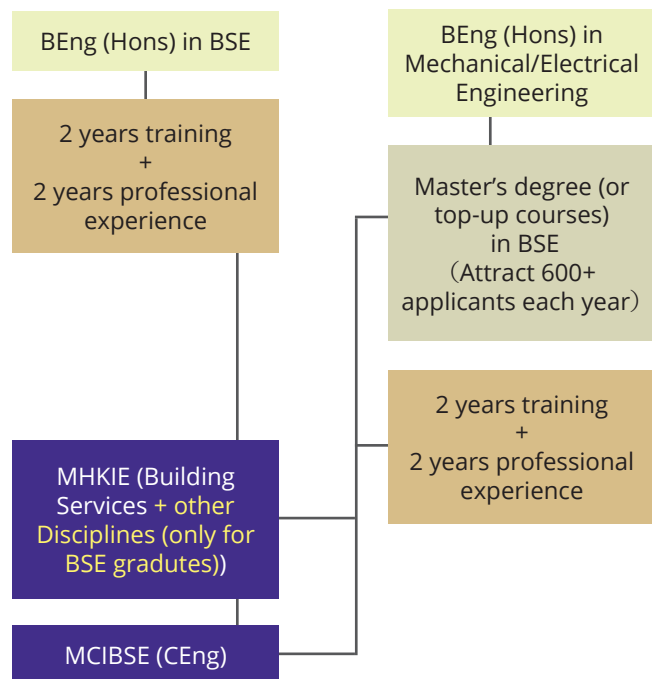
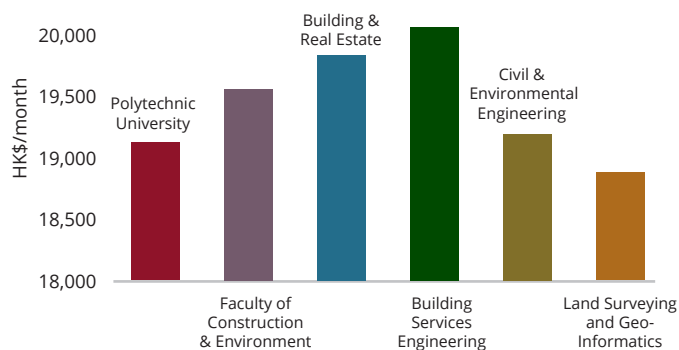


# Difference in Career Path between BSE Graduates and Mechanical/Electrical Engineering Graduates



## Average Salary (2018/19)



Source: [https://www.polyu.edu.hk/caps/es/images/web\\_doc/Poly\\_GES\\_Report\\_2018.pdf](https://www.polyu.edu.hk/caps/es/images/web_doc/Poly_GES_Report_2018.pdf)

**All the above explains why Building Services Engineering is a young, energetic and prosperous profession, and why study Building Services Engineering!!!**



### General Enquiry:

Department of Building Services Engineering  
The Hong Kong Polytechnic University

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[www.bse.polyu.edu.hk](http://www.bse.polyu.edu.hk)

## Department of Building Services Engineering 屋宇設備工程學系



Why Study  
Building  
Services  
Engineering?

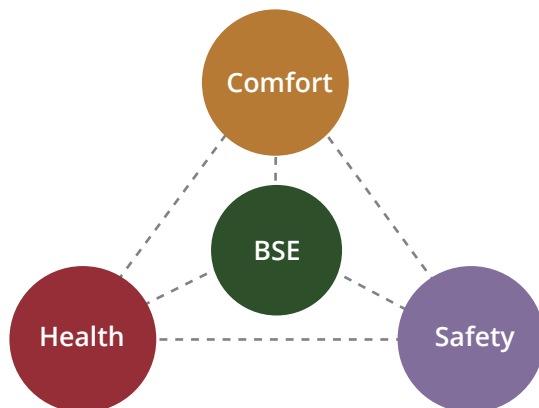


# What is Building Services Engineering?

Building Services Engineering (BSE) is a professional engineering discipline which is closely related to Mechanical and Electrical Engineering and focuses primarily on engineering comfortable, efficient and safe indoor environments whilst minimizing the environmental impact of buildings.

