



香港大學  
土木工程系

Department of  
**CIVIL ENGINEERING**  
The University of Hong Kong



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# Head's Message

PROFESSOR W. PAN

Since the establishment of The University of Hong Kong and the Faculty of Engineering in 1912, the Department of Civil Engineering has nurtured many brilliant leaders in the civil engineering discipline and made significant contributions to the local and overseas community. To embrace future challenges, the Department is always looking ahead to enhancing its goals in education, research and knowledge exchange in order to keep abreast of the ever-changing demands of society. The current development of the Department synchronizes well with the needs of creating the next generation of industrial and scholarly leaders in civil engineering. This has been evident in the faculty qualifications and strategic expertise, world-leading research breakthroughs, pioneering role in interdisciplinary education, solid industrial collaboration with an innovative nature, strong outreach momentum contributing to community engagement, and high recognition reflected by the ranking outcome.

Today, the Department has 30 academic staff, around 400 undergraduate and 600 postgraduate students. The Department provides versatile programmes including the Bachelor of Engineering degree in Civil Engineering; Master of Science in Engineering (Civil Engineering); Master of Philosophy (MPhil) and Doctor of Philosophy (PhD).

The innovative 4-year undergraduate curriculum is designed to equip students with knowledge beyond the traditional civil engineering subjects. Recently we have introduced a new course on "Artificial intelligence in civil engineering", which has been well received. Building Information Modelling (BIM) is a tool that is increasingly being used in all building projects in Hong Kong. Last year, we also introduced an elective course on "BIM management for civil engineering", giving our students

the opportunity to learn more in depth knowledge. Other than these hot topics, we also offer the double degree in Business; the minor programme in Urban Infrastructure Informatics and 3 focuses on Environmental Engineering; Smart Transportation and Logistics; and Urban Informatics.

Since 2004, the Department has established Project Mingde, the University's flagship Experiential Learning programme. Arrangements were made for our students to take up the design and construction of real-life projects in Mainland China, locally or overseas. All the projects were all built in impoverished areas for the less fortunate. Through the programme, the educational goal of bringing real project into the classroom and vice versa, bringing the classroom into the project, is realized. To date 13 building projects have been successfully completed in the Mainland, with 5 additional facilities built in Vietnam. Owing to the pandemic, Project Mingde embarked on the first local project in 2022 and completed the renovation of St. Barnabas' Society and Home in Shek Tong Tsui.

Our Department has two strategic research focuses: (a) Modular Integrated Construction (MiC) and Digital Technology and (b) Sustainable and Smart Infrastructure.

The accelerated urbanization and rapid economic growth have witnessed an increasing demand for resources, ranging from housing, clean water, energy to various infrastructure systems. Climate change and infrastructure systems are closely tied together and minimizing the greenhouse gases footprint of these systems is key to mitigating climate change.

Civil infrastructure systems are a backbone of society, and they are also major users of energy that needs to be reduced for a more

sustainable development. Infrastructure systems are also vulnerable to climate change such as increasing frequency and intensity of extreme weathers. How to make infrastructure systems more sustainable and resilient to natural disasters caused by climate change (e.g. extreme temperature, floods, typhoons, storms and landslides) is essential to the safety and welfare of our society, especially because Hong Kong is in a coastal area and prone to typhoons. Addressing these challenges calls for innovative approaches, such as MiC, BIM and digital building engineering, and green technology.

Our research integrates the key areas including climate change, carbon neutrality, MiC, sustainable infrastructure, and digital building engineering, water and environmental engineering. It also encompasses all components of civil engineering: from a fundamental understanding, through assessment of impacts, to the development of improved or new technologies and solutions.

The Department has continuously attracted top students and earned a good reputation in both academia and industry. We ranked 22<sup>nd</sup> globally under the QS University Subject Ranking 2022 in the subject area of Civil and Structural Engineering. With the continued growth in the local construction industry, there is a great demand for civil engineers and many opportunities for young and enthusiastic civil engineers to participate in the infrastructure developments in Mainland China and overseas. The Department of Civil Engineering will continue to devote itself in improving our teaching, research, knowledge exchange and community service for the betterment of our society.

