

ASD
CSD

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OVERVIEW

SUTD
SINGAPORE UNIVERSITY OF
TECHNOLOGY AND DESIGN

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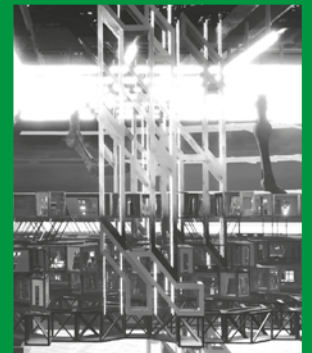


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**ARCHITECTURE
AND
SUSTAINABLE
DESIGN**



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REDESIGNING ARCHITECTURE – THE SUTD WAY

Think architecture and chances are the image of buildings and other physical spaces will come to mind. But why let the human mind restrict you? With the incredible advent of artificial intelligence, the future of architecture and the potential of architects is limitless. Reshaped by advanced technologies, new materiality, and advanced intelligence, we are now able to create human-centric spaces like never before - bound only by the potential of infinite possibilities!

UNLEASH YOUR CREATIVITY: A UNIQUE PROGRAMME BLENDING ARTS AND SCIENCE

Unleash your creativity to address the world's most pressing challenges through our interdisciplinary curriculum that merges art and science. ASD empowers you to think beyond boundaries to create innovative designs that address the following themes:

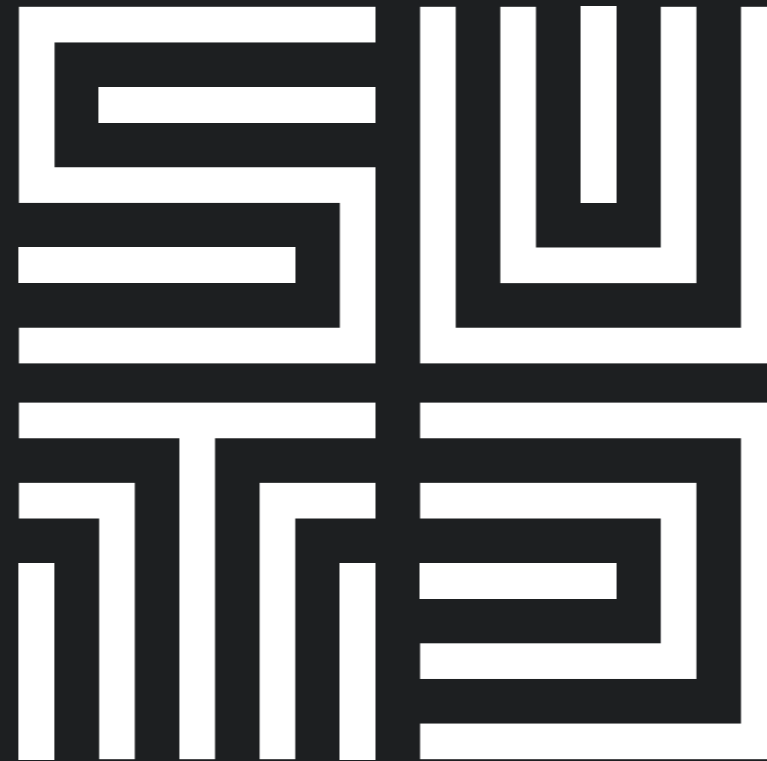
- The exponential increase in global population.
- Environmental degradation and climate change.
- Well-being and regenerative urbanism.
- Social inequities and systemic challenges.
- The disruption and elimination caused by advancing technologies.
- Transcendentals: Truth, Love, Goodness, Unity, Beauty.



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Riccia Lim
Class of 2024
ASD Bachelor of
Science Alumna
SUTD-Duke-NUS
Special Track

Forward-thinking, challenging, and supportive — SUTD's Bachelor of Science (Architecture and Sustainable Design) programme has **equipped me with the skills to navigate emerging technologies and manage complex projects**. Along the way, I've been enriched by a vibrant and supportive community of students, staff, and faculty.

