

# TOWARDS A BETTER WORLD BY DESIGN.



# DESIGN GOES BEYOND AESTHETICS — IT TRANSFORMS THE WAY WE LIVE.

The power of design is deeply rooted in understanding the human experience and needs, and then creating innovative products, services and systems to meet and improve them. That's why forward-thinking companies and nations are investing heavily in design to drive innovation and growth.

#### NURTURE TECHNICALLY GROUNDED LEADERS AND INNOVATORS TO SERVE SOCIETAL NEEDS

To meet the challenges of the future, we offer a world-class education built upon an interdisciplinary curriculum, multi-disciplinary research and a unique cohort-based learning approach based on design.



#### TOP EMERGING ENGINEERING SCHOOL WORLDWIDE

Source: 'The global state of the art in engineering education', a study commissioned by the Massachusetts Institute of Technology (MIT)



5TH MOST INFLUENTIAL SCIENTIFIC RESEARCH INSTITUTION IN TELECOMMUNICATIONS

Source: Clarivate Analytics' 2017 State of Innovation Report



90% OF THE CURRICULUM WAS DEVELOPED BY MIT



COLLABORATIVE, INTERACTIVE & HANDS-ON LEARNING



**40% FEMALE STUDENT COHORT** 



100% HAVE OVERSEAS EXPOSURE OPPORTUNITIES



100% GET TO DO RESEARCH RIGHT FROM DAY ONE



**100% BOND-FREE SCHOLARSHIPS** 

> 100 with funded overseas exposure



MORE THAN 1,000
INTERNSHIP PARTNERS

1 in 4 receive return offers after internship



94% EMPLOYED WITHIN
6 MONTHS OF GRADUATION.
HIGHEST STARTING SALARY OF \$\$4,071

Source: 2018 Joint Graduate Employment Survey by Singapore's autonomous universities

#### NURTURE YOUR POWER OF DESIGN

Be trained in the full value chain to create a better world - from conception and development to manufacturing and sustainability. Armed with a comprehensive understanding of the social, cultural, political and economic dimensions of the world you are creating for, develop human-centred solutions that make the right impact.



# TRANSFORMING THE WAY WE LIVE!

SUTD alumni Ken
Chua (listed in Forbes
30 Under 30 Asia
Social Entrepreneurs
2019) and Christabella
Irwanto founded
(these)abilities, a
start-up that designs
inclusive products to
'Disable Disabilities'.





Find out more about (these)abilities Their work includes the Plug-N-Play Safety System which expands the wheelchair capacity of public buses. Transported 397 athletes during the ASEAN Paragames.



#### **BIFROST**

Founders of artificial intelligence (AI) start-up, Bifrost, SUTD alumni Aravind Kandiah and Charles Wong developed a data engine that creates virtual worlds simulating rare, dangerous occurrences to capture rich data at a fraction of the time and cost. Making an impact in our lives a month before graduation. Their first client? Rail operator SMRT.

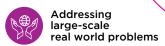
# CURRICULUM

Our unique academic structure provides you with opportunities to design the future you envision. Our programmes are created around these four key concepts:









#### **ACADEMIC CALENDAR**

Our 8-term undergraduate calendar starts in September.

YEAR	JAN - APR	MAY - AUG	SEP - DEC
			TERM 1 Freshmore
Y1	Freshmore TERM 2	VACATION/ SUMMER PROGRAMME	Freshmore TERM 3
Y2	Sophomore TERM 4  • ASD/DAI/EPD/ESD/ISTD	Junior TERM 5  • ASD/DAI/EPD/ESD/ISTD	VACATION/EXCHANGE/ INTERNSHIP
Y3	Junior TERM 6  • ASD/DAI/EPD/ESD/ISTD Exchange/Internship^	VACATION/INTERNSHIP/ SUMMER PROGRAMME	Senior TERM 7  • ASD/DAI/EPD/ESD/ISTD  • Capstone
Y4	Senior TERM 8  • ASD/DAI/EPD/ESD/ISTD  • Capstone		

<sup>`</sup>Students who embarked on an overseas exchange during the previous vacation (Y2 Sep-Dec) may opt to continue with overseas internship in Term 6 or undertake a longer internship (Y3 Jan-Aug). Students may also embark on an exchange in Term 6 with the possibility of a follow-up summer overseas internship (Y3 May-Aug).

SUTD's hands-on and multi-disciplinary

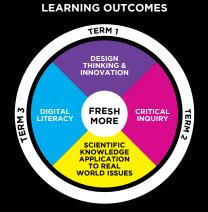
education has given me an edge in implementing solutions quickly and effectively, allowing me to transition swiftly from an intern at nuTonomy to a full-time employee.

