

# SCHOOL OF **ENGINEERING**



- ▶ Common Engineering Programme
- ▶ Engineering Science
- ▶ Aerospace Engineering
- ▶ Biomedical Engineering
- ▶ Electrical Engineering
- ▶ Electronic & Computer Engineering
- ▶ Marine & Offshore Technology Revamped
- ▶ Mechanical Engineering
- ▶ Mechatronics & Robotics Renamed



**SoE**

**ENGINEERING  
WITH THAT  
SOMETHING XTRA!**

From industry induction to mentorship and overseas exposure, you'll find engineering with that something xtra at Ngee Ann Polytechnic's School of Engineering (SoE), where we are strengthening our ties with the industry and pushing the frontiers of robotics research. Translate your ideas into innovative solutions to improve lives through our top-notch courses like the Common Engineering Programme and Diploma in Engineering Science!

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# 8 DIPLOMAS + 1 COMMON ENGINEERING PROGRAMME

## Common Engineering Programme (N71)

If you are keen on engineering, but unsure about which course suits you, the Common Engineering Programme (CEP) may just be the right fit. With the CEP, you will gain exposure to different engineering domains, so you can make a smarter course choice. After your first semester, you can choose the Electrical & Electronic Track, Mechanical Track, or the Marine & Offshore Technology diploma.

## Engineering Science (N93)

Tailor-made for university-bound students with a strong passion in applied science, this unique engineering course has a strong focus on mathematics, physics and computing. Acquire skills in emerging technologies such as artificial intelligence and machine learning, and choose to specialise in AI for Autonomous Systems or Data Analytics & Security. This dynamic diploma gives you a head start for further studies or work.

## Aerospace Engineering (N65)

Power the next generation of aircraft with this one-of-a-kind diploma that allows you to choose between the Avionics and Mechanical specialisation options. Upon building a strong engineering foundation, this course will equip you with next-gen skills such as data analytics, artificial intelligence and machine learning!

## Biomedical Engineering (N60)

This is the first poly diploma that bridges engineering with life sciences and trains clinical engineering professionals. Acquire the skills to design and test medical devices, as well as develop competencies in MedTech engineering to seize opportunities in the fast-growing MedTech sector.

## Electrical Engineering (N43)

This only dedicated electrical engineering diploma in Singapore provides a strong emphasis on sustainability in the growth areas of decarbonisation, decentralisation and digitalisation. Choose to specialise in either Power Engineering or Clean Energy Management, alongside green economy-related elective modules.

## Electronic & Computer Engineering (N44)

Shape the way computer systems and real-life applications are developed. This established diploma gives you a strong foundation in electronics and circuits, and software programming. Get equipped with in-demand digital skills in Internet of Things (IoT), Artificial Intelligence of Things (AIoT) and Data Analytics!

## Marine & Offshore Technology (N42) Renamed

This unique course covers both naval architecture and marine engineering with a focus on sustainability, maritime decarbonisation and renewable energy. Gain an edge in creating innovative and green solutions for the design and building of offshore vessels and structures.

## Mechanical Engineering (N41)

A broad-based curriculum with a new sustainability focus, this diploma prepares you for a wide range of exciting careers in precision engineering, public transport, energy and chemicals, engineering services and more. Choose to specialise in Automation Design Engineering or Mobility Design Engineering, as you acquire in-demand digital skills.

## Mechatronics & Robotics (N50) Renamed

With a strong focus on autonomous mobile and collaborative robotics, this diploma prepares you for the robotics engineering and automation sectors. For your specialisation, you can choose to deepen your skills in Autonomous Systems or Automation & Industrial Cybersecurity. Plus, gain hands-on experience working on future mobility technologies at MooVita, situated right on campus!

# WHY CHOOSE SOE

At SoE, there are many exciting opportunities to inspire your passion for learning and innovating. With the broad-based curriculum that SoE offers, you can expect limitless possibilities and a journey with that something extra.



### AN XTRA EDGE

Accelerate your university pathway with our well-established diplomas! Stretch your potential with prestigious scholarships and our talent development programme. Plus, get global-ready through overseas internships and immersion programmes to countries such as China, Vietnam, Cambodia and the Philippines.



### EXPERTISE IN ROBOTICS

Take advantage of NP's deep tech expertise in robotics research, and develop tailor-made innovative robotics solutions for the industry at NP's Robotics Research & Innovation Centre.



### SUSTAINABILITY FOCUSED

With our new on-campus green energy infrastructure, there's no better place to acquire the skills to seize opportunities in the growing renewable energy field! Experiment with sustainable energy solutions at synergy.lab and gain hands-on experience in managing a solar farm and EV charging infrastructure.



### TOP-NOTCH FACILITIES

You can look forward to hands-on learning in state-of-the-art facilities like the Robotics Research & Innovation Centre, synergy.lab, AR/VR simulators, as well as research and test labs. Developed based on industry standards, these will ensure that you gain relevant skills for an added edge in your career.



### ENGINEERING FOR GOOD

Create community-focused engineering solutions with our signature Service-Learning and human-centered design approach. You will discover a deeper meaning to your course and the roles that engineers play in the society, which will open your mind to the possibilities you can create!



### STRONG INDUSTRY LINKS

Our strong links with leading organisations offer exciting opportunities for learning and talent development.



# WHAT INDUSTRY SAYS

"MooVita is pleased to work with NP to co-develop curriculum. We are providing students with operational insights and hands-on experience in autonomous systems, equipping them with the skill sets to become proficient specialists in robotics and autonomous systems. This is our long-term strategy to nurture a ready pipeline of talents for achieving Singapore's smart nation vision."

**KEN CHAN**  
Vice-President  
MooVita



"With sustainability being a key part of Grundfos' DNA, our partnership with NP demonstrates our commitment to introducing cleaner, more energy efficient technologies that can help the built environment sector reduce its energy consumption and carbon footprint. We look forward to working with NP to spur innovative thinking among students that can help advance the region's sustainability trajectory."

**KENTH HVID NIELSEN**  
Senior Regional Sales Director,  
APAC, Commercial Buildings  
Grundfos

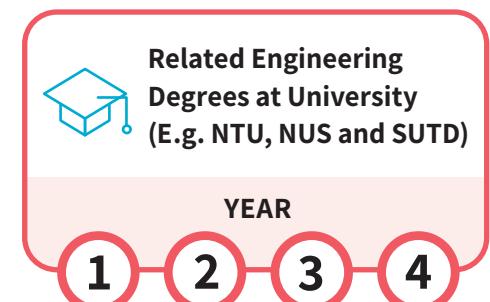
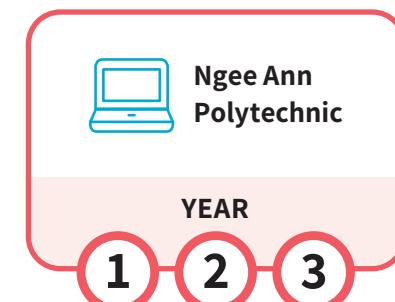


"With significant growth in the industrial robotics industry, Bosch Rexroth is proud to work with NP as a technology partner to co-develop comprehensive industrial robotics courses that cover Industry 4.0 concepts and applications. Bosch Rexroth is also excited to collaborate with the Mechatronics & Robotics diploma course through curriculum development and internship opportunities. The partnership aims to drive adoption and understanding of automation and industrial robotics fundamentals within the Advanced Manufacturing sector."

**PETER PEH**  
Centre Director  
Bosch Rexroth Regional Training Centre



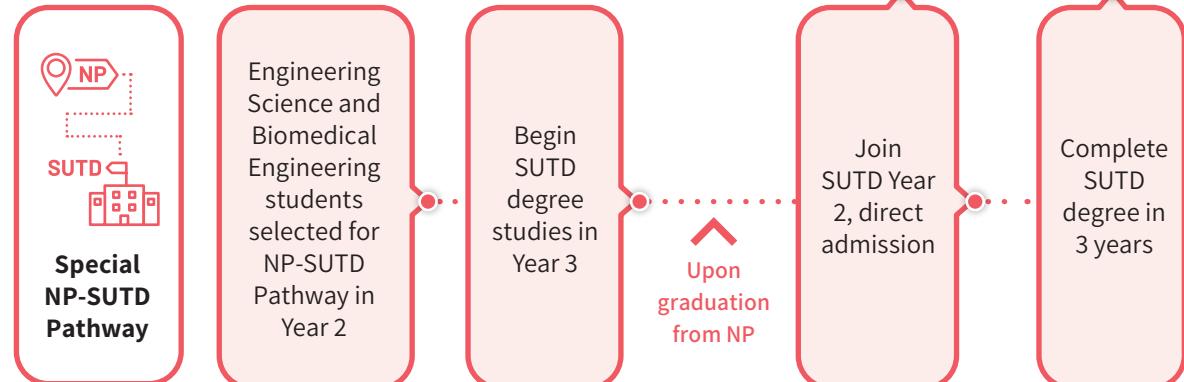
# UNIVERSITY PATHWAY



All SoE Diplomas

Advanced standing or module exemptions for related degrees

Complete degree in < 4 years



## PAIR YOUR DIPLOMA WITH THAT SOMETHING XTRA



**Take 1 or 2 Learning Units in an area that piques your interest.  
Or complete 3 Learning Units to get a Minor.**

The choice is yours. Our **Personalised Learning Pathway (PLP)** lets you choose what you'd like to learn from 4 different pathways and more than 50 Learning Units (LUs). Upon completing 3 LUs, you will graduate with a Diploma + Minor!

PLP is NP's signature programme to enable you to pursue your passion and gain in-demand skills. From applied psychology to data analytics, entrepreneurship to sustainability, our 11 Minors are specially curated to help you seize opportunities for a brighter future.

Mix and match your LUs or take up 3 specific LUs to earn a Minor Cert. Go on an overseas trip or attend a masterclass. Discover fun, freedom and fulfillment when you personalise your learning with PLP!

To check out the wide range of interesting LUs and how you can personalise your learning, visit [www.np.edu.sg/plp](http://www.np.edu.sg/plp) or scan the QR code here!



### Personalise Your Learning with 4 Exciting Pathways & 11 Minors



#### Global Readiness Pathway

- Minor In
  - Foreign Languages
  - Global Readiness



#### Entrepreneurship Pathway

- Minor In
  - Entrepreneurship



#### Professional Skills Pathway

- Minor In
  - Applied Psychology
  - Cybersecurity
  - Data Analytics & AI
  - Fundamentals of Internet of Things
  - Social Media Marketing
  - User Experience Design



#### Social Leadership Pathway

- Minor In
  - Social Leadership
  - Sustainability

# N71

## Common Engineering Programme

Get latest updates on course



- Get more time to explore different fields of engineering and discover your interests before deciding on one of our eight diplomas
- Common foundational modules equip you with broad-based fundamental knowledge and skills in engineering
- Unique Induction Programme provides early industry and diploma exposure to help you make an informed course choice

## WHAT THE COURSE IS ABOUT

If you are keen on engineering, but unsure about which course suits you, the Common Engineering Programme (CEP) may just be the right fit. With the CEP, you will gain exposure to different engineering domains, so you can make a smarter course choice.

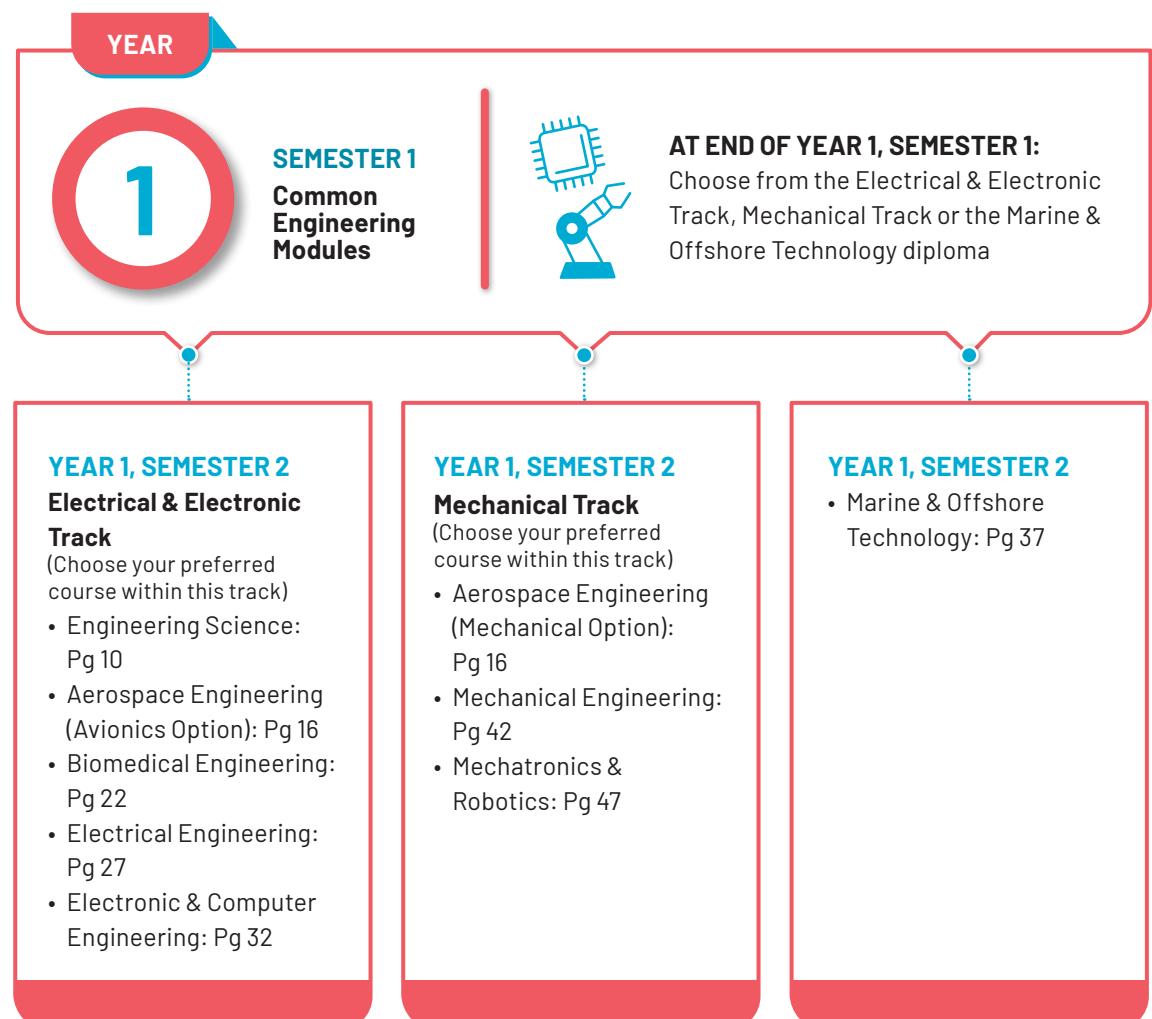
In your first semester, you will go through our unique Induction Programme, where you will benefit from learning journeys, the Diploma Exposure Programme, industry visits and dialogues, and get career advice to help you in course selection. You will also build a strong foundation in mechanical, electronic and electrical

engineering, as well as mathematics and programming. Then, put your new-found knowledge into practice by working on exciting projects that will boost your portfolio!

