

## Speech by Professor Tan Eng Chye, NUS President University Awards 2025 Friday 12 Sep 2025, 6.30 pm, University Cultural Centre Atrium

Mrs Theresa Foo, NUS Pro-Chancellor,

Mr Hsieh Fu Hua, Chairman of the NUS Board of Trustees,

Award winners,

Colleagues, Guests and Friends

Welcome to University Awards 2025. This is a special day to recognise outstanding individuals in our community who have achieved peaks of excellence in education, research and service. Their dedication to the pursuit of excellence – challenging and reinventing themselves to reach a higher plane, with passion and purpose – is the reason for our celebration this evening.

This year's University Awards recipients have won their award in a special year. 2025 is a significant year for NUS as we celebrate our 120<sup>th</sup> anniversary. I thank all our award winners today for your contributions and commitment towards building NUS to where it is today.

Even as we celebrate past successes, our eyes look towards the future. As academic leaders of NUS, we are entrusted with the responsibility to set NUS up well to thrive in the future.

We know that the future will be an Al-centred world. Much has been said about Artificial Intelligence, the powers of Al and how it is revolutionising the world. Adoption is at scale, and at blazing speed. Netflix took a decade to reach 100 million users; ChatGPT did it in two months.

As a forward-looking university, we cannot wait on the sidelines while others build capabilities, innovate and ride the AI wave. Here, I would like to emphasise that NUS is mounting a robust and comprehensive approach to AI that spans our core mission areas of education, research, innovation and enterprise, and administration. We will stay ahead, empower and uplift the whole organisation to fully leverage on AI in all that we do. We are striving forward, with AI and through AI, towards our vision to be a leading global university, shaping the future.

Education at NUS will be enhanced with AI in two key ways. There is '**Use AI**' which broadly covers pedagogy, and '**X + AI**', which addresses curricular aspects.

Under 'Use Al', we amplify learning effectiveness by integrating Al into teaching and learning. In essence, Al is used as an enabler; a tool to enhance pedagogies and help learners to overcome learning impediments to attain better learning outcomes. Through uses of Al, the learning experience can be made more engaging, personalised and responsive.

Secondly, Al will be embedded directly into the curriculum to reflect changing work practices arising from the use of Al in the various disciplines. Research on Al will generate insights about how Al will allow people to do things in new and better ways across disciplines and professions. Under the 'X+Al' approach, departments will incorporate such insights through introducing new courses and updating existing courses to reflect changing practices across disciplines and professions.

For example, we have a course – CE5210 on Intelligent Transportation Systems and Simulation – where we learn how advances in AI, automation and smart technologies are transforming modern transport. Assistant Professor Yang Kaidi from the Department of Civil and Environmental Engineering at CDE draws on his own research in traffic state estimation and safe control of autonomous vehicles to illustrate how AI solutions are used in smart vehicles, infrastructure and services. Students compare traditional methods with AI approaches, discuss real-world challenges like data limitations and safety, and consider the human values that should guide AI use. So, this course is an excellent example of how regularly updating our curriculum with research and industry insights helps to equip students with the knowledge and insights to thrive in an AI-empowered workplace.

NUS has organised ourselves to support and empower our faculty to 'Use Al' and to develop 'X+Al' courses. Faculty can tap on the Centre for Teaching, Learning and Technology (or CTLT) for workshops and consultations on practical uses of Al, such as designing effective prompts, integrating Gen-Al into assessments, and creating engaging learning experiences. Colleagues with more advanced or

customised needs can approach the **AI Centre for Educational Technologies** (or AICET), headed by Prof Ben Leong, for project collaborations and resources to build or tailor AI tools for their courses. Together, these resources at CTLT and AICET ensure that every educator at NUS can innovate with confidence and keep our teaching at the cutting edge.

