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# TEMASEK POLYTECHNIC

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## SCHOOL OF ENGINEERING



### **AN INTRODUCTION...**

*Welcome to the School of Engineering @ Temasek Polytechnic!*

*Want to find out more about us?*

*This handbook will provide you information on our programmes, facilities and student experiences.*

# WELCOME NOTE

from the Director,  
School of Engineering



**T**hank you for taking time to browse Temasek Polytechnic's School of Engineering Handbook.

This handbook has been specially prepared to provide you with some information that you may need. Whether you are a student looking for an Engineering-related course, a parent who believes in the true value of education and who wants the best for your child, a member of the industry exploring avenues for technological collaboration, or just someone looking for relevant information – we take pride in offering you the answers that you need.

Our School of Engineering School offers 10 full-time diploma courses and a common entry programme, covering a wide array of disciplines — all of which provide our students with in-demand knowledge and skills that open the doors to many exciting career opportunities in today's economy.

As Singapore transitions into the digital era, new technologies such as artificial intelligence, robotics and automation, 3D printing, Internet of Things, Big Data and other smart applications are increasingly being used in various sectors of the economy. While these new technologies pose new challenges, they also create fresh and exciting opportunities for companies, workers and job-seekers.

Our School is committed to providing a highly industry-relevant curriculum incorporating the latest technologies, delivered by competent lecturers, and supported by the most up-to-date facilities and equipment, so as to give our students a head-start in their future careers as well as their further studies.

Should you have any queries as you browse our Handbook, do feel free to get in touch with us. You may reach us at Email: [enghotline@tp.edu.sg](mailto:enghotline@tp.edu.sg), or Tel: 6780-5144. We'd be delighted to hear from you!

Happy reading!

**SONG KWOK YUEN**  
Director,  
School of Engineering

## TEMASEK POLYTECHNIC

### Mission

To prepare school-leavers and working adults for a future of dynamic change, with relevant knowledge, life-long skills, character, and a thirst for continuous improvement.

### Vision

To be a world-class institution in the global education network, reputed for our programmes, applied research, managerial excellence and innovative corporate culture.

### Values

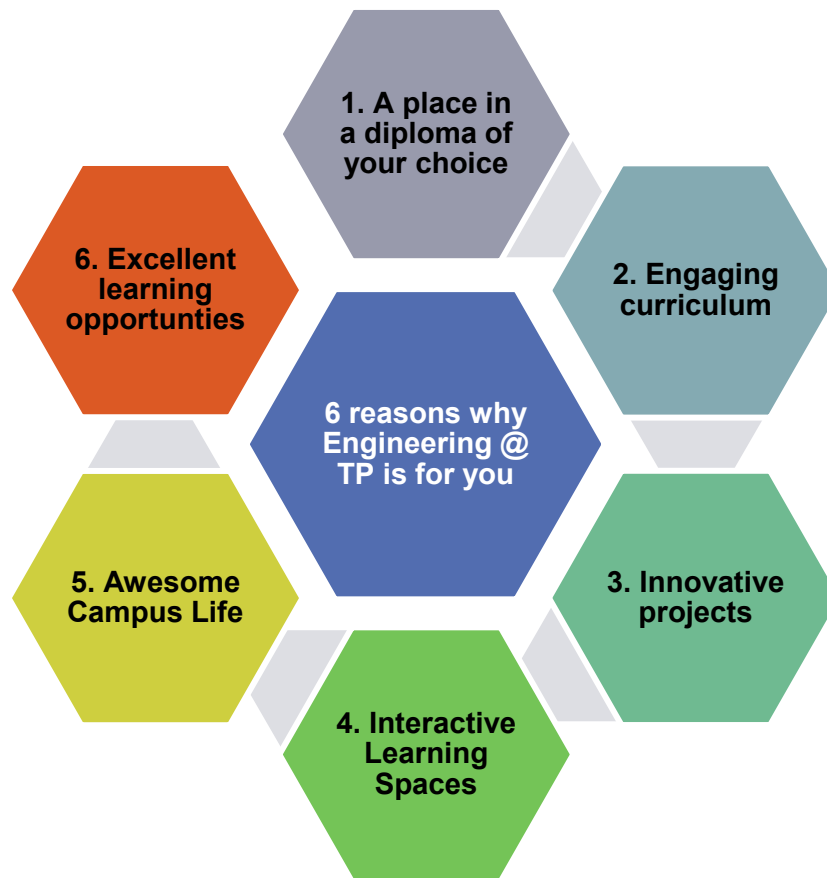
- Responsibility for the continued growth and success of Temasek Polytechnic
- Respect for the dignity of the individual
- Integrity of the highest order
- Student-centredness
- Future-orientation

10 Diplomas

1 Common  
Entry  
Programme



# Why Engineering @ Temasek Polytechnic?



# School of Engineering @ Temasek Polytechnic

These are the 3 attributes that all Temasek Polytechnic students will possess:

**Every TP student a...**

**LIFELONG LEARNER** Our students are self-directed learners who remain competent in the face of challenges and rapid changes.