After your first semester, you can opt for the Electrical & Electronic Track, Mechanical Track or the Marine & Offshore Technology diploma. For those who embark on the learning tracks, you will get to select an engineering diploma to major in by the end of your first year.

To keep our curriculum current and robust, diploma modules are subject to change over the three years. Please visit our website for latest updates.

## OVERVIEW OF YOUR CEP JOURNEY



## WHAT YOU WILL LEARN

### YEAR 1

#### Common Modules

- Engineering Mathematics 1
- Electrical Engineering Fundamentals
- Mechanical Engineering Fundamentals
- Programming
- Engineering & Society
- Communication Essentials<sup>^</sup>
- Innovation Made Possible<sup>^</sup>
- Health & Wellness<sup>^</sup>
- English Language Express<sup>^\*</sup>

Choose the Electrical & Electronic Track, Mechanical Track or Marine & Offshore Technology at the end of your first semester.

#### Electrical & Electronic Track

- Applied Mathematics 2B
- Analogue Electronics
- AC Circuits
- Digital Fundamentals
- Engineering Mathematics 2
- Fundamental Electronic & Electrical Skills

#### Mechanical Track

- Engineering Mathematics 2
- Electrical & Electronics Technology
- Materials & Manufacturing Technology
- Thermofluids
- Engineering Drawing Fundamentals

#### Marine & Offshore Technology

- Engineering Mathematics 2
- Engineering Drafting
- Geometry & Buoyancy
- Thermofluids

If you opt for the Electrical & Electronic Track or Mechanical Track, you will select your preferred diploma towards the end of your second semester. Refer to the module listing in the respective diploma pages for more details.

### YEAR 2

- Core modules under the engineering diploma you major in
- World Issues: A Singapore Perspective<sup>^</sup>

### YEAR 3

- Core modules under the engineering diploma you major in
- Project ID: Connecting the Dots<sup>^</sup>

<sup>\*</sup> For selected students only

## FURTHER STUDIES

Refer to the Further Studies section on the respective diploma pages.

## CAREER

Refer to the Career section on the respective diploma pages.

## ENTRY REQUIREMENTS

### Aggregate Type ELR2B2-C

To be eligible for consideration, candidates must have the following GCE 'O' Level examination (or equivalent) results.

Subject	'O' level grade
English Language	1-7
Mathematics (Elementary/Additional)	1-6
Any one of the following subjects:	1-6
Biology	
Biotechnology	
Chemistry	
Computing/Computer Studies	
Design & Technology	
Electronics/Fundamentals of Electronics	
Physics	
Science (Chemistry, Biology)	
Science (Physics, Biology)	
Science (Physics, Chemistry)	

You must also fulfil the aggregate computation requirements for the ELR2B2-C Aggregate Type listed at [www.np.edu.sg/docs/ELR2B2.pdf](http://www.np.edu.sg/docs/ELR2B2.pdf).

For students with other qualifications, please refer to the NP website for the entry requirements and admissions exercise period.

Candidates with severe vision deficiency, colour vision deficiency, profound hearing deficiency, uncontrolled epilepsy and/or severe physical impairments may encounter difficulties meeting the course requirements and expectations. Those with mild colour vision deficiency are required to undergo an in-house test.

## CONTACT US

For the most up-to-date information on NP's Common Engineering Programme, visit [www.np.edu.sg/cep](http://www.np.edu.sg/cep)

<sup>^</sup>Interdisciplinary Studies (IS) modules account for 13 credit units of the diploma curriculum. They include modules in communication, innovation and world issues, as well as an interdisciplinary project. By bringing students from diverse diplomas together, the interdisciplinary project fosters collaboration to explore and propose solutions for real-world problems. IS aims to develop students to be agile and self-directed learners, ready for the future workplace.

DIPLOMA IN  
**Engineering Science**

Get latest updates on course



- ▶ Tailor-made for university-bound students with a **strong passion in applied science**, this unique engineering course has a strong focus on **mathematics, physics and computing**
- ▶ Acquire in-demand skills for the future economy by choosing either **AI for Autonomous Systems** or **Data Analytics & Security specialisation**
- ▶ Develop valuable **applied R&D experience** at local universities and research institutes that will build your expertise and network
- ▶ Opportunities to secure **prestigious scholarships** from PSC, A\*STAR and DSTA!

### WHAT THE COURSE IS ABOUT

You're passionate about engineering applications, but also love the sciences. You're strong in both maths and physics. You enjoy scientific research and discovering new ways to solve problems. How about honing all these interests through our top-notch Diploma in Engineering Science (ES) course, whose students have topped NP's graduating cohorts and secured places in prestigious university programmes?

The unique ES diploma prepares you well for a wide range of degrees and careers in fields such as artificial intelligence and machine learning; computer, electrical, electronic and mechanical engineering; data analytics; and even medical science.

#### Strong STEM Foundation

During the first two years, you will be equipped with a strong foundation in engineering and related domains such as mathematics, physics, computing and applied science.

#### Specialise in Emerging Areas

In your third year, you can choose between two exciting specialisations — AI for Autonomous Systems or Data Analytics & Security — to deepen your knowledge in emerging technologies.

Choose the AI for Autonomous Systems specialisation if you are passionate about the field of artificial intelligence. This option will equip you with the skills to develop autonomous system solutions for the transportation sector. You will get the opportunity to learn about AV technology and work on smart urban mobility projects. Or make the Data Analytics & Security specialisation your choice if you prefer to work on big data. Here, you will be equipped with in-demand skill sets in data analytics and data security management for cloud platforms.

### Early University Exposure

One of the key highlights of ES is the opportunity to gain early exposure to and immersion in a university environment. As early as the first semester in Year 3, you will be attached to local universities for half a day per week to work on applied projects (industrial/R&D) under the mentorship of university faculties.

Thereafter, these applied projects can be extended to final-year projects, where you will be exposed to the latest developments in research and technology innovation in a university setting to boost your portfolio. You will get to choose from a wide variety of topics ranging from artificial intelligence, automotive vehicles, Internet of Things, robotics and green energy, to material science!



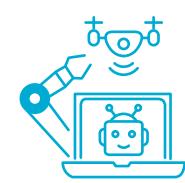
### FAST TRACK TO A DEGREE VIA NP-SUTD PATHWAY

Get a head start and experience university life – even as an NP student! With the NP-SUTD Pathway Programme\*, you will be on the fast track to a Bachelor's degree in engineering and design, and graduate one year ahead of your peers. Level up your knowledge with humanities and science modules taught by SUTD faculties. These are taken alongside your own curriculum, so you will emerge as a multi-skilled professional. But that's not all. Top off your university experience by working on cutting-edge research projects with SUTD professors and researchers as your mentors!

\*for selected students only

## OVERVIEW OF YOUR ES JOURNEY

**Build a strong STEM foundation**



- Advanced Level Maths & Physics
- Mechanical & Electronic Engineering
- In-depth Computing skills
- Emerging Technologies (e.g. AI, Data Analytics, Autonomous Systems)

**Early immersion in university life**



- Projects mentored by university faculties
- Exchange programme with overseas colleges
- Take university modules via NP-SUTD Pathway\*

**Choose a specialisation in Year 3**



AI for Autonomous Systems

OR



Data Analytics & Security

**Fast-track to a degree via NP-SUTD Pathway\* after graduation**



**NP-SUTD Pathway\***

Enter 2nd Year at SUTD and graduate one year ahead of your peers

\*For selected students only

## WHAT YOU WILL LEARN

### YEAR 1

- AC Circuits
- Analogue Electronics
- Applied Mathematics 1
- Applied Mathematics 2A
- Digital Fundamentals
- Engineering & Society
- Electrical Engineering Fundamentals
- Fundamental Electronic & Electrical Skills
- Mechanical Engineering Fundamentals
- Programming
- Innovation Made Possible^
- Communication Essentials^
- Health & Wellness^
- English Language Express^\*

### YEAR 3

- AI & Machine Learning
- Final-Year Project OR Six-month Internship (Local/Overseas)
- Project ID: Connecting the Dots^

#### AI for Autonomous Systems Specialisation

- Autonomous Systems & IoT
- Computer Vision & Deep Learning
- Design Project in AI

#### Data Analytics & Security Specialisation

- Data Analytics & Cloud Fundamentals
- Data Security & Blockchain
- Design Project in Data Analytics

<sup>^</sup> Interdisciplinary Studies (IS) modules account for 13 credit units of the diploma curriculum. They include modules in communication, innovation and world issues, as well as an interdisciplinary project. By bringing students from diverse diplomas together, the interdisciplinary project fosters collaboration to explore and propose solutions for real-world problems. IS aims to develop students to be agile and self-directed learners, ready for the future workplace.

<sup>\*</sup> For selected students only

To keep our curriculum current and robust, diploma modules are subject to change over the three years. Please visit our website for latest updates.

## FURTHER STUDIES

Both NTU and NUS have accredited ES for a wide range of their degree programmes. In addition, SUTD offers conditional admission to students enrolled in the NP-SUTD pathway and module exemptions for ES graduates. With your strong foundation as an ES graduate, you can also apply for a wide range of degree programmes offered by overseas universities.

If you're looking for an Engineering diploma that attracts the brightest minds, look no further!

**>10** ES graduates topped their cohorts to clinch the Ngee Ann Kongsi Gold Medal or Lee Kuan Yew Award since 2014

**>10** ES students received NP as well as external scholarships (e.g. A\*STAR Science Award (Poly), DSTA Polytechnic Scholarship, CSIT Diploma Scholarship) which offer R&D internship opportunities

**>80%** ES graduates offered admission into prestigious local and overseas universities

## They chose ES and are going places!



**SAFFRON SALMAH YEN LIM**  
Class of 2023

Recipient of the Public Service Commission (Engineering) Scholarship, Ngee Ann Kongsi Gold Medal and the Lee Kuan Yew Award. Currently pursuing a degree in Data Science & Artificial Intelligence at NTU.



**ANNE LEE**  
Class of 2022

Pursuing a master's degree in Design Engineering at Imperial College London's Dyson School of Design Engineering under the DSTA Overseas Scholarship.



**REUBEN THOMAS**  
Class of 2021

Winner of the Ngee Ann Kongsi Gold Medal and the Lee Kuan Yew Award. Pursuing a Computer Science degree at NUS.



**SUI HUI PING**  
Class of 2020

Lee Kuan Yew Award winner. Currently pursuing a Bachelor of Social Sciences at SMU under the prestigious Lee Kong Chian Scholars' Programme.



**DUAN JIAFEI**  
Class of 2016

A\*STAR National Science Scholar. Pursuing a PhD in AI & Robotics at University of Washington, USA.

## CAREER

Armed with an ES diploma, you will enjoy good career prospects in areas such as research and development, product design and development, manufacturing and services.



**ZENAS LIM**  
Engineering Science graduate,  
Class of 2015

Zenas graduated from Imperial College with a degree in Electronic & Information Engineering and completed a master's degree in Information Science from Cornell University. He is currently a product operations lead at the Defence Science & Technology Agency.



**EKKO CHUA**  
Engineering Science graduate,  
Class of 2014

A recipient of the Energy Market Authority Scholarship, Ekko graduated with a Master of Engineering in Chemical & Energy Engineering from the University of Leeds. She is currently a principal analyst at EMA.



**BENJAMIN CHIA**  
Engineering Science graduate,  
Class of 2014

Benjamin graduated from NUS with a Bachelor of Engineering with Honours (Distinction) and a Master of Science in Engineering Management from Purdue University. He is a business partner at Enterprise Singapore's transformation office.

## ENTRY REQUIREMENTS

### Aggregate Type ELR2B2-C

To be eligible for consideration, candidates must have the following GCE 'O' Level examination (or equivalent) results.

Subject	'O' level grade
English Language	1-7
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Any one of the following subjects:	1-6
Biology	
Biotechnology	
Chemistry	
Computing/Computer Studies	
Design & Technology	
Electronics/Fundamentals of Electronics	
Physics	
Science (Chemistry, Biology)	
Science (Physics, Biology)	
Science (Physics, Chemistry)	

You must also fulfil the aggregate computation requirements for the ELR2B2-C Aggregate Type listed at [www.np.edu.sg/docs/ELR2B2.pdf](http://www.np.edu.sg/docs/ELR2B2.pdf).

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Candidates with severe vision deficiency, colour vision deficiency, profound hearing deficiency, uncontrolled epilepsy and/or severe physical impairments may encounter difficulties meeting the course requirements and expectations. Those with mild colour vision deficiency are required to undergo an in-house test.