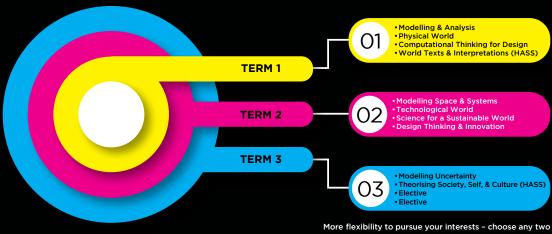
May Quek **SUTD Alumnus** Software Engineer, nuTonomy, an Aptiv company

#### **FRESHMORE**

The first three terms are common to all students and build a foundation in Science, Mathematics, Humanities, Arts and Social Sciences (HASS), Digital Literacy and Design.

The world is literally your classroom. All Freshmore students enjoy subsidised overseas immersion trips to ASEAN and China as part of the curriculum. The Freshmore Asian
Cross-Curricular Trips (FACT) lets you gain global exposure
within your first year in SUTD, a pre-cursor for you to better understand the region and start building networks.





of the following electives:

- Science and Technology for Healthcare • Data Driven World
- Designing Energy SystemsSpatial Design World

At SUTD, we are blessed to have a close relationship with our teaching faculty. Often when we are stuck with questions from a class or a project, seeking help from our professor is always an option. Even if it is at an ungodly hour. I have more than once gotten a reply from Prof Tee Hui at 4am, half an hour after we sent that email.

Leong Hei Kern **SUTD Alumnus** Graduate student, ETH Zürich

#### **CUSTOMISABLE CURRICULUM**

Education at SUTD is customisable by building on three main blocks



Mandatory Core Curriculum



Variable Curriculum



Outside the Classroom

This is enriched and supported laterally by



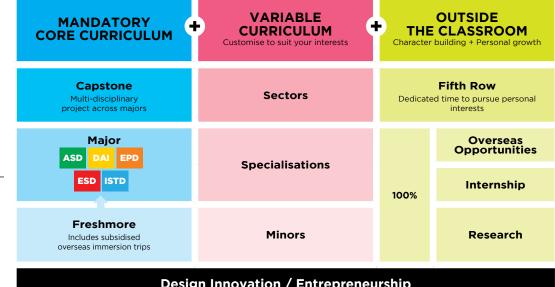
**Design Innovation** 



AI/Data Science



Humanities, Arts and Social Sciences



#### **Design Innovation / Entrepreneurship**

Design-centric experience & impact

#### AI / Data Science

Harnessing digital technologies

**Humanities, Arts and Social Sciences** 

Understanding societal needs

#### MANDATORY CORE CURRICULUM

Common Freshmore subjects will be taken in the first three terms, with majors selected after Term 3. This approach provides a broad and rigorous education, and aims to give you a strong base to select and excel in your major of choice from Term 4.

#### **MAJORS**



Architecture and Sustainable Design (ASD)



Design and Artificial Intelligence (DAI)



**Engineering Product** Development (EPD)



**Engineering Systems** and Design (ESD)



Information Systems Technology and Design (ISTD)

You will take up to seven HASS classes throughout your undergraduate education. Complementing the technical subjects, this exposure provides a comprehensive understanding of the multi-dimensional world you are creating, designing and building for. Be a modern tech leader conscious of the social role and impact of technology and design innovations.

In your graduating year, you will participate in a 2-term Capstone project collaborating with students from different majors to solve real-world challenges from industry partners, using your respective skills.





Watch how our students from different majors come together to solve real-world challenges

#### VARIABLE CURRICULUM

At SUTD, we believe in giving you the flexibility for different pathways and that one size does not fit all. Besides the selection of majors and electives, you have the option to take up minors and specialisations that suit your passions.

#### **MINORS**

- Minor in Artificial Intelligence (AI)
- Minor in Design Innovation, Ventures and Entrepreneurship (DIVE)
- Minor in Healthcare Informatics
- Minor in Engineering Product (EP)
- Minor in Engineering Systems (ES)
- Minor in Information Systems (IS)
- · Minor in Design, Technology and Society (DTS)
- Minor in Digital Humanities (DH)

#### **SPECIALISATIONS**

· Focus tracks offered within each major

Or build a portfolio under an industry aligned with SUTD's next phase of growth - Aviation, Cities, and Healthcare, supported by capabilities in Artificial Intelligence/Data Science.

