AN ENTREPRENEURSHIP PROGRAMME DEEPLY ROOTED IN THE TECHNOLOGICAL ECOSYSTEM
NTU SINGAPORE

A young and research intensive university, Nanyang Technological University, Singapore (NTU Singapore) has 33,000 undergraduate and postgraduate students in engineering, business, science, humanities, arts, social sciences, education and medicine.

Consistently ranked among the world’s top universities, NTU is home to world-class institutes – the National Institute of Education, S Rajaratnam School of International Studies, Earth Observatory of Singapore, and Singapore Centre for Environmental Life Sciences Engineering.

Besides reputed as one of the world’s most beautiful campuses, the NTU Smart Campus is a living testbed of tomorrow’s technologies and a model of sustainability, with more than 60 Green Mark Platinum awards for its building projects.

NTUpreneur

NTU Entrepreneurship Academy (NTUpreneur), formally Nanyang Technopreneurship Center, is the focal point of entrepreneurship education within the University and the region. NTUpreneur nurtures and promotes a culture of innovation and entrepreneurship endeavours through academic programmes such as:

Undergraduate
• Minor in Entrepreneurship (MiE)
• Second Major in Entrepreneurship (SMiE)
• Overseas Entrepreneurship Programme (OEP)

Postgraduate
• Master of Science in Technopreneurship and Innovation (MSc TIP)
• FlexiMasters in Technopreneurship and Innovation (FM TIP)

Entrepreneurship Development Programmes (EDP) for working professionals
• CET Courses under SkillsFuture Series
• Enterprise Leadership for Transformation (ELT)
Technology is evolving and will play an increasingly significant role in the world’s economic landscape. As drivers of technology innovation, entrepreneurs should be sensitive to and quick in identifying economic values of technology and seize new opportunities to develop, translate them into products and services that benefit society. Entrepreneurship is a cornerstone of the growth strategies for the future economy.

In the eyes of people taking an entrepreneurial path, the future is not just a continuation of the past, but a result of purposeful and creative efforts. At NTUpreneur, we adopt a broad and vibrant approach to entrepreneurship, from leadership to management, operations, and innovation.

Capability building and mindset change are both crucial to entrepreneurial success, be it idea generation, prototyping, new product design, marketing, or fundraising. Therefore, we strive to bring together technology innovators, entrepreneurs, investors, policy-makers and other stakeholders in the entrepreneurship ecosystem, to form interdisciplinary teams to address business problems in a global context.

What is certain about our future is that it will be filled with new challenges and uncertainties. Almost everyone needs an entrepreneurial mindset and relevant skills to cope and deal with this future, no matter what you want to be; an entrepreneur, a corporate executive, a civil servant, or a freelancer.

The MSc TIP trains entrepreneurs and future entrepreneurial leaders on how to think, judge, decide, and act under uncertainties, to survive and thrive.

Given its unique curriculum, pedagogy, impact and achievements of our alumni, the MSc TIP clinched the Global Excellence in Entrepreneurship Education, an award presented by the International Council for Small Business in 2018.
A REVOLUTIONARY ENTREPRENEURSHIP PROGRAMME

The MSc TIP and FM TIP focuses on educating and nurturing leaders for the entrepreneurship ecosystem through academic knowledge acquisition, entrepreneurial mindset cultivation, and business skillset development. It empowers participants to be competent in leveraging technology advancements to create social and economic value for society.

Emphasising experiential learning, MSc TIP and FM TIP integrates the knowledge of emerging technologies and innovative business models and practices into its curriculum. The course covers strategic and operational issues of entrepreneurial ventures at their different growth stages.

Throughout the programme, participants will have opportunities to engage with various stakeholders in the entrepreneurship ecosystem. Many graduates have benefitted from the programme and have transformed their entrepreneurial ideas into successful ventures.
TIP ALUMNI NETWORK

1800+ ALUMNI

IN MORE THAN 30 COUNTRIES AND REGIONS AROUND THE WORLD

United States
Canada
Columbia
Paraguay
Norway
United Kingdom
Germany
Slovakia
Turkey
Switzerland
France
Spain
Egypt
United States
Canada
Columbia
Paraguay
Norway
United Kingdom
Germany
Slovakia
Turkey
Switzerland
France
Spain
Egypt
India
Sri Lanka
Bangladesh
Singapore
Indonesia
South Africa
Saudi Arabia
Australia
New Zealand

China
Myanmar
South Korea
Taiwan
Hong Kong
Thailand
Vietnam
Philippines
Malaysia
Slovakia
Turkey
Singapore
Indonesia
Australia
New Zealand
Focusing on educating and nurturing leaders for the entrepreneurship ecosystem, our Master of Science in Technopreneurship and Innovation Programme (MSc TIP) empowers participants with competency to leverage on technology to create social and economic value for society.