## CONTACT US

For the most up-to-date information on NP's Diploma in Engineering Science, visit [www.np.edu.sg/es](http://www.np.edu.sg/es)

DIPLOMA IN  
**Aerospace Engineering**



- ▶ Gain sought-after digital skills in additive manufacturing, data analytics, artificial intelligence, machine learning, robotics and drones
- ▶ Choice of two specialisation options: **Avionics or Mechanical**
- ▶ Opportunities to **design and build your own aerial vehicle**
- ▶ Build a strong engineering foundation with **green aviation concepts integrated** into curriculum

### WHAT THE COURSE IS ABOUT

Growing up, were you fascinated with how a heavy machine can fly? Do you ever imagine yourself working on the next generation of aircraft? Then come on board the Diploma in Aerospace Engineering (AEG).

As global travel resumes, the demand for aerospace professionals in the industry is set to soar. With this broad-based diploma, you will gain a strong engineering foundation and discover how you can play a role in this fast-growing sector!

#### Future-ready Curriculum

Gain insights into the aerospace industry through modules such as Aerial System Design & Integration, Aircraft Electrical & Instrumentation Systems, as well as Aircraft Data Communications & Networking. As more companies leverage the power of big data to monitor aircraft health and predict maintenance schedules, you will be equipped with next-gen skills such as data analytics, artificial intelligence and machine learning.

In addition, with green aviation concepts integrated into the AEG curriculum, you can contribute significantly to environmental sustainability efforts within the aerospace sector!

#### Specialise in Emerging Areas

Build on your engineering foundation and areas of interest by choosing either the Avionics or Mechanical specialisation option.

In the Avionics specialisation, you will get to study the principles of flight and various sophisticated aircraft systems such as navigation, surveillance, as well as data communication and networking systems.

You can also choose the Mechanical specialisation to learn about the fundamentals of engineering system design, aircraft structures and materials, advanced thermofluids, as well as aircraft maintenance practices.

#### Strong Industry Links

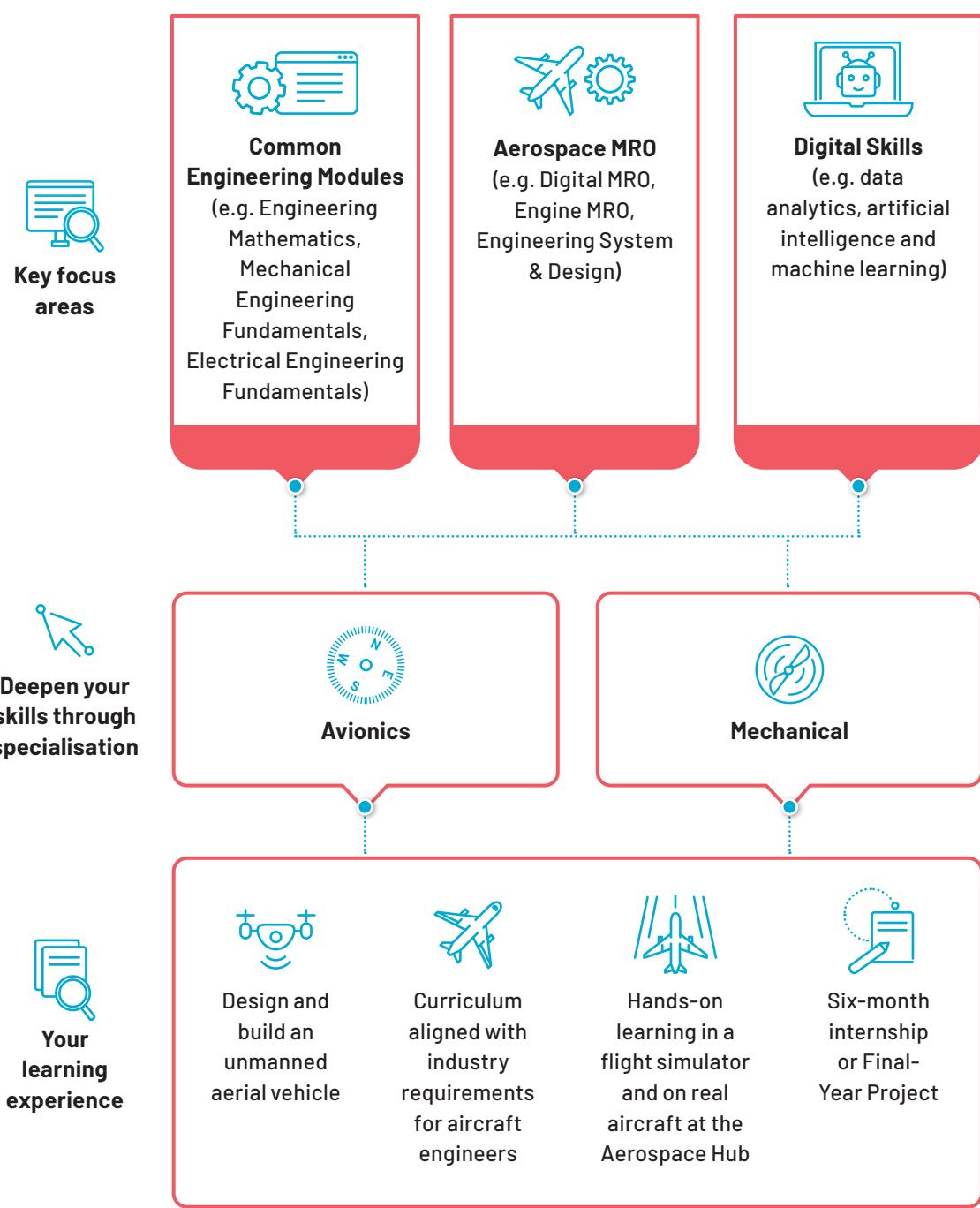
Our strong links with the industry will provide you with real-world learning experiences. With some modules co-developed and co-delivered by our industry partners, you will gain valuable insights into the trends that are shaping the aerospace industry.

You will also get opportunities to apply your skills on integrated and capstone projects to solve real-world problems. For example, you will even get to design and build an unmanned aerial vehicle!

In your final year, put your knowledge to the test with a six-month local or overseas internship with companies such as Collins Aerospace, Pratt & Whitney, ST Engineering and Thales Solutions Asia.

Students who are interested to get their Private Pilot Licence (PPL) can choose to participate in the Singapore Youth Flying Club PPL Course as their internship.

## OVERVIEW OF YOUR AEG JOURNEY



## WHAT YOU WILL LEARN

### YEAR 1

- Engineering Mathematics 1 & 2
- Electrical Engineering Fundamentals
- Mechanical Engineering Fundamentals
- Programming
- Engineering & Society
- Communication Essentials<sup>^</sup>
- Innovation Made Possible<sup>^</sup>
- Health & Wellness<sup>^</sup>
- English Language Express<sup>^\*</sup>

### Avionics Specialisation

- AC Circuits
- Analogue Electronics
- Digital Fundamentals
- Fundamental Electronic & Electrical Skills

### Mechanical Specialisation

- Thermofluids
- Electrical & Electronics Technology
- Materials & Manufacturing Technology
- Engineering Drawing Fundamentals

### YEAR 2

- Aerospace Fundamentals
- Aerial System Design & Integration
- Engineering & Sustainability
- Quality Systems & Analytics
- World Issues: A Singapore Perspective<sup>^A</sup>

### Avionics Specialisation

- Aircraft Data Communications & Networking
- Aircraft Material & Maintenance Practices
- Applied Analogue Electronics
- Applied Digital Electronics
- Avionics Maintenance Practices
- Object-oriented Programming

### Mechanical Specialisation

- Advanced Thermofluids
- Aircraft Maintenance Practices
- Aircraft Structures & Materials
- Applied Mechanics
- Engineering System Design
- Strength of Materials

### YEAR 3

- Digital Maintenance, Repair & Overhaul Application
- System Modelling & Control
- Six-month Internship
- Final-Year Project
- Project ID: Connecting the Dots<sup>A</sup>

### Avionics Specialisation

- Aircraft Navigation & Surveillance Systems
- Aircraft Electrical & Instrumentation Systems

### Mechanical Specialisation

- Aircraft Propulsion Systems
- Aircraft Mechanical Systems
- Engine Maintenance, Repair & Overhaul

<sup>A</sup> Interdisciplinary Studies (IS) modules account for 13 credit units of the diploma curriculum. They include modules in communication, innovation and world issues, as well as an interdisciplinary project. By bringing students from diverse diplomas together, the interdisciplinary project fosters collaboration to explore and propose solutions for real-world problems. IS aims to develop students to be agile and self-directed learners, ready for the future workplace.

<sup>\*</sup> For selected students only

To keep our curriculum current and robust, diploma modules are subject to change over the three years. Please visit our website for latest updates.

## FURTHER STUDIES

As an AEG graduate, you will be able to pursue an aerospace-related degree at Singapore Institute of Technology and Singapore University of Social Sciences, or overseas universities in Australia, New Zealand, USA and the UK.

Or you can choose to pursue related engineering degrees with advanced standing at prestigious local universities like National University of Singapore, Nanyang Technological University, and Singapore University of Technology and Design.



**NICK CHUA**  
Aerospace Electronics\*  
graduate, Class of 2020

Nick is pursuing an Information Security degree at NUS. He emerged as one of the top three winners in a startup challenge by global investor Antler and will be building a tech startup in one of their residencies.

\*Renamed the Diploma in Aerospace Engineering



**CHOO JING YI**  
Aerospace Technology\*  
graduate, Class of 2021

Jing Yi is pursuing a Mechanical Engineering degree at NTU under the Nanyang Scholarship.

\*Renamed the Diploma in Aerospace Engineering

## CAREER

With Singapore's role as a leading aerospace MRO solutions provider in Asia, there is high demand for trained professionals in this field. AEG is recognised by many established aerospace organisations, which gives you an advantage when exploring careers in this industry. You can look forward to being employed in these roles:

- Planning Executive
- Planning Supervisor
- Senior Technician (Engine/Engine Component Repair & Overhaul)
- Senior Technician (Component Repair & Overhaul - Avionics/Mechanical)
- Senior Technician (Avionics/Mechanical)
- Quality Engineer
- Technical Service Engineer
- Workshop Engineer

What's more, AEG prepares you for modules in the Civil Aviation Authority of Singapore (CAAS) Airworthiness Requirements (SAR 66) examinations so you get a head start in acquiring your licence as an Aircraft Maintenance Engineer. You can also enrol in various skills-deepening programmes or apply for the SkillsFuture Work-Study Post-Diploma Programme upon graduation.



**DENZEL LEE**  
Aerospace Electronics\*  
graduate, Class of 2015

Denzel is the chief technology officer and co-founder of Datature Analytics. He was listed as one of the promising entrepreneurs in the 2023 Forbes' 30 Under 30 Asia: Enterprise Technology list.

\*Renamed the Diploma in Aerospace Engineering



**TING JIA LIN**  
Aerospace Technology\*  
graduate, Class of 2017

Jia Lin graduated from SIT with a Bachelor of Mechanical Engineering and is working as an operations leader at Eagle Services Asia Pte Ltd.

\*Renamed the Diploma in Aerospace Engineering

## ENTRY REQUIREMENTS

### Aggregate Type ELR2B2-C

To be eligible for consideration, candidates must have the following GCE 'O' Level examination (or equivalent) results.

Subject	'O' level grade
English Language	1-7
Mathematics (Elementary/Additional)	1-6
Any one of the following subjects:	1-6
Biology	
Biotechnology	
Chemistry	
Computing/Computer Studies	
Design & Technology	
Electronics/Fundamentals of Electronics	
Physics	
Science (Chemistry, Biology)	
Science (Physics, Biology)	
Science (Physics, Chemistry)	

You must also fulfil the aggregate computation requirements for the ELR2B2-C Aggregate Type listed at [www.np.edu.sg/docs/ELR2B2.pdf](http://www.np.edu.sg/docs/ELR2B2.pdf).

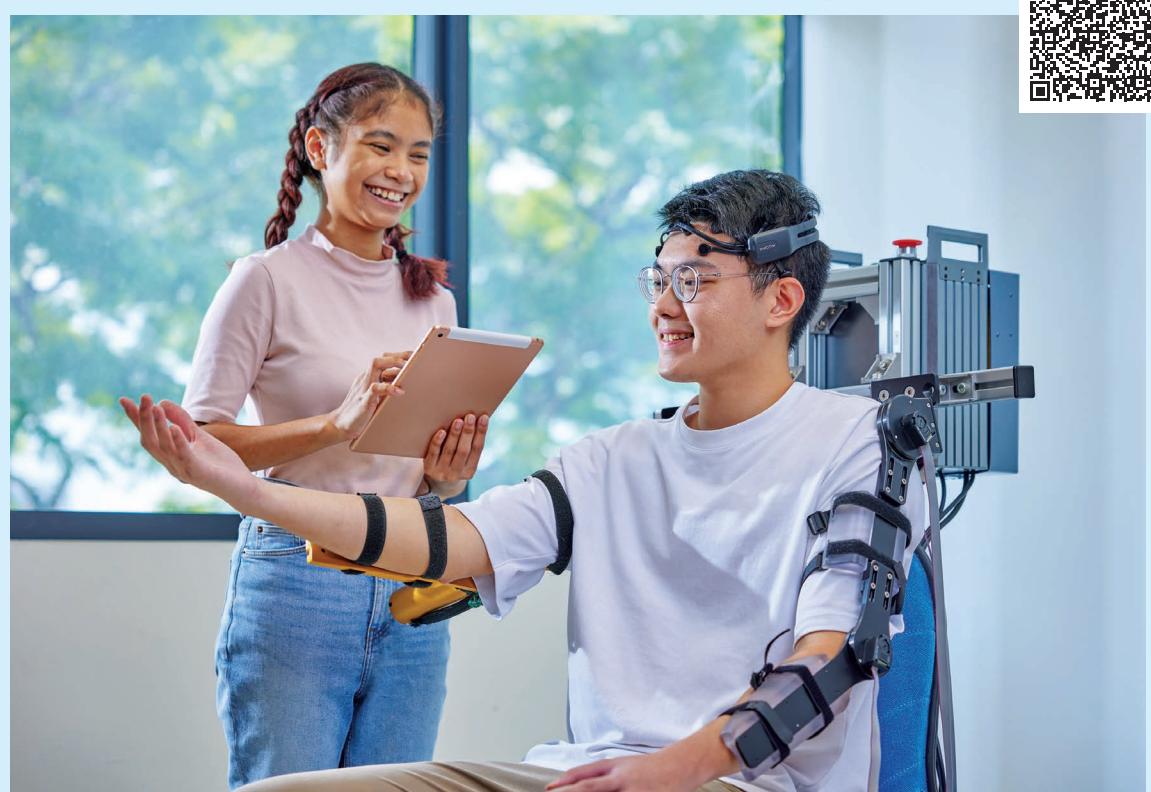
For students with other qualifications, please refer to the NP website for the entry requirements and admissions exercise period.

