## Citation

Distinguished Engineering Alumni Award
For Professional Achievement and Global Impact

# Mr. Frank WANG

MPhil in Electronic & Computer Engineering and
BEng in Electronic Engineering
Founder & CEO of DJI

In the past 12 years, we have all started to see the world differently. Be it for life-saving rescue missions, monitoring crops, surveying and mapping, or everyman aerial photography, the advent of high-quality, affordable, and easy-to-use drones has transformed the capabilities and outlook of individuals and businesses in numerous sectors globally.

For this, we must thank Frank Wang, the School of Engineering alumnus honored today. As the Founder and CEO of DJI, Frank has incontestably shown how talent and entrepreneurial drive can synergize and take flight at the School. Since the launch of DJI's Phantom drone brand in 2013, the company has kickstarted an entire industry by reshaping previously complex unmanned aerial devices limited to DIY hobbyists into accessible, impactful tools for an increasing swathe of functions. Frank has also piloted the company to stay out in front. From DJI's initial founding in a HKUST dorm in 2006, the enterprise now accommodates its Shenzhen headquarters in two specially built future-ready high-rise towers and holds a 70% share of the multibillion US dollar global consumer and commercial drone market. Along the way, the venture has helped revolutionize perceptions of Chinese innovation's ability to lead, both inside and outside the country.

To achieve this, Frank has relentlessly pushed forward DJI technical innovation through the development of pioneering motion control and robotic perception technologies. Born in 1980, growing up in Hangzhou, and passionate about flying devices since childhood, the creative dynamo joined the School's Department of Electronic and Computer Engineering in 2003 to further his ambition of advancing real-world unmanned helicopter technology. At HKUST, he has said, he found exactly the right environment to power forward this vision, from undergraduate days onward: courses that provided the fundamental knowledge that Frank needed to build autonomously controlled flying machines; inspiring, internationally minded academics; opportunities to test out his ideas and discover the importance of teamwork in tough student competitions against top overseas peers; and encouragement to attain his full entrepreneurial potential by professors with deep start-up experience. In particular, he was aided by Prof. Li Zexiang, an expert in robotics, who became his MPhil supervisor and former chairman of DJI.

Frank faced setbacks and crashes in early machine trials. But he refused to give up. By 2010, his perfectionism and persistence had begun to bring technological breakthroughs in flight control systems. His team had become the first in China to employ an unmanned helicopter to conduct surveillance and damage assessment immediately after the Sichuan Earthquake in 2008. A year later, the team carried out the world's first autonomous test flights over Mount Everest, taking photographs and videos during the flight and with signals sent simultaneously to a ground control station. DJI's Shenzhen base was a further plus, providing relatively low manufacturing costs that made it feasible to create fewer quantities, rapidly develop new versions, and sell at user-friendly prices. The company suddenly found its products becoming market best-sellers.

Yet novel technological advances are not the only key to the genesis of a new industry leader. In addition, it takes capabilities ranging from trend-setting product direction and safeguarding IP to market strategizing and management of global business operations to build a game-changing giant. Here, Frank further excelled. As the company's strengths in R&D burgeoned, DJI established a runaway competitive edge through integration of its advanced flight controllers, GPS, and camera systems, into "ready-to-fly" machines marketed under its iconic quadcopter Phantom, Mavic, and other lines. Camera stabilization, robotics, and enterprise solutions also took off. Alongside, engineers and other staff grew from a handful of employees to today's roll of 14,000 worldwide, including many HKUST graduates. DJI markets expanded to cover the Americas, Europe, Japan, Hong Kong, and the Chinese Mainland. Accounting for such achievements, Prof. Li has previously stated Frank was not afraid to do anything.

Frank's seminal role in igniting the commercial drone industry has been widely celebrated, despite the DJI founder remaining a success story who robustly seeks privacy. He was recognized by Time Magazine as one of the "100 Most Influential People in the World in 2014" and named among Goldman Sachs' "100 Most Intriguing Entrepreneurs" in 2015. On the professional engineering front, he was accorded the prestigious IEEE Robotics and Automation Award 2019 for contributions to the development and commercialization of civilian drones and aerial imaging technology, together with Prof. Li. Moreover, as a leading-edge Chinese company, known globally for its high performance and creativity, DJI has significantly assisted in taking the innovation profile of the Greater Bay Area and nation to the next level.

Closer to home, senior HKUST academics have lauded Frank for his path-setting contribution to the University's entrepreneurship and as an inspiring role model for future generations of students. Meanwhile, he and his company have sought to give back to his alma mater in a variety of practical ways. He was honored by the HKUST Foundation as a Life Grand Patron in recognition of generous contributions toward the University. In appreciation of the formative innovation springboard that HKUST provided for him, he has supported research projects in his former department. He has sponsored postgraduates to compete internationally, given his first-hand experience of the far-reaching benefits such contests can bring. In addition, DJI worked with the School of Engineering to develop the Integrative Systems and Design Program, a trailblazing degree empowering students' technological competence, critical thinking, and business know-how through team-based projects.

It is therefore in high commendation of his soaring innovation, core impact in initiating and sustaining the global drone market, and influential hi-tech leadership at HKUST and far beyond, the School of Engineering is honored to present Mr. Frank Wang, Founder and CEO of DJI, with a HKUST Distinguished Engineering Alumni Award.