- > Self-directed
- > Resilient
- > Competent

**FUTURE-ORIENTED CREATOR** Our students are future-oriented creators who possess problem-solving skills and an entrepreneurial spirit.

- > Problem Solving
- > Digital & Information Literate
- > Innovative & Entrepreneurial

**VALUES-CENTRED LEADER** Our students are leaders with a service mindset who, through effective communication and collaboration, contribute generously to the global community as responsible citizens.

- > Character & Citizenship
- > Leadership
- > Communicative & Collaborative

## Full-time diploma courses:

- [Aerospace Electronics \(T50\)](#)
- [Aerospace Engineering \(T51\)](#)
- [Architectural Technology & Building Services](#)
- [Aviation Management \(T04\)](#)
- [Biomedical Engineering \(T38\)](#)
- [Business Process & Systems Engineering \(T43\)](#)
- [Computer Engineering \(T13\)](#)
- [Electronics \(T65\)](#)
- [Integrated Facility Management \(T28\)](#)
- [Mechatronics \(T66\)](#)

## Common Entry Programme:

- [Common Engineering Programme \(T56\)](#)

## Your Learning Journey

Our School of Engineering is dedicated to providing you with an exciting, rewarding and experiential learning experience during your three years here with us. Your learning journey hinges on our well-designed core curriculum where you will acquire knowledge and skills as well as develop attributes to become a responsible individual ready to make meaningful contributions to your profession and the community.

Our School believes that students learn best by doing, as well as seeing relevance in what they learn. Hence, our curriculum places strong emphasis on practical training with workplace applications. In your final year of study, you will be attached to a company in the industry for your internship of 16 to 20 weeks, so that you can gain first-hand experience of the world of work.

Learning is not limited to classrooms, laboratories and lecture theatres only. You will also have the chance to participate in study trips to local companies and institutions where you can personally observe and experience how technology is being deployed, as well as see how the theories you have learnt in class are actually applied.

Cultivating a global mindset is also a key ingredient in a wholesome education. You will have lots of opportunities to travel and learn overseas – through our overseas study trips (OST), overseas community projects (OCP), and the overseas student internship programme (OSIP). These will give you priceless experiences which you cannot gain from the classroom (or even online!)



One of your most memorable learning experiences as a Year 1 student would probably be the *flipped classroom* approach. In this unconventional approach, you do your 'homework' in class after a 'virtual teacher' teaches you the new concepts online. Studies have shown that this method of learning makes you more independent and responsible, while helping you to manage your time better.

All our lecturers are well trained, with vast working experience in their respective domain areas. If you are expecting your lecturers to be solemn, boring and stuffy people, well, you are definitely wrong. On the contrary, many of our teaching staff are approachable, caring and quite fun-loving! Of course, they are also deeply committed to helping you do well in your studies. In order to give you a positive learning experience, our lecturers use a variety of engaging learning strategies such as discussions, role-plays, online games and quizzes, simulation-based learning and project-based learning activities. Learning should, after all, be fun!

All our course materials are also readily available on our Learning Management System. This online learning portal also contains formative self-check activities where you can assess your own level of understanding of a topic, allowing you to learn at your own pace. In addition, we have learning support activities and peer teaching programmes for those who might need help in their studies. And of course, our approachable lecturers are always here for you.

**We are looking forward to meeting you!**

## Learning Beyond the Classroom

**Many opportunities await a student beyond the classroom. This fosters a holistic growth.**



**Experiential Learning**



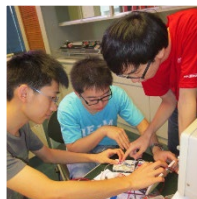
**Global exposure**



**More than engineering**

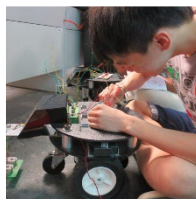


And More...



