的角度理解企業運作。

在實習期間，我主要參與兩項工作內容。首先，是參與公司 ERP 系統導入相關會議。透過會議觀察與紀錄，我深刻體會跨部門協作在大型系統導入中的重要性。作為跨國企業，泰創在推動 ERP

林雅芳｜
參觀當地醫療展，
與台商合影

時面臨的不僅是內部流程整合，還包含不同國家在制度、法規上的差異所帶來的挑戰，使我更加認識跨國營運中流程標準化與溝通協調的複雜性。

第二項工作是協助管理部繪製「工作細項分類圖」。我從蒐集資訊著手，逐步整理各項業務內容，再與同仁討論確認流程細節，最後將複雜的工作項目轉化為結構清晰的圖表呈現。這項任務不僅訓練了我的資料統整與分析能力，也讓我更深入理解管理部的實際職掌與企業後勤運作模式。

這次海外實習是極具價值的學習與成長經驗。在語言、文化及工作環境皆不同的情況下，我學會以更開放的心態面對差異，並逐漸培養出更佳的溝通能力與職場適應力。這段實習不僅擴展了我的國際視野，也讓我對未來的職涯方向有了更具體與清晰的規劃，是一段相當具有意義的專業實務體驗。

▶ 學生心得：吳彩瑜

海外台商實習：在跨國企業挑戰中淬鍊自己的跨文化管理能力

選擇海外實習，是希望走出熟悉的生活環境，真實感受不同文化下的工作節奏與生活方式。這次泰國實習，讓我對跨國企業的運作、外派工作的現實，以及「文化差異帶來的管理挑戰」有了更深刻的認識。

我在泰國泰創工程實習，實習內容包含 ERP 導入、財報整合與員工問卷專案，此次實習讓我看見制度、文化與人之間的複雜互動。跨國企業最困難的往往不是制度設計，而是「人」與「文化」如何協作。在文化、教育與工作習慣差異下，台灣的管理方式、效率標準並不能直接套用到泰國。如何站在雙方視角思考，並制定合適的管理策略，成為跨國管理者必須面對的重要課題。

此次實習也理解到外派人員的不容易，離開熟悉的語言、飲食與人際網絡後，孤單與適應壓力才是外派者會面臨到問題。心態、調整能力與適應速度，往往比專業更決定一個人在海外能否走得長久。其中一位台商前輩對我說：「只有理解當地人的思維，才能進行良好的對話。」這句話不僅適用於管理，更是所有想走向國際的人都必須具備的核心能力。

這次海外實習帶給我的，除了專業能力的提升，也讓我學會依不同文化調整思維與做事方式。它讓我明白：真正的跨國能力，不只是英文要好、專業要強，而是學會用當地的節奏生活，用不同文化的眼睛看世界。

吳彩瑜｜我與泰國泰創 TTE 的跨文化實習旅程

實習公司簡介：泰達電子股份有限公司

泰達電（Delta Electronics Thailand）成立於 1988 年，是台達電在泰國的子公司，同時也是其在東南亞、大洋洲與印度地區的區域總部。公司位於曼谷東南方、鄰近海岸的邦浦工業區 (Bangpoo)，距離機場不遠，交通便利。

在泰國政府積極推動電動車發展政策的支持下，泰達電已成為台達電最重要的電動車零組件生產基地，產品涵蓋電源電子、自動化設備與基礎設施等領域。隨著 2023 年全球電動車市場蓬勃成長，公司市值快速提升，更一度成為泰國市值最高的上市企業，被譽為「泰國電子股王」。

學生心得：彭湘淇

跨越國界，跨越語言：我的海外實習探索

我這次實習的部門為 PIT（Productivity Improvement Team），團隊由 6 位泰國同事組成，其中一半負責制度、流程與日常營運面的生產力提升，另一半則透過軟體開發進行自動化與系統化改善。而我的主要任務，是協助工廠推動各項生產流程改善專案，找出生產瓶頸並推動流程簡化。

產線規劃往往需依市場需求調整，而我實習期間正好遇到產品需求下滑的階段，因此「降低生產成本、提升產線效益」成為最重要的課題。透過實際參與產線運作，我不僅親身體會到工廠在日常營運中真正面臨的問題，也學會如何從現場視角找出痛點，並提出具體且可行的改善方法。

跨國團隊的工作經驗讓我重新理解「溝通」的重要性。在人與人的協作中，往往無法僅靠制度約束，而是需要透過「溝通」進行彈性的調整，而跨國企業的管理挑戰在於語言與文化的差異，使溝通變得更加複雜。以前在台灣工作，我總能用熟悉的語言快速抓到重點、表達想法；然而來到泰國後，我必須在語言和文化差異間調整自己的溝通方式，在不同文化期待中拿捏應對進退。

回頭看這段實習歷程，我不只對製造流程有了更深入的了解，也實際體驗到改善流程的思考邏輯與落地困難，更重要的是學會了用更包容的方式理解他人、與不同文化背景的夥伴合作。這些體悟讓我在專業之外，也在心態與視野上得到了真正的成長，也讓我在未來的工作環境中，具備更強的適應力和溝通優勢！

彭湘淇｜
我與部門同事的
合照

彭湘淇｜
上班第一天

學生心得：張恬瑜

連結語言與知識：
跨域協作的海外實習旅程

這次實習於 Delta Network Infrastructure（DNI）進行，主要生產網路通訊產品，如 Wi-Fi 路由器與交換機。我所參與的專案聚焦於一座尚在規劃階段的新廠建設，工作從 Layout 規劃開始。會議中，主管與不同部門反覆討論空間配置、動線與機能需求，在資源有限的情況下，並非所有想法都能被實現，我們必須在多方意見中協助釐清需求並進行整合與溝通，在限制之中找出最合適的規劃方式。這也是我第一次具體體會到，管理本質上是一門關於「取捨」的學問。

當 Layout 定案後，工作進入產線與設備設計階段。由於新廠屬於非標準化的自動化規劃，設備配置、流程銜接與製程整合皆需重新拆解與推敲。在這個過程中，我逐漸理解，管理的角色並非取代工程專業，而是在不同專業之間協助對齊目標與判斷邏輯，讓抽象的技術構想能轉化為現場可執行的方案。後續我也參與自動化設計標準化的任務，在與跨部門和總部的一場場討論中，我更深刻體會到科技管理的核心，其實是人與人之間的協調與決策。