*October 2023*

# Teaching & Learning

## UNDERGRADUATE PROGRAMME

In line with the changing roles of civil engineers, the undergraduate programme is now becoming more versatile. Besides the main stream civil engineering programme, students may also take a minor programme from a range of disciplines, such as Business, Finance, Economics or Urban Infrastructure Informatics. A double degree in BEng in Civil Engineering and Bachelor of Business Administration (BBA) is also available. All courses are fully accredited by The Hong Kong Institution of Engineers. At HKU, we emphasise on creative and critical thinking and problem-solving skills, and our Department will continue with the fine tradition of nurturing the next generation of leaders in the civil engineering profession through our undergraduate programme.

observe  
and after





## POSTGRADUATE PROGRAMMES

### Research Postgraduate (RPg) Programmes

The Department offers world-class research postgraduate (RPg) programmes for degrees of Master of Philosophy (MPhil) and Doctor of Philosophy (PhD). RPg studies are supervised by leading researchers in various areas of civil engineering, including environmental, geotechnical, structural, transportation engineering and construction engineering and management.

### Taught Postgraduate (TPg) Programmes

The Master of Science in Engineering (Civil Engineering) Programme is a part-time / full-time postgraduate programme providing advanced education in the field of civil engineering. The programme aims at providing in-depth theoretical and practical education for graduates aspiring to pursue professional careers in civil engineering, and for practising civil engineers to advance and update their knowledge. The General Stream provides students with a platform to acquire multi-disciplinary knowledge in Environmental Engineering, Geotechnical Engineering, Infrastructure Project Management, Structural Engineering and Transportation Engineering. Three specialised streams of studies are also offered in Environmental Engineering, Geotechnical Engineering and Structural Engineering.

# Research Activities



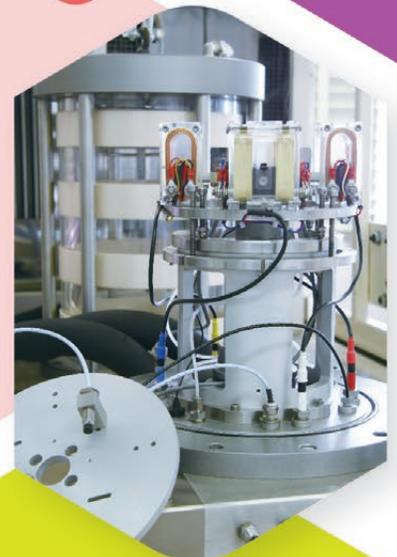
« Stonecutters Bridge

## STRUCTURAL ENGINEERING

Computational mechanics; finite element and finite strip analysis; earthquake engineering; tall buildings; modular buildings; bridge engineering; concrete technology and reinforced concrete structures; fibre-reinforced polymer composites; steel structures and fire resistance of metal structures; concrete-filled composite structures; soil-structure interaction; computer-aided design/analysis; strengthening and repair of civil engineering infrastructure; RC structures under fire; semi-rigid joint connections; structural defect detection and quantification; low-carbon construction materials; durability and sustainability of infrastructure.

## GEOTECHNICAL ENGINEERING

Soil/structure interaction - foundation engineering, tunnelling, cavern engineering, monitoring; rock and slope engineering - landslide investigation, mitigation; ground improvement; geoenvironmental engineering; soil mechanics – micromechanics, unsaturated soils, functional soils; soil dynamics – liquefaction, earthquake ground response, dynamic soil-structure interaction; advanced testing – field testing, field studies, laboratory testing; numerical modelling of geomaterials – constitutive modelling, continuum modelling, discrete element modelling; energy infrastructure – offshore wind energy, geothermal energy, carbon sequestration and storage.



Resonant column testing system for soil dynamics research »



## WATER AND ENVIRONMENTAL ENGINEERING

Hydrology; environmental hydraulics and fluid mechanics; climate extremes; natural hazards; water quality modeling; advanced water and wastewater treatment; environmental biotechnology; solid and hazardous waste management; material resources recovery; environmental impact assessment.

## TRAFFIC AND TRANSPORTATION ENGINEERING

Bike sharing and network design; continuum modeling in transportation; dynamic traffic assignment; green and smart transportation; public transportation; road safety; taxi; traffic and pedestrian flows; traffic management and control; traffic signals; transportation demand modeling; transportation, land use and the environment; transportation logistics; transportation network design; transportation network reliability and resilience; transportation systems engineering.