TRAILBLAZING A BETTER WORLD BY DESIGN.



A FUTURE-READY CURRICULUM: EMPOWERING YOU WITH TECHNIQUES AND TOOLS TO ACHIEVE YOUR DREAMS

Over the course of the first three common Freshmore terms, you will have built a solid foundation in Science, Mathematics and Technology (SMT), Humanities, Arts and Social Sciences (HASS) and Design, which will prepare you for your ASD major.



In the ASD programme, you will gain cutting-edge skills and access to transformative tools, including:

- Computational spatial-temporal material and prototyping.
- AI mastery and creation.
- Transnational analysis and mapping.
- Critical thinking and creative visioning to shape impactful and sustainable solutions.

You'll join a global creative community, benefiting from:

- Evidence-based methodologies.
- Leadership development that integrates with thought leaders and innovation.
- Immersive maker culture with cutting-edge machines.
- Latest experimental projects and approaches.
- Programme that integrates executive foundation of understanding human development.

In addition to your ASD subjects, you will continue to take courses in HASS that will prepare you to be a new kind of architect who embraces the cultural and social context of technology in the modern world.

Every undergraduate will have worked on at least 20 design projects throughout their years of study at SUTD. These experiences culminate in a two-term Capstone project in your graduating year. This allows you to work in teams with students from other majors and apply the skills you have mastered in ASD on either a client-sponsored industry-based project or your own entrepreneurial project to solve a real-world challenge. Upon graduation, you'll possess an extensive portfolio of industry-inspired projects, well-prepared for your career journey.

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Edison Ng
Class of 2020
ASD Master of
Architecture Alumnus

The biggest takeaway is **the development of critical thinking and problem-solving skills**. It enhances our ability to solve problems in our daily work, especially valuable during integrated projects, where numerous activities occur simultaneously in a confined space under tight constraints.

ASD CURRICULUM

JAN-APR		MAY-AUG		SEP-DEC	
<ul style="list-style-type: none"> Freshmore Subject Core Subject Elective Capstone 	<ul style="list-style-type: none"> Y1 Y2 Y3 Y4 M.Arch 	TERM 1 Modelling & Analysis Physical World Computational Thinking for Design Social Science: Understanding Behaviour, Culture & Society (HASS)			
TERM 2		TERM 3		VACATION	
Modelling Space & Systems		Modelling Uncertainty			
Technological World		Global Humanities: Literature, Philosophy, and Ethics (HASS)			
Science for a Sustainable World		Any Two Electives*			
Design Thinking & Innovation					
TERM 4		TERM 5		VACATION/ INTERNSHIP/ EXCHANGE	
Architecture Core Studio 1		Architecture Core Studio 2			
Architectural Structure & Enclosure Design		Architecture Science & Technology			
Digital Design & Fabrication		Building Information Modelling			
Traditions (History, Theory & Culture)		Modernisms (History, Theory & Culture)			
TERM 6				TERM 7	
Architecture Core Studio 3		VACATION/ INTERNSHIP/ SUMMER PROGRAMME		Sustainable Design Option Studio 1	
Architectural Energy Systems				Capstone	
Creative Machine Learning				Elective	
Architectural Theory & Design				Elective	
TERM 8				TERM 9	
Sustainable Design Option Studio 2		GRADUATION BACHELOR OF SCIENCE (ARCHITECTURE AND SUSTAINABLE DESIGN)		Graduate Design Studio	
Capstone				Thesis Preparation	
Elective				Professional Practice 1	
Elective				Elective	
TERM 10					
THESIS		GRADUATION MASTER OF ARCHITECTURE			
Professional Practice 2					
Elective					

ASD CORE SUBJECTS

The Design Studio sequence is at the heart of the programme and distinct to architectural education. Subjects fall into four areas of focus:

- **Building Technology**
- **Design Computation**
- **History, Theory & Culture**
- **Studio**

LEARNING OUTCOMES OF ASD CORE

- Think critically
- Design through enquiry, reflection and invention
- Directly experience construction
- Understand the technical demands of building
- Think digitally and physically through drawing, making, writing and speaking
- Be socially, sustainably and ethically responsible
- Confidence in creative expressions

ELECTIVES

Diverse electives are offered to address emerging challenges such as critical resource constraints, the need for energy-efficient and livable housing, rapid urbanisation, transportation planning, historical conservation and land use transformations.

