COMMENCEMENT SPEECH 2016 PROFESSOR TAN CHORH CHUAN PRESIDENT, NATIONAL UNIVERSITY OF SINGAPORE 7 JULY 2016

Dr Tony Tan Keng Yam, NUS Chancellor and President of the Republic of Singapore; NUS Pro-Chancellors; Chairman and Members of the NUS Board of Trustees; Distinguished Honorary Graduand Graduates, Parents and Friends Ladies and Gentlemen

It is always a special privilege to be among the first to formally congratulate our graduating students. So to the Class of 2016, well done and my very heartiest congratulations!

To your families and loved ones, I am really delighted to be able to share this important milestone with you and your joy and pride on this day. We celebrate not only the achievements of our graduating students, but also the support and guidance which you have given them, which have helped them throughout their journey in university.

That journey now shifts to new and exciting territory, with much expanded horizons, but with rapid, sometimes unpredictable change.

The pace of change will continue to accelerate because of the convergence of technology — biotechnology, info-technology, nanotechnology, as well as globalisation and near-instantaneous communication. For example, in 2016, 46.1 per cent of the world's population, that is 3.4 billion people, have access to the Internet. In 1995, the figure was less than 1 per cent.

To illustrate, here is an image of what powerful computers used to look like at the School of Computing (SOC) — notice the magnetic loading disks. And here is the queue of studious undergraduates waiting to collect their computer printouts. A 1986 booklet proudly showcased this — it's not a cupboard but a processor capable of doing 1.5 MIPS (millions of instructions per second). These days, an Intel Core i7 commonly found in your laptops can do 238,000 MIPS.²

¹ http://www.internetlivestats.com/internet-users/

² https://en.wikipedia.org/wiki/Instructions per second



Clockwise from top: 1. the School's supercomputers; 2. computer printout queue; 3. 1.5 MIPS processor; and 4. magnetic loading disks.

As the co-founder of networking site LinkedIn, Reid Hoffman, said, "The future is sooner and stranger than you think."

For young people, though, the changing landscape opens up quite unprecedented opportunities. It will also bring with it, significant challenges. To thrive, you would need to be adaptable and enterprising. You have to learn continually, keep picking up new skills and use new experiences to develop and grow.

This message is particularly apt, I think, for our graduands at this year's main Commencement ceremony, who are from SOC. You have the expertise and skills which are valued broadly, and can help you contribute in many ways, including at the very leading edge of innovation. Yet, yours is perhaps the most rapidly changing of fields where knowledge and skills can become obsolete very quickly. Hence, lifelong learning and re-skilling is a "must-have" and not just a "good-to-have" for your future success.

Indeed, this applies not just to SOC graduates but to all graduates from all fields, for the 6,491 students graduating with Bachelor's degrees and the 3,904 students who will be awarded graduate degrees in NUS Commencement 2016.

I recently had the opportunity to speak with some of our students who are graduating this year. All are very excited about their graduation and several, I was glad to hear, said they will miss university life. Some, however, were concerned about job prospects in the light of weaker economic growth locally and globally.

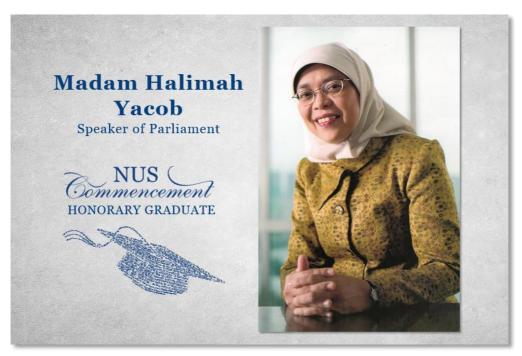
This is understandable and here, I think a positive attitude, passion and perseverance will make the big difference. You can also draw inspiration from one of our graduands this morning, who had experienced much more daunting circumstances and yet was able to overcome great adversity, and make remarkable contributions to society.

I speak of course of our Honorary Graduand this morning, Speaker of Parliament Madam Halimah Yacob. Her journey, to quote J R R Tolkien, has been a most unexpected one.

She grew up in modest and difficult circumstances. On the day she matriculated in the Faculty of Law, she had five dollars in her pocket. None of her family had ever gone to university, and as she said at that time it was "a leap of faith" on her part. Nevertheless, with a last-minute bursary from the Islamic Religious Council of Singapore, or MUIS, and temp jobs as a library clerk during term breaks, Madam Halimah graduated with honours in 1978.

Her background and childhood inspired her to a life of service to society. In her three decades in NTUC, she was a tireless but warm-hearted advocate for workers, women and the minorities. In 1999, she broke "many glass ceilings at once" when she became the first Singaporean elected to the International Labour Organisation (ILO)³.

In 2001, despite her successful career and being a mother of five children⁴, she rose to the call to serve in politics as Singapore's first female Malay Member of Parliament⁵, and subsequently, as Minister of State in the ministries of Community Development, Youth and Sports, and Social and Family Development. None of this could have been easy, but in 2013, Madam Halimah Yacob became Singapore's first woman to be elected to one of the highest offices in the land, as Speaker of Parliament.



For our graduands, each of your individual circumstances will differ from that of Madam Halimah's. Yet, we can learn valuable lessons about how passion, a willingness to try, an eagerness to learn and a commitment to contribute to society, can help each of us to excel despite the challenges that we may face.

³ The Long Interview – Soft Heart, Strong Will. Straits Times, 25th Jan, 2013.

⁴ Once Poor, She Wants to Help Others Make It. Straits Times, 19th Oct, 2001.

⁵ http://www.swhf.sg/the-honourees/19-government/146-halimah-yacob

NUS is therefore indeed privileged to be able to confer an Honorary Degree on Madam Halimah, a most remarkable leader and individual. In the same way, we are proud of each of our graduating students in Commencement 2016.

For our graduating class, as you move forward to work or further studies, I also welcome you as our newest alumni. Please do take full advantage of the many networking and career development events that are organised by NUS each year. Our new School of Continuing and Lifelong Education, or SCALE, will also offer expanded opportunities which can help you scale new heights of excellence and upgrade and learn useful new skills.

Above all, please do stay in close touch with our university, as a valued member of our NUS community.

NUS has a long and proud tradition of graduates who have forged their distinctive paths. In so doing, they have reached heights of accomplishment in diverse fields and contributed in many different ways to the nation and society. And so, this morning, it is my sincerest wish that each of you finds both success and fulfilment, not only in your careers, but also in your service to the community.

Happy Commencement!

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