

DEPARTMENT OF DATA AND SYSTEMS ENGINEERING

Computing in Practice!

INTRODUCTION **OF DEPARTMENT**

Established in 1973, the Department of Data and Systems Engineering (DASE) has consistently been at the forefront of cutting-edge technology, playing a pivotal role in advancing both technology and human life in Hong Kong amid the artificial intelligence and big data revolution. Our commitment is to provide our students with a solid foundation in theoretical knowledge of system analytics and computing, along with the latest cutting-edge technologies in robotics and intelligent systems. We also strive to cultivate their ability to tackle real-world challenges.

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港大學 E UNIVERSITY OF HONG KONG

The department's long history has fostered a powerful alumni network, with around 3,000 students having completed our Bachelor's, Master's, and Doctoral programmes. Inheriting the past and ushering in the future, the department will consistently nurture academic scholars and industrial leaders holding influential positions locally and globally in renowned academic institutions and corporations.

DEPARTMENTAL FOCUSES



creating greater value for humanity.

LABORATORIES









(JS6315) BEng(DASE)

BACHELOR OF ENGINEERING IN DATA AND SYSTEMS ENGINEERING*

Our BEng(DASE) programme* combines fundamental knowledge with advanced technologies to optimise real-world systems across various sectors. The programme offers in-depth instruction in data analytics, decision-making, system automation, and robotics.

The curriculum covers operational research, data-driven optimisation, system simulation, and modeling. It also introduces innovative technologies like artificial intelligence, machine learning, sensor technology, computer vision, and additive manufacturing.

Students gain practical experience through real-world projects and research, pushing technology's boundaries. They learn to integrate theoretical concepts with cutting-edge technology, enhancing their skills in data collection, decision-making, and system automation.

Our graduates are prepared for careers in diverse industries including banking, logistics, robotics, automation, healthcare engineering, and manufacturing.

PROFESSIONAL ACCREDITATION





The BEng(DASE) programme* is accredited by both the Hong Kong Institution of Engineers (HKIE) and the Chartered Institute of Logistics and Transport in Hong Kong (CILTHK).

Graduates can, with proper training and working experience, obtain the status of Registered Professional Engineer. This professional status is recognised through the Washington Accord by the signatories of engineering organizations including the United Kingdom, Ireland, the United States, Canada, Australia, New Zealand and South Africa.

* Programme retitling is pending approval.

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PROGRAMME FOCUSES

PROGRAMME FEATURES

State-of-the-Art Knowledge

- Big data analytics
- Data-driven optimisation
- Operational research
- Statistical analysis
- Systems modeling and simulation
- Quality control and process optimisation
- Project management

Wide-Ranging Applications

- Banking and finance
- Medical and healthcare
- Logistics and transportation
- Robots and automation industry
- Advanced manufacturing
- Construction industry

Cutting-Edge Technologies

- Artificial intelligence
- Machine learning
- Computer vision
- Robotics
- Virtual reality
- Human-machine collaboration
- The internet of things
- Blockchain



CURRICULUM MAP



STUDENT EXPERIENCES

Internship

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Students are required to complete an internship to fulfil their degree requirement. The Department encourages and supports students to do internships and/or work placements overseas.

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Scholarships

The University, the Department and other donors offer a number of scholarships for our qualified students who demonstrate merit, financial need, innovation, entrepreneurship and community involvement.

- BPS Innovation Scholarships
- Himont Prize
- HKU Engineering Alumni Association Scholarship
- Ken K.W. Leung Memorial Scholarships
- Peter H.M. Lau Penultimate Year Scholarship
- Peter H.M. Lau Project Prize
- Quali-Smart Globalization Scholarship



Exchange opportunities

The Department encourages students to explore opportunities to join study abroad programmes which are related to their discipline or which can broaden their global outlook and learn to operate within multi-national settings in the future. The programmes our students have participated in may range from intensive single courses involving two weeks abroad, international competition/research opportunities (e.g. summer studies at Peking University) to semester or year-long programmes (e.g. exchange studies).





FUTURE STUDIES AND FUTURE PROSPECTS

Politics and Government



HON FRANKIE YICK, GBS JP

Member **Functional Constituency - Transport**



Future Studies and Academia

DR ANDY WONG

Senior Lecturer (Associate Professor) in Engineering Management



University of Strathclyde



IR PROF EDWIN CHENG

Dean **Faculty of Business**





PROF DR DICKY SHEK

Professor of Practice (Management Information Systems)



MS AUDREY FEBRINA

HSBC

MR PETER CHOY Vice President, Supply Chain &

Sustainability

Digital Innovation Graduate Trainee



MR JIAN WU PhD Candidate





MS AARUSHI GOYAL MS in Enterprise Risk Management Student

COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK



MR BERT LAI Executive Director of Strategic Sourcing Supply Chain Services







IR DR ALVIN LAI Chief Operating Officer



Services, Logistics and Transportation



IR PETER CHAK

Former Vice Principal Towngas Training Institute



MR XAVIER LAM

Management Trainee

Banking and Finance



MS FION HUI

Executive Director Markets Coverage Group, **Investment Management Division**

Goldman Sachs







MR HENRY FONG Manager



MS STEFANI BENEDICTA

Technology Graduate Trainee





IR STEWART CHUN Chief Technology Officer Technology and Quality Control Division





MS DOROTHY LAU Vice President **Toys & Hardlines**





IR VINCENT CHEUNG President





MR HOWARD CHAN Head Nestlé Professional, Hong Kong & Macau







MR LEO POON Vice President









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