The Hong Kong Transportation System »

## CONSTRUCTION ENGINEERING AND MANAGEMENT

Smart and sustainable construction engineering and management; modular integrated construction (MiC), prefabrication, project delivery, construction productivity and performance, innovative construction technologies, lean construction; net zero carbon, lifecycle assessment, circular construction; smart and sustainable infrastructure, infrastructure asset management; construction informatics, construction automation and robotics, digital twin, building information modeling, AI for construction.

« HKU Centre for Innovation in Construction & Infrastructure Development (CICID) Celebrates 20<sup>th</sup> Anniversary with “Capacity, Innovation, Smart and Sustainability” Conference

20

CICID 20<sup>th</sup> ANNIVERSARY  
(2002-2022)  
Hong Kong 2050 – A City for the People:  
Capacity, Innovation, Smart & Sustainability  
12 December 2022  
The University of Hong Kong

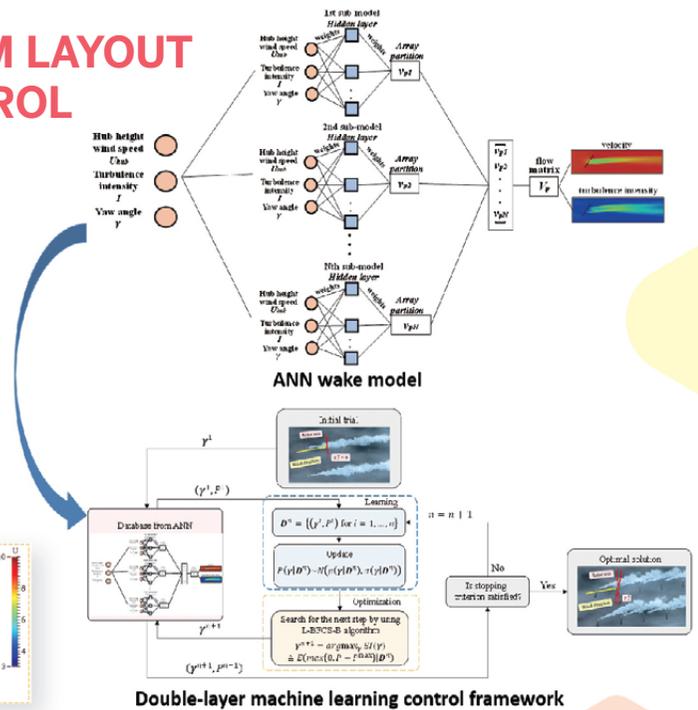
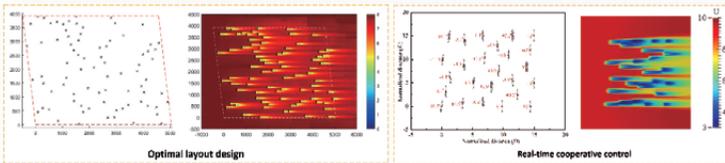
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# Recent Research Projects