Alternative names for BSE in various parts of the world include Architectural Engineering, HVACR Engineering and Technology, Technical Building Services, Building Engineering, or Facilities and Services Planning Engineering. The term Building Services Engineering is widely used in Hong Kong and in Commonwealth countries (incl. United Kingdom, Ireland, Canada and Australia), but in the United States of America it is usually known as Building Systems Engineering, Architectural Engineering or Building Engineering.

BSE is relatively young and specialist discipline compared to its parent disciplines of Mechanical and Electrical Engineering, however the need for such specialist knowledge has grown exponentially ever since human populations have become urbanised and megacities and conurbations are growing ever larger and more complex. Continuing population growth and urbanisation are projected to add 2.5 billion people to the world's urban population by 2050, with nearly 90% of the increase concentrated in Asia and Africa. Therefore the demand for BSE training is set to grow and grow offering excellent lifelong career opportunities for young people worldwide. Hong Kong Polytechnic University is a globally leading engineering institution providing such training in Hong Kong. The following key statistics show the importance of BSE in the construction and real estate sector.

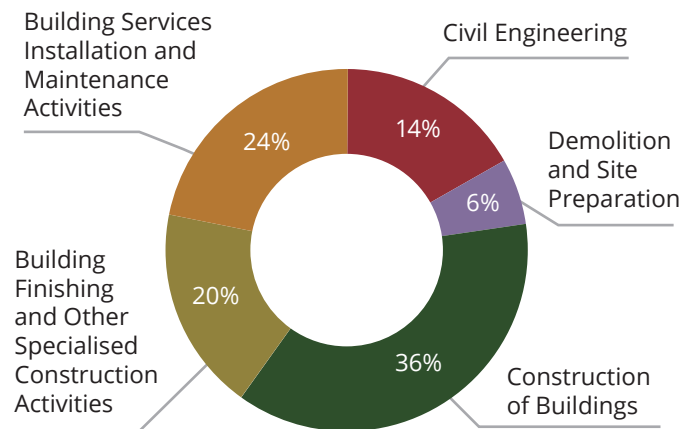


## Employment Statistics by Sector (Dec 2019)



Source: <https://www.statistics.gov.hk/pub/B10500032019QQ04B0100.pdf>

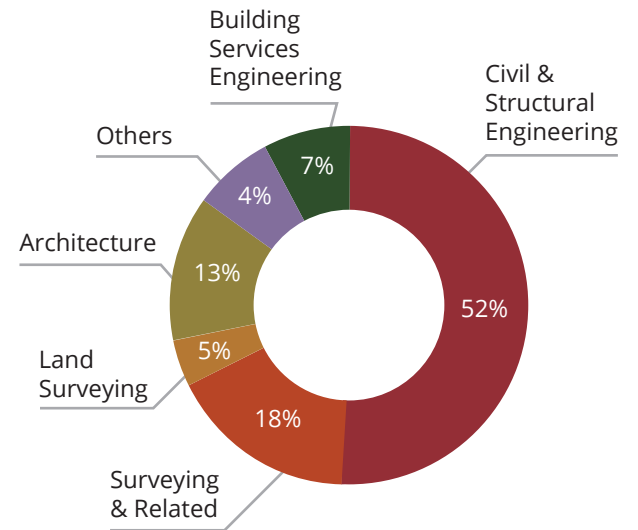
## Contract Sum of Construction Project by Discipline (2018)



Source: <https://www.statistics.gov.hk/pub/B10800112018AN18B0100.pdf>

It can be seen that building services installation and the related maintenance activities contribute to **24%** of the contract sum. Note that this does not include the cost of life-long maintenance of building services installations.

## Intake Quota of Construction-related UGC-funded Programmes (2019/20)



Building services installations account for **24%** of the contract sum and yet student in-take quota is just **7%**. A very large deficit exists!!!

The deficit is mostly off-set by the mechanical and electrical graduates. The intake quota (approximate figures) in different universities are summarized below.

University	Mechanical Engineering	Electrical Engineering
HKU	110	65
HKUST	150	0
CityU	45	0
PolyU	62	39
HKCU	50	50 (Electronic Engineering only)
<b>Total</b>	<b>417</b>	<b>154</b>

The above unveils why each year, the MSc in BSE programme offered by the Department of BSE, PolyU receives over 600 applicants.

Source: <https://www.jupas.edu.hk/en/programmes-offered/by-funding-category>