Candidates with severe vision deficiency, colour vision deficiency, profound hearing deficiency, uncontrolled epilepsy and/or severe physical impairments may encounter difficulties meeting the course requirements and expectations. Those with mild colour vision deficiency are required to undergo an in-house test.

## CONTACT US

For the most up-to-date information on NP's Diploma in Aerospace Engineering, visit [www.np.edu.sg/aeg](http://www.np.edu.sg/aeg)

DIPLOMA IN  
**Biomedical Engineering**



Get latest updates on course



- ▶ The first poly diploma that **bridges engineering with life sciences and trains clinical engineering professionals**
- ▶ Acquire the skills to **design, develop and test medical devices and competencies in MedTech engineering** to seize opportunities in the fast-growing MedTech sector
- ▶ Go on **curated internships** and work on **industry projects** with leading MedTech companies and healthcare institutions such as ZOLL Medical and SingHealth
- ▶ Get a head start in gaining a prestigious degree with the **NP-SUTD Pathway Programme!**

### WHAT THE COURSE IS ABOUT

Fascinated by how engineering and biology can benefit society? Or are you interested in helping medical professionals do their work better? If you're passionate about the medical technology (MedTech) field, then the Diploma in Biomedical Engineering (BME) is perfect for you. This fast-growing field is responsible for the design of sophisticated medical devices and healthcare equipment such as personal health trackers — which range from wearable glucose meters to electrocardiography (ECG) monitors — and lifesaving devices including the pacemaker and dialysis machine.

Jointly developed by Ngee Ann Polytechnic's School of Engineering and leading industry partners, BME gives you a firm grounding in research that could lead to the discovery and development of faster and more accurate tools for medical treatment.

#### A Holistic Curriculum

BME will provide you with a solid grounding in both engineering and the life sciences. You will acquire a strong foundation in areas such as programming, electrical, electronic and mechanical engineering, cell and molecular biology, as well as human physiology.

You will also learn about MedTech engineering, and be equipped with knowledge of relevant quality assurance standards and industry best practices. Our partnerships with industry will ensure that you stay on top of industry developments and the latest strategies, such as Lean Six Sigma, to improve efficiency.

#### Develop Skills in Emerging Technologies

As medical devices become more connected, there is an increased need to ensure these devices are safe from cyber threats. BME will equip you with the skills to embed cybersecurity requirements in the development of MedTech solutions.

You will also be exposed to emerging technologies like Artificial Intelligence and the Internet of Medical Things (IoMT), which are increasingly adopted for clinical applications.

### Industry-relevant Learning

Apply your skills and knowledge to solve real-world problems! Work on a MedTech project, where you'll get to design and build a wearable medical device. To help you deepen your skills and gain industry experience, embark on an internship or Final-Year Project sponsored by multinational companies, leading MedTech organisations, innovative local start-ups, and established healthcare institutions such as Karl Storz, Medtronic, National University Hospital and Tan Tock Seng Hospital.



### FAST TRACK TO A DEGREE VIA NP-SUTD PATHWAY

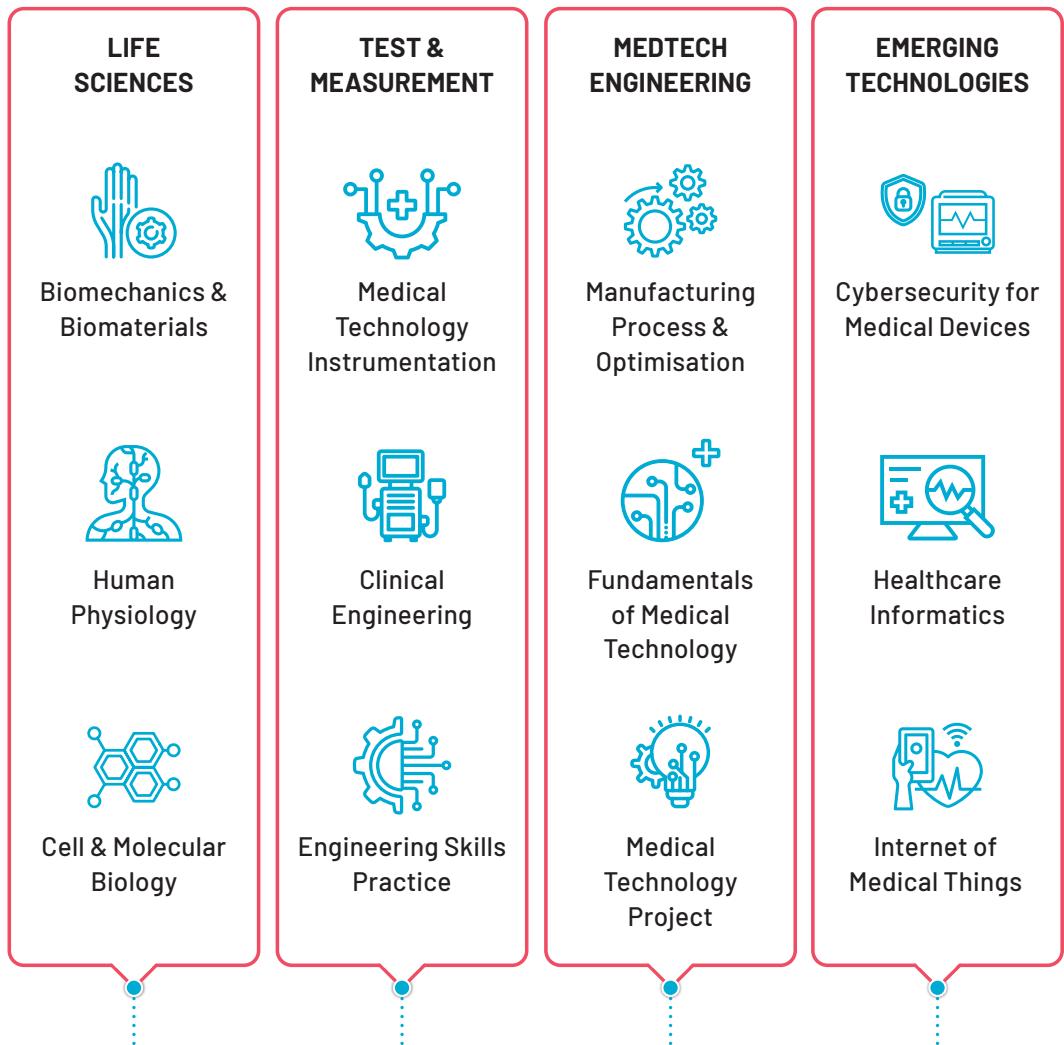
Fast track your way to university with our NP-SUTD Pathway Programme\*, where you will be able to earn university credits while completing your diploma and complete a Bachelor's Degree faster than your peers! You'll get to level up your knowledge with humanities and science modules taught by SUTD lecturers alongside your own curriculum, so you will emerge as a multiskilled professional. But that's not all. You'll get to enhance your university experience further by working on cutting-edge research projects with SUTD professors and researchers as your mentors.

\*for selected students only

## OVERVIEW OF YOUR BME JOURNEY



Key focus areas



How do you learn?

- Work on university-linked or industry-sponsored MedTech projects
- Internships at MedTech manufacturing companies, healthcare institutions and Internet of Medical Things companies
- Industry visits to MedTech manufacturers
- Workplace learning at external R&D clinical lab and major healthcare institutions



Career prospects

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• Research Associate</li> <li>• Quality Assurance Specialist</li> <li>• Regulatory Specialist</li> <li>• Assistant Research Engineer</li> </ul> | <ul style="list-style-type: none"> <li>• Biomedical Assistant Engineer</li> <li>• Field Service Engineer</li> <li>• Project Engineer</li> </ul> |
|--|---|

## WHAT YOU WILL LEARN

### YEAR 1

- AC Circuits
- Analogue Electronics
- Electrical Engineering Fundamentals
- Engineering & Society
- Engineering Mathematics 1 & 2
- Digital Fundamentals
- Fundamental Electronic & Electrical Skills
- Mechanical Engineering Fundamentals
- Programming
- Communication Essentials<sup>^</sup>
- Innovation Made Possible<sup>^</sup>
- Health & Wellness<sup>^</sup>
- English Language Express<sup>^\*</sup>

### YEAR 2

- Cell & Molecular Biology
- Clinical Engineering
- Cybersecurity Essentials
- Engineering Skills Practice
- Engineering & Sustainability
- Fundamentals of Medical Technology
- Human Physiology
- Medical Technology Instrumentation
- Healthcare Informatics
- World Issues: A Singapore Perspective<sup>^</sup>

### YEAR 3

- Biomechanics & Biomaterials
- Internet of Medical Things
- Final-Year Project
- Manufacturing Process & Optimisation
- Medical Technology Project
- Six-month Internship
- Project ID: Connecting the Dots<sup>^</sup>

<sup>^</sup> Interdisciplinary Studies (IS) modules account for 13 credit units of the diploma curriculum. They include modules in communication, innovation and world issues, as well as an interdisciplinary project. By bringing students from diverse diplomas together, the interdisciplinary project fosters collaboration to explore and propose solutions for real-world problems. IS aims to develop students to be agile and self-directed learners, ready for the future workplace.

<sup>\*</sup> For selected students only

To keep our curriculum current and robust, diploma modules are subject to change over the three years. Please visit our website for latest updates.

## FURTHER STUDIES

As a BME graduate, you can pursue degree programmes offered by Nanyang Technological University, National University of Singapore, Singapore University of Technology and Design, as well as Singapore Institute of Technology. You can also gain credit exemptions from overseas universities, including the following:

### Australia

- University of New South Wales
  - Bachelor of Engineering (Honours)/Master of Engineering (Biomedical Engineering)
- Queensland University of Technology
  - Bachelor of Engineering (Honours) (Medical)
- University of Queensland
  - Bachelor of Engineering (Honours) (Electrical and Biomedical Engineering)
- University of Sydney
  - Bachelor of Engineering (Honours) (Biomedical)

### United Kingdom

- University of Sheffield
  - Bachelor of Engineering (Biomedical Engineering)
- Cardiff University
  - Bachelor of Engineering/Master of Engineering (Medical Engineering)



**WONG ZHENG HUI**  
Biomedical Engineering graduate, Class of 2022

A recipient of the SUTD Undergraduate Merit Scholarship, Zheng Hui is pursuing a Bachelor of Engineering.



**TEY MING CHUAN**  
Biomedical Engineering graduate, Class of 2018

After completing a degree in Biomedical Engineering under NUS' Engineering Scholars Programme, Ming Chuan is pursuing a Master of Science in Business Analytics at NUS.

**CAREER**

Singapore is fast becoming a global hub for biomedical research and the healthcare industry, and is home to a growing number of multinational MedTech companies and innovative MedTech start-ups. With bright job prospects in this field, you can look forward to pursuing careers in these job roles:

- Assistant Biomedical Engineer
- Assistant Equipment Engineer
- Assistant Product Engineer
- Assistant Process Engineer
- Field Service Engineer
- Quality Assurance Specialist
- Quality Control Laboratory Analyst
- Research Associate
- Sales Engineer

As part of the SkillsFuture initiative, you can enrol in various skills-deepening programmes or apply for the SkillsFuture Work-Study Post-Diploma Programme, upon graduation. You may also apply for Workforce Skills Qualifications (WSQ) courses, such as the Specialist Diploma in Workplace Safety & Health.



**PEGGY YEO**  
Biomedical Engineering  
graduate, Class of 2016

Peggy graduated with a Bachelor of Engineering (Biomedical Engineering) from NUS and is a clinical application and regulatory specialist at Healthstats International Pte Ltd.



**KENNETH TEO**  
Biomedical Engineering  
graduate, Class of 2010

Kenneth is a development manager at ObvioHealth, a virtual research organisation that focuses on healthcare innovation.

**ENTRY REQUIREMENTS****Aggregate Type ELR2B2-C**

To be eligible for consideration, candidates must have the following GCE 'O' Level examination (or equivalent) results.

Subject	'O' level grade
English Language	1-7
Mathematics (Elementary/Additional)	1-6
Any one of the following subjects:	1-6
Biology	
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Chemistry	
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Electronics/Fundamentals of Electronics	
Physics	
Science (Chemistry, Biology)	
Science (Physics, Biology)	
Science (Physics, Chemistry)	

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**CONTACT US**

For the most up-to-date information on NP's Diploma in Biomedical Engineering, visit [www.np.edu.sg/bme](http://www.np.edu.sg/bme)

**DIPLOMA IN**  
**Electrical Engineering**

Get latest updates on course



- The only dedicated electrical engineering diploma in Singapore with an **emphasis on sustainability**
- Strong focus on growth areas in **decarbonisation, decentralisation and digitalisation** – so you can access exciting opportunities in the **green energy economy!**
- Choose to specialise in either **Power Engineering** or **Clean Energy Management**, alongside green economy-related elective modules
- **Recognised by the Energy Market Authority** for the application of Electrical Technician Licence

## WHAT THE COURSE IS ABOUT

As Singapore embarks on Green Plan 2030, our energy infrastructure and electrical systems will also undergo exciting transformations. The Diploma in Electrical Engineering (EE) is future-focused and will help prepare you to support Singapore's green transition in the energy and power landscape! Built on the three leading-edge concepts of decarbonisation, decentralisation and digitalisation, you will be well-equipped with skill sets to meet the growing demand for innovative sustainable energy solutions.