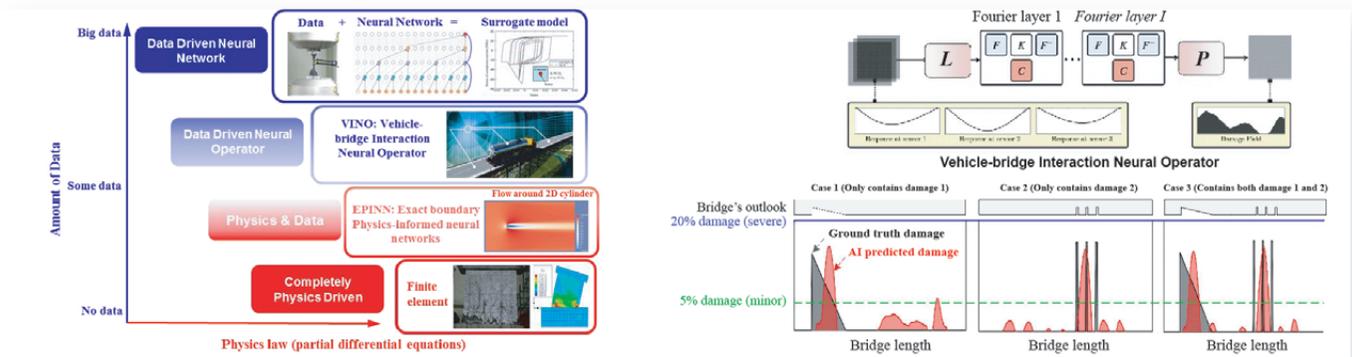
## AI FOR SMART WIND FARM: FROM LAYOUT DESIGN TO COOPERATIVE CONTROL

Massive CFD database feeds the ANN wake model for accurate and efficient prediction of the wake field. Based on the machine learning wake model, a data-driven layout optimization framework and a double-layer machine learning control framework are established to compose a comprehensive optimization framework for the large-scale wind farm. The above comprehensive wind farm optimization framework can remarkably improve the energy performance of large-scale wind farms to promote the long-term development of offshore wind power.



## AI FOR SCIENCE: EXACT DISPLACEMENT BOUNDARY PHYSICS-INFORMED NEURAL NETWORK (EPINN) AND NEURAL OPERATORS FOR PARTIAL DIFFERENTIAL EQUATIONS

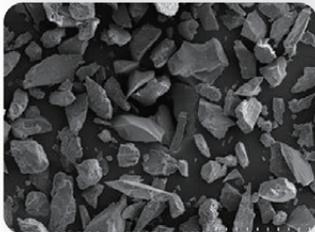
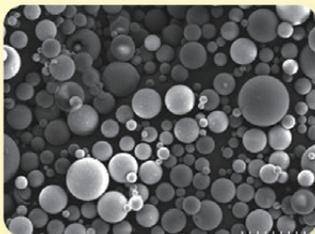
Vehicle-bridge Interaction Neural Operator (VINO) as digital twin of bridges. Based on laboratory tests and transfer learning, VINO learns mappings between structural response fields and damage fields. After VINO was pre-trained by finite element simulation dataset and fine-tuned by experimental dataset from the bridge at the healthy state, inverse VINO can determine, localize, and quantify damages in all scenarios, suggesting the practicality of data-driven approaches with more than 100 times speedup. In addition, the Exact Dirichlet boundary condition Physics-informed Neural Network (EPINN) is proposed to achieve efficient simulation of solid mechanics problems based on the principle of least work without the need of labeled data.



[1] EPINN. <https://doi.org/10.1016/j.cma.2023.116184> [2] VINO. <https://doi.org/10.1111/mice.13105>



» Laboratory testing

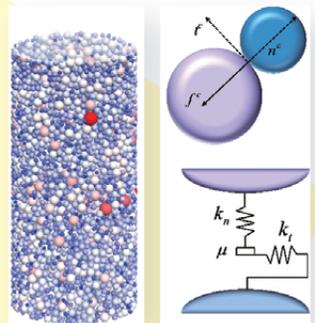


» Some of test materials

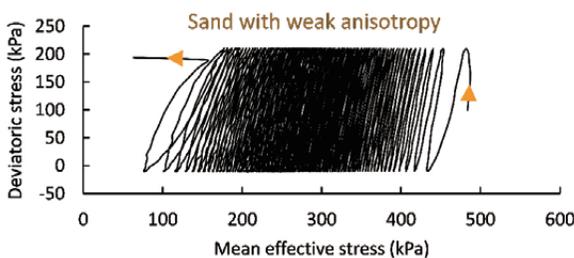
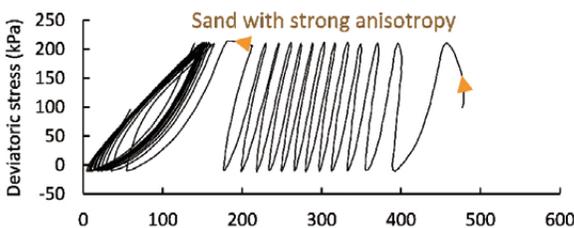
## TOWARDS A COMPREHENSIVE UNDERSTANDING OF GRANULAR SOIL BEHAVIOUR

In many major geotechnical applications, such as the design and construction of hydraulic fills for artificial islands or dams and the installation of large foundations for offshore energy structures, geotechnical engineers and researchers have to deal with the complex behavior of granular soils (e.g. sand) under various loading conditions and to ensure that any failures of these engineering structures would not occur. This is a challenging task because soil is a natural rather than manufactured