#### **OUTSIDE THE CLASSROOM**

Broaden your perspectives and be challenged beyond the classroom through:

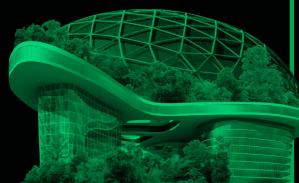
- Fifth Row (i.e. co-curricular activities)
- Research
- **Global exposure**
- Internships

# **PROGRAMMES**



#### **MAJORS**

Choice of major is only made at the end of the Freshmore year (first three terms)

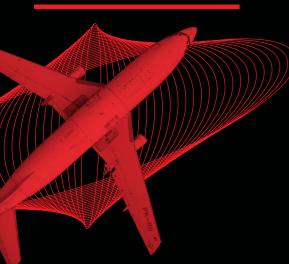


#### ARCHITECTURE AND SUSTAINABLE DESIGN (ASD)

You will be architects and urban designers of the future. You will not just build structures - you will build better communities and a better tomorrow through the power of design and technology.

Bachelor of Science

Master of Architecture

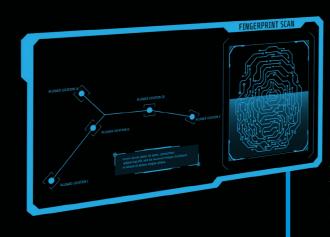


You will be analysts and system engineers who tackle open-ended challenges for organisations with a focus on design, analysis and optimisation. Whatever the challenge, your expertise in systems thinking and economics will find a way forward.

#### Specialisations

- Business Analytics and Operations Research
- Financial Services
- Supply Chain and Logistics
- Urban Infrastructure Systems

- 8 terms



- Additional 2 terms

## DESIGN AND ARTIFICIAL INTELLIGENCE (DAI)



You will be designers and innovators who harness the power of AI to tackle both present and future challenges, improving design using Al across products, systems, services and the built environment.

Bachelor of Science (Design and Artificial Intelligence)



#### **INFORMATION SYSTEMS TECHNOLOGY AND DESIGN (ISTD)**

You are the drivers of the future's digital development. You will possess abilities in computing and system knowledge in both software and hardware, as well as the power to design machines of the future with augmented intelligence.

#### **Specialisations**

- Artificial Intelligence
- Financial Technology
- Computer Engineering
  - Security
- Data Analytics
- Custom Specialisation

#### Bachelor of Engineering

(Information Systems Technology and Design)

- 8 terms

# DEVELOPMENT (EPD)



You will be design engineers that believe any challenge can be overcome with an invention or innovation. Using your skills and knowledge to design products, services and systems to solve any problem.

#### Specialisations

- Mechanical Engineering Healthcare Engineering Design
- Electrical Engineering
- Robotics
- Beyond Industry 4.0
- Computer Engineering
- Self-Directed Specialisation

#### Bachelor of Engineering (Engineering Product Development)



SUTD's multi-disciplinary approach to design and architecture is its key differentiator. Working together with other programmes extends the toolkit and repertoire of an architect, to create tightly integrated and innovative new solutions.

Jonathan No **ASD Alumnus** 

Master of Architecture student at Harvard Graduate School of Design





#### **SPECIAL PROGRAMMES**



Learn more about our

sutd.edu.sg/specialprogrammes

On top of our majors, **SUTD's suite of special** programmes are designed to stretch your abilities beyond technology and design.

#### **SUTD TECHNOLOGY ENTREPRENEURSHIP PROGRAMME** (STEP)

A WORLD OF INNOVATION AND **OPPORTUNITIES** 



Graduate with a **Bachelor** of Engineering or Science degree and a Master of Science in Technology Entrepreneurship degree.

#### **SUTD HONOURS AND** RESEARCH **PROGRAMME** (SHARP)

**RESEARCH THAT TRANSCENDS DISCIPLINES AND GLOBAL BOUNDARIES** 



Graduate with a **Bachelor** of Engineering or Science degree, with the option to pursue a graduate degree such as a **Doctor of Philosophy in** Engineering or a Master of Engineering (Research).

#### **SUTD-DUKE-NUS SPECIAL TRACK**

WHERE DESIGN, TECHNOLOGY AND MEDICINE MEET



Graduate with a **Bachelor** of Engineering or Science degree and a **Doctor of** Medicine (MD) degree at Duke-NUS Medical School.

# **GLOBAL EXPOSURE**

We offer overseas opportunities for 100% of our students, leveraging the world as your classroom. To better the world, first see and experience the world, and what it needs. Look forward to cultural exchanges, design experiences, research exposure and even launching a global start-up.