INTEGRATED ARCHITECTURE PROGRAMME

ASD's Direct Pathway to Masters offers a unique opportunity to graduate with both a Bachelor's and Master's degree in architecture. This allows you to immerse yourself in a collaborative research environment engaging with top globally recognised domain experts in the respective labs such as:

- AIRLAB (Architectural Intelligence Research Laboratory)
- Artificial-Architecture.AI
- Advanced Architecture Lab
- formAxioms
- Centre for Climate Adaptation
- Meta Design Lab
- Robotics Innovation Lab

Our curriculum seamlessly integrates design, technology, and research to prepare you for a dynamic career in architecture and beyond.



Megan Riri Moktar
Class of 2022
ASD Master of Architecture Alumna

Being part of both the undergraduate and master's programmes has been a **life-changing experience** for me. Since the first term, the pedagogy encouraged self-discovery and self-learning under the guidance of tutors. **This made me more resilient and confident in meeting the ever-changing demands of the work environment.** Moreover, exposure to cutting-edge tools and technology has been invaluable, providing me with **confidence to learn and adapt to new technologies.**

***Term 3 Electives:**
 Science and Technology for Healthcare
 Data Driven World
 Designing Energy Systems
 Spatial Design World

- In addition to all subjects in Term 1 being grade-free (Pass/No Record), students can choose up to four more subjects from Terms 2 and 3 to be grade-free.

- Students will declare their choice of major in Term 3.

Information is subject to change. Visit sutd.edu.sg/asd for latest updates.

LAUNCH YOUR CAREER ON A GLOBAL STAGE

❖ Our graduates have achieved remarkable success in diverse fields, including:

- ❖ Pursuing postgraduate programmes at Massachusetts Institute of Technology, Harvard, and other prestigious institutions.
- ❖ Leading award-winning architectural firms and design projects.
- ❖ Shaping urban landscapes as urban planners and policymakers.
- ❖ Innovating in emerging tech enterprises.
- ❖ Creating meaningful impact as social entrepreneurs and thought leaders.
- ❖ Become a full-fledged Architect accredited by the Board of Architects.
- ❖ Expanded possibilities from the mastery of spatial AI including opportunities in the virtual space and emerging industries.
- ❖ Networking with global thought leaders.
- ❖ Field trips and exchange programmes to diverse geographies and locations.

❖ Join the ranks of our accomplished alumni who are transforming industries and communities worldwide:

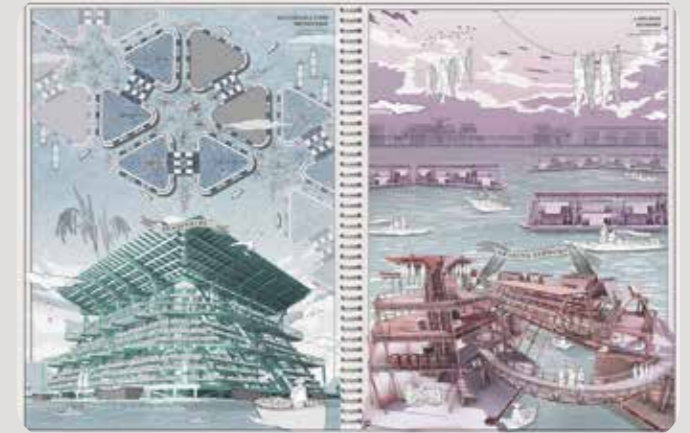
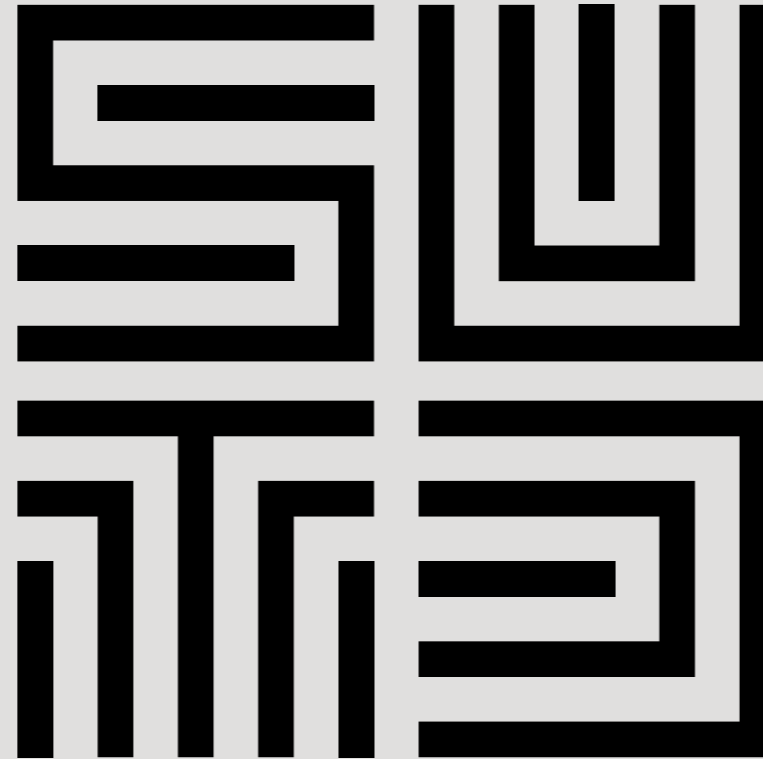
- ❖ Janessa Kwan Su Hui, Undergraduate Class of 2026 - Inaugural "Reimagine the Future of Hospitality with AI" competition by WATG Singapore (3rd Prize)
- ❖ Ian Chung Enzhi, Master of Architecture Class of 2023 - FuturArc Prize 2024 (Merit Award) for The Commons Cooperative: Sustaining the Commonwealth in Tonlé Sap, Cambodia
- ❖ Lyvia Annabelle Simano, Master of Architecture Class of 2023 - FuturArc Prize 2024 (2nd place) for Jakarta, Indonesia's Possibilities for Coastal Reform: Muara Angke 2100
- ❖ Chia Sheng Wei, Master of Architecture Class of 2021 - ARCASIA Thesis of the Year 2021 (Gold Award)
- ❖ Ng Wen Qi, Master of Architecture Class of 2020 - Nippon Paint AYDA (Asia Young Designer Awards) (Silver & Best Colour)
- ❖ Tan Gee Yang, Master of Architecture Class of 2020 - Fentress Global Challenge 2021 (3rd Prize)
- ❖ Michelle Gouw, Master of Architecture Class of 2020 - Global Design Graduate Show Award 2021, Architecture Category (Winner) and 15-Minute City Urban Design Competition 2021 (3rd Prize)
- ❖ Nabila Pranoto, Master of Architecture Class of 2019 - Coup de Coeur Award by Jacques Rougerie Foundation 2019



Lyvia Annabelle Simano
Class of 2023
ASD Master of
Architecture Alumna

Studying in ASD inspired me to address the urban challenges and opportunities in my hometown. My thesis "Coastal Reform: Muara Angke 2100" envisions coastal Jakarta as an ecologically and socially sustainable city, **using design to position architecture as a framework for people and nature to sustain themselves and their culture in the face of climate change.**

TRAILBLAZING A BETTER WORLD BY DESIGN.