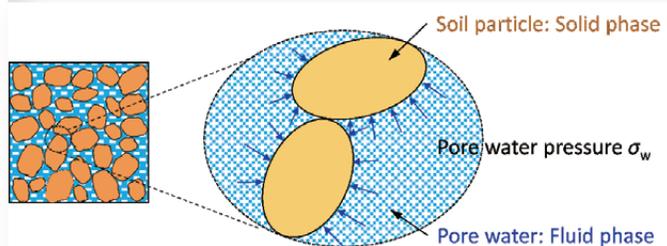
material and its overall behavior is influenced by many factors. A salient feature of granular soil, which is of scientific fascination, is that a mass of granular soil can exist over a range of densities at constant stress and the spectrum of states corresponds to a variety of responses, ranging from flow liquefaction failure (fluid-like behavior) to strain hardening (solid-like behavior). This complexity originates mainly from the particulate nature of soil, that is, the overall mechanical response of soil is highly dependent on the packing patterns (fabric) and interactions of the constituent soil particles. This long-term research uses experimental, theoretical and computational approaches to deepen our understanding of the diverse behaviors of granular soils. The findings and results will contribute to the development of more reliable and cost-effective geotechnical designs. A number of publications in the leading geotechnical engineering journals have been resulted from this research. The research has received support from the Research Grants Council of Hong Kong and the National Natural Science Foundation of China.



» Computational modeling

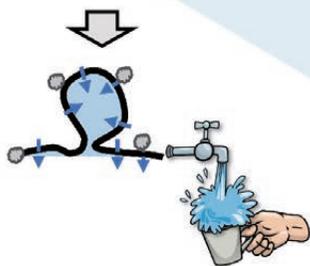
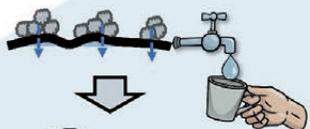


« Cyclic loading behavior of water-saturated sand



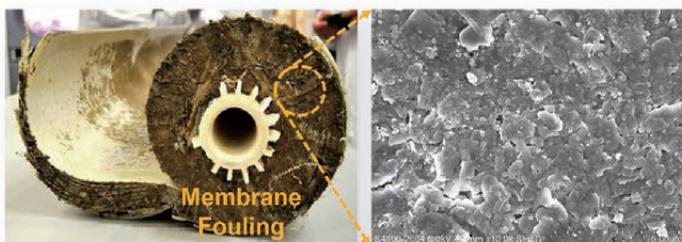


≈ Desalination plant



≈ Enhancing anti-fouling performance by tailoring membrane surface

≈ Fouled membrane and its surface micrograph



## ADVANCED MEMBRANES FOR WATER TREATMENT AND ENVIRONMENTAL APPLICATIONS

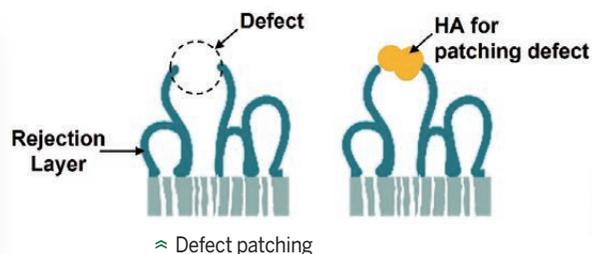
Global water scarcity and pollution cast serious threats to the environment and human society, with 2.1 billion people worldwide do not have access to clean, safe drinking water. To address the dilemma of vast water demand but unbalanced water supply, membrane-based filtration technologies like nanofiltration (NF) and reverse osmosis (RO) have played an indispensable role in providing alternative freshwater sources by seawater desalination and water reuse. However, NF and RO membranes have been facing critical challenges like (1) strong fouling propensity and (2) insufficient removal to pathogens and micropollutants, which harm filtration efficiency and pose serious risks to public health.

