Session 13, Diploma in Electrical and Electronic Engineering Singapore Polytechnic's 59TH Graduation Ceremony Wednesday, 8 May 2019 at 9.30 am

Speech by Mr Tan Soon Lee VP/GM, Kinetics Advanced Robotics ST Engineering Land Systems

Mr Soh Wai Wah, Principal & CEO of Singapore Polytechnic, Mr Lim Say Leong, Deputy Chairman, Advisory Committee, SEEE, Distinguished Guests, Parents, Graduands, Ladies and Gentlemen,

Good morning

Thank you Singapore Polytechnic for inviting me to join you on this special occasion. It is my honour and privilege to address you at this 59th Graduation Ceremony.

Today marks another significant milestone in your life for all 352 graduands from the School of Electrical and Electronic Engineering. My heartiest congratulations to all of you. While you celebrate this achievement, remember those who have supported you in this journey – your parents, your lecturers and your friends.

I am sure many of you here have decided on what's next for yourself. For all Singaporean young men, it has been decided for you. Adopt the right attitude – to serve your National Service with pride, and sieze the opportunity to take on leadership responsibilities. If you perceive the coming two years as a liability, you could well miss some good opportunities, and worst still become a liability to your team. I will talk a bit more about perception and attitude in the latter part of my speech.

For those who choose to further your studies, I strongly encourage you to do so. Or if you choose to start your career early, there are plenty of good opportunities for you too. The market has a strong demand for engineers with your discipline especially with technology transformation towards digitalisation. Digitalisation drives E-commerce, Industrial 4.0, Connected Vehicles, Cybersecurity, Robotics, Autonomous Vehicles, Fintech and many new industries. You are going to help propel the growth of these industries in Singapore by pursuing a career in engineering and perhaps subsequently managing engineering firms. It is something to take pride in.

If your dream is to be the next Steve Jobs or Elon Musk, then you need to apply your entrepreneurial skills and innovation to cut your own path and learn to take risks as well as accept failures. Singapore is already at the forefront in some advanced technologies and we have nobody in front to lead us. We need people with an entrepreneurial spirit to go where nobody has ventured before. As I am currently running a start-up to develop autonomous buses, I know how tough it is to compete with the likes of Waymo, GM, nuTonomy or Baidu who have more resources — both funding and manpower. At your young age, time is on your side and it is worthwhile to take a few years of your long career to create a new path for yourself.

CHANGE

The global environment that we are facing is increasingly volatile, uncertain, complex and ambiguous (or VUCA). Besides security challenges and geo-political differences among major powers, technological breakthroughs are also fundamentally changing the nature of globalisation and the economy. These constant changes affect the work we do and the competencies that are required. To be successful in this VUCA global environment, you will need three key attributes – (1) embracing life-long learning to keep yourself relevant, (2) adopting a positive mindset to seize new opportunities when they comes along, (3) and being resilient so that you can thrive in a complex and competitive environment.

LIFELONG LEARNING

Let me start with life-long learning as it is a factor to build resilience. I have to thank my first year poly lecturer, Mr Lau Hong Lian for his reminder in 1981. Mr Lau taught me Electrical Engineering in the first year. It was a foundation subject for both Electrical Engineering and Electronics & Communication Engineering students then. In his first lecture, he explained that the knowledge we gained in electronics and computer would be obsolete soon after we leave SP and we would need to keep up with new technologies every year. His reminder was timely as we were less informed as students then, unlike today where you can learn and gain knowledge online and almost instantaneously using smartphone or tablet without any formal education. At this juncture, I would like to acknowledge all our lecturers, past and present, for their unwavering dedication in making us who we are today. Please join me to show our appreciation.

In order to develop yourself in your career, you will need to venture beyond technical skills. Let me share what I have learned after SP. I joined MINDEF and the SAF as a regular to self-fund my basic degree as I was paying my own tuition fees even during SP. I was fortunate to join an organisation which has a good training and development roadmap for its employees. As a junior officer in the SAF, I learned military tactics, military history, military law as well as military technologies like tanks, gun howitzer, missiles, radar, communication systems and unmanned aerial vehicles. To manage people, I picked up soft skills like leadership, communication, management and analysis techniques. To be a successful engineer, you will also need to embrace these soft skills as well as new technologies that are relevant for your career. Even at my current age, I am still honing my business acumen as well as knowledge on autonomous vehicles.

PERSPECTIVE and MINDSET

Technical and management skills are not sufficient to capture new opportunities in the real world. Let me illustrate using this story of two shoe salesmen who were sent to Africa to determine the market potential for

their products. One salesman was sent to the east coast of Africa, while the other was sent to the west coast of Africa. Both the salesman completed a survey of the target market and sent their findings to the office. The salesman sent to the east coast of Africa reported: "No one here wears shoes, there is no market for us here!". The other salesman concluded "No one here wears any shoes, there is a huge market for us, send inventory fast!".

The moral of this story is that your perspective influences your behaviour and attitude. If you feel you cannot change a situation, you act one way. On the other hand, if you see the world as a place full of opportunities, you will act differently. Remember there are two sides to a coin. Learn to see both perspectives, especially for aspiring entrepreneurs who want to create new value by opening new markets and finding new opportunities.

RESILIENCE

As you step out of your comfort zone to the more complex real world, be mentally prepared for new challenges in life. You need to build resilience to cope with failure, setbacks, obstacles, or stress. Resilience is rooted in self-awareness. Understand your own emotions and capabilities well in order to recover quickly from difficulties, toughness or setbacks that come your way. You can't change the fact that highly stressful events will happen, but you can change how you interpret and respond to those events. Accept that change is the only constant in life and amid changes, be flexible and adaptable before taking decisive actions.

Maintain an optimistic outlook by trying to visualise what you want, rather than worrying about what you fear. Build up your abilities and develop your problem-solving skills. And most importantly, believe in yourself. Develop a strong social connection so that you can leverage on the strength of your friends or family members. Resilience may take time to build, so don't get discouraged if you struggle to cope with problematic events in the early stages of your life journey. Learn from both your failures and your successes.

CONCLUSION

Let me summarise the three key attributes. You will face challenges in life. Learn to face them, find ways to overcome them, and nothing you set for yourself will be beyond your reach. With the right attitude and perspective, you can capitalize on new opportunities and thrive in a volatile, uncertain, complex and ambiguous world. While you have acquired technical skills at Singapore Polytechnic, you should continue to embrace lifelong learning to deepen your skills as well as acquire new competencies relevant for your career.

Once again, congratulations to all of you on your graduation and to Singapore Polytechnic on producing the 59th batch of EEE gradautes. I wish all of you every success in your future endeavours. Thank you.