除了專業層面的學習，海外實習也讓我重新認識跨文化工作的真實樣貌。我發現，即使具備英文溝通能力，理解當地語言與文化仍然關鍵，因為許多影響決策的細節往往存在於日常對話與現場討論中。隨著對語境與文化理解的加深，我也更能掌握跨文化合作背後的運作邏輯。這段經驗讓我明白，專業能力決定能走多遠，而文化理解則影響能否走得長久。對我而言，這次海外實習不僅連結了知識與語言，也讓我在學生身分與職涯現實之間，提早跨出關鍵的一步。

張恬瑜｜實習紀錄

張恬瑜｜實習生分享

成為境外學習的亞太據點：打造雙向移動的國際交流

科管院公共事務辦公室提供

Arizona State University MBA Global Learning Group 校園導覽

為回應全球高等教育快速國際化趨勢，國立清華大學科技管理學院持續深化境外學習與國際交流布局，積極串聯北美與東南亞頂尖大學，透過「雙向移動（Outbound + Inbound）」的互動模式，整合學術、產業與政策視角，逐步形塑具制度化、可複製性的國際訪學平台，邁向成為境外學習的亞太重要據點。

北美連結｜史丹佛大學與亞利桑那州立大學 MBA 訪學團接連來訪　進行產業與治理對話

2025 年 12 月，科管院接連迎來兩組美國 MBA 境外學習訪團。

12 月 18 日，Stanford MBA Global Study Trip 境外學習團共 31 名師生蒞臨科管院交流，由在職專班辦公室規劃、國際事務辦公室協助，並由在職專班執行長王俊程主持。訪團此行聚焦臺灣半導體產業的發展歷程與未來趨勢，特別邀請科管院榮譽講座教授、前院長史欽泰教授擔任 Keynote，分享臺灣如何透過政策支持、學術研究與產業協作，逐步建立具全球競爭力的半導體生態系。

科管院彭心儀院長於致詞中指出，科管院長期扮演連結學術研究與產業實務的重要 Hub，結合商管、資料科學、經濟與法律等跨域能量，並憑藉鄰近新竹科學園區的地理優勢，形塑高度實務導向的教學與研究環境。活動亦安排 IMBA 學生與 Stanford MBA 師生進行午餐交流，促進不同學制與文化背景間的深度互動。

Arizona State University MBA Global Learning Group 企業參訪聯華電子

Arizona State University MBA Global Learning Group

Chulalongkorn Business School 至工研院參訪

Stanford MBA Global Study Trip - 安排 IMBA 學生與 Stanford MBA 師生進行午餐交流

隔日（12 月 19 日），Arizona State University MBA Global Learning Group 共 32 名師生來訪。鑒於台積電於亞利桑那州擴大投資 (TSMC Arizona)，本院國際事務辦公室特別規劃跨領域座談，邀請來自經濟、法律與管理專業背景的馮炳萱老師、蔡昌憲老師、王振源老師擔任講座，並由彭心儀院長主持，聚焦國際經貿情勢、公司治理轉型與產業發展策略。課程之後並安排前往聯華電子（UMC）進行企業參訪，讓訪團從理論延伸至產業現場，完整理解臺灣半導體產業的競爭優勢。

東南亞夥伴｜朱拉隆功商學院回訪 深化對等互惠的長期合作

除北美交流外，科管院亦穩定拓展東南亞學術夥伴關係。(2025 年) 10 月 13 至 14 日，泰國 Chulalongkorn Business School 師生一行 37 人蒞臨參訪，延續雙方自 2023 年建立合作以來的對等互訪機制。清華科管院近年持續派團赴泰進行境外學習課程，而此次回訪不僅深化學術交流，也象徵雙方合作關係的制度化與常態化。

Stanford MBA Global Study Trip - 特別邀請科管院榮譽講座教授、前院長史欽泰教授擔任 Keynote

Stanford MBA Global Study Trip 合照

活動內容涵蓋 AI 行銷、永續能源、商業數據分析等主題講座，並安排參訪台積電創新館與工業技術研究院（ITRI），讓來訪師生從課堂到產業現場，全面認識臺灣在科技創新與永續發展上的實務經驗。

邁向建構制度化平台
形塑亞太境外學習樞紐

從北美到東南亞，不論是短期訪學、課程共授或企業參訪，清華科管院已逐步建立一套整合「課程設計、學術對話與產業鏈結」的國際交流模式。透過穩定的夥伴關係與雙向移動機制，科管院不僅讓本院學生走向世界，也吸引國際師生走進臺灣、深入理解亞洲產業與治理經驗。

未來，科管院將持續拓展與國際頂尖學府的合作，擴大境外學習規模與層次，朝向成為國外學校進入亞太學習與研究的重要門戶，打造具全球影響力的跨域學習平台。

泰國 Chulalongkorn Business School

泰國 Chulalongkorn Business School 合照

胡國琳榮譽教授捐贈 AI 伺服器

科管院公共事務辦公室提供

為深化人工智慧於教學、研究與產學合作之應用，胡國琳榮譽教授、RiskVal Financial Solutions, LLC 創辦人暨執行長，慷慨捐贈 AI 伺服器予科技管理學院，協助本院持續提升 AI 於跨域課程設計與研究發展中的比重，進一步強化清華科管院在科技與管理整合上的領航優勢。

本次捐贈之 AI 伺服器，為科管院 AI 推動計畫（AI Initiative）的重要起點，將支援本院多項產學合作研究與教學應用，並與本院整體發展藍圖相互呼應。同時，胡國琳榮譽教授捐資籌建之本院新館「胡國琳館」，目前已進行規劃設計，館內將設置 RiskVal 研究中心，作為結合 AI、金融科技與管理決策的前瞻研究與產學合作核心基地。

胡國琳學長於分享中指出，未來三年產業將迎來重大變革，AI 的快速發展不僅翻轉

既有產業樣貌，也將深刻改變工作型態。正因如此，這個時代同時充滿挑戰，也蘊含前所未有的契機與新開始。胡學長期盼透過本次捐贈，深化與科管院的合作，共同迎接 AI 時代的轉型挑戰。典禮中，彭心儀院長強調，本院將珍惜善用難得的研究資源，讓 AI 電腦發揮最大效益。本院也特別邀請服科所雷松亞教授與計財系謝宗翰教授，分享 AI 算力如何提升服務科學及財務金融相關研究，以及本院在產學合作的實際應用現況與未來發展方向，展現科管院在跨領域教學與研究布局上的多元成果與實踐能量。

此外，科管院亦安排交流座談時間，由胡國琳榮譽教授與院內 17 位相關領域教師進行深入對談，探討 AI 如何進一步促進教學創新與研究突破，並激盪更多跨域合作與國際連結的可能性。

科管院再次誠摯感謝胡國琳榮譽教授的慷慨捐贈與長期支持。「胡國琳館」即將動工，未來結合 RiskVal 中心與 AI 研究能量，將成為本院推動前瞻研究、跨域教學與產學合作的重要樞紐，持續實踐清華科管院跨域領航的教育與研究使命。

歲末回顧，迎向嶄新一年
With Gratitude for the Past, We Move Forward Together

科管院公共事務辦公室提供 Written by the Office of Public Affairs

科管院大家庭齊聚一堂，共度溫馨尾牙盛宴。A Heartwarming Year-End Celebration with the CTM Family.