I am proud to share that across our university, 'Use AI' has been gaining momentum - faculty have been at the forefront of imagining what is possible with AI in education:

- In our Chinese language courses, we see students exploring the beauty of poetry
  more deeply translating verses, clarifying meanings, and creating original visual
  artwork with the help of AI, blending cultural appreciation with creativity.
- In a course on law and information technology, instructors have developed intelligent tools that support legal reasoning and critical analysis, ensuring that AI serves as a partner in learning, not a shortcut.
- In mental wellness, <u>Gen-Al is used to create case studies</u> so that students can
  apply psychological theory in a safe and reflective way. This approach encourages
  students to critically assess and improve Al-generated scenarios and solutions,
  while also providing opportunities to discuss the responsible and ethical use of Al.
- With support from AICET, our teaching assistants are sharpening their skills by engaging with AI-generated classroom scenarios, preparing them for the diverse realities of teaching.

On the curriculum front, our "X+AI" approach is brought to life in many courses:

 Students reading the AI and Public Policy course examine how artificial intelligence is reshaping governance and policymaking.

- In Business and Design, advanced analytics and human-centred design thinking are connected to real-world impact, preparing students to use AI responsibly and effectively in their future professions.
- Across NUS, more than 175 Al-themed courses are now offered—including over
   70 outside Computing—alongside new programmes and specialisations in areas
   like robotics, business analytics, and digital infrastructure.
- Artificial intelligence is also part of the Common Core for our Colleges; all College students will develop foundational literacy and competency in this critical field.

We are navigating the opportunities and challenges of AI in education together as a community. The NUS AI Community of Practice for Teaching and Learning is a university-wide platform, bringing together colleagues from across disciplines to exchange ideas, share practical approaches, and discuss challenges in integrating AI into our teaching. By connecting educators from different fields, this AI Community of Practice helps us build shared understanding, surfaces new insights, and develops approaches that are innovative, effective, and ethical.

Research at NUS will also be transformed by Al. **NUS** is positioning ourselves to attract global Al research talents. We provide the environment for Al research talents to champion bold initiatives and tackle grand challenges in or with Al, and to produce research breakthroughs. Over the past two years, NUS has successfully recruited **27 new Al faculty**; another 80 new hires are contributing to advancing Al in their disciplines, or incorporating Al tools to propel their research. Through the NUS Al Institute, Al Singapore and collaborations with industry and leading institutions

worldwide, NUS will accelerate the translation of AI research into practical solutions and support technology transfer.

Our compute infrastructure will keep pace. NUS has increased our on-premise GPU capacity and cloud-based resources to meet the research demands for foundational AI and AI-enabled scientific workloads. The current High Performance Computing capacity of 25 PetaFLOPs will be expanded to 70 PetaFLOPS by mid-2026.

Al will also transform university administration and operations, to achieve administrative efficiency and better decision making. **NUS IT has rolled out an "Alto-the Core" approach** for administrators. The **Al-Know suite**, which integrates commercial LLMs in a secure environment, is made available to all staff. Tools on the platform include Al-Chat, Al-Guide for NUS-policy questions, Al-Draw for image generation, Al-Minute for generating meeting transcripts and minutes, Al-Discover for document processing and Al-Create, which is a no-code agent where staff can create Al GPTs and solutions for their needs. Similar to the Al Community of Practice for teaching and learning, there is an **Al-Know Interest Group** for staff to share ideas, experiences and collaborate. The Al-Know suite and Interest Group, together with the many in-house training opportunities on Al, will engage and empower all administrative staff to leverage on Al to augment their productivity and capacity.

NUS has put together the essential pieces for our community to embrace, create new value and to achieve even greater excellence in our pursuits, with and through Al. Whether in education, research or in administration, I would like to encourage our

community to challenge yourselves to think of how AI can be integrated or used to make you a better educator, researcher, or administrative staff.

By now, you would have guessed that I have been preoccupied with AI. This is because I am keenly aware that AI will be a defining input for NUS to achieve continued excellence in the future.

Even with AI weighing on our minds, we want to return to our purpose this evening, which is to honour winners of University Awards 2025. We are delighted to recognise their accomplishments, their sterling contributions in various fields, and the impact they are making in the community and the world. In pouring their hearts and souls into their endeavours, our award winners inspire us to renew our purpose and determination to strive for quality and excellence.

Excellence is a core value of NUS and we must cherish and pass on this tradition. I trust that our award winners will serve as mentors to their younger colleagues and students.

Once again, my heartiest congratulations to the award winners of University Awards 2025. We are so very proud of you. Keep up the good work. Thank you.