This project aims to deliver advanced membranes with tailored surface structures to enhance their anti-fouling performance and membrane integrity. Novel strategies such as (1) nanofoaming chemistry (e.g.,



gas precursor-assisted membrane fabrication) and (2) defect-healing methods (e.g., humic acid patching) were developed to (1) tailor membrane surfaces for anti-fouling purposes and (2) improve membrane integrity for higher rejections of micropollutants. The advanced membranes with anti-fouling properties and high selectivity can be applied in various applications, such as rejecting endocrine disruptors in water reuse, retaining boron in seawater desalination, and extracting lithium from salt lakes. This project can potentially result in major improvement in membrane selectivity and enable a wide range of promising applications including desalination and water reuse.

The research works received support from the Research Grants Council of Hong Kong (SRFS2021-7S04, GRF 17206122, and PDFS2223-7S02) and Innovation and Technology Fund of Hong Kong (GHP/181/20GD).



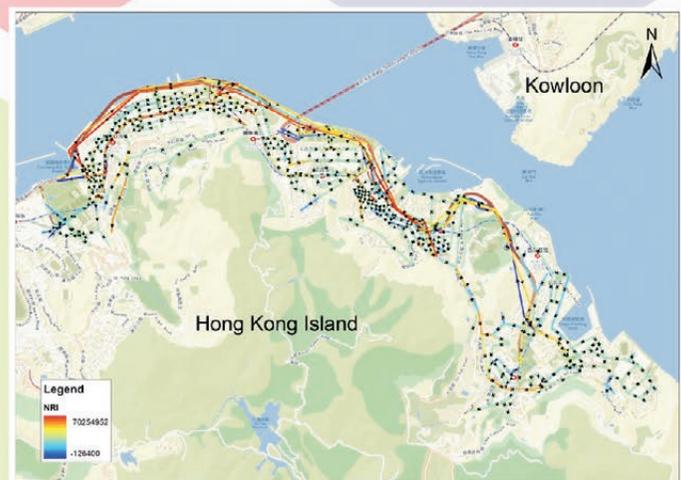
≈ Defect patching

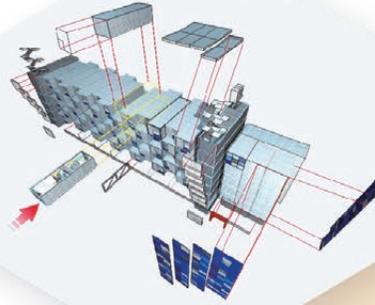
## A SOFTWARE TOOL WITH A STRATEGIC APPROACH FOR IDENTIFYING CRITICAL TRANSPORT INFRASTRUCTURES AND BUILDING RESILIENCE OF URBAN TRANSPORT SYSTEMS



Transport infrastructures often fail to ensure smooth and quick movements of goods and people due to man-made or natural disruptions, such as heavy rains, typhoons, train operation failures, and traffic accidents. This 2-year project, which was jointly funded by Arup China and the Innovation and Technology Commission, aims to develop a software tool to systematically identify the critical transport infrastructures under disruptions, determine the ranking of these infrastructures, the maximum impact of each infrastructure failure, and build resilience of urban transport systems cost-effectively. This tool is particularly suitable for the applications to Asian cities, such as Hong Kong, with multimodal and dense transport networks. Case studies of Eastern District in Hong Kong is carried out to illustrate the usage and functions of the tool, mitigate the potential impacts of the disruptions to the current transportation system, and give recommendations to improve this system. The project can help (1) improve the reliability of supply chain and other transport related services, (2) minimize the losses of Hong Kong economy and productivity, the business of private companies, and time of people due to disruptions, (3) minimize the reduction of mobility of goods and people during disruptions, as well as (4) effectively allocate the limited budget to build and maintain transport infrastructures.

The following figure illustrates the results for Eastern District in Hong Kong. NRI is the difference in total travel time of all flows in the entire network after and before the removal of the link concerned. The higher the value of NRI, the more the critical the link is. According to the figure, majority of links with high NRI values are located along on Island Eastern Corridor and King's Road, meaning that they are critical from the perspective of resilience. Measures should be set up to mitigate the impacts due to the complete blockage of these major sections.