### Develop a Strong Foundation

The course will give you a solid grounding in numerous areas of electrical engineering, including the design and operation of electrical services, and integration of energy systems. You will also get to deepen your exposure to decarbonised, decentralised and digitalised electrical systems. Learn core skills such as system integration, data engineering, and sustainable engineering to effectively support Singapore's digitalisation efforts and our green economy in the energy and power sector.

### Specialise in Power Engineering or Clean Energy Management

In your final year, you can choose to specialise in the broad-based domain of Power Engineering, where there is a focus on electrical distribution and utility systems. You will also gain fundamental knowledge of sustainable energy technologies and be prepared to work on projects in the energy and power, built environment and transport sectors. Or you can select the Clean Energy Management option, where you will learn about clean energy solutions such as solar photovoltaic systems and acquire the skills to design, integrate and manage clean energy systems.

What's more, with the new green economy-related elective modules in the EE curriculum, you will build competencies to take on job roles in emerging areas such as sustainability engineering.

### Industry-relevant Learning

Engage in real-world learning through the EE curriculum, where you will get to work with leading industry players such as Beckhoff Automation, National Instruments, Delta Electronics and Yinson GreenTech.

You'll also put your knowledge and skills into practice through a six-month internship with industry leaders such as SP Group, EDPR Sunseap and Sembcorp. Or you can work on a design or industry project in diverse engineering fields!



### THE FUTURE IS GREEN

Thanks to our collaboration with Yinson GreenTech, you can explore real-world engineering solutions through our new green energy infrastructure. Comprising the synergy.lab, an IoT-enabled smart energy management technology centre, a solar farm, and on-site EV charging facilities, this purpose-built living lab is designed to prepare you for exciting careers in the renewable energy field.

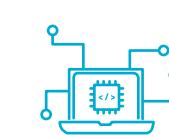
## OVERVIEW OF YOUR EE JOURNEY



### Key focus areas



**Decarbonisation**  
(e.g. Clean Energy Systems, Electric Vehicle & Charging Technologies, Sustainable Energy Technologies)



**Decentralisation**  
(e.g. Distributed Smart Grid Technologies, Systems Integration)



**Digitalisation**  
(e.g. Data Engineering & Analytics, Computer-aided Design)



### Deepen your skills through specialisation



**Power Engineering**



**Clean Energy Management**



### Career prospects

With well-rounded skill sets, including in-demand skills in sustainability and digitalisation, you will be well prepared for careers in the green energy economy, as well as sustainability-related sectors ranging from energy and power to transport and the built environment

## WHAT YOU WILL LEARN

### YEAR 1

- AC Circuits
- Analogue Electronics
- Digital Fundamentals
- Electrical Engineering Fundamentals
- Engineering Mathematics 1 & 2
- Engineering & Society
- Fundamental Electronic & Electrical Skills
- Mechanical Engineering Fundamentals
- Programming
- English Language Express<sup>^\*</sup>
- Communication Essentials<sup>^</sup>
- Innovation Made Possible<sup>^</sup>
- Health & Wellness<sup>^</sup>

### YEAR 2

- Computer-Aided Design
- Digitalisation & Data Engineering
- Electric Circuit Analysis
- Electrical Installation Design
- Electrical Machines
- Engineering & Sustainability
- Integrated Real-World Project – LabVIEW System Integration
- Microcontroller & System
- Power Electronics
- PLC & System Integration
- World Issues: A Singapore Perspective<sup>^</sup>

### YEAR 3

- Integrated Real-World Project – Decentralised System
- Power Systems Design & Operation
- Final-Year Project OR Six-month Internship (Local/ Overseas)
- Project ID: Connecting the Dots<sup>^</sup>

#### Power Engineering Specialisation

- Systems Modelling & Control
- Sustainable Energy Technologies

#### Clean Energy Management Specialisation

- Clean Energy Systems
- Energy Management & Studies

#### Elective Modules

- Smart Grid Technologies
- Electric Vehicle & Charging Technologies

## FURTHER STUDIES

This diploma is recognised by leading universities both locally and abroad. You may be granted advanced standing or module exemptions when applying for related degree programmes at local universities and overseas universities in countries such as Australia and the United Kingdom.

Graduates can further upgrade their skills through the Specialist Diploma in Solar Photovoltaic Engineering and Monitoring offered by NP.



**LOH JIA WEN**  
Electrical Engineering  
graduate, Class of 2022

Jia Wen is pursuing a degree in Electrical and Electronic Engineering at NTU under the prestigious Nanyang Scholarship.



**RYAN SOH**  
Electrical Engineering  
graduate, Class of 2023

Ryan has been awarded a scholarship to pursue NTU's flagship Renaissance Engineering Programme, which awards a dual degree comprising a Bachelor of Engineering Science and a Master of Science in Technology Management.

<sup>^</sup> Interdisciplinary Studies (IS) modules account for 13 credit units of the diploma curriculum. They include modules in communication, innovation and world issues, as well as an interdisciplinary project. By bringing students from diverse diplomas together, the interdisciplinary project fosters collaboration to explore and propose solutions for real-world problems. IS aims to develop students to be agile and self-directed learners, ready for the future workplace.

<sup>\*</sup> For selected students only

To keep our curriculum current and robust, diploma modules are subject to change over the three years. Please visit our website for latest updates.

## CAREER

Singapore is fast becoming a global hub for biomedical research and the healthcare industry, and is home to a growing number of multinational MedTech companies and innovative MedTech start-ups. With bright job prospects in this field, you can look forward to pursuing careers in these job roles:

- Assistant Engineer in
  - Power
  - Project Development
  - Commissioning
  - Operation and Maintenance
- Solar PV Project Development Supervisor
- Sustainable Engineer
- Technical Officer (Power Distribution Systems, Engineering & Maintenance)



**VALENCIA CHONG**  
Electrical Engineering  
graduate, Class of 2020

A recipient of the BCA Undergraduate Scholarship, Valencia graduated from NUS with a degree in Electrical Engineering. She is currently an electrical engineer at Jacobs, an engineering services company.

## ENTRY REQUIREMENTS

### Aggregate Type ELR2B2-C

To be eligible for consideration, candidates must have the following GCE 'O' Level examination (or equivalent) results.

Subject	'O' level grade
English Language	1-7
Mathematics (Elementary/Additional)	1-6
Any one of the following subjects:	1-6
Biology	
Biotechnology	
Chemistry	
Computing/Computer Studies	
Design & Technology	
Electronics/Fundamentals of Electronics	
Physics	
Science (Chemistry, Biology)	
Science (Physics, Biology)	
Science (Physics, Chemistry)	

You must also fulfil the aggregate computation requirements for the ELR2B2-C Aggregate Type listed at [www.np.edu.sg/docs/ELR2B2.pdf](http://www.np.edu.sg/docs/ELR2B2.pdf).

For students with other qualifications, please refer to the NP website for the entry requirements and admissions exercise period.

Candidates with severe vision deficiency, colour vision deficiency, profound hearing deficiency, uncontrolled epilepsy and/or severe physical impairments may encounter difficulties meeting the course requirements and expectations. Those with mild colour vision deficiency are required to undergo an in-house test.

### CONTACT US

For the most up-to-date information on NP's Diploma in Electrical Engineering, visit [www.np.edu.sg/ee](http://www.np.edu.sg/ee)

DIPLOMA IN

# Electronic & Computer Engineering



Get latest updates on course



- ▶ One of the **most established** electronic and computer engineering diplomas in Singapore
- ▶ **Broad-based curriculum** with strong foundation in electronics and circuits, software programming, and **in-demand technologies** such as Data Analytics, Cloud Computing and Machine Learning
- ▶ Choose between two in-demand specialisations – **Artificial Intelligence of Things (AIoT)** or **Microelectronics**
- ▶ Real-world learning through **industry-sponsored projects** and **internships** with reputable partners

## WHAT THE COURSE IS ABOUT

Who can live without electronics and computers in this day and age? From our smart phones and laptops, to the vehicles that we travel in daily, play a part in transforming the way we work and play with the Diploma in Electronic & Computer Engineering (ECE).

### Building a Strong Foundation

ECE will introduce you to the important fields of electronic engineering, as well as computer hardware and software. You will develop essential core knowledge in electronics and circuit designs, software programming, as well as networking and communication.

### Gain Leading-edge Skills

You will be exposed to semiconductor manufacturing, and the latest digital technologies of Industry 4.0, such as Artificial Intelligence & Machine Learning, Internet of Things, Data Analytics, Cloud Computing, and Networking & Security.

### Industry-relevant Learning

Get career ready with our industry-driven curriculum, co-developed with key partners such as Amazon Web Services (AWS), CISCO Systems, Micron and National Instruments. In addition, gain opportunities to top up your knowledge and skills to attain relevant industry certifications such as AWS Certified Cloud Practitioner through vacation bootcamps.

Put your knowledge to the test with a six-month internship with industry leaders such as ST Engineering and GlobalFoundries, and industry-sponsored projects at NP's technology centres.

Plus, undertake local or overseas study trips to widen your exposure to the exciting world of engineering!

### Specialise in Emerging Areas

Choose the Artificial Intelligence of Things specialisation to learn how Artificial Intelligence (AI) is applied in electronics and IoT to create smarter devices/systems with optimised features and functionalities.

Or choose the Microelectronics specialisation and receive hands-on training in the manufacturing process of integrated circuits, which includes the front- & back-end of the semiconductor fabrication process, quality control and reliability, as well as IC testing.



### AWARD-WINNING DUO

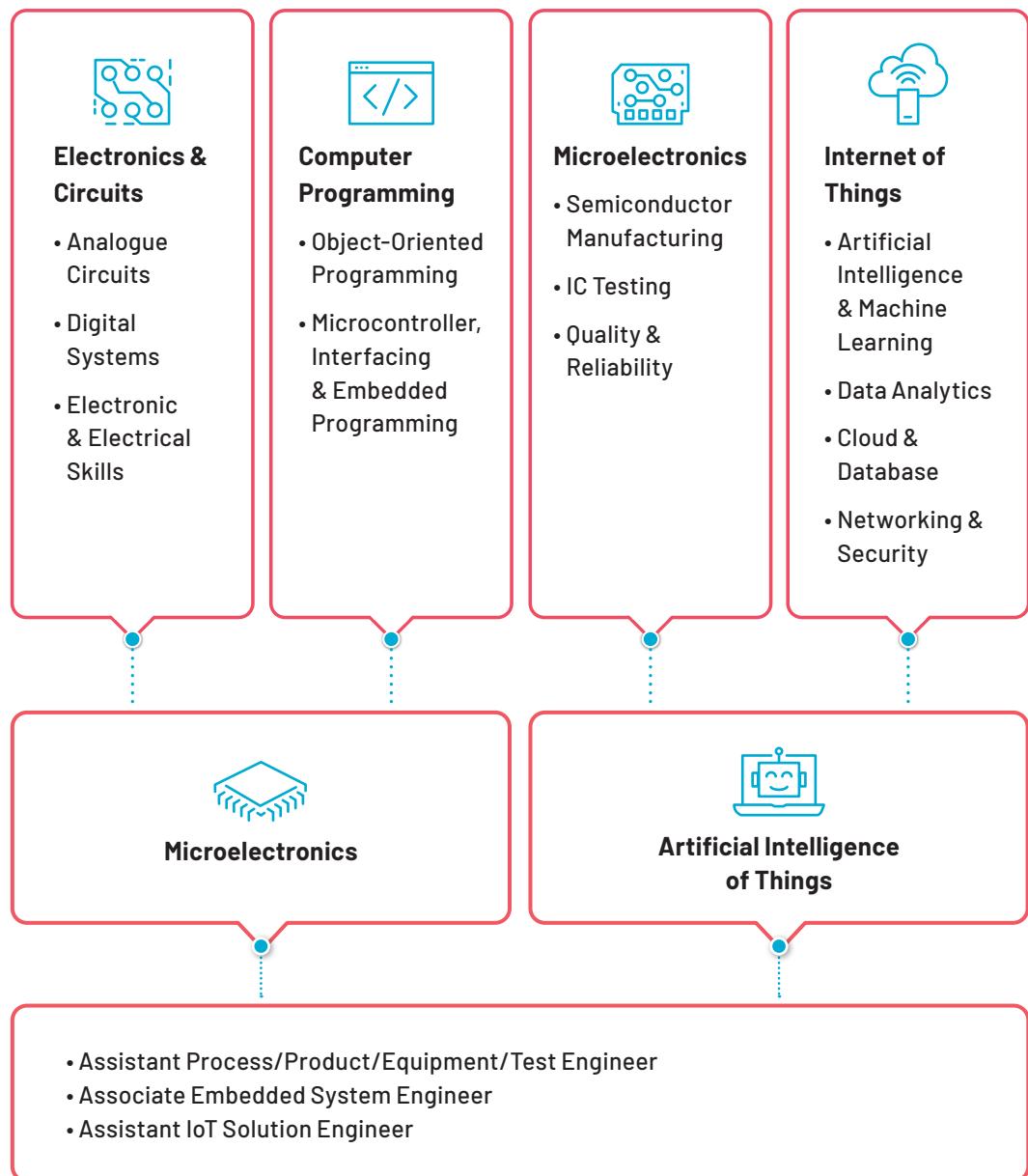
ECE graduate Reginald Loo (left) and EE graduate Kuang Zin Thu won the Lee Hsien Loong Interactive Digital Media Smart Nation Award for developing a cutting-edge autonomous cleaning service robot. It can independently navigate to specific locations, identify cleaning targets and perform cleaning tasks without any human intervention.