回顧豐收蛇年，迎向昂揚馬年 穩健前行，再創高峰

回顧豐收的蛇年，科技管理學院在師生、同仁與校友攜手努力下，於教學、研究與國際交流等面向持續累積成果，也在一次次合作與交流中凝聚更緊密的團隊情誼。感謝校內師長、同仁與校友一路相伴支持，尾牙相聚的歡笑與祝福，更為這一年的努力留下溫暖而珍貴的註腳。

迎向昂揚的馬年，科管院將持續穩健前行，攜手彼此與各界夥伴並肩向前，再創高峰。

Together We Celebrate a Fruitful Year and Look Ahead to New Momentum

Over the past year, the College of Technology Management has continued to grow through the collective dedication of our faculty, staff, students, and alumni, achieving meaningful progress in teaching, research, and global engagement. Beyond these accomplishments, it is the shared efforts, mutual support, and moments of gathering and celebration that have strengthened our community and made the journey especially meaningful.

As we step into a new year, CTM will continue moving forward with confidence and steady determination, working alongside our partners and community to pursue new possibilities and reach even greater heights together.

彭心儀院長於年終聚會中，與同仁一同回顧科技管理學院一年來的亮眼成果與重要里程碑。
Dean Shin-Yi Peng shared and reflected on the College of Technology Management's key achievements and milestones over the past year.

感謝校內師長、同仁與校友一路相伴支持 (左起 : 吳世英副院長、彭心儀院長、王俊程執行長)
We sincerely thank our faculty, staff, and alumni for their continued support and companionship throughout the year. (From left: Associate Dean Shih-Ying Wu, Dean Shin-Yi Peng, and CEO Jyun-Cheng Wang.)

院內大小事
CTM Hightlight

科管院公共事務辦公室提供
Written by the Office of Public Affairs

榮譽 Honor

劉玉雯 教授（科管院副院長、科技管理研究所教授）榮獲教育部 114 年度「教學實踐研究計畫」補助

Prof. Yu-Wen Liu, Vice Dean of CTM, received the MOE 2025 Teaching Practice Research Program Grant.

2025 科管院博士生研究獎
服科所｜何捷睿、Matthew Ray Bobea
科法所｜李子鉉、陳怡靜
經濟系｜張金育

2025 CTM Doctoral Research Award
Chieh-Jui Ho, Matthew Ray Bobea (ISS)
Tzu-Hung Lee, I-Ching Chen (ILST)
Chin-Yu Chang (ECON)

2025 科管院傑出導師獎
科管所｜簡珮瑜
計財系｜謝佩芳
經濟系｜李翎帆
科法所｜李怡俐
服科所｜雷松亞

2025 CTM Outstanding Mentor Award
Prof. Pei-Yu Chien (ITM)
Prof. Pei-Fang Hsieh (QF)
Prof. Ling-Fan Lee (Econ)
Prof. Yi-Li Lee (ILST)
Prof. Soumya Ray (ISS)

教育部磨課師標竿課程獎
林勤富 教授（科法所）榮獲 最佳課程獎（第一名）
許裴舫 教授、陳思筑 博士生候選人（服科所）榮獲 最佳科技應用獎

MOE Benchmark MOOC Awards
Prof. Chin-Fu Lin (ILST) – Best Course Award (First Place)
Prof. Pei-Fang Hsu & Ph.D. Candidate Szu-Chu Chen (ISS) – Best Technology Application Award

活動 Events

2025 年 12 月 4 日｜孫運璿科技講座
邀請 鄧振中（前經濟部長、前行政院政務委員暨行政院經貿談判辦公室總談判代表）以「川普貿易政策下，台灣與全球經貿秩序的危機與機會」為題，深入剖析國際經貿局勢的挑戰與契機。

Sun Yun-Suan Technology Lecture
On December 4, the lecture featured John Chen-Chung Deng, former Minister of Economic Affairs and former Minister without Portfolio and Chief Trade Negotiator of Taiwan, who delivered a talk titled "Risks and Opportunities for Taiwan and the Global Economic Order under Trump's Trade Policies."

2025 年 12 月 9 日｜2025 海外暑期實習計畫分享會

由科技管理學院副院長兼科管所教授 劉玉雯 主持，「海外暑期實習計畫」順利完成，本年度共選送 4 位優秀同學 前往泰國 泰創工程 與 泰達電 進行實務實習，成果豐碩。

2025 Overseas Summer Internship Program Sharing Session

Hosted by Prof. Yu-Wen Liu, Vice Dean of the College of Technology Management, the program successfully placed four outstanding students in overseas internships in Thailand, gaining valuable hands-on industry experience.

2025 年 12 月 18 日｜美國史丹佛大學 MBA 境外學習團訪學交流

Stanford Graduate School of Business MBA Global Study Program 蒞臨清華科管院，進行境外學習與學術交流。

The Stanford Graduate School of Business MBA Global Study Program visited the College of Technology Management on December 18, strengthening cross-cultural dialogue and global engagement.

2025 年 12 月 19 日｜深化國際交流｜亞利桑那州立大學 MBA 訪學團

Arizona State University MBA Global Learning Group 蒞臨清華科管院訪學交流，深化雙方國際合作與跨文化互動。

The Arizona State University MBA Global Learning Group visited the College of Technology Management on December 19, fostering cross-cultural exchange and strengthening international engagement.

捐贈 Donation

2026 年 1 月 5 日｜AI 伺服器捐贈

胡國琳 榮譽教授慷慨捐贈 AI 伺服器 予科技管理學院，支持本院推動人工智慧於教學、研究與產學合作之應用。

On January 5, Prof. Jordan Hu, Honorary Professor and Founder of RiskVal, donated AI servers to the College of Technology Management, supporting the advancement of AI-driven teaching, research, and industry collaboration.

