Programme Overview
The Master of Science in Security by Design (MSSD) focuses on cybersecurity foundations and applications, from early design stages to implementations, for organisational domains and cyber-physical systems. Students will be able to design, analyse, implement and manage secure systems ranging from online services and business to large-scale infrastructures (e.g. power grid, water treatment).

Unique Features
- Access to World-Class Testbeds
- Active Learning and Hands-On Pedagogy
- Local and Overseas Attachment Opportunities (for Research Thesis OR Industry Project)

Testbeds
SUTD hosts several world-class testbeds that facilitate research and training in the design of secure large-scale cyber physical systems. These systems include:
- Secure Water Treatment (SWaT)
- Water Distribution (WADI)
- Electric Power and Intelligent Control (EPIC)
- Research in Security Innovation Lab for Internet of Things (RESILIOT)

Programme Duration (Full-Time / Part-Time / Modular)
Each academic year is divided into 3 Terms:

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<th>Full-Time</th>
<th>Part-Time</th>
<th>Modular</th>
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<tbody>
<tr>
<td>Duration</td>
<td>1 Year</td>
<td>2 to 3 years</td>
<td>Up to 5 Years</td>
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<td>(3 Consecutive Terms)</td>
<td>(Maximum of 9 Terms)</td>
<td>(Maximum of 15 Terms)</td>
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### Curriculum Overview
The MSSD programme starts in September and ends in the following August.

#### Term 1  (Sept to Dec)
- Foundations of Cybersecurity
- Computer Networks
- Elective Module 1
- Security Tools Laboratory 1

#### Term 2  (Jan to Apr)
- Secure Software Engineering
- System Security
- Elective Module 2
- Security Tools Laboratory 2

#### Term 3  (May to Aug)
- Research Thesis OR Industry Project

Part-time students must complete the above curriculum within 9 Terms.

### Featured Elective Modules
- Machine Learning
- Secure Cyber Physical Systems
- Cybercrime

For more details, please visit [https://istd.sutd.edu.sg/mssd/programme-structure/](https://istd.sutd.edu.sg/mssd/programme-structure/)

### Admission Requirements
At least a Bachelor’s degree with
- Second-Upper Class Honours and majoring in engineering or computer science
- OR
- At least 2 years of work experience in the information & communications technology sector

Applicants should also possess the following:
- Proficiency in at least one of the following programming languages: Java, C/C++, Python (or other modern programming language)
- English language proficiency (TOEFL or IELTS may be required if English is not your medium of instruction)

### Admission Assessments
- Programming Test
- Face-to-Face OR Video Conference Interview

Credit exemption for academic modules will be evaluated on a case-by-case basis.

### Featured Scholarships

#### National Cybersecurity Postgraduate Scholarship
Open to Singapore Citizens and Permanent Residents

#### Center for Cyber Safety and Education Graduate Scholarship
Open to all local and international students

### Contact Us
For admission and programme enquiries:
Email: mssd@sutd.edu.sg

### Company Partnerships
- Certis CISCO
- Cyber Security Agency of Singapore
- Netherlands Organisation for Applied Scientific Research (TNO)
- Public Utilities Board, Singapore’s National Water Agency
- StarHub Ltd
- ST Electronics (Info-Comm Systems) Pte Ltd