#### **1-term Exchange Programmes**

Spend an exciting Term 6 living and learning in one of our partner universities worldwide. You will be able to transfer credits earned back to SUTD.

#### **Summer Programmes**

We also offer a suite of short-term summer programmes offering varied experiences, from thematic design projects to entrepreneurship.



Start something you are passionate about just like Vertex, the cheerleading squad who won 1st runner-up (Group Stunt Open - All Girl Premier) in the Asia Cheerleading Invitational Championships 2018.

### STUDENT LIFE WITH A UNIVERSAL APPEAL

#### **Vibrant Student Life**

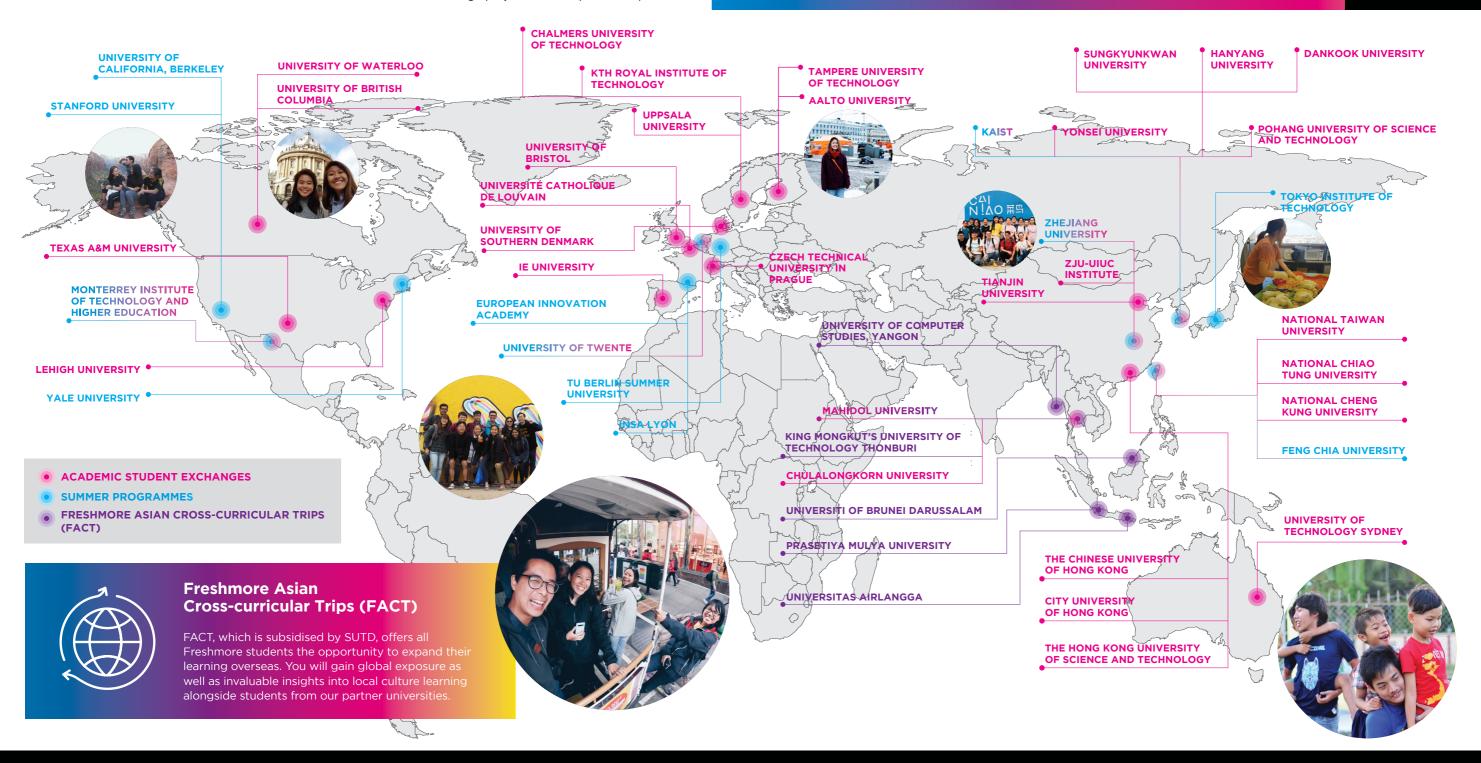
Fifth Row is what we call co-curricular activity at SUTD — it is the fifth activity that students do every term in addition to their four academic subjects.

#### **Hostel Life**

All Freshmore students will stay in the hostel for the first three terms. Between mass cookouts and impromptu jamming sessions, this is where you make friends for life. 90 Student Clubs and growing



DEDICATED TIME to pursue your INTERESTS Wednesday & Friday afternoons









Hear from our industry partners and discover what gives our graduates an edge.