FuturArc Prize 2024 (Merit Award) for The Commons Cooperative: Sustaining the Commonwealth in Tonlé Sap, Cambodia by Ian Chung Enzhi



Janessa Kwan Su Hui, Undergraduate Class of 2026 - Inaugural "Reimagine the Future of Hospitality with AI" competition by WATG Singapore (3rd Prize)



Seah Chee Huang
Chief Executive Officer,
DP Architects

SUTD's integrated learning pedagogy is highly relevant to the practice of architecture which demands a holistic, highly collaborative and outcome-driven approach; and the ASD curriculum that drives impact through technological innovation, **plays a critical role in bridging skills gap in the built environment sector.**



Hsinming Fung
Principal at
Hodgetts + Fung,
Director of International
Programs, SCI-Arc

The in-depth research on design and its applications was both thorough and disciplined, addressing not only local constraints but also global environmental factors.



A glimpse into The SUTD Master of Architecture Thesis Exhibition Review, where our students presented visionary projects to industry leaders, academia, and the international design community.



SELF DISCOVERY AND LEADERSHIP DEVELOPMENT

Experience a transformative educational journey that focuses on personal and professional growth:

- A unique culture that feels like a boutique establishment, fostering close connections and a sense of belonging.
- A high student-to-faculty ratio for personalised attention and support.
- An interdisciplinary approach to broaden your horizons and spark creativity.
- A creative environment that nurtures your authentic gifts, empowering you to cultivate good, beauty, and purpose in your work.
- Coaching and mentorship to help you identify and achieve your goals.
- Social engagement to improve environment to support the formation of communities.
- Close-knit community, enthusiastic and vibrant student life.
- Regional field trips for social missions and hosting of participatory design workshops.
- Growth potential in the rich course programming.



VIASTA! A community-led green festival that reimagines underutilised MRT viaducts transformed into inclusive spaces promoting sustainable and healthy living for the community.



GLOBAL EXPOSURE

VENICE STUDIO: ANDREA PALLADIO

- Learned about the great Renaissance architect Andrea Palladio (1508-1580) and experienced his architecture in Venice.
- Studied the relevance of Palladian architecture in our modern context, and how to apply the values of scale, proportion and hierarchy to meet the needs and challenges of architecture.



Project (ultra) Light Networks Pavilion by Associate Professor Carlos Bañón
Redefining Possibilities: Breaking new ground in 3D printing and polymer-based design to craft tools and methods for elegant, responsive architecture.



VIETNAM IAP: COMMUNITY DESIGN AT HANOI

- Building on an earlier community design project in Ho Chi Minh City (2014-2015), SUTD OLab embarked on a new community design project in Hanoi, in partnership with World Vision and CapitaLand.
- Designed a safe learning and playing compound for a new kindergarten in Le Xa, encouraging local children to go to pre-school and receive proper nutrition and education.
- Conducted research and a co-design workshop with teachers and residents.
- CapitaLand constructed the final design in May 2018.



Jezamine Chua
Class of 2016
ASD Master of
Architecture Alumna

The **close-knit community in SUTD is something that I don't experience elsewhere.** It's something that I really cherish and miss about SUTD. It's like being part of a village, get help from anyone, grow together through hardships and friendships.

GLOBAL EXCHANGE PROGRAMMES WITH SHANGHAI JIAO TONG UNIVERSITY, AALTO UNIVERSITY, UNIVERSITY OF SEOUL, AND IE UNIVERSITY

STUDENTS' EXCELLENCE ON THE GLOBAL STAGE: AWARD-WINNING WORKS



Jacques Rougerie
Foundation International
Architecture Competition
2019, Coup de Coeur
Award

A Living Organism: Design for the End of the World
by Nabila Larasati Pranoto,
Master of Architecture,
Class of 2019



ARCASIA Thesis
Of the Year 2021,
Gold Award

The Makers
Museum by Chia
Sheng Wei, Master
of Architecture,
Class of 2021



Fentress Global
Challenge 2021,
Third Place

Aviation 2050:
Imagining Future
Adaptive Antifragile
Airport Terminals by
Tan Gee Yang, Master
of Architecture, Class
of 2021



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