Prof. Chung-Han Hsieh, 2025 Wu Ta-You Memorial Award Recipient

Written by Yi-Hsuan Chuang

Prof.Yu-Kuan Chen, Assistant Professor of the Department of Economics; and on the right, Prof. Chung-Han Hsieh, Associate Professor, Department of Quantitative Finance

"Those who sow in tears will reap with songs of joy."—Psalm 126:5

This verse from the Book of Psalms appears quietly on Professor Chung-Han Hsieh's research website. For Professor Hsieh—recipient of both the Wu Ta-You Memorial Award from Taiwan's National Science and Technology Council and National Tsing Hua University's Outstanding Teaching Award (Academic Year 2023)—these words are more than an expression of faith. They reflect a deeply personal journey through the solitude of academic research, the risks of interdisciplinary exploration, and the responsibilities of being an educator.

Trained first in mechanical engineering, then moving through electrical engineering with rigorous training in mathematics, and ultimately settling in quantitative finance, his path resembles a carefully calculated trajectory—yet one full of unexpected turns.

The Courage to Cross Disciplines: When Control Theory Meets Financial Markets

While pursuing his Ph.D. at the University of Wisconsin–Madison, Professor Hsieh came to see control theory, at its core, as a powerful mathematical language—capable of governing robots, stabilizing

aircraft, and guiding autonomous vehicles. Yet a pivotal moment came from a single insight offered by his Ph.D. advisor, Professor B. Ross Barmish, a leading figure in robust control theory:

"The most uncertain and stochastic system of all is the financial market."

The remark struck him like lightning. If robust control is designed to handle extreme uncertainty in dynamic systems, why not apply it to the noisy and unpredictable world of financial markets? Acting on this idea, Professor Hsieh undertook rigorous coursework in mathematics and finance, bringing the precision of control engineering into the business and finance domain, where risks and returns often dominate decision-making.

The path was far from easy. Each discipline speaks its own language, and crossing fields often requires double the effort just to translate concepts. Yet guided by an engineer's commitment to rigor and realism, Professor Hsieh carved out a distinctive position at the intersection of control theory and financial risk management—transforming abstract mathematics into a practical safeguard against uncertainty.

The Philosophy of Robust Decision Making: Preparing for the Worst in Uncertain Times

At the heart of Professor Hsieh's research lies distributionally robust optimization. While the term may sound esoteric, it embodies a deeply pragmatic philosophy. Traditional financial models often assume that market probability distributions are known. In reality, markets rarely behave as models predict; the true datagenerating distribution is riddled with uncertainty.

"Can we still make the optimal decision under a worst-case probability distribution?"

Professor Hsieh explains that this approach is not about pessimism, but about designing strategies that remain stable and resilient across adverse scenarios.

He illustrates this with his research on maximum drawdown control. For investors, the primary concern is not academic metrics like variance or the Sharpe ratio, but a simple question: Will I lose money? His work demonstrates that by imposing constraints—such as limiting maximum drawdown from peak to no more than 5%—robust control strategies can dynamically adjust portfolio positions during market turbulence, keeping assets within pre-specified bounds while achieving competitive long-term performance. In this way, cold equations are transformed into a practical layer of protection against uncertainty for investors.

Compassion Behind the Data: Social Responsibility During COVID-19

Professor Hsieh's concept of a control-theoretic approach extends beyond financial markets to broader societal concerns. During the global outbreak of COVID-19, he conducted interdisciplinary research applying dynamic systems models to epidemic control.

"This is a classic dynamic control problem," he explains. "Governments set policies, while infection and mortality rates are the state variables—yet economic shutdowns carry significant costs."

By incorporating lockdown policies as control variables within dynamic models, his research quantified the trade-offs between public health and economic loss, identifying policy paths under different scenarios. The work exemplifies how quantitative scholars can apply engineering logic to urgent social challenges—revealing, beneath the calm surface of data analysis, a genuine desire to reduce human suffering.

Solitude and Sharing: A Blog That Reached Millions

Academic research is often profoundly lonely. "Sowing in tears" reflects not only physical exhaustion, but also emotional solitude. While studying abroad, Professor Hsieh began writing a personal blog—initially as a way to clarify his thinking and internalize knowledge learned in English. He translated abstract concepts such as stochastic analysis, dynamic programming, and control theory into structured explanations in Chinese.

What began as a private exercise unexpectedly became a guiding light for countless graduate students. Today, the blog contains over 360 technical articles and has accumulated more than two million views. Graduate students struggling with theses and engineers searching for clarity have found direction there.

"These were just notes for myself," he says modestly. "I didn't expect them to help so many people—but I'm glad they did."

Through this platform, his personal struggle evolved into a shared harvest of knowledge, embodying the spirit of academic generosity.

Mentorship with Warmth: Seeing Each Student as a Unique Variable

In addition to his research achievements, Professor Hsieh's receipt of National

Tsing Hua University's University-Level Outstanding Teaching Award reflects his deep commitment to education. Influenced by the apprenticeship-style mentorship he experienced in the U.S., he treats each student as an individual—not a data point.

"The biggest difference between solving homework problems and doing research lies in defining the problem," he notes. While textbooks provide answers, research demands the ability to ask meaningful questions.

He emphasizes hands-on mentorship, working closely with a small number of students to refine research directions and uncover personal interests. "When you supervise fewer students, you really get to know them," he says. For him, teaching is not merely the transmission of knowledge, but a process of guiding students toward the futures they seek.

Words for Students: Life as a Robust Optimization Problem

In an era marked by anxiety and uncertainty, Professor Hsieh—an expert in decision-making under uncertainty—offers a poetic metaphor. He likens life to a massive robust optimization problem. Each person seeks to maximize their own utility function—be it GPA, income, or status—subject to constraints and random shocks.

He shares a personal example: a carefully planned workweek derailed when his child caught the flu.

"That's a stochastic shock in life," he laughs. "Even as someone who studies robust control, I still feel off-balance when it happens."

His advice is gentle yet firm:

"We can control only our time and effort; outcomes are random."

He encourages students not to freeze in fear of imperfect results. Like robust control systems, we should focus on optimizing what we can control, set psychological stop-loss points for what we cannot, and accept volatility as part of life. In an unpredictable world, resilience matters more than certainty.

From theoretical derivations in control theory to the living legacy of teaching, Professor Chung-Han Hsieh's career embodies a rare balance between rational precision and human warmth. The Wu Ta-You Memorial Award honors his years of sowing in tears; his dedication to education promises many more seasons of joyful harvest. At the College of Technology Management of National Tsing Hua University, he continues to guide students toward clarity amid uncertainty—helping them chart their own optimal paths forward.