With emphasis on experiential learning, MSc TIP integrates emerging technologies with innovative business models and practices into its curriculum. The course covers strategic and operational issues of entrepreneurial ventures at different growth stages.

Throughout the programme, participants will have opportunities to engage with many stakeholders in the entrepreneurship ecosystem. More than 1,800 alumni in over 30 countries and regions around the world have benefitted greatly from this programme and many of them their entrepreneurial ideas into successful ventures.

The FlexiMasters in Technopreneurship and Innovation Programme (FM TIP) is designed with support from the government for working professionals who are looking to learn more about entrepreneurship and the essential skillsets, and desire to turn novel ideas into successful ventures.
Learn to deal with uncertainties and adapt to changes.

Manage risk and operate business.

Seize opportunities from new or disruptive technologies and uncertainties.

Cultivate value, integrity and leadership.

Test your business ideas.

Learn what investors look for in a start-up.

Increase your business survival and success.

Syllabus designed for all aspiring or budding entrepreneurs. Students will be challenged academically through advanced assessments.

Supported by SkillsFuture grant in Singapore’s drive to equip our citizens with skills and knowledge in their chosen domains. FlexiMasters students will enjoy study grants.

Weekend and weekday night classes.

Course caters to diverse students through hybrid mode for synchronous and easy learning.

Academic Units earned are stackable and transferable to MSc TIP**.

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*Singaporeans and Singapore Permanent Residents only

**FM TIP AUs are transferrable subjected to admission to MSc TIP
An Entrepreneurship Programme Deeply Rooted in the Technological Ecosystem
**CORE MODULES**

The core modules are carefully set according to the programme objectives and the talent training needs. They form the pillars of the technopreneurship and innovation knowledge system. They not only reflect the unique features and the standard of this programme, but also set specific requirements on the basic quality and competence for students.

**INTRODUCTION TO ENTREPRENEURSHIP***

Introduces entrepreneurship and innovation concepts, and the entrepreneurial approach to new venture creation. Students learn to develop and apply entrepreneurial thinking systematically, with an emphasis on conceptualisation, planning, and starting a business.

**ENTREPRENEURIAL MARKETING AND BUSINESS DEVELOPMENT***

Introduces the marketing framework and business development strategies, supplemented with specific methodologies and tools to apply in real-life entrepreneurship scenarios.

**NEW VENTURE FINANCING***

Illustrates entrepreneurial financing from both the perspective of an entrepreneur looking to build his venture and the perspective of a venture capitalist looking to invest in promising start-ups.

**TECHNOPRENEURIAL MINDSET***

Presents a series of distinguished technology expert talks and facilitates reviews to walk students through the specialised fields relating to technopreneurship and innovation, which enables students to develop a technopreneurship mindset.

**MANAGING GROWING VENTURES***

Introduces the framework of entrepreneurial management and strategies for start-ups seeking venture growth. Topics on leadership, operations, human resources, supply chain, legal and regulatory issues are discussed in a ‘hands-on’ format.

**DESIGN AND SYSTEM THINKING**

Discusses the roles that innovation and design play in entrepreneurship, including design thinking and its applications. Such system thinking knowledge and skills further enable students to develop a holistic way of managing and growing ventures.

**TECHNOPRENEURSHIP CHALLENGE**

This capstone course offers a unique case challenge that addresses real-life technopreneurship and/ or innovation issues. Students form teams of different expertise to identify real-life problems and propose viable solutions.

**NTUPRENEUR MENTOR NETWORK AND MENTORSHIP CLINIC**

Gain access to NTUpreneur Mentor Network for support and advice from experienced entrepreneurs, technology experts, and investors on entrepreneurial ideas and venture strategies.