## 讚辭

傑出工程校友獎：
專業成就及對世界的影響

# 汪滔先生

哲學碩士(電子及計算機工程學)及
工學士(電子工程學)
DJI大疆集團創始人兼行政總裁

近十二年來，人類以嶄新的高度與視角重新審視世界。從生命救援、農作物監測、測繪地圖以至民用航拍，高質精良、價格相宜且操作簡便的無人機革新了全球無數行業，顯著提升個人及企業的能力與前景。

這場變革實有賴於今日獲表彰的工學院校友汪滔。作為DJI大疆集團(大疆創新)的創始人及行政總裁，汪滔以自身經歷印證了才華與創業動能如何在工學院協同綻放、振翅高飛。自2013年推出大疆精靈(Phantom)無人機品牌以來，公司將原本僅限於手作愛好者的複雜無人機裝置，重新打造為普及化兼備廣泛影響力的工具，成功開拓一門全新產業。大疆創新自2006年於科大宿舍創立以來，在汪滔領航下一直走在前沿，如今企業總部設於深圳兩幢未來型摩天大樓，在全球規模達數百億美元的消費及商用無人機市場中，佔據七成份額。大疆創新的崛起，顛覆了全球對中國創新實力的既有想像，在國內外均樹立了領導地位。

輝煌成就從非偶然，汪滔多年來深耕技術創新，專注研發突破性的運動控制與機械人感知技術。1980年出生的他成長於杭州，自幼即對飛行器充滿熱忱。2003年，這位創意滿盈的年輕人入讀科大工學院電子及計算機工程學系，進一步探索將無人直升機技術落實到現實世界。據汪滔所述，尚在求學之初已認定科大是實踐其飛行夢想的理想跑道——紮實的課程提供自主控制飛行器的基礎理論知識；富有國際視野的教學團隊啟發多元思維；豐富的實踐機會讓學生測試意念，並與頂尖海外同儕切磋競技，體驗團隊合作的重要；具備深厚創業經驗的教授鼓勵學生發揮創業潛能。尤為難得的是，汪滔獲得機械人學專家李澤湘教授的悉心指導，不僅擔任他的哲學碩士導師，後來亦曾出任大疆創新的董事長。

在早期的研發及測試階段，汪滔曾屢經挫敗，飛行器多次墜落，然而他從未放棄。憑藉毅力與追求完美，飛行控制系統技術自2010年起不斷迎來突破。團隊將嶄新科技應用於2008年四川大地震的善後工作，成為中國首支運用無人直升機進行災情監測及損毀評估的隊伍。翌年，團隊於珠穆朗瑪峰完成全球首次自主飛行測試，於飛行過程中拍攝照片及影片，並同步將影像傳送至地面控制站。此外，大疆創新將基地設於深圳亦為企業帶來一大優勢，相對低廉的生產成本使公司得以靈活生產、快速研發及迭代新版本，並以親民價格推出產品，迅速躋身市場熱銷行列。

然而，技術突破雖屬關鍵，卻不足以成就一位新一代產業領袖。要躍身成為引領全球市場的巨擘之列，更需具備前瞻性的產品策略、知識產權保護、市場策略規劃，以及全球業務統合管理等綜合能力，汪滔在此等方面同樣表現超卓。隨著公司研發實力日益壯大，大疆創新結合先進飛行控制器、全球衛星定位系統及攝影系統，打造出標誌性的「精靈」、「御」等「上手即飛」無人機系列，確立了無可比擬的競爭優勢。攝影穩定技術、機械人技術、企業解決方案等領域也同步起飛。與此同時，公司規模由最初只有幾位工程師和員工，擴展到現今遍佈全球超過14,000人，其中不乏科大畢業生。大疆創新亦積極把市場版圖擴展至美洲、歐洲、日本、香港及中國內地。李澤湘教授曾言，汪滔無所畏懼、勇於突破的精神，鑄就了今日的輝煌。

儘管成就斐然，汪滔始終奉行低調作風、重視個人私隱。然而，他作為大疆創始人，為商用無人機產業發展所帶來的劃時代貢獻，早已享譽全球。2014年，他獲《時代》雜誌評選為全球百大最具影響力人物，2015年亦入選高盛全球百大最具魅力企業家。工程專業領域亦予以崇高肯定，2019年，他與李澤湘教授共同榮膺電機電子工程師學會機械人與自動化大獎，表彰兩人在民用無人機及空中影像技術研發與產業化的傑出貢獻。大疆創新作為蜚聲國際的中國企業，以卓越性能及敢於創新著稱，將大灣區及國家的創新實力提升至新高度。

之於母校，汪滔在推動科大創業的開創性貢獻，獲大學多位資深學者高度讚揚，視他為後進學子的楷模。多年來，汪滔不忘回饋母校，透過各種實際行動以個人及其公司名義支持科大發展。他獲香港科技大學基金授予「永遠尊尚贊助人」的榮譽，以表揚他對大學的慷慨捐助。感念科大為其創新事業奠定堅實基礎，他積極資助其所屬學系的科研項目；體認在學時參與國際比賽的歷練及啟發，他慷慨贊助研究生參與全球競賽，促進個人及專業成長。此外，大疆還與工學院攜手開設嶄新的「綜合系統與設計」課程，以團隊專題方式培養學生的技術能力、批判思維及商業素養。

為表揚汪滔在創新領域的卓越成就，在開拓及引領全球無人機市場的核心貢獻，以及由科大啟航及至無遠弗屆的高科技領導力，工學院特此向DJI大疆集團創始人兼行政總裁汪滔先生頒授「傑出工程校友獎」，以誌殊榮。