« Courtesy of CIMC »

## OPTIMIZING TOTAL FACTOR SUSTAINABILITY OF TALL RESIDENTIAL BUILDINGS THROUGH INNOVATIVE MODULAR INTEGRATED CONSTRUCTION

Professor Wei Pan formally introduced the modular construction approach to Hong Kong in the Spring of 2017 and co-created the concept of “modular integrated construction (MiC)” with the Development Bureau of the HKSAR Government. MiC has been adopted in the Chief Executive’s Policy Address every year since 2017. Professor Pan’s team provided theory, methodology, and guidance to support the “0-to-1” MiC creation. They have also made significant contributions to the “1-to-∞” MiC adoption by leading cutting-edge research on higher-rise, higher-density, higher-tech, and higher-co-creation development of MiC, organizing numerous knowledge exchange activities from which the government and industry have benefited, providing systematic solutions and advice for MiC projects’ planning, design, delivery and measurement, and encouraging MiC supply chains regionally and globally. The Government Policy Address 2017 proactively promotes the adoption of MiC. However, there are various technical and social challenges such as engineering complexity for high-rise and tall buildings, onerous design codes, geographical constraints and complex supply chains.

One of the scientific research projects in MiC (supported by Hong Kong Research Grants Council, CRF, C7047-20G) is to address the fundamental question: “Can innovative MiC help to optimize the sustainability of tall residential buildings, and how?”. This project has three objectives: (1) To create a new Total Factor Sustainability (TFS) concept for tall residential buildings, which is based on the theory of system dialectics, construct a TFS measurement framework by integrating environmental, social, and economic sustainability and stakeholder value, and establish a novel TFS methodology and index to be optimized using AI-based methods; (2) to establish the scientific fundamentals of innovative MiC in delivering sustainable tall residential buildings which enable innovations in the four aspects: structural design, structural materials, embodied carbon, and operational energy; and (3) to develop and validate MiC engineering solutions for optimizing the TFS through laboratory testing and real-life project action research that maximizes the research impact.



Courtesy of AMS »

# Student Activities

## CIVIL ENGINEERING SOCIETY

Civil Engineering Society (ENS) was established in 2001. As a student-run and academic-oriented organization, the society endeavours to support members' academic and career development, and is committed to promoting welfare. In addition, the society acts as a bridge between members and Department of Civil Engineering, along with external bodies. The society also aims to shoulder the mission of promoting civil engineering to the public.



« HKU x HKIE Career Sharing »



« 2021 Civil Annual Dinner »

The activities held are generally divided into three parts, namely academic, social and welfare. Speaking of academic activities, visits and talks were put forward. It is hoped that members' understanding of the daily operation of infrastructure can be enhanced, thereby increasing their competitiveness. In terms of social events, Superpass Day was held with the aim of relieving the stress of our fellow members, strengthening their bond and increasing their sense of belonging to the Society.

Upcoming major events include Orientation Series, Civil Annual Dinner and Welfare Week. Not only do these events promote civil engineering to participants, but also facilitate fresh undergraduates to assimilate into university life.

## BIM COMPETITION

Building Information Modelling (BIM) has gained great popularity in the construction industry of Hong Kong in the past decade, and its key driver, the Construction Industry Council (CIC), has been organizing the annual BIM Competition since 2019 to promote the use of BIM to tertiary students through a collaborative and competitive learning approach. In the competition, teams of students are to develop innovative design solutions to a construction-related problem with the use of BIM within a limited timeframe, and the teams are to compete for the best design. Many of our students have participated in the competition over the years and received various awards, including champion, first, and second runner-up, for their excellent performance in the competition. The fruitful experience that these students gained would be beneficial to their future careers as engineers.

Champion-winning design by a team of HKU students from Civil Engineering » and other disciplines. (Photo credit: Construction Industry Council)





## EXPERIENTIAL LEARNING – PROJECT MINGDE

Project Mingde is a pioneer program of experiential learning to provide our students with the opportunity to apply and utilize their knowledge and skills gained in the classroom to hands-on multi-disciplinary Civil Engineering projects in the process of becoming competent and accountable engineers. Also through participation in real-life projects, students understand the needs of the society; learn how to communicate with different parties and to contribute to the society with their own efforts and expertise. This experience will not only fortify their confidence and interests in the Civil Engineering discipline but also give them a sense of satisfaction while caring for the society.