To keep our curriculum current and robust, diploma modules are subject to change over the three years. Please visit our website for latest updates.

## OVERVIEW OF YOUR ECE JOURNEY



Deepen your skills through specialisation



## WHAT YOU WILL LEARN

### YEAR 1

- AC Circuits
- Analogue Electronics
- Digital Fundamentals
- Engineering Mathematics 1 & 2
- Engineering & Society
- Electrical Engineering Fundamentals
- Fundamental Electronic & Electrical Skills
- Mechanical Engineering Fundamentals
- Programming
- Communication Essentials<sup>^</sup>
- Innovation Made Possible<sup>^</sup>
- Health & Wellness<sup>^</sup>
- English Language Express<sup>^\*</sup>

### YEAR 2

- Applied Analogue Electronics
- Applied Digital Electronics
- Communication Systems
- Data Analytics
- Engineering & Sustainability
- Internet of Things
- Microcontroller & Interfacing
- Network Fundamentals
- Object-Oriented Programming
- Servers & Cloud Fundamentals
- World Issues: A Singapore Perspective<sup>^</sup>

### YEAR 3

- Embedded Systems
- Six-month Internship
- Final-Year Project
- Project ID: Connecting the Dots<sup>^</sup>

#### Artificial Intelligence of Things Specialisation

- AI Applications
- IoT & Cloud Security
- Machine Learning with Python

#### Microelectronics Specialisation

- IC Testing, Assembly & Packaging
- Quality & Reliability
- Semiconductor Manufacturing

## FURTHER STUDIES

This diploma is recognised by leading universities both locally and abroad. You may be granted advanced standing or module exemptions when applying for related degree programmes at local universities and overseas universities in countries such as Australia and the United Kingdom.



**CHRISTOPHER CHIA**  
Electronic & Computer Engineering graduate, Class of 2022

Christopher will be pursuing an undergraduate degree with a major in Engineering Product Development, under a bond-free SUTD scholarship.



**NICHOLAS LEE**  
Electronic & Computer Engineering graduate, Class of 2021

Nicholas is pursuing a Bachelor of Engineering in Computer Science at NTU.



**JONATHON CHU**  
Electronic & Computer Engineering graduate, Class of 2023

Jonathon has been awarded a scholarship under the NTU-University Scholars Programme to pursue a degree in Computer Science.

<sup>\*</sup> For selected students only.

<sup>^</sup> Interdisciplinary Studies (IS) modules account for 13 credit units of the diploma curriculum. They include modules in communication, innovation and world issues, as well as an interdisciplinary project. By bringing students from diverse diplomas together, the interdisciplinary project fosters collaboration to explore and propose solutions for real-world problems. IS aims to develop students to be agile and self-directed learners, ready for the future workplace.

**CAREER**

Electronics is one of the world's largest industries – that means you will enjoy many diverse and exciting career opportunities, such as:

- Associate Embedded Systems Engineer
- Assistant IoT Solutions Engineer
- Assistant Equipment Engineer
- Assistant Process Engineer
- Assistant Product Engineer
- Assistant Quality Engineer
- Assistant Facility Engineer
- Assistant Integration Engineer

**FRANK QUEK**

Electronic & Computer Engineering graduate, Class of 2009

Frank pursued a double degree in Business and Computer Science under the NTU College Scholarship. He is currently the CEO of Ty Innovations Pte Ltd.

**YEE SHENG JIE**

Electronic & Computer Engineering graduate, Class of 2014

Sheng Jie completed a degree in Electrical and Electronic Engineering at NTU. He is currently working as a quality engineer at GovTech.

**ENTRY REQUIREMENTS****Aggregate Type ELR2B2-C**

To be eligible for consideration, candidates must have the following GCE 'O' Level examination (or equivalent) results.

Subject	'O' level grade
English Language	1-7
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Any one of the following subjects:	1-6
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Chemistry	
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Design & Technology	
Electronics/Fundamentals of Electronics	
Physics	
Science (Chemistry, Biology)	
Science (Physics, Biology)	
Science (Physics, Chemistry)	

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**CONTACT US**

For the most up-to-date information on NP's Diploma in Electronic & Computer Engineering, visit [www.np.edu.sg/ece](http://www.np.edu.sg/ece)

**DIPLOMA IN****Marine & Offshore Technology**

Revamped

Get latest updates on course



- ▶ A unique diploma that covers naval architecture with a focus on **sustainability, decarbonisation and renewable energy** that prepares you for careers in vessel design and sustainable engineering
- ▶ Get equipped for emerging fields in the marine and offshore engineering sector such as offshore wind technologies
- ▶ Prestigious ASMI-MaritimeONE Scholarship that covers tuition fees and allowances

## WHAT THE COURSE IS ABOUT

Fascinated by offshore vessels and how they work? Eager to contribute to a greener and more sustainable Earth? Embark on your maritime journey with our Diploma in Marine & Offshore Technology (MOT). You will get trained in naval architecture and marine engineering, two of the most sought-after specialist skills in Singapore's maritime sector. With a focus on sustainability, decarbonisation and renewable energy, MOT will prepare you to seize opportunities in this fast-growing industry.

Through MOT, you will gain expertise in designing and building offshore vessels and structures. By delving into crucial areas of green technology – such as low-carbon and green-fuelled systems, as well as hydrogen infrastructure – you will gain the knowledge needed for careers in emerging sectors like offshore wind and automation.

Moreover, the course will give you insights into sustainable engineering practices and hone your proficiency in Artificial Intelligence (AI) applications, including autonomous vessels. You will also develop essential digital skills, such as data analytics for technical operations and processes.

### Work on Multidisciplinary Projects

Our strong emphasis on industry-based projects will give you an edge in creating innovative solutions for using clean energy, developing new materials and processes, as well as designing and building marine vessels and offshore structures.

In your final year, you will undertake a capstone project focusing on conventional energy, new energy, renewables, or decarbonisation solutions. This hands-on experience allows you to work in a team to solve real-world problems related to the marine and offshore industry. There will also be opportunities for collaboration with students from other engineering disciplines on industry-based projects.

### Gain Industry Experience

Additionally, you have the option to choose between a one-year or six-month internship to deepen your skills and gain valuable experience. Thanks to MOT's strong ties with key industry players, such as the Association of Singapore Marine & Offshore Energy Industries, Dyna-Mac Holdings and Seatrium Limited, you will get to go on overseas study trips. Apart from providing deeper industry exposure, these trips offer opportunities for specialised training that will give you a head start in your career!

## WHAT YOU WILL LEARN

### YEAR 1

- Engineering & Society
- Engineering Drafting
- Engineering Mathematics 1 & 2
- Electrical Engineering Fundamentals
- Geometry & Buoyancy
- Mechanical Engineering Fundamentals
- Programming
- Thermofluids
- Health & Wellness<sup>▲</sup>
- Innovation Made Possible<sup>▲</sup>
- Communication Essentials<sup>▲</sup>
- English Language Express<sup>▲\*</sup>

### YEAR 2

- Engineering & Sustainability
- Hydrostatics & Stability
- Marine Engineering Systems
- Marine Propulsion Systems
- Maritime Decarbonisation
- Offshore Topsides Systems
- Offshore Wind
- Project Management
- Strength of Materials
- Structure & Resistance
- World Issues: A Singapore Perspective<sup>▲</sup>

### YEAR 3

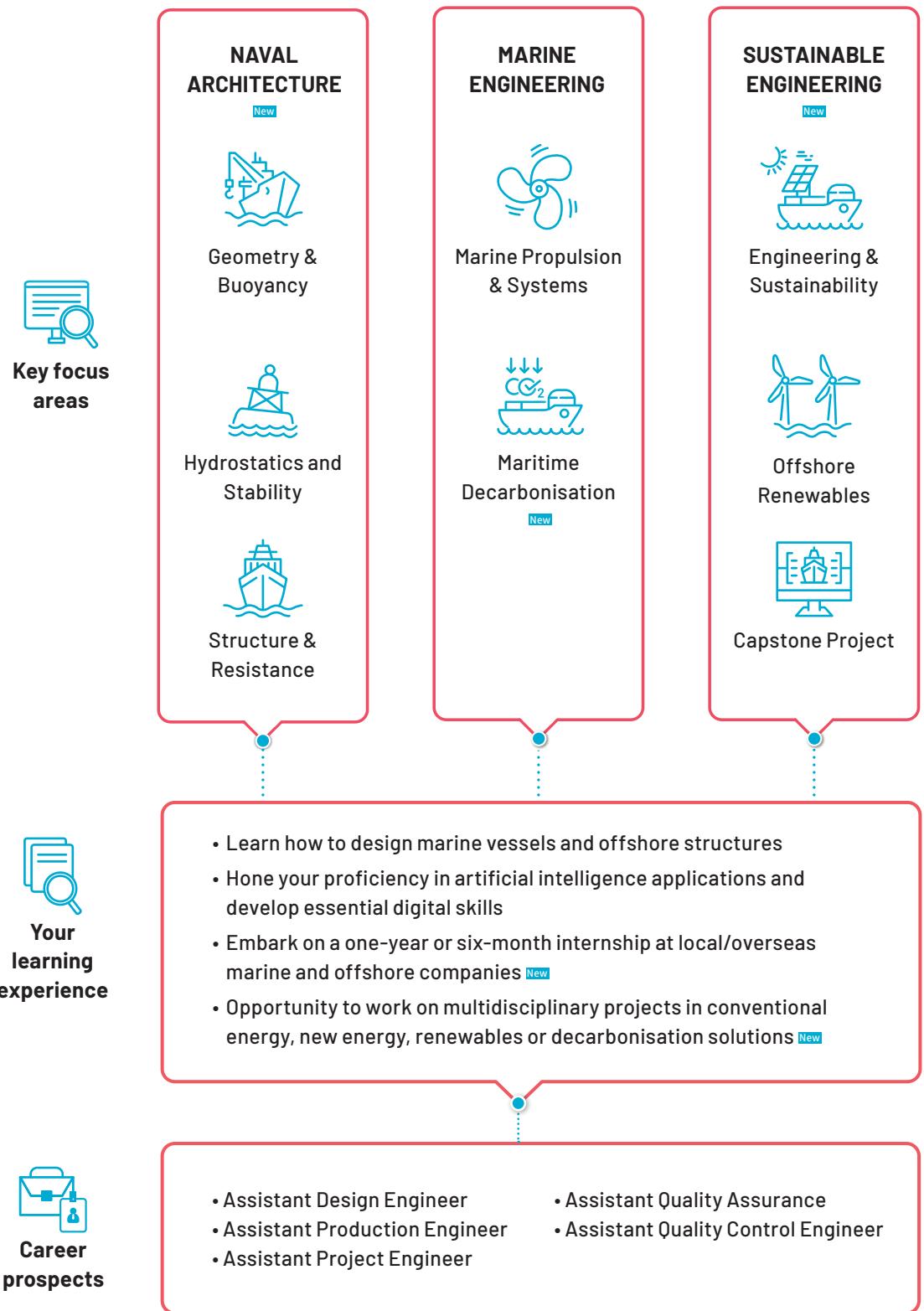
- Capstone Project
- Engineering Modelling
- Marine Production Technology
- Six-month Internship/Final-Year Project OR One-year Internship
- Project ID: Connecting the Dots<sup>▲</sup>

<sup>▲</sup> Interdisciplinary Studies (IS) modules account for 13 credit units of the diploma curriculum. They include modules in communication, innovation and world issues, as well as an interdisciplinary project. By bringing students from diverse diplomas together, the interdisciplinary project fosters collaboration to explore and propose solutions for real-world problems. IS aims to develop students to be agile and self-directed learners, ready for the future workplace.

<sup>\*</sup> For selected students only.

To keep our curriculum current and robust, diploma modules are subject to change over the three years. Please visit our website for latest updates.

## OVERVIEW OF YOUR MOT JOURNEY



## FURTHER STUDIES

Accredited by the Institute of Marine Engineering Science & Technology (UK), this diploma opens doors to related degree programmes at local and overseas universities. You may also enjoy advanced standing at these universities:

### Singapore

- Nanyang Technological University
- National University of Singapore

### Australia

- University of Sydney
- University of Tasmania

### United Kingdom

- Newcastle University
- University of Glasgow
- University of Strathclyde

Together with Newcastle University, the Singapore Institute of Technology offers you the chance to pursue a Bachelor of Engineering with Honours in Marine Engineering, Naval Architecture or Offshore Engineering over two years. Eligible students taking these degree programmes will receive subsidies under the Singapore Government's Tuition Grant Scheme.

## CAREER

Your MOT diploma will open doors to multiple careers in the marine and offshore industries. These include aspects such as design, marketing, commerce, survey, production, safety, human resource, and research and development. For instance, you can look forward to these job roles:

- Assistant Design Engineer
- Assistant Production Engineer
- Assistant Quality Assurance
- Assistant Quality Control Engineer
- Assistant Project Engineer



**YEO GUOLI**  
Marine & Offshore Technology  
graduate, Class of 2015

Guoli is a senior project planner at Seatrium Limited.



**LEOW WEI CHI**  
Marine & Offshore Technology  
graduate, Class of 2017

Wei Chi is a commercial executive at Penguin Shipyard.

### KEITH HAH

Marine & Offshore Technology  
graduate, Class of 2020

Keith is pursuing a Mechanical Engineering degree  
at NTU.



### QUSAI SHEBBIR ZAKIR

Marine & Offshore Technology  
graduate, Class of 2017

Qusai holds a degree in Naval Architecture from SIT  
and works as a naval architect at Seatrium Limited.