The full interview is now available on the CTM podcast

Podcast

Hsiao Chu-Chen, Director of the Documentary “ A Chip Odyssey”

Written by Yi-Hsuan Chuang

Prof. Hung-Hua Pan, Associate Professor of the Department of Quantitative Finance and Director of the Office of Public Affairs ; and on the right, Director Chu-Chen Hsiao.

In Hsinchu—a city defined by technology, efficiency, and productivity—success is often measured in speed and output. Yet within this fast-paced environment, there is a voice that chooses to slow down, to wait patiently for stories to unfold over time. That voice belongs to Chu-chen Hsiao, an award-winning documentary filmmaker, Golden Horse Award recipient, and alumna of NTHU Department of Economics (Class of 1994). She currently teaches at NTHU’s Center for General Education and College of Humanities and Social Sciences.

In the interview, Director Hsiao reflects on a creative philosophy that runs counter to the logic of speed dominating the technology and AI era. Rather than chasing immediacy, she speaks of slowness, impermanence, and the human values often deemed “inefficient,” yet most essential.

From Economics to Documentary Filmmaking: Freedom at NTHU

Director Hsiao traces her journey back to NTHU in the 1990s—a time before the internet and convenience stores became part of campus life. Studying economics within the College of Humanities and Social Sciences, she benefited from a liberal academic environment

that encouraged exploration beyond disciplinary boundaries. A general education course on video production became the turning point that led her from economics to filmmaking.

While she did not pursue a conventional academic path, her immersion in literature, film, and student organizations laid the foundation for her later work. She often tells her students, "You don't have to become a director—but you should learn how to appreciate art." This belief continues to guide both her teaching and creative practice.

Time, Trust, and the Human Core of Documentary Film

From "The Red Leaf Legend" to " Grandma's Hairpin", and more recently "The Dreamer" and "On The Train", Director Hsiao's films are marked by emotional depth and quiet strength. She attributes this not to technique, but to time and trust.

Unlike fast-paced news reporting, documentary filmmaking requires long-term engagement. Trust cannot be rushed. Without it, people become guarded, and stories lose their authenticity. As she notes, meaningful human stories cannot be reduced to soundbites or summaries.

This belief stands in contrast to a society eager for quick conclusions and instant "takeaways." Her films resonate precisely because they preserve complexity—emotions and lived experiences that no algorithm can calculate.

Embracing Uncertainty: Life as an Organic Process

Director Hsiao often compares documentary filmmaking to farming. While effort is essential, outcomes are never guaranteed. Weather, funding, global events, and unexpected disruptions—such as the COVID-19 pandemic—can undo years of preparation.

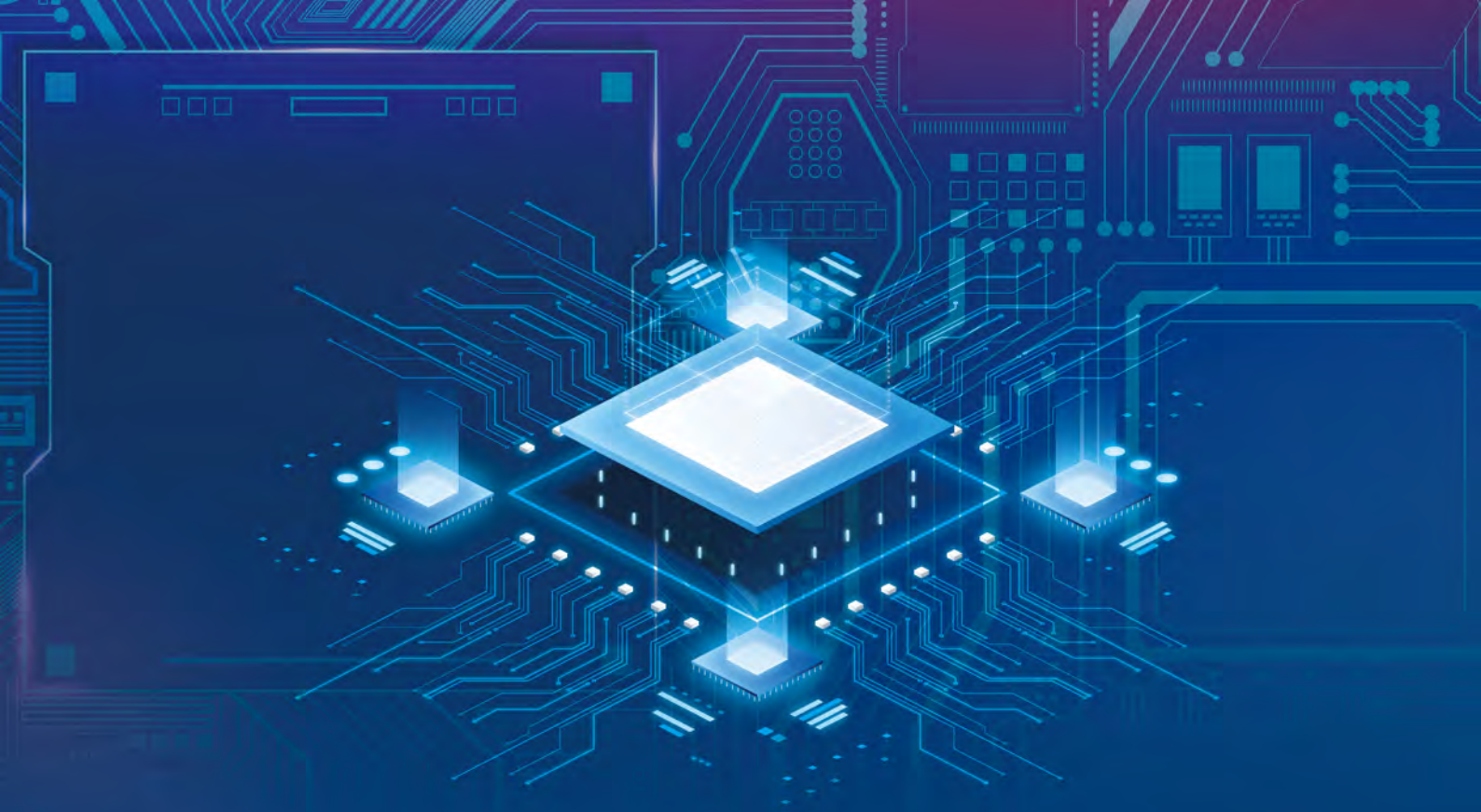
Reflecting on the rapid global changes between 2019 and 2024, she emphasizes that life cannot be fully planned or controlled. Instead of treating life as a checklist, she sees it as an organic process—one shaped by adaptation, resilience, and acceptance of uncertainty.