Learning Support Programmes

Higher Skills Training



Major Project

## Academic Calendar & Key Dates

### AY2023/2024

APRIL SEMESTER	PERIOD	OCTOBER SEMESTER	PERIOD
Term 1	17 Apr – 11 Jun 2023	Term 3	16 Oct – 8 Dec 2023
Term Test	5 Jun – 9 Jun 2023	Term Test	11 Dec – 15 Dec 2023
Term Break	12 Jun – 25 Jun 2023	Term Break	16 Dec 2023 – 1 Jan 2024 *
Term 2a	26 Jun – 21 Jul 2023	Term 4	2 Jan – 9 Feb 2024
Special Term Break	22 Jul – 30 Jul 2023 #	Study Week	12 Feb – 16 Feb 2024
Term 2b	31 Jul - 18 Aug 2023	Semestral Examinations	19 Feb – 1 Mar 2024
Study Week	21 Aug – 25 Aug 2023	Vacation	2 Mar – 14 Apr 2024
Semestral Examinations	28 Aug – 8 Sep 2023		
Vacation	9 Sep – 15 Oct 2023		

# 13th WorldSkills ASEAN Competition  
 \* New Year's Day, 1 January 2024 falls on Monday

**Flex Weeks: 8 -- 12 May 2023, 17 -- 21 July 2023, 6 -- 10 Nov 2023, 22 -- 26 Jan 2024**  
 (During Flex Week, there are no classes but students may need to attend enrichment activities such as study trips and career talks.)

# Facilities

## Workshops



**Robotics Lab**

**Aerospace Lab**

**3D Printing Lab**



**Clean Energy Research Centre**

**TP-HRG Robotics Innovation Centre**



## Tutorial Rooms





## Lecture Theatres



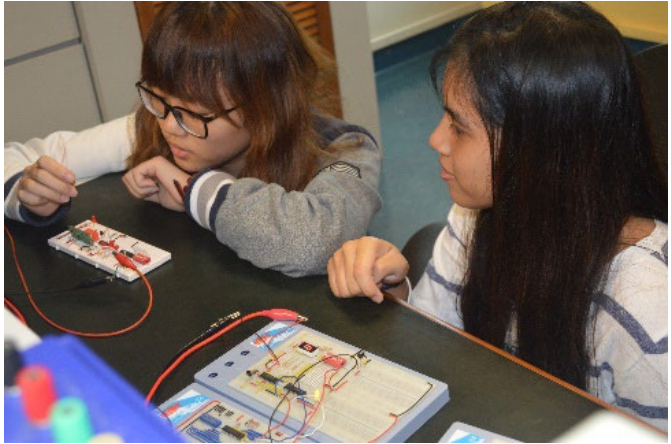
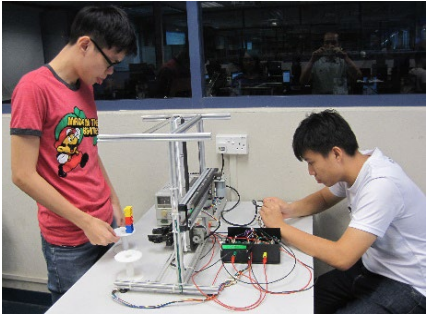
## Hangar



## Informal Learning Spaces



### Laboratories



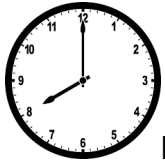
### Sports & Recreational Facilities



# Campus Life!

A day in the life of Engineering students...

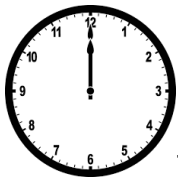
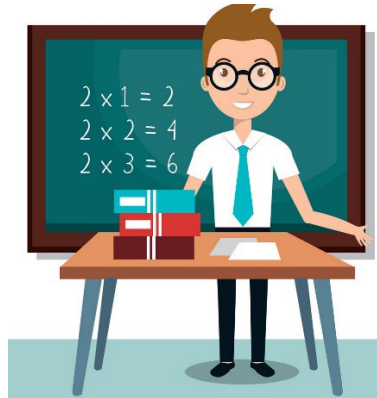
Hello, Ethan and Sabrina!!



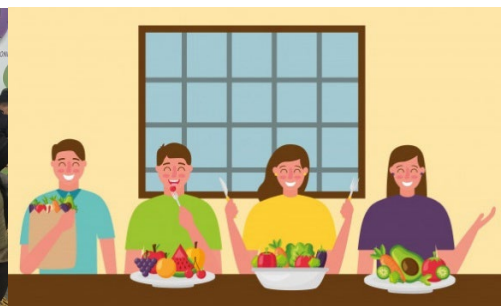
Breakfast!!!



First class!



Time for lunch and a chance to meet up with friends!





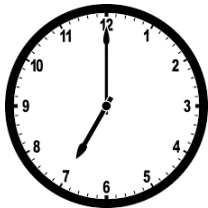
Lab and Tutorial



Lecture Time!



Time for a workout at the gym!



CCA!



Home Sweet Home and time with family...



# What else can you look forward to in Engineering @ TP?

## Scholarships

TP offers a range of prestigious scholarships for full-time students who have excelled academically and have a proven track record in co-curricular activities.