MSc TIP - to complete 7 Core and 3 Elective modules  
*FM TIP - to complete 5 Core modules  
**Subjected to admission to MSc TIP, FM TIP AUs are transferable.
On top of the seven core modules, this programme offers seven electives which focus on three areas: Entrepreneurship Practice, New Venture Financing, and Sustainability for students to develop knowledge and skills for different roles in the entrepreneurship ecosystem. MSc TIP student is required to take three out of seven electives based on their interest.

## ENTREPRENEURSHIP PRACTICE

**Entrepreneurial Decision Making**
Students learn decision-making knowledge and skills related to starting and building companies, developing business strategies, obtaining equity investments, and executing strategies. Four key areas are covered, including cognitive, personal, organisational and practical decision-making tools.

**Technology Commercialisation**
Provides a platform to examine technology trends and key issues in commercialising inventions and innovations, with an emphasis on successful transfer of technologies from a research environment to commercialise into successful products or services.

**Venture Internship**
Provides valuable opportunities for participants to practise entrepreneurial mindset and skills in a dynamic business environment, grow network, and gain insights to facilitate entrepreneurial decision making or career choices in the future.

## NEW VENTURE FINANCING

**Venture Capital Investment**
Introduces a systematic framework and related techniques pertaining to venture capital investment as a profession. Participants learn to develop advanced level of skills on venture valuation and investment decision making.

**Venture Capital Practice**
Examines a substantial number of real-life venture capital and private equity investment cases at advanced level, covering investment cycles, from fundraising, deal screening, negotiations, fund management, to performance reporting.

## SUSTAINABILITY

**Innovation and Entrepreneurship Policy**
Reviews theories and empirical research on the relation between entrepreneurship, innovation and economic growth, from both historical and international perspectives.

**Ecosystem Development**
Discusses various elements that foster successful ecosystems – universities, accelerators, incubators, venture capital, banks, labour laws, intellectual property rights and the winning strategies.
Adrian Ang is a co-founder and CEO of Aevice Health, a MedTech start-up developing wearables for the management of Chronic Respiratory Diseases. Motivated by the challenges of coping with his asthma growing up, Adrian developed the company’s flagship device, the AeviceMD, with his fellow co-founders.

The AeviceMD is a coin-sized wearable device that continuously listens to and analyses the chest sounds of the patient to detect deterioration in their respiratory condition. By doing so remotely and in real-time, the device reduces the risk of an asthma attack by prompting the patients to take an early intervention before their condition worsens. With AeviceMD, Adrian wants to make the home management of chronic respiratory disease easier and anxiety-free for patients and caregivers.

EverComm Singapore, a company co-founded by MSc TIP alumnus Ted Chen in 2013, has achieved more than S$3.4 million in energy savings and S$1 million in revenue. Using data on energy consumption and external environmental factors, the company provides analytics and energy management solutions, and develops energy-saving settings for large organisations. Ted received an award at the 8th World Entrepreneurship Forum (2015) in Hangzhou, China. EverComm is an Infocomm Development Authority (Singapore) accredited company, which has also courted an impressive list of clients and partners, such as, General Electric, Thailand’s PTT Group, and Singapore’s Energy Market Authority.
Angelina Terlaki is a co-founder of Red Dot Analytics, a company specialising in developing advanced digital twin solutions for infrastructure systems using cutting-edge technology and a data-driven approach.

Red Dot Analytics leverages artificial intelligence and machine learning technologies to create accurate digital replicas of complex infrastructure, allowing businesses to gain insights into their performance and make data-driven decisions to improve efficiency and sustainability. With a strong focus on innovation and a commitment to helping companies achieve long-term success, Red Dot Analytics has become a trusted partner, especially for energy-intensive sectors such as data centres.

FORBES 30 UNDER 30

Despite not having a background in agriculture, Dhruv Khanna and two business partners found their calling in hydroponics. The self-funded trio deployed their system on a 1.25 acres land and launched Triton Foodworks in 2015. They have since upgraded to low cost, internet-enabled smart farms that use up to 300 times less land compared to conventional farming. The company has two revenue streams: selling produce to over 40 modern retail and online stores in Delhi-NCR under the brand ChopChop; and setting up hydroponic farms for clients, such as retail, institutional, restaurants, and more, and sharing their revenues. Triton Foodworks is now the pioneer of Hydroponic farming in India. It builds and operates ecosystems that enable them to grow non-GMO and pesticide free food, using 95% less water and up to 300 times less land as compared to conventional farming. Triton has recently ventured in the US, with their first project in Nashville, Tennessee. Their clients range from family offices to bankers interested in sustainable agriculture. Triton Foodworks is also a founding member of UN Environment’s Green Tech Startup Hub.