## ENTRY REQUIREMENTS

### Aggregate Type ELR2B2-C

To be eligible for consideration, candidates must have the following GCE 'O' Level examination (or equivalent) results.

Subject	'O' level grade
English Language	1-7
Mathematics (Elementary/Additional)	1-6
Any one of the following subjects:	1-6
Biology	
Biotechnology	
Chemistry	
Computing/Computer Studies	
Design & Technology	
Electronics/Fundamentals of Electronics	
Physics	
Science (Chemistry, Biology)	
Science (Physics, Biology)	
Science (Physics, Chemistry)	

You must also fulfil the aggregate computation requirements for the ELR2B2-C Aggregate Type listed at [www.np.edu.sg/docs/ELR2B2.pdf](http://www.np.edu.sg/docs/ELR2B2.pdf).

Candidates with severe vision deficiency, profound hearing deficiency, uncontrolled epilepsy and/or severe physical impairments may encounter difficulties meeting the course requirements and expectations.

### CONTACT US

For the most up-to-date information on NP's  
Diploma in Marine & Offshore Technology, visit  
[www.np.edu.sg/mot](http://www.np.edu.sg/mot)

# Mechanical Engineering



- A broad-based curriculum that prepares you for wide range of exciting careers in precision engineering, public transport, energy and chemicals, engineering services and more
- Ride the Industry 4.0 wave with in-demand digital skills like advanced modelling, industrial automation & robotics and predictive maintenance & analytics
- New sustainability focus to prepare you to help companies optimise decarbonisation efforts
- Opportunity to specialise in Automation Design Engineering or Mobility Design Engineering with industry immersion at organisations such as ST Engineering, A\*STAR and TÜV SÜD PSB

## WHAT THE COURSE IS ABOUT

Mechanical engineering touches virtually every aspect of modern life. Imagine an autonomous car powered by renewable energy and a robotic exoskeleton that can help seniors improve their range of motion. With the Diploma in Mechanical Engineering (ME) to give you a head start into building such sleek technology, you'll be well positioned to excel in diverse fields from precision engineering, environment and energy, facilities and infrastructure, to the transportation sectors.

### Get Equipped with In-demand Skills

In your first year, you will learn the fundamentals of mechanical engineering with a focus on materials and design skills through modules such as Thermofluids, Materials & Manufacturing Technology and Mechanical Engineering Fundamentals. Then deepen your understanding with modules such as Engineering System Design and Strength of Materials in your second year.

You will also gain insights into the latest technologies that are reshaping the industry, such as Artificial Intelligence, robotics and the Internet of Things (IoT). Apply your skills by creating innovative clean energy solutions, developing new materials and processes, as well as designing and manufacturing products ranging from consumer products to medical devices.

### Specialise in Emerging Areas

You will get to deepen your knowledge by choosing one of two specialisations in your final year: Automation Design Engineering or Mobility Design Engineering.

With a focus on system design and integration, the Automation Design Engineering specialisation will help you hone design, manufacturing and maintenance skills for advanced manufacturing that can be applied in diverse industries. Armed with these skills, you will be well prepared to take on roles in a variety of sectors, including design, assembly, production and maintenance.

Or you can choose the Mobility Design Engineering specialisation if you want to play a key role in helping Singapore achieve its Green Plan 2030 targets. With modules in Mechanical Drives System, Electrical Technology System and Mobility System Design & Integration, you will gain electro-mechanical mobility skills that are sought-after in the mobility technology sector.

### Industry-relevant Learning

At ME, you will always be at the forefront of the latest technologies by learning and collaborating on industry-relevant projects with our partners such as Akribis, HOPE Technik, Autodesk, Grundfos, Carrier, PSA Singapore and the Smart Nation Digital Government Office.

At the same time, you will get to work on a Final-Year Project that involves the design and development of a new product prototype with real-world applications. Or round off your learning journey with a local or overseas internship with established organisations such as ST Engineering, A\*STAR and TÜV SÜD PSB!



### PASSION FOR CARS

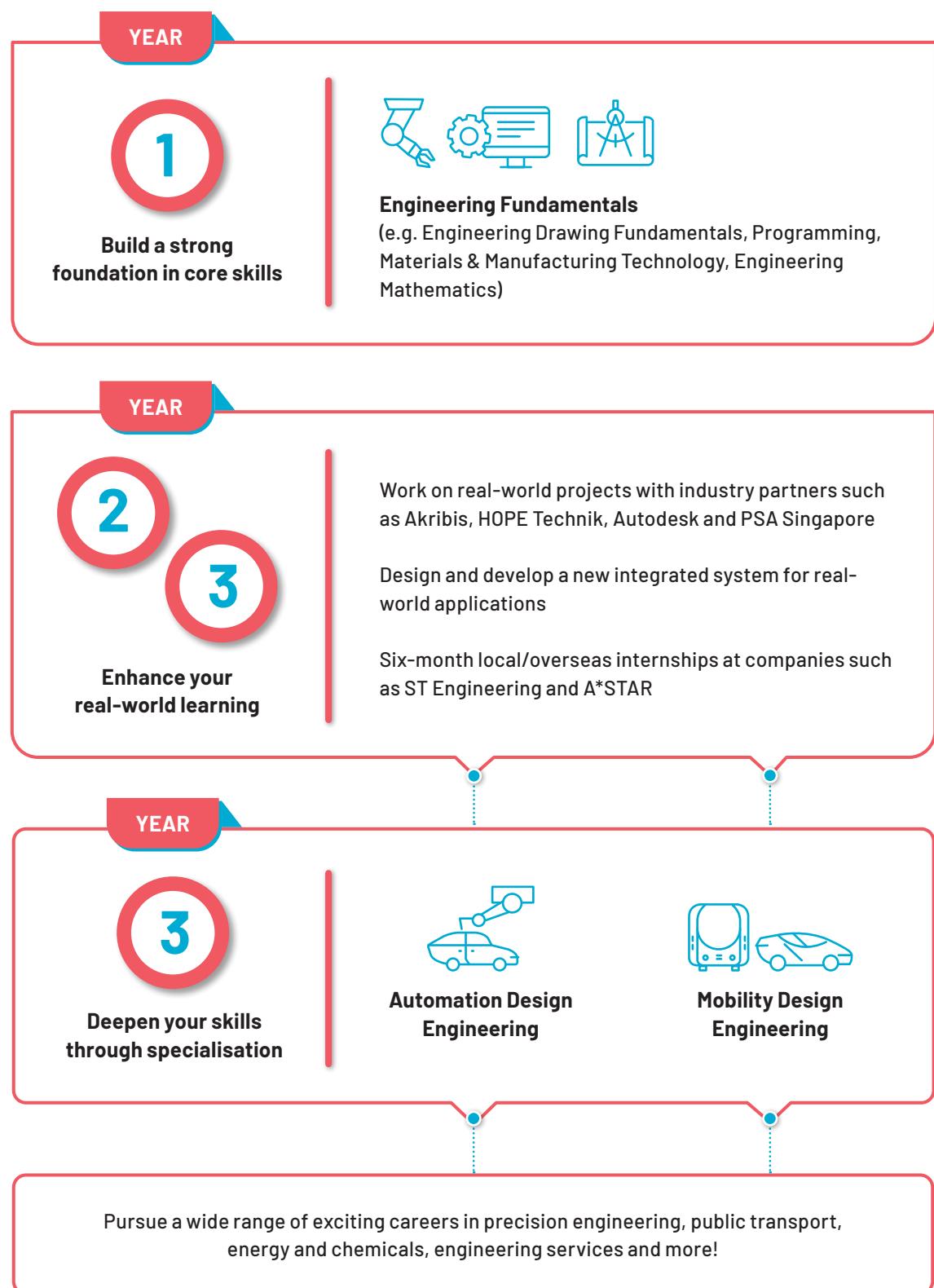
“During my time at NP, I worked on a Final-Year Project focused on automotive technologies and motorsports. I even represented NP at the Shell Eco-marathon Asia in 2019, with the energy-efficient car I built with my teammates, and came in second place in the region! This success inspired me to continue my journey in Mechanical Engineering at NTU, where I contributed to the development of NTU’s first Formula Student race car, NVF-1.”

**JUSTIN WONG**  
**Mechanical Engineering graduate,**  
**Class of 2019**

Justin (far right) was one of the 12 successful applicants who got accepted into the prestigious master's degree programme in race car aerodynamics at the University of Southampton, United Kingdom in 2022.

To keep our curriculum current and robust, diploma modules are subject to change over the three years. Please visit our website for latest updates.

## OVERVIEW OF YOUR ME JOURNEY



## WHAT YOU WILL LEARN

### YEAR 1

- Engineering & Society
- Engineering Drawing Fundamentals
- Engineering Mathematics 1 & 2
- Electrical Engineering Fundamentals
- Electrical & Electronics Technology
- Materials & Manufacturing Technology
- Mechanical Engineering Fundamentals
- Programming
- Thermofluids
- Communication Essentials<sup>^</sup>
- Innovation Made Possible<sup>^</sup>
- Health & Wellness<sup>^</sup>
- English Language Express<sup>^\*</sup>

### YEAR 2

- Advanced Materials
- Advanced Manufacturing Technology
- Applied Mechanics
- Applied Thermofluids
- Computer-Aided Design & Analysis
- Engineering & Sustainability
- Engineering System Design
- Industrial Automation
- Project Management
- Strength of Materials
- World Issues: A Singapore Perspective<sup>^</sup>

### YEAR 3

- Mechanics of Machines & Materials
- Quality Systems & Analytics
- Final-Year Project
- Six-month Internship
- Project ID: Connecting the Dots<sup>^</sup>

#### Automation Design Engineering Specialisation

- Automation System Design & Integration
- Design for Manufacturing & Assembly
- Smart Sensors & Actuator

#### Mobility Design Engineering Specialisation

- Mobility System Design & Integration
- Mechanical Drives System
- Electrical Technology System

## FURTHER STUDIES

You will be well-prepared for further studies at both local and overseas universities. You may even be granted advanced standing in related engineering courses at:

### Singapore

- Nanyang Technological University
- National University of Singapore
- Singapore Institute of Technology-University of Glasgow

### Australia

- University of New South Wales
- University of Melbourne
- University of Sydney
- RMIT University
- Monash University

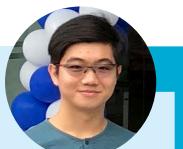
### United Kingdom

- Auckland University of Technology
- University of Auckland

### United Kingdom

- University of Edinburgh
- University of Birmingham
- University of London
- Loughborough University
- Newcastle University

**XAVIER HENG**  
Mechanical Engineering graduate, Class of 2020



A recipient of the Poly-goes-UAS Scholarship, Xavier is pursuing a degree in mechanical engineering at Baden-Württemberg Cooperative State University, Germany.

**CHENG SHI HUI**  
Mechanical Engineering graduate, Class of 2020



A Tay Eng Soon gold medallist, Shi Hui holds a degree in mechanical engineering and is pursuing a PhD in additive manufacturing at NTU.

<sup>^</sup> Interdisciplinary Studies (IS) modules account for 13 credit units of the diploma curriculum. They include modules in communication, innovation and world issues, as well as an interdisciplinary project. By bringing students from diverse diplomas together, the interdisciplinary project fosters collaboration to explore and propose solutions for real-world problems. IS aims to develop students to be agile and self-directed learners, ready for the future workplace.

<sup>\*</sup> For selected students only.

**CAREER**

A highly versatile course, ME provides a broad-based education that enables you to excel in diverse career choices. With your solid foundation in engineering giving you sought-after skills, you will enjoy excellent job prospects in many industries. You can look forward to pursuing careers in these job roles:

- Assembly Engineer
- Automation Assistant Engineer
- Automotive Engineer
- Facility Engineer
- Manufacturing Engineer
- Mechanical Engineer
- Mobility Design Engineer
- Precision Engineer
- Product Engineer
- Project Engineer
- Process Engineer
- Procurement Assistant
- Quality Assurance Engineer
- Sales Engineer



**IVAN CHEONG**  
Mechanical Engineering  
graduate, Class of 2018

Ivan is the chief business development officer of FATfreq, a start-up that specialises in in-ear monitors.

**ENTRY REQUIREMENTS****Aggregate Type ELR2B2-C**

To be eligible for consideration, candidates must have the following GCE 'O' Level examination (or equivalent) results.

Subject	'O' level grade
English Language	1-7
Mathematics (Elementary/Additional)	1-6
Any one of the following subjects:	1-6
Biology	
Biotechnology	
Chemistry	
Computing/Computer Studies	
Design & Technology	
Electronics/Fundamentals of Electronics	
Physics	
Science (Chemistry, Biology)	
Science (Physics, Biology)	
Science (Physics, Chemistry)	

You must also fulfil the aggregate computation requirements for the ELR2B2-C Aggregate Type listed at [www.np.edu.sg/docs/ELR2B2.pdf](http://www.np.edu.sg/docs/ELR2B2.pdf).

For students with other qualifications, please refer to the NP website for the entry requirements and admissions exercise period.

Candidates with severe vision deficiency, profound hearing deficiency, uncontrolled epilepsy and/or severe physical impairments may encounter difficulties meeting the course requirements and expectations.

**CONTACT US**

For the most up-to-date information on NP's Diploma in Mechanical Engineering, visit [www.np.edu.sg/me](http://www.np.edu.sg/me)

**DIPLOMA IN****Mechatronics & Robotics**

Renamed

Formerly known as Diploma in Automation & Mechatronic Systems

Get latest updates on course



- A broad-based curriculum with a strong focus on autonomous mobile and collaborative robotics
- Acquire skills in emerging technologies such as Augmented Reality, Robot Operating System, Computer Vision and Industrial IoT for exciting career opportunities in robotics engineering and automation!
- Choose to specialise in either Autonomous Systems or Automation & Industrial Cybersecurity
- Opportunities to work on projects sponsored by leading industry partners and innovative technology companies such as Omron Electronics, Universal Robots, HOPE Technik, MooVita and Bosch Rexroth

## WHAT THE COURSE IS ABOUT

Robots are changing our daily lives – imagine stepping out of your smart home, taking a self-driving vehicle to your favourite restaurant, and getting served by a robot waiter! The field of robotics and automation is steadily growing and finding its way into every home, company and industry. If you want to engineer the next generation of robots and smart machines, the Diploma in Mechatronics & Robotics (MR) is your ideal choice.

