高科院 The

CONSTRUCTION, ENVIRONMENT & ENGINEERING

建造、環境及工程學系



PROGRAMME HIGHLIGHTS

- Government-Recognised Applied Degree Programme: Cultivates work-ready engineers for prosperous construction industry with substantial government subsidies.
- Accredited Pathway to Professional Engineers: Provides the fastest track to RPE status, fully accredited by HKIE and meeting EMSD REW Grade C academic requirements.
- Paid Internship Opportunities: Collaborates with industry to enhance student employability and offers extensive real-world experience.
- **BIM Skills Development:** Trains students to master essential BIM and digital construction techniques for success in the job market.
- Networking with Industry Experts: Facilitates student participation in real projects, technical conferences, and competitions to build professional connections.





Core Content

- Al & Data Analytics for Buildings
- Building Information Modelling
- Engineering Ethics & Safety Management
- Project & Engineering Management
- Applied Research Project

- Heating, Ventilation & Air-Conditioning
- Fire Services
- Piped Services
- Power Distribution
- BSE Design Project

Supporting Industrial Partners (The following are some of our key supporting industrial partners)

- ATAL Engineering Group
- BYME Engineering (Hong Kong) Limited
- Chubb Hong Kong Limited
- Chun Lee Engineering Company Limited
- FSE Engineering Group Limited
- InnoTec Engineering Limited
- J. Roger Preston Limited

- MTR Corporation Limited
- REC Engineering Company Limited
- Sanfield (Management) Limited
- Schneider Electric
- Southa Engineering Limited
- Trane Hong Kong
- WSP Asia Limited

Career Prospects

Graduates may pursue positions as Graduate Engineers or Assistant Engineers in:

Government

Engineering
Consulting
Firms

Construction an Engineering Contractors Electrical & Mechanical Contractors

Property and Facility Management Companies Equipment Suppliers & manufacturers

In AY2022/23, the average monthly salary of the BSE graduates was HK\$23,746, and the employment rate was 98.5%.

Work-integrated Learning

Work-integrated Learning (WIL) modules are directed industry attachments that provide powerful learning experiences by integrating theoretical learning with its application in the workplace. Students are required to complete 720 hours of WIL to beeligible for the award of Bachelor of Engineering (Honours) in Building Services Engineering.

*A subsidy of up to HK\$ 89,620 per academic year will be provided to students admitted to an undergraduate Applied Degree programme under Study Subsidy Scheme for Designated Professions/Sectors (SSSDP). Continuing Education Fund (CEF) (for part-time mode study) & On-the-Job Training Allowance Pilot Scheme reimbursement up to HK\$ 25,000 & HK\$ 90,000 respectively.

Professional Recognition

 The programme has been fully accredited by the Hong Kong Institution of Engineers (HKIE). Graduates are eligible to participate in the HKIE Scheme "A" Training.



- Academic programmes accredited by HKIE for the Building Services Discipline are recognised by the UK's Chartered Institution of Building Services Engineers (CIBSE) under reciprocal recognition.
- The programme is accredited by the Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ).
- The programme is recognized by the Electrical and Mechanical Services Department (EMSD) of the HKSAR Government as satisfying the academic qualification requirement for the purpose of registration as Grade C electrical worker.
- The programme is accredited by BSOMES. Graduates can apply for BSOMES Corporate Membership after four years of relevant post-qualification experience, instead of the usual six years.

Work-Study Degree Scheme for Year-1 entry students

This Programme and the Hong Kong Federation of Electrical and Mechanical Contractors (HKFEMC) collaborates to launch the "Work-Study Degree Scheme" for Year-1 entry students. This scheme offers students the unique opportunity to study and work concurrently. Participants will receive a designated monthly salary, and the total work remuneration throughout the four-year programme can amount to HK\$500,000. The primary objective of this initiative is to address the shortage of professionals in the

building services field by enabling students to earn a bachelor's degree while gaining practical experience. Upon graduation, they will possess both theoretical knowledge and practical skills, making valuable contributions to the industry's talent pool.



Work-Study Degree Scheme for Sub-Degree Graduates

Partnering with employers, the Programme offers an alternative articulation pathway and advancement opportunity for relevant sub-degree graduates and working adults to acquire professional knowledge through studying at this Programme and at the same time accumulating work experience while earning an income at workplace, ultimately pursuing a Bachelor's Degree in Building Services Engineering qualification.



Industry Endorsement

"THEI BSE programme cultivates high-calibre building services engineers committed to smart and sustainable development of Hong Kong. Through an applied curriculum, their graduates are well equipped with academic knowledge and practical engineering skills, including BIM. They excel as independent workers and team players, fully prepared for professional challenges in the field. In short, the graduates from THEi BSE are work-ready!"

Ir Prof Victor CHEUNG

President, The Hong Kong Institution of Engineers (2014/15) Director, J. Roger Preston Limited Adjunct Professor, THEI



Student Endorsement

The THEI BEng-BSE programme offers an excellent blend of theory and practical application, providing a flexible learning experience tailored to industry needs. The curriculum is highly relevant, equipping us with knowledge that is actively used in the field. Insights shared by the teaching staff have been invaluable in tackling real-world projects in our companies. Highly recommended!"

Victor SIN

BSE Student in the Work-Study Degree Scheme (2023-2025)
Award of CIBSE Hong Kong Region Student Award 2024
Deputy Property Manager, Sun Chung Property Management Co. Ltd



Student Achievements



HO Kai Chun and Wang Chuen Shing, two exceptional BSE students, were awarded the HKPSWTA Scholarships 2024 for their outstanding academic performance in the Piped Services module.



▲ SIU Tsz Leung, a BSE graduate, won the championship in the BSOMES Research Competition 2024 with his final year applied research project titled "Comparative Analysis of Retrofitting Techniques for Chilled Water Pipes, conducted in collaboration with a BSE company, Universe Engineering (HK) Ltd.



LEE Tsz Chun, a BSE student, and his team unlocked the full potential of his entrepreneurial journey and were awarded the Elevator Pitch Winner in the First THEi-Lions Clubs Enterprise Start-Up Competition in 2023.



AU Cheuk Ying, a BSE graduate, was invited to present her final year applied research project titled "Evaluating the latest light pollution situation in Hong Kong" at the 2023 International Lighting Symposium.

Technical Visits



BSE students were invited to the Hong Kong Innovation Summit, hosted by Schneider Electric, to witness the rapid development of digitalisation and electrification for city's decarbonisation, resilience, and sustainability.



▲ BSE students took part in a technical visit arranged by Kai Shing Management Services Limited to the International Commerce Centre (ICC), where they gained invaluable insights into maintaining normal operations at such a large scale.

Study Tours





We collaborate with ASHRAE-HKC to organise study tours for students, visiting Singapore, Japan, Malaysia and Taiwan over the past few years. The learning experiences gained from interacting with leading experts in the field of building services engineering outside Hong Kong have been greatly beneficial for our students.

Student Life



Engineering requires teamwork. BSE students participate in interactive team-building games outside of lectures to enhance their communication skills.



▲ BSE students have a good relationship with the teaching staff. They joyfully celebrated their graduation in the presence of THEi President, Ir Prof. Alan Lau.