DHRUV KHANNA
MSc TIP Class of 2014
Co-Founder, Triton Foodworks
Forbes 30 Under 30 Asia 2019 – Industry, Manufacturing & Energy Honouree
Forbes 30 Under 30 India 2020 - Agriculture

ANGELINA TERLAKI
MSc TIP Class of 2021
Co-Founder, Red Dot Analytics
Forbes 30 Under 30 Asia 2023 – Enterprise Technology
I knew I wanted to work more with start-ups and I knew I wanted to be more into entrepreneurship. So, I started looking at what I could study in Singapore and the Master of Science in Technopreneurship and Innovation Programme was the most compelling option.

AZORIN GONZALEZ
IGNACIO JULEN
MSc TIP Class of 2021
MSc TIP Merit Award winner
Technology Scout APAC, Airbus

The Master of Science in Technopreneurship and Innovation Programme (MSc TIP) stood out among other MBA courses. Instead of a top-down approach to prepare graduates to better manage well-established institutions, the MSc TIP is ground-up and value creation driven. Starting my own brand was always at the back of my mind and naturally, the MSc TIP appealed to me.

JASON LEE
MSc TIP Class of 2010
Founder, Scent By SIX
Prestige’s 40 under 40 Laureate in 2020
Singapore Prestige Brand award 2020/2021
**ADMISSION & GRANT**

### MSc TIP

<table>
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<tr>
<th>Course Duration</th>
<th>1 year</th>
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<tbody>
<tr>
<td>Course Intake</td>
<td>July each year</td>
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<tr>
<td>Application Deadline</td>
<td>1 November to 31 January</td>
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### FM TIP

<table>
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<tr>
<th>Course Duration</th>
<th>8 months</th>
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<tr>
<td>Course Intake</td>
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<tr>
<td>Application Deadline</td>
<td>6 weeks before commencement of each module</td>
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### MSc TIP Admission Requirements

- Bachelor’s degree (or equivalent) in any field of study
- TOEFL or IELTS (if your degree was not delivered in English)
- A strong passion in entrepreneurship
- Work experience is preferred

### MSc TIP Tuition Fees*

<table>
<thead>
<tr>
<th></th>
<th>Singapore Citizen</th>
<th>Permanent Residents/ International Students</th>
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<tbody>
<tr>
<td>Application Fee</td>
<td>SGD 100</td>
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<tr>
<td>Programme Fee</td>
<td>SGD 37,000</td>
<td>SGD 52,000</td>
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### MSC TIP Study Grants

- MSc TIP Chua Thian Poh (CTP) Scholarship (for Singapore Citizens only)
- MSc TIP Entrepreneurship Study Award up to SGD 30,000
- MSc TIP ASEAN Innovation Grant up to SGD 15,000
- MSc TIP Merit Award up to SGD 5,000

### FM TIP Admission Requirements

- A bachelor’s degree or diploma in any discipline
- 2 years of work experience for international applicant is preferred

### FM TIP Tuition Fees#

<table>
<thead>
<tr>
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<th>SGD 27,000</th>
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<tr>
<td>Programme Fee (Full course)</td>
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<tr>
<td>Programme Fee (Per module)</td>
<td>SGD 5,400</td>
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### SSG Funding

<table>
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<tr>
<th>Funding Type</th>
<th>Criteria</th>
<th>Fee after funding</th>
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<tr>
<td>Base Grant 70%</td>
<td>Singapore Citizen / Singapore PR age 21 and above</td>
<td>SGD 8,100</td>
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<tr>
<td>Mid-Career Enhanced Subsidy (MCES) 90%</td>
<td>Singapore Citizen age 40 and above</td>
<td>SGD 2,700</td>
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<tr>
<td>Enhanced Training Support for SMEs (ETSS) 90%</td>
<td>Singapore Citizen / Singapore PR who is SME sponsored</td>
<td>SGD 2,700</td>
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</table>

^ Tuition fees indicated excludes prevailing GST. GST is subjected to revision at the discretion of the Singapore Government. Tuition fees do not include expenses related to health screening, insurance, accommodation, and other student-related expenses.