This philosophy also informs her advice to students: true strength lies not in controlling every variable, but in learning how to respond and reframe when circumstances change.

The "Uselessness" that Makes Us Human in the AI Era

As the conversation turns to artificial intelligence—especially in the context of her latest film A Chip Odyssey—Director Hsiao offers a thoughtful reflection. While she acknowledges AI as a powerful tool, she cautions against allowing efficiency and speed to hollow out human experience.

Art, contemplation, unstructured conversation—these moments may appear "useless" in utilitarian terms, yet they cultivate empathy, creativity, and emotional depth. Competing with machines on speed or calculation is



futile; what remains uniquely human is our capacity to feel, to empathize, and to find meaning in slowness.

As she reminds her students, the goal is not to become machine-like humans, but to become more fully human.

Finding One's Own Narrative

From economics at NTHU to documenting baseball legends, rural communities, veterans, and Taiwan's semiconductor industry, Director Hsiao's work consistently resists a singular definition of success. Her journey offers a powerful reminder to the CTM community: management and technology must remain connected to people, values, and meaning.

In an era defined by uncertainty, her story encourages us to slow down, build trust, embrace impermanence, and rediscover value in what cannot be optimized.

The full interview will be featured on the CTM Podcast in March 2026. Stay tuned!

Podcast

Spotlight on Research- Professor Ching-Fu Lin, Institute of Law for Science and Technology

This article is provided by Professor Ching-Fu Lin
(translated by Office of Public Affairs)

Professor Ching-Fu Lin of the Institute of Law for Science and Technology co-authored the monograph "Economic Cooperation in the Shadow of Contested Sovereignty" with Professors Chien-Huei Wu and Han-Wei Liu. The book was published in 2025 by Bloomsbury / Hart Publishing (UK).

The book examines how states engage in economic cooperation under conditions of contested sovereignty and political confrontation, a topic long overlooked in international legal and political scholarship. Through comparative analysis of three key cases—Taiwan-China relations, inter-Korean relations, and Northern-Southern Cyprus—the authors integrate legal, political, economic, and historical perspectives to explore the possibilities and limits of economic interaction amid geopolitical tension.

The study highlights how sovereignty disputes, domestic political dynamics, international legal frameworks, participation in international organizations, and the influence of major powers jointly shape the scope and sustainability of economic cooperation.

The book offers a valuable analytical framework for understanding and evaluating economic engagement among politically sensitive and sovereignty-contested entities in a rapidly changing global order.

Step into the World with Taiwanese Enterprises: Overseas Internship Program

This article is provided by Ya-Fang Lin, Tsai-Yu Wu, Sian-Gci Peng, Tien-Yu Chang

The 2025 Overseas Summer Internship Program, led by Associate Dean Yu-Wen Liu, Professor at the Institute of Technology Management, College of Technology Management, was successfully completed this summer.The program was designed with overseas markets as its primary learning setting and aimed to bridge academic training with international industry practice. Through structured overseas internships, the program sought to support students in developing a deeper understanding of how Taiwanese enterprises operate in global markets, while strengthening their cross-cultural adaptability and practical problem-solving capabilities.

This year marked the inaugural launch of the program, with Thailand selected as the first destination in Southeast Asia. A total of four students were placed in internships at two representative Taiwanese-invested enterprises in Thailand. By integrating interdisciplinary training from the home institution with the practical needs of overseas Taiwanese companies, the program provided students with opportunities to engage in hands-on learning within real industrial environments. Internship assignments covered areas such as information system implementation, operational process optimization, productivity enhancement, and automation-related practices. During the internship period, students participated directly in daily operations and project-based tasks, gaining first-hand exposure to cross-departmental and cross-cultural work settings, as well as to the managerial and communication challenges commonly encountered in overseas operations.

The outcomes of the first cohort indicate that participating students gained substantive learning experiences and opportunities for reflection across multiple dimensions, including international perspective, professional development,

and career awareness. From the industry perspective, the program also facilitated closer interaction between the university and participating enterprises, enabling companies to engage with emerging talent through the internship mechanism while laying the groundwork for future academic–industry collaboration. Looking ahead, the program will continue to seek additional internship placements and international partners, with plans to expand to Malaysia, Indonesia, and the U.S. Silicon Valley. Through participation across a wider range of industries and regional contexts, the program aims to further enhance students' understanding of international markets and the operational realities faced by Taiwanese enterprises abroad.

As the first year launching the Overseas Summer Internship Program, we sought to create learning opportunities beyond the classroom and to connect academic training with real-world industry experience overseas through this program. The year 2025 represents the starting point of this effort. From planning and partner matching to on-site implementation, many parts of the program were built gradually through learning and adjustment. By placing students directly in Taiwanese-invested companies abroad, we hoped they could gain a clearer understanding of how international business environments operate, while reflecting on how classroom knowledge connects with practical experience.

The completion of this first program would not have been possible without the support of many partners. I would like to sincerely thank Delta Electronics Foundation, National Tsing Hua University and the College of Technology Management for their administrative and resource support. I am also grateful to our partner companies for welcoming our students and providing guidance throughout the internship period, helping them participate in daily operations and adapt to overseas workplace settings.

Overall, this program brought together students, industry partners, and the university, and allowed us to gain valuable experience in organizing overseas internships. Looking ahead, I hope to continue improving the program step by step, so that overseas internships can become a stable and meaningful option for students exploring international career paths and developing practical skills. Through this platform, I hope more students will feel encouraged to gain experience abroad, while university–industry collaboration continues to grow and support Taiwanese enterprises in the global market.

TTE was founded in 1993 and has grown for more than 30 years, establishing seven overseas operational sites across Southeast Asian countries, including Vietnam, India, and Thailand. The Thai branch, where this internship took place, was established in 2022 and is located in Bangkok. It serves as an important hub for TTE's recent efforts to expand its presence in international markets.

TTE's core services span high-tech manufacturing facilities, biotechnology and medical industries, hospitality and commercial buildings, as well as public infrastructure projects. The company provides comprehensive solutions including cleanroom systems, mechanical and electrical (M&E) engineering, HVAC systems, gas and chemical supply systems, wastewater and exhaust treatment, semiconductor process piping, and fire safety systems. Its services cover planning and design, procurement and contracting, construction, system integration, training, and after-sales maintenance.