SUTD graduates go on to pursue their passion in graduate school or research, join MNCs and start-ups, or even start their own businesses.

SUTD students are passion-driven innovators and some have even founded start-ups before graduation. These include:





s\$4,071

**Highest** 

starting salary



78.6%

Graduates secured jobs in

78.6% of Singapore's key



**Creating wearable tech** - Ring Theory



**Digitising payment solutions** 

- Beep



**Reducing food wastage** - UglyFood



Discover, engage and measure authentic social media influencers with AI - Affable



**Nurturing** young innovators

- Codomo



Watch how Codomo encourages a culture of innovation among children.





Based on the results of the 2018 Joint Graduate Employment Survey conducted by NTU, NUS, SIT, SMU, SUSS and SUTD

# Overall employment was Mean gross monthly salary Based on the Economic Development Board's list of Based on the Economic Development Board's list of Based on the Economic Board's list of the State of

# **ADMISSION PROCESS**

Our application is not a test - it is an opportunity for us to learn as much about you as possible. Beyond grades, share with us your passions, abilities and goals.





Create an account at admission.sutd.edu.sg





Submit your grades, list your CCAs and other achievements (with supporting documents, such as School Graduation Certificate and equivalent), and provide your teachers' contacts for recommendation letters.





Indicate your interest to be considered for scholarships or any special programmes.





#### [Encouraged]

Upload any **supplementary** materials (a link to your blog, a video, etc.) that would tell us why you are a good fit for SUTD.





Answer a few personal insight questions. Shortlisted candidates will need to attend an admission interview.

For more details on application, visit sutd.edu.sg/apply

# FINANCING YOUR SUTD EDUCATION

SUTD's admissions policy is need-blind and merit-based. If you are a right fit for SUTD, we are committed to making it accessible for you.

For more details on financing your studies, visit **sutd.edu.sg/UGfinancing** 

# SUTD EDUCATION OPPORTUNITY GRANT (SEOG)

SEOG is a financial package aimed at helping students with demonstrated financial need to offset the educational expenses at SUTD.

Eligible students are guaranteed the following:



Covers up to 100% tuition fees & hostel fees<sup>1</sup>



No interviews, no bonds



No limit to the number of recipients

'Funding for hostel fees is only applicable for the Freshmore terms where hostel stay is mandatory

With this upfront guarantee, you can now take financing out of your enrolment decision and focus on pursuing your interests and passions at SUTD without having to worry about affordability.

For more details, visit sutd.edu.sg/SEOG



#### **SUTD COMMUNITY GRANT**

This grant is introduced in AY2020 to help students who do not receive a scholarship or qualify for financial aid, to defray the costs of an SUTD education. For details on eligibility, visit <a href="mailto:sutd.edu.sg/communitygrant">sutd.edu.sg/communitygrant</a>



S\$1,500 per academic term to offset tuition fees



No application needed

Eligible students will automatically benefit

#### **TUITION FEES**

Subsidised tuition fees per term:

Singapore Citizen	S\$6,600
Singapore Permanent Resident	S\$9,250
International Student	S\$14,125

Above tuition fees are for new students admitted in AY2019 For latest fees, please visit **sutd.edu.sg/fees** 

#### **SCHOLARSHIPS**

Outstanding students can be considered for attractive, prestigious scholarships. For more details, visit <u>sutd.edu.sg/scholarship</u>



100% bond-free



>100 with funded overseas exposure



# SUTD GLOBAL EXCELLENCE SCHOLARSHIP

One of our most prestigious scholarships, it is dedicated to further realising outstanding students' potential by supporting your personal development, including postgraduate studies and more.

- Bond-free
- Covers subsidised tuition fees for the normal duration for the bachelor's degree programme (eight academic terms)
- Programme fees and travel grant for the Global Leadership Programme
- Study-related allowance of S\$5,000 every two academic terms
- Grant of up to S\$15,000 to cover the tuition fees for a post-graduate degree programme at either SUTD or SMU (for eligible courses) within three years upon graduating from SUTD



SUTD's unique multi-disciplinary curriculum gives their graduates an edge in integrated solution and systems thinking, especially important under the changing aviation landscape.

Mr Yam Kum Weng Executive Vice President, Airport Development Changi Airport Group





For enquiries: <a href="mailto:sutd.edu.sg/prospectivestudent">sutd.edu.sg/prospectivestudent</a> Scan for more about SUTD.



sutd.edu.sg





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