The offer of these scholarships strongly reflects our commitment to recognise deserving students for their outstanding achievements, and to further encourage and inspire them to excel academically.



### Temasek Polytechnic Scholarship (Engineering)

The Temasek Polytechnic Scholarship (Engineering) is a bond-free prestigious scholarship awarded to our first-year Engineering students with outstanding academic results and impressive CCA achievements, as well as strong leadership qualities and potential, as demonstrated in their first semester in TP.

Besides a monetary award, TP Engineering scholars will also have the opportunity to participate in the Temasek LEADership Programme and a fully-sponsored Overseas Experience Programme in their second or final year of study.



## Other scholarships

Besides the TP Engineering Scholarship, you may also be awarded other scholarships such as:

- A\*STAR Science Award (Polytechnic) Scholarship
- CDL Green Building & Sustainability Scholarship
- CSIT (Centre for Strategic Infocomm Technologies) Scholarship
- Daisy Phay TP Foundation Scholarship
- DSO Scholarship
- DSTA Polytechnic Scholarship
- EON Reality Scholarship
- Future Electronics Scholarship
- LKY-STEP Award
- M1 Scholarship
- Micron Scholarship
- Mitsuboshi Scholarship
- Ngee Ann Kongsi Tertiary Scholarship
- Panasonic Scholarship
- Seah Moon Ming Scholarship
- Singapore Olympic Foundation - Peter Lim Scholarship
- Tan Agnes Scholarship
- Tay Eng Soon Scholarship
- The Tan Agnes Jiannee Scholarship
- Wan Fook Kong Scholarship
- Yayasan Mendaki – IES Scholarship



## Temasek LEADership & ENGenius Programmes

At Temasek Polytechnic, we believe that talent can be nurtured, and every student is given opportunities to achieve his or her personal best.



Our talent development programmes aim to groom our high-performing students into leaders with vision, character and heart, as well as a strong engineering competence.



In the **Temasek LEADership programme**, students can expect to embark on an exciting journey of self-discovery and holistic development to attain the following four key aspects of leadership:

1. Personal Leadership
2. Team Leadership
3. Community Leadership
4. Global Perspectives

The **Temasek ENGenius Programme** aims to enhance the engineering competence of high-performing students, through taking engineering modules that are beyond their normal curriculum. Opportunities will also be given to these high-performing students, for them to engage in:

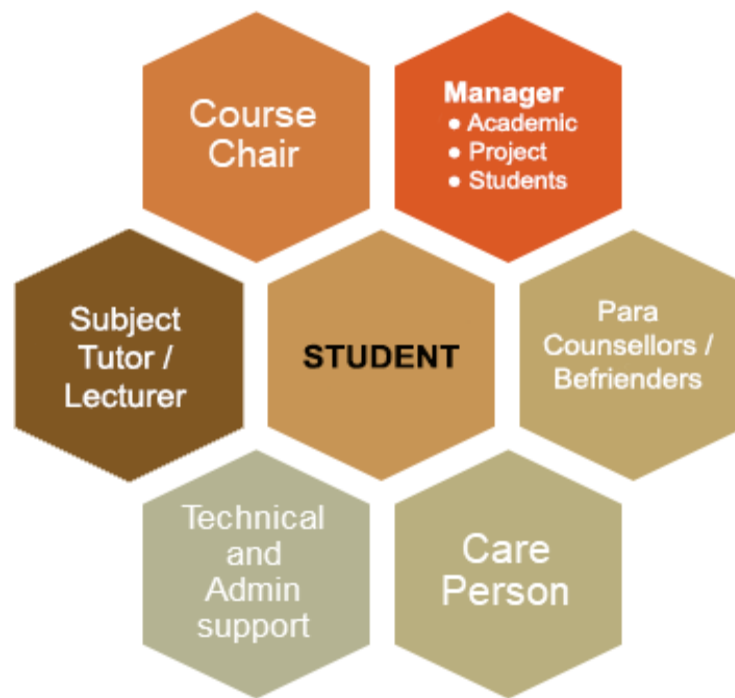
- Engineering-related competitions
- Experiential Research Programmes
- Peer Tutoring Programmes
- Community projects
- Student Clubs as a leader or office bearer



## Who's Who in Engineering @ Temasek Polytechnic...

At Temasek Polytechnic, our staff work together to ensure you have a seamless transition from the time you leave secondary school, to the time you graduate from our Polytechnic.

Together, we will give you the best possible learning experience.



*Here's to an enjoyable journey with us...*





# School of Engineering

where the future happens...



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For more current information and news,

Visit us at: [www.tp.edu.sg/eng](http://www.tp.edu.sg/eng)

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