Renowned for its"one-stop"and turnkey engineering solutions, TTE specializes in cleanroom and aseptic room construction, electrical and plumbing systems, fire protection, refrigeration and air-conditioning systems, and laboratory equipment engineering.Dedicated to achieving the optimal balance of safety, quality, speed, and cost, TTE upholds the corporate mission:"Your ideal project is my ideal engineering."The company continues to deliver high-quality and high-efficiency engineering services to meet the diverse needs of its clients.

Student Sharing | YA-FANG LIN

Stepping Out of My Comfort Zone: Growth, Learning, and Career Exploration Through an Overseas Internship

This internship took place in the Administration Department of TTE's Thailand branch. The department plays a central role in the company's overall operations, overseeing cross-departmental coordination, administrative management, project support, and initiatives aimed at improving operational efficiency. Through my work in this department, I gained a broader understanding of how a company functions as a whole.

During the internship, I mainly participated in two key tasks. The first was attending meetings related to the implementation of the company's ERP system. Through observing and documenting these meetings, I realized the importance of cross-departmental collaboration in large-scale system implementation. As a multinational enterprise, Tai Chong faces not only internal process integration challenges but also issues arising from differences in regulations and systems across countries. This experience helped me better understand the

Ya-Fang Lin | Visiting a Local Medical Exhibition with Taiwanese Business Representatives

Ya-Fang Lin | Internship Work Environment

complexity of standardizing processes and coordinating communication in global operations.

The second task involved assisting the Administration Department in creating a “Work Breakdown Structure Chart.” I began by collecting information and gradually organizing various job functions. I then worked with colleagues to confirm process details and ultimately transformed complex tasks into a clearly structured visual chart. This assignment strengthened my skills in data organization and analysis while deepening my understanding of the department’s responsibilities and the company’s internal support operations.

Overall, this overseas internship was a highly valuable learning and growth experience. Working in an environment with different languages, cultures, and work practices taught me to embrace differences with an open mindset and helped me gradually develop stronger communication skills and workplace adaptability. This internship not only broadened my international perspective but also gave me greater clarity about my future career direction. It was a truly meaningful and rewarding professional experience.

Student Sharing | TSAI-YU WU

Overseas Taiwanese Business Internship: Refining My Cross-Cultural Management Capabilities Amidst Multinational Challenges

Choosing an overseas internship was driven by the hope of stepping out of my familiar living environment and genuinely experiencing the work pace and lifestyle under a different culture. This internship in Thailand gave me a deeper understanding of the operations of multinational corporations, the realities of expatriate work, and the "management challenges brought about by cultural differences."

I interned at TTE in Thailand. My tasks included ERP implementation, financial statement integration, and an employee questionnaire project. This internship showed me the complex interplay among systems, culture, and people. The most challenging aspect for a multinational corporation is often not system design, but rather how "people" and "culture"

Tsai-Yu Wu-My Cross-Cultural Internship Experience at TTE Thailand

collaborate.

Due to differences in culture, education, and work habits, Taiwanese management methods and efficiency standards cannot be directly applied in Thailand. How to view issues from both perspectives and formulate appropriate management strategies becomes a crucial task that cross-border managers must face.

This internship also made me understand the difficulties faced by expatriates. After leaving behind familiar languages, cuisine, and social networks, loneliness and adaptive pressure are the real issues expatriates encounter. Mindset, adjustment ability, and speed of adaptation often determine long-term success overseas more than professional expertise. One Taiwanese business senior told me, "You can only have a good conversation if you understand the local people's mindset." This saying applies not only to management but is also a core competency that anyone aiming to go international must possess.

What this overseas internship brought me, besides professional skill enhancement, was learning to adjust my thinking and working style according to different cultures. It made me realize: true cross-cultural competence is not just about having good English or strong expertise, but about learning to live at the local pace and seeing the world through different cultural eyes.

Delta Electronics (Thailand), established in 1988, is Delta's subsidiary in Thailand and also serves as the regional headquarters for Southeast Asia, Oceania, and India. The company is located in the Bangpoo Industrial Estate, southeast of Bangkok near the coastline, with convenient access to the airport.

Supported by the Thai government's strong promotion of electric vehicle (EV) development policies, Delta Electronics Thailand has become Delta's most important production base for EV components. Its products span power electronics, automation equipment, and infrastructure solutions. With the rapid growth of the global EV market in 2023, the company's market value surged, and it even became the most valuable listed company in Thailand—earning the reputation of being the "King of Electronics Stocks" in the Thai market.

Student Sharing | SIAN-GCI PENG

Crossing Borders, Crossing Languages: My Overseas Internship Journey

During this internship, I joined the PIT (Productivity Improvement Team) department, which consists of six Thai colleagues. Half of the team focuses on productivity improvement in systems, processes, and daily operations, while the other half works on automation and systematization through software development. My primary responsibility was to assist the factory in implementing various production process improvement projects, identifying production bottlenecks, and streamlining workflows.

Production planning often needs to be adjusted according to market demand, and my internship coincided with a period of declining product demand. Therefore, reducing production costs and improving production line efficiency became the top priority. By participating directly in production line operations, I not only gained first-hand insight into the challenges faced by the factory in daily operations but also learned how to identify pain points from an on-site perspective and propose concrete and feasible improvement measures.

Working in a cross-cultural team allowed me to gain a deeper understanding of the importance of communication. In human collaboration, problems cannot be solved by rules and regulations alone; flexible communication is often required. The challenges in managing a multinational team lie in language and cultural differences, which make communication more complex. While working in Taiwan, I could quickly grasp key points and express my ideas in a familiar language. However, in Thailand, I had to adjust my communication style to navigate differences in language and culture and learn to respond appropriately according to diverse cultural expectations.

Looking back on this internship, I not only gained a deeper understanding of manufacturing processes and experienced the logic and challenges of implementing process improvements, but I also learned to approach collaboration with colleagues from different cultural backgrounds with greater empathy. These experiences enhanced my professional skills, broadened my perspective, and cultivated personal growth, equipping me with stronger adaptability and communication abilities for future work environments.

