Students will be empowered to take ownership of their own learning, their own projects, and their entrepreneurial spirit within the School of Electrical and Electronic Engineering. A learning laboratory, Garage@EEE serves as an informal resource to cultivate innovation ideas & experimentation. Students can:

- **White space**, in this
- **Skills**, management
- **Experience**, project
- **Decision Making**, perseverance
- **Resilience &**, of interest
- **Dabble in particular topics**, development of a usable prototype
- **Apply for project funding to complete**, create or join existing teams to
- **Garage@eee**

EEE graduates can enter include:

- Information Technology Security Specialist
- Information Technology Project Manager
- Industrial Machinery & Tools Engineer
- Industrial and Production Engineer
- Embedded Systems Engineer
- Electronics Engineer
- Electrical Engineer

Possible Jobs to Kickstart a career with an EEE degree include:

- Technical Sales Engineer
- Management Consultant
- Business Development Manager
- Information & Communication Technology
- Energy & Clean Power
- & Healthcare
- IT Services
- & Cloud Computing
- Systems Solutions & Integration
- Media Communications & Satellites
- Software & Hardware
- Data Analysis
- Nanoscale to Megawatt Technologies
AN ABUNDANT SPREAD OF CAREER PROSPECTS

A bachelor’s degree from EEE will open up a world of opportunities. Some industries EEE graduates can enter include:

<table>
<thead>
<tr>
<th>Industry</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aviation</td>
<td>Rolls-Royce, Boeing</td>
</tr>
<tr>
<td>Banking &amp; Finance</td>
<td>DBS, OCBC</td>
</tr>
<tr>
<td>Biomedical &amp; Healthcare</td>
<td>Siemens AG, NUH</td>
</tr>
<tr>
<td>Control &amp; Automation</td>
<td>Molex, Continental</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>Intel, IBM</td>
</tr>
<tr>
<td>Electronic Products</td>
<td>Apple, Samsung</td>
</tr>
<tr>
<td>Electronics, Semiconductors &amp;</td>
<td>ST Electronics, NXP Semiconductor</td>
</tr>
<tr>
<td>IC Design</td>
<td></td>
</tr>
<tr>
<td>Information &amp; Communication</td>
<td>Google, Facebook</td>
</tr>
<tr>
<td>Internet Services</td>
<td>AT&amp;T, Singtel</td>
</tr>
<tr>
<td>Machinery &amp; Equipment</td>
<td>Siemens, Continental</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>National Instruments, Singapore Technologies</td>
</tr>
<tr>
<td>Power &amp; Clean Energy</td>
<td>Energy Market Authority, Singapore Power</td>
</tr>
<tr>
<td>Public Administration &amp; Defence</td>
<td>DSTA, HDB</td>
</tr>
</tbody>
</table>

Industries where our graduates excel:

- Electrical Products
- Information & Communication
- Public Administration & Defence
- Finance & Insurance
- Other Engineering Manufacturing or Activities
- Transport Equipment, Transportation & Storage
- Marine & Offshore Engineering + Marine/Shipping
- Education
- Business, Management & Professional Services
- Construction
- Retail/Wholesale Trade
- Electricity, Gas & Air-Conditioning Supply
- Architecture
- Others

Possible jobs to kickstart a career with an EEE degree:

Jobs directly related to an EEE degree include:
- Electrical Engineer
- Electronics Engineer
- Embedded Systems Engineer
- Industrial and Production Engineer
- Industrial Machinery & Tools Engineer
- Information Technology Project Manager
- Information Technology Security Specialist

Jobs in which an EEE degree would be useful include:
- Business Development Manager
- Management Consultant
- Project Manager
- Singapore Armed Forces Personnel
- Software, Web & Multimedia Developer
- Technical Sales Engineer
A VAST ADVANTAGE OF WORLD-CLASS FACILITIES & INDUSTRY MENTORS

Industry confidence in our programmes is instrumental in attracting some of the world’s biggest multinationals to set up corporate laboratories at NTU EEE for joint research.

OUR CORPORATE LABORATORIES OFFER STUDENTS AN OPPORTUNITY TO WORK IN A TOP-NOTCH ENVIRONMENT AND GAIN INSIGHT TO INDUSTRY TRENDS AND DEVELOPMENTS.

CUTTING-EDGE FACILITIES

MENTORING BY BOTH FACULTY AND CORPORATE LEADERS

Therefore students

GAIN HANDS-ON TECHNICAL SKILLS

WORK ON REAL-WORLD PROBLEMS

Joint research laboratories at NTU EEE:
- Rolls-Royce@NTU Corporate Lab
- SMRT-NTU Smart Urban Rail Corporate Lab
- ST Engineering-NTU Corporate Lab
- Delta-NTU Corporate Lab for Cyber Physical Systems
- Satellite Research Centre (SaRC)
AN EXPANSIVE SPACE FOR IDEAS & EXPERIMENTATION

Garage@EEE
A learning laboratory, Garage@EEE serves as an informal resource to cultivate innovation and entrepreneurial spirit within the School of Electrical and Electronic Engineering.

Students will be empowered to take ownership of their own learning, their own projects, and their own paths towards self-discovery. Garage@EEE exists to cultivate a building culture and to bridge the gap between classroom and experiential learning.
A BROAD RANGE OF INROADS TO INDUSTRY EXPERIENCE

Internship Programmes
There is no better way to experience the ways of the world than through immersion. The School’s impeccable reputation is often an inroad to the companies that our students want to intern with. We also have a wide industry network from which students can secure their internships.