With our broad-based curriculum, you will learn to use emerging technologies in robotics and automation, such as augmented reality, computer vision and Industrial Internet of Things, to develop high-tech solutions for consumer products and industrial applications. This will give you an edge when you pursue exciting careers in growing fields such as service robotics, autonomous driving technologies and industrial automation and applications.

### A Strong Engineering Foundation

In the first two years, you will build a strong foundation in the various disciplines of engineering – electrical, electronics, mechanical and programming. You will also learn practical skills in computer-aided design, applications of artificial intelligence, and how to develop functional applications using Robot Operating System (ROS).

### Specialisations in Emerging Areas

To deepen your competencies, you can opt to specialise in one of these two areas: Autonomous Systems or Automation & Industrial Cybersecurity.

In the Autonomous Systems specialisation, you will learn about autonomous mobile robot development, collaborative robot (cobot) programming and how to deploy an autonomous vehicle. This specialisation will equip you with the competencies to pursue a career as a robotics engineer upon graduation.

Or you can choose the Automation & Industrial Cybersecurity specialisation to get a head start in programming mechatronics systems using industrial controllers. In addition, you will learn how to protect industrial control systems by deploying cybersecurity strategies and solutions.

### Industry-relevant Learning

With many modules co-developed, co-delivered and co-assessed with our industry partners such as Omron Electronics, Universal Robots, HOPE Technik and MooVita, you can be sure that you will be prepared for the industry when you graduate. To give you an edge in your career, there are also opportunities to go on a six-month internship at companies such as PSA Singapore, Bosch Rexroth, LKH Precicon, A\*STAR and Omron Electronics.

Plus, gain hands-on experience at high-tech mobility solutions provider MooVita, situated right on campus!



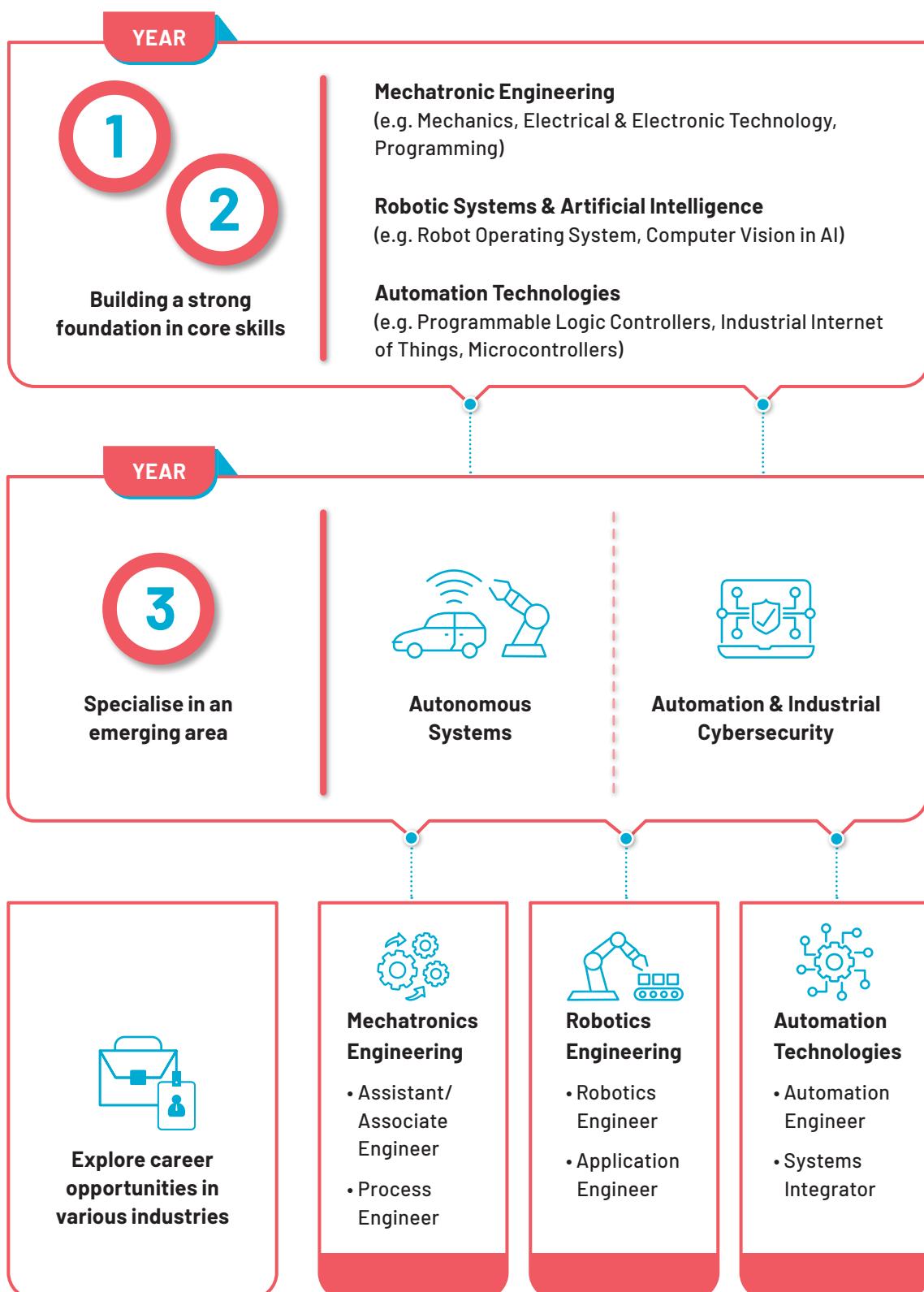
### WORLDSKILLS CHAMPIONS

Automation & Mechatronic Systems\* graduates Mack Kai Hin and Ethan Ong clinched gold in the mechatronics category at the 2023 WorldSkills ASEAN competition. A biennial event that brings competitors from Southeast Asia, the duo demonstrated their expertise in handling industrial equipment, programming equipment control systems, and human machine interfaces.

\*Renamed the Diploma in Mechatronics & Robotics

To keep our curriculum current and robust, diploma modules are subject to change over the three years. Please visit our website for latest updates.

## OVERVIEW OF YOUR MR JOURNEY



## WHAT YOU WILL LEARN

### YEAR 1

- Electrical & Electronics Technology
- Electrical Engineering Fundamentals
- Engineering Drawing Fundamentals
- Engineering Mathematics 1 & 2
- Engineering & Society
- Materials & Manufacturing Technology
- Mechanical Engineering Fundamentals
- Programming
- Thermofluids
- Communication Essentials for Engineers<sup>^</sup>
- English Language Express<sup>^\*</sup>
- Health & Wellness<sup>^</sup>
- Innovation Made Possible<sup>^</sup>

### YEAR 2

- Applied Mechanics
- Computer Aided System Design
- Computer Vision in Artificial Intelligence
- Engineering & Sustainability
- Industrial Automation
- Mechatronic Drive Systems
- Microcontroller & System
- Network Fundamentals
- Robot Operating System
- Strength of Materials
- World Issues: A Singapore Perspective<sup>^</sup>

### YEAR 3

- Final-Year Project
- Systems Modelling & Control
- Six-month Internship (Local/Overseas)
- Project ID: Connecting the Dots<sup>^</sup>

#### Autonomous Systems Specialisation

- Advanced Robotic Systems & Applications
- Autonomous Platform Systems
- Autonomous System Deployment

#### Automation & Industrial Cybersecurity Specialisation

- Advanced Automation System
- Operational Technology Security
- Augmented Reality & Robotics Systems

## FURTHER STUDIES

You will be well prepared for further studies in mechanical, electrical or electronic engineering at both local and overseas universities. You may even be granted advanced standing in related engineering courses at:

### Singapore

- Nanyang Technological University
- National University of Singapore
- Singapore Institute of Technology-University of Glasgow

### Australia

- Monash University
- University of New South Wales

### United Kingdom

- University of Manchester
- University of Sheffield

### DANISH ABRISAM BIN ISMAIL



#### Automation & Mechatronic Systems\* graduate, Class of 2019

Danish is studying Mechatronics Engineering at Baden-Wuerttemberg Cooperative State University, under EDB's Poly-goes-UAS Programme. He is currently a student trainee at German multinational company Pepperl+Fuchs.

\*Renamed the Diploma in Mechatronics & Robotics

### MICHAEL LIM

#### Automation & Mechatronic Systems\* graduate, Class of 2019



Michael is pursuing a Bachelor of Engineering (Engineering Product Development) at SUTD and has received the SAF Academic Award. He has also joined the SUTD Technology Entrepreneurship Programme, which nurtures aspiring entrepreneurs.

\*Renamed the Diploma in Mechatronics & Robotics

## CAREER

As a designer and engineer of automation systems, you will be well sought-after in jobs that involve the design, development and manufacturing of intelligent products and systems. You can look forward to pursuing careers in the following job roles:

- Robotics Engineer
- Automation Engineer
- Application Engineer
- WSH Coordinator
- Assistant Engineer/Associate Engineer in Process Engineering
- Equipment Engineering
- Facility Engineering
- Quality Engineering
- Product Engineering
- Production Engineering
- Quality Assurance/Quality Control
- Procurement Coordinator/Executive

## ENTRY REQUIREMENTS

### Aggregate Type ELR2B2-C

To be eligible for consideration, candidates must have the following GCE 'O' Level examination (or equivalent) results.

Subject	'O' level grade
English Language	1-7
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Any one of the following subjects:	1-6
Biology	
Biotechnology	
Chemistry	
Computing/Computer Studies	
Design & Technology	
Electronics/Fundamentals of Electronics	
Physics	
Science (Chemistry, Biology)	
Science (Physics, Biology)	
Science (Physics, Chemistry)	

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For students with other qualifications, please refer to the NP website for the entry requirements and admissions exercise period.

Candidates with severe vision deficiency, colour vision deficiency, profound hearing deficiency, uncontrolled epilepsy and/or severe physical impairments may encounter difficulties meeting the course requirements and expectations. Those with mild colour vision deficiency are required to undergo an in-house test.

## CONTACT US

For the most up-to-date information on NP's Diploma in Mechatronics & Robotics, visit [www.np.edu.sg/mr](http://www.np.edu.sg/mr)

<sup>^</sup> Interdisciplinary Studies (IS) modules account for 13 credit units of the diploma curriculum. They include modules in communication, innovation and world issues, as well as an interdisciplinary project. By bringing students from diverse diplomas together, the interdisciplinary project fosters collaboration to explore and propose solutions for real-world problems. IS aims to develop students to be agile and self-directed learners, ready for the future workplace.

<sup>\*</sup> For selected students only

# OUR GRADUATES WITH THAT SOMETHING XTRA



## MASTER IN ROBOTICS

Benjamin graduated from University College London with a Master of Science in Robotics and Computation. He is currently a senior robotics software engineer at Dyson Singapore.

### BENJAMIN TAN

**Automation & Mechatronic Systems\* graduate, Class of 2015**

\*Renamed the Diploma in Mechatronics & Robotics



## TRANSIT EXPERT

A recipient of the Singapore-Industry Scholarship, Jin Li graduated from NUS with a degree in Electrical Engineering. She is a senior engineer at SBS Transit.

### TENG JIN LI

**Electrical Engineering graduate, Class of 2016**



## DATA SCIENTIST

Pavatharani graduated from NTU's Renaissance Engineering Programme with a Bachelor of Aerospace Engineering and Master of Science in Technology Management. She is working as a senior data scientist at Visa.

### PAVATHARANI SENTHIL KUMAR

**Aerospace Technology\* graduate, Class of 2016**

\*Renamed the Diploma in Aerospace Engineering



## ENGINEER ON THE MOVE

Vhora graduated with a mechanical engineering degree from NTU and is currently working as a project engineer at LTA.

### VHORA SHREYANS SURESH

**Mechanical Engineering graduate, Class of 2016**



## RESEARCH ENGINEER

Teo Yee graduated from NTU with a degree in mathematical sciences. He is now a senior research engineer at the Adaptive Robotics & Mechatronics Group in A\*STAR's Singapore Institute of Manufacturing Technology.

### TEO YEE

**Mechatronic Engineering\* graduate, Class of 2012**

\*Renamed the Diploma in Mechatronics & Robotics



## PROJECT MANAGER

Guoli graduated from NTU with a degree in mechanical engineering and is currently a senior project planner at Seatrium Limited.

### YEO GUOLI

**Marine & Offshore Technology graduate, Class of 2015**



## HEALTHCARE CYBERCOP

Zhe Zhi holds a bioengineering degree from NTU and currently serves as a manager in the cybersecurity and medical devices division at MOH.

### HUI ZHE ZHI

**Biomedical Engineering graduate, Class of 2011**



## BUSINESS WHIZ

Frank graduated from NTU with a double degree in business and computer science under the NTU College Scholarship. He is the CEO of Ty Innovations Pte Ltd.

### FRANK QUEK

**Electronic & Computer Engineering graduate, Class of 2009**



## ENGINEER & DOCTOR

Kellie was accepted into the SUTD-Duke-NUS Special Track for an Engineering Degree & Doctor of Medicine Degree. She also received the SUTD Global Distinguished Scholarship.

### KELLIE SIM

**Engineering Science graduate, Class of 2020**

535 Clementi Road Singapore 599489

Admissions Hotline: 6463 1233

askNP@np.edu.sg

All information is correct at time of printing (Dec 2023)