Sian-Gci Peng | A Group Photo with My Department Colleagues

Sian-Gci Peng | My First Day at Work

Student Sharing | TIEN-YU CHANG

Bridging Language and Knowledge: A Cross-Disciplinary Overseas Journey

This internship took place at Delta Network Infrastructure (DNI), a company that manufactures networking products, including Wi-Fi routers and switches. I was involved in a project focused on the early-stage planning of a new factory, where the work began with layout design. During meetings, managers and teams from different departments discussed space allocation, workflow, and functional requirements. Given limited resources, not every idea could be realized. Our role was to clarify needs, integrate different perspectives, and facilitate communication in order to arrive at the most appropriate planning solution within these constraints. This was the first time I clearly experienced that management, at its core, is about making trade-offs.

Once the layout was finalized, the project moved into the stage of production line and equipment design. As the new factory involved a non-standard automation setup, decisions regarding equipment placement, process connections, and production integration had to be carefully rethought and broken down. Through this process, I gradually came to understand that the role of management is not to replace engineering expertise, but to help align goals and decision-making logic across different professional domains, so that abstract technical ideas can be translated into practical, executable solutions on the shop floor. I later participated in tasks related to standardizing automation design, engaging in repeated discussions with cross-functional teams and headquarters. These experiences deepened my understanding that the essence of technology management lies in coordinating and making decisions among people.

Beyond professional skill development, this overseas internship also reshaped my understanding of cross-cultural work. I realized that even with English communication skills, understanding the local language and culture remains essential, as many decision-influencing details are embedded in everyday conversations and on-site discussions. As my awareness of cultural context grew, I became more adept at understanding the dynamics and logic behind cross-cultural collaboration. This experience taught me that while professional competence determines how far one can go, cultural understanding often determines how long one can go. For me, this overseas internship not only connected knowledge with language, but also allowed me to take an important step from being a student toward the realities of a professional career.

Tien-Yu Chang | Internship Highlights

Tien-Yu Chang | Intern Sharing

Positioning CTM as an Asia-Pacific Hub for Offshore Learning

Written by the Office of Public Affairs

Positioning CTM as an Asia-Pacific Hub for Offshore Learning

In response to the rapid internationalization of higher education, the College of Technology Management, National Tsing Hua University (CTM, NTHU) continues to expand its offshore learning and international exchange initiatives. By adopting a two-way mobility model (Outbound + Inbound) and strengthening partnerships across North America and Southeast Asia, CTM is building an institutionalized and scalable platform for international visiting programs, positioning itself as a key Asia-Pacific hub for offshore learning.

North America | MBA Study Groups from Stanford and ASU Visit CTM

In December 2025, CTM welcomed two U.S. MBA offshore learning delegations. On December 18, a group of 31 faculty members and students from the Stanford Graduate School of Business MBA Program visited CTM to explore Taiwan's semiconductor industry and governance landscape. The program featured a keynote by Distinguished Chair Professor and former Dean Prof. Ching-Tay Shih, highlighting how policy support, academic research, and industry collaboration have shaped Taiwan's globally competitive semiconductor ecosystem.

On December 19, 32 faculty members and students from the Arizona State University MBA Program Global Learning Group

The Arizona State University MBA Global Learning Group during a corporate visit to United Microelectronics Corporation (UMC)

The Arizona State University MBA Global Learning Group during a campus tour

Arizona State University MBA Global Learning Group

Chulalongkorn Business School – Visit to the Industrial Technology Research Institute (ITRI)

Stanford MBA Global Study Trip – Lunch Exchange with IMBA Students

visited CTM. In light of TSMC's expanding investment in Arizona (TSMC Arizona), CTM's International Affairs Office curated a cross-disciplinary forum featuring faculty from economics, law, and management—Prof. Loretta Fung, Prof. Chang-Hsien Tsai, and Prof. Chan-Yuan Wong—moderated by Dean Peng. Discussions centered on global trade dynamics, corporate governance transformation, and industrial development strategies. The program concluded with a corporate visit to United Microelectronics Corporation (UMC), enabling participants to connect theory with on-site industry practice and gain a comprehensive understanding of Taiwan's semiconductor competitiveness.

Southeast Asia | Strengthening Long-Term Partnership with Chulalongkorn Business School

CTM also continues to deepen its Southeast Asia partnerships. In October, 37 faculty members and students from Chulalongkorn Business School visited CTM, continuing the reciprocal

Stanford MBA Global Study Trip – Keynote by Distinguished Chair Professor and Former CTM Dean, Prof. Ching-Tay Shih

Stanford MBA Global Study Trip 合照

exchange mechanism established in 2023. The program included lectures on AI marketing, sustainable energy, and business analytics, as well as visits to the TSMC Innovation Museum and the Industrial Technology Research Institute (ITRI), offering participants a comprehensive view of Taiwan's innovation ecosystem.

Toward an Institutionalized Platform | Shaping an Asia-Pacific Offshore Learning Hub

From North America to Southeast Asia, whether through short-term visiting programs, co-taught courses, or corporate visits, CTM has progressively established an integrated international exchange model that combines curriculum design, academic dialogue, and industry engagement. Through stable partnerships and a two-way mobility framework, CTM not only enables its students to engage with the world but also attracts international faculty and students to Taiwan to gain first-hand insight into Asian industries and governance practices.

Looking ahead, CTM will continue to expand collaborations with leading global institutions, scaling both the scope and depth of offshore learning initiatives. The College aspires to become a key gateway for international universities entering the Asia-Pacific region for learning and research, and to build a globally influential, interdisciplinary platform for international education.

泰國 Chulalongkorn Business School 合照

Honorary Professor Jordan Hu Donates an AI Server

Written by the Office of Public Affair

Honorary Professor Jodan Hu, Founder and CEO of RiskVal Financial Solutions, LLC, has generously donated AI servers to the College of Technology Management (CTM), supporting the College's efforts to advance artificial intelligence in teaching, research, and industry–academia collaboration.

The donated servers mark a key milestone in CTM's AI Initiative, streng-thening AI-driven cross-disciplinary curriculum design and collaborative research. The resources will be applied across multiple teaching and research projects, aligning with CTM's long-term development strategy and its commitment to integrating technology and management.

Professor Hu also shared his insights on the rapid transformation expected across industries in the coming years,

noting that AI will fundamentally reshape both industrial structures and the nature of work. While these changes present challenges, they also create new opportunities for innovation and collaboration. Through this donation, Professor Hu expressed his hope to deepen cooperation with CTM and jointly respond to the evolving demands of the AI era.

CTM Dean Prof. Shin-yi Peng emphasized that the College will make full use of this valuable resource to maximize the impact of AI computing in education and research. Faculty presentations further showcased how enhanced AI capacity is already driving innovation in service science and financial research, highlighting CTM's growing momentum in cross-disciplinary education and applied research.

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