The NUS Master of Technology in Software Engineering programme has been more than fulfilling - the curriculum is up-to-date and it provided me with many opportunities to enhance my knowledge and experience in software engineering. As I attended the part-time programme, most of my course mates were also working professionals and interacting with them greatly expanded my perspective of the industry and opened my eyes to the technologies that other companies are using.

Andrew Chong, Singapore
Senior Software Engineer, DSO National Laboratories
Master of Technology in Software Engineering (MTech SE), Class of 2017

BUILD SOFTWARE SYSTEMS & PLATFORMS FOR A SMART NATION

Other Graduate Programmes by NUS-ISS

- Master of Technology in Enterprise Business Analytics
- Master of Technology in Intelligent Systems
- Graduate Diploma in Systems Analysis

Available as Stackable Certificate Programme in Data Science
Available as Stackable Certificate Programme in Artificial Intelligence
Available as Stackable Certificate Programme in Digital Solutions Development

About the Institute of Systems Science (NUS-ISS)
Established in 1981, the Institute of Systems Science at the National University of Singapore (NUS-ISS) develops digital talent for the industry through graduate education, professional development programmes, consultancy, applied research and career services. NUS-ISS is widely recognised as a champion of the national SkillsFuture movement, enabling a digital economy that is always learning and always leading.

NUS-ISS has implemented a unique portfolio of multiple learning pathways, with a wide spectrum of programmes in critical industry disciplines such as software development, data science, artificial intelligence, cybersecurity, smart health, digital government and digital innovation.

To date, over 120,000 infocomm & business professionals, 6,800 corporate customers and 5,500 post-graduate alumni members have benefitted from NUS-ISS’s suite of services. Its programmes are delivered by ISS staff with an average of more than 20 years of industry experience.
The NUS Master of Technology in Software Engineering programme emphasises the skills required for architecting scalable, secure and smart systems and platforms. The focus will also be exploitation of software technologies, methodologies and management techniques. It focuses on the practical and systematic construction of software systems, using innovative and state-of-the-art techniques.

The programme will equip you with the essential knowledge and practical experience to architect, design, build and manage the delivery of robust software systems for your organisation and customers.

**Who Should Apply**
- Individuals who have a few years of experience in software engineering roles and are looking to further enhance their knowledge and skills in architecting scalable, secure and smart systems and platforms.
- Professionals who are currently in or are looking to enter the careers in the following areas:
  - Software Architecture (general, smart systems, data)
  - Data Architecture
  - Software Engineering
  - Product Management

**How To Apply**
All applicants are required to apply online via the Graduate Admission System (Coursework). Come and find out more about the MTech programmes at our info sessions.
Visit [www.iss.nus.edu.sg/graduate-programmes](http://www.iss.nus.edu.sg/graduate-programmes) for more details. We conduct in-country entrance tests and interviews in selected countries.

**Admission Criteria**
- Bachelor’s degree preferably in Science or Engineering and a grade point average of at least B.
- Proficiency in the English Language (written and spoken).
- Have passed an entrance test.
- Has received a favourable assessment at admissions interview conducted by NUS-ISIS.
- Preferably 3-4 years relevant working experience.
- Candidates who have less than four years’ relevant experience with good practical software engineering knowledge, gained either through course work, course projects or work experience, may be considered.
- Equivalent knowledge and skills imparted in the NICT-NUS-ISIS Certificate in Software Architecture - Foundations.

*Applicants whose native tongue and medium of university instruction is not in English should submit their TOEFL or IELTS score as evidence of their proficiency in English.

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**Capstone Project (Full-time) 3 Months**

**Capstone Project in Smart Systems & Platforms**
Student projects for MTech SE students include 3 months of full-time engagement with the industry for full-time students, and 6-12 months for part-time students. The expected commitment for the project is 45 man-days per student.

**Learning Outcomes**
- Become software architects capable of architecting and designing systems that exploits major contemporary software platforms, technologies and methodologies.
- Become software architects capable of architecting and designing smart and secure systems.
- Become data architects equipped with data engineering skills to engineer big data from a variety of sources.

**Learning Outcomes**
- Understand and apply the basics and concepts of cybersecurity required to incorporate security into systems.
- Understand and apply key concepts in securing mobile platforms, mobile apps and integration to enterprise, as well as for designing mobile security architecture.
- Design a secure application platform with services that provide services to edge devices, systems and those on the cloud.
- Design systems using “Secure by Design” practices in an agile software development lifecycle.

**Job Roles**
- Solution Architect
- Cloud Architect
- Platform Architect
- DevOps Engineer
- Product Manager
- Product/Platform Architect
- Digital Product Platform Manager
- Security Architect
- Cybersecurity Specialist

**Job Roles**
- Data Architect
- Data Engineer
- IoT Solution Architect
- Wearable Systems Engineer
- Smart Medical Device Engineer

**Stackable Certificate Programme in Smart Systems & Platforms**
The Master of Technology in Software Engineering is also available as Stackable Certificate Programme in Smart Systems & Platforms. With this programme, Professionals, Managers and Executives (PMEs) can attain a series of NUS-ISIS graduate certificates over a period of five years without disrupting your careers. You will have the flexibility of studying at your own pace by taking the required modular courses that make up the certificates to meet your needs. PMEs who do not wish to attain a certificate, graduate diploma or degree can continue to attend individual modular courses that can allow you to gain the skills to meet your career needs.

Visit [www.iss.nus.edu.sg/stackable-programmes](http://www.iss.nus.edu.sg/stackable-programmes) to find out more.