OUR INTERNSHIP PROGRAMMES INCLUDE:

- PROFESSIONAL INTERNSHIP (PI)
  - 20 weeks
  - single-degree programme

- PROFESSIONAL ATTACHMENT (PA)
  - 10 weeks
  - second major and double-degree programmes

Design & Innovation Project
The EEE Design & Innovation Project (DIP) is an interesting and practical programme that allows students to explore innovative and creative solutions for engineering challenges. Through DIP, students will learn to design, develop, construct and test innovative electronic, electrical or IT prototypes in a group project environment.

6 THEMATIC PROGRAMMES
WHICH ARE ADAPTED FROM CURRENT TECHNOLOGICAL TRENDS

- SMART ELECTRONICS
- UAV APPLICATIONS
- ELECTROMEDICAL & MOBILE COMPUTING
- PHOTONICS, RADAR & SATELLITE SYSTEMS
- SMART GRIDS FOR RENEWABLE ENERGY
- ROBOTICS
A RICH MIX OF WARM CARE & GREAT FUN

EEE Club
The best of student welfare can be found at EEE Club, which looks after our students’ academic and non-academic needs. Yearly Exam Welfare Packs, interactive workshops and memorable events — including the annual Freshman Orientation Programme and EEE Family Day — are among the many things the Club does to spice up campus life, foster cohesiveness, and build bonds among EEE students.

A GENEROUS SCOPE FOR ADVANCING TALENT

EEE LEAD - Leadership Enrichment And Development Programme
LEAD was set up to develop the leadership and managerial skills of talented EEE students. The programme will expose them to industry best practice and expand their professional network through guidance from external advisors. The community service and humanitarian work which they will participate in also create room for students to experience personal growth and satisfaction.
**A DIVERSE PLETHORA OF OPTIONS & DIRECTIONS**

Our Bachelor of Engineering curriculum at a glance:

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### FULL-TIME

**BACHELOR OF ENGINEERING (EEE)**
- 4-year direct-honours programme
- Offered with a choice of specialisation

**DOUBLE-DEGREE PROGRAMME**
- Bachelor of Engineering and Bachelor of Arts (Honours) in Economics
- 5-year double-discipline programme
- For a multidimensional view of economics and engineering

### SECOND MAJORS

**Bachelor of Engineering with a Second Major in Business**
- 4-year double-discipline programme
- To gain the advantage of a business edge in engineering

**Bachelor of Engineering with a Second Major in Society & Urban Systems**
- 4-year double-discipline programme
- To understand and master the engineering that empowers urban communities

Our programmes are accredited by the Engineering Accreditation Board (EAB) of the Institution of Engineers Singapore (IES), an eminent member of the reputable Washington Accord (WA). Hence, our degrees are recognised by all the signatory countries of the WA, such as the USA, the UK and Australia.

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### THE B.ENG (EEE) CURRICULUM

#### FIRST YEAR

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics 1 &amp; 2</td>
</tr>
<tr>
<td>Physics</td>
</tr>
<tr>
<td>Physics Foundation for EEE</td>
</tr>
<tr>
<td>Introduction to Materials for Electronics</td>
</tr>
<tr>
<td>Introduction to Engineering &amp; Practices</td>
</tr>
<tr>
<td>EEE Laboratory I</td>
</tr>
<tr>
<td>Computing</td>
</tr>
<tr>
<td>English Proficiency*</td>
</tr>
<tr>
<td>Engineering Communication I</td>
</tr>
<tr>
<td>Sustainability: Seeing through the Haze</td>
</tr>
<tr>
<td>Absolute Basics for Career</td>
</tr>
<tr>
<td>GER Prescribed Electives 1 &amp; 2</td>
</tr>
<tr>
<td>Unrestricted Elective 1</td>
</tr>
</tbody>
</table>

*Students who have at least a C6 in GCE ‘A’ Level General Paper and those who pass the Qualifying English Test are exempted.*
## SECOND YEAR

- Circuit Analysis
- Analog & Digital Electronics
- Semiconductor Fundamentals
- Engineering Mathematics I & II
- Signals & Systems
- Data Structures & Algorithms
- Introduction to EEE Design & Project
- Ethics & Moral Reasoning
- Unrestricted Elective 2

Polytechnic diploma holders who are directly admitted to the second year are required to take Mathematics A, Physics A, and Physics Foundation for EEE to strengthen their foundation for the degree programme.

## THIRD YEAR

- Engineering Electromagnetics
- Microprocessors
- Design & Innovation Project
- Internships
- Technical Electives 1 & 2"
- Career Power-Up!
- Unrestricted Elective 3

## FOURTH YEAR

- Final Year Project
- Design & Technical Electives**
- Engineering Communication II
- Engineers & Society
- GER Prescribed Elective 3
- Unrestricted Electives 4 & 5

**Students will choose courses depending on their specialisations.

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## SPECIALISATION:

Students can opt for a broad-based education under 3 main categories, or they can choose an in-depth study of 1 of 8 specialisations.

### ELECTRICAL & SYSTEMS ENGINEERING

- **BIOMEDICAL ELECTRONICS**
- **INTELLIGENT SYSTEMS & CONTROL ENGINEERING**
- **ELECTRICAL POWER & ENERGY**

### ELECTRONIC ENGINEERING

- **INTEGRATED CIRCUIT DESIGN**
- **MICROELECTRONICS**

### INFOCOMMUNICATIONS ENGINEERING

- **COMMUNICATIONS ENGINEERING**
- **COMPUTER ENGINEERING**
- **DIGITAL MEDIA PROCESSING**
Students at EEE have the advantage of enriching their education and life experience through the myriad global exchange programmes that we have with renowned partner universities. Students go beyond the classroom, build up life skills and develop new networks.