Since 2003, over 500 university students, teaching staffs and alumni have deeply involved into nine projects in Mainland China namely the Mingde Building, the Gewu Building, the Zhengdong Jie Kindergarten, the Chaoyang Bridge, the Mingde Pan Cultural and Community Centre, the JWDA Building, restoration of the Tencun Bridge, restoration of the Wangdong Bridge, and the Duling Primary School restoration and expansion, five projects in Vietnam namely the Sanitation Facilities at Tan Hung Secondary School, the Cuong Chinh Secondary School Library, the Trung Dung Primary School Library, the Sanitation Facilities at Trung Dung Secondary School, and the Trung Dung Secondary School Swimming Pool, as well as one project in Myanmar, the feasibility study for a low impact water supply system at a school site in Dagon Seikkan Township.





Some children were attending »  
their swimming class in the  
new swimming pond

## Mainland China

Project Mingde has completed several projects in Mainland China, and the latest one is JWDA Building (Daping Primary School Teacher Quarters) to improve the learning and teaching environment of a local village. There are 9 teachers and 230 students in the school. As many students lived in villages which might be a few kilometers away from the school, there are strong demand for on-campus accommodation. Due to lack of spaces, teachers could only live with students in the two-storey student dormitory during teaching weeks and only 80 students could be accommodated. As such, a classroom in the teaching block, which did not have any water supply and sanitation facilities, was used as the boys' dormitory. To address the accommodation needs for both teachers and students, Project Mingde helped demolish the old kitchen in the teaching block and build a new three-storey building of teacher accommodation. After the construction, 10 teachers moved in the new teacher quarter whereas the existing student dormitory could accommodate 40 more students. The living environment and condition has been improved.

## Vietnam

Project Mingde collaborated with Faculty of Social Sciences, Department of Comparative Literature and World Vision Vietnam to launch a Vietnam Summer Internship Program in summer with 16 undergraduates (10 from Department of Civil Engineering, 5 from Faculty of Social Sciences and 1 from Department of Comparative Literature) participated. It consisted of three components: (1) Participating in the construction works of swimming pond; (2) Voluntary teaching to Vietnamese school children; and (3) Conducting needs assessment at local villages. A rounded-edge rectangular swimming pond (32.5 meters times 25 meters in dimension) was built to enhance the safety and sanitation of the existing natural pond for facilitating swimming education for Trung Dung commune and supporting the child drowning prevention scheme. With the knowledge learnt in class, our students put understandings into practice. Throughout the construction, they gained some hands-on experiences, had a full understanding of the entire construction procedure, and played a role as resident site staff to communicate with different stakeholders of the project. In addition, they offered six child injury prevention lessons to the local school children.

## Summer Camp

In addition, we organized a summer camp every summer. Our students spent their time in our built schools for voluntary teaching and providing health care services. It was an extraordinary experience for them to sleep at the school in a remote village without electricity at night and hot water supply, and now they have a better understanding on the poor living condition of local villagers in impoverished regions. This kind of opportunity moves our students out from an extreme comfort zone within a glass house and allows them to reflect on their situations and the value of life in a different light. Their insights are thus widened and deepened, their personal characters strengthened.



Voluntary teaching ≈  
at school in the  
summer camp ≈



## INTERNSHIP PROGRAMMES

All civil engineering undergraduate students have to complete at least 4 weeks of internship and the Mandatory Basic Safety Training (MBST) course as part of the Bachelor of Engineering Civil Engineering degree programme. Most students would take their training in Hong Kong while some would go abroad. They usually work as engineers' assistants with consultants or contractor firms. In recent years, students have had some new training programmes held in Beijing, Shanghai and Shenzhen.



« Students visiting a slope upgrading site for landslip prevention in Hong Kong

Site visit to highway widening » site in Hong Kong



# SITE VISITS AND FIELD TRIPS



« Students visiting a foundation construction site in Hong Kong



« Site visit to a slope upgrading site for landslip prevention in Hong Kong  
Technical Visit to Ching Ma Control Area »



港大土木  
Civil Engineering Society, ENS, HKU  
香港大學 工程學會土木工程學會

# Student Awards

**Mr. Louis Brighton** (Grad June 2022) was awarded the Merti Prize, Best Final Year Project Award, HKIE Civil Division.

Mr. Louis Brighton, our undergraduate with first class honors from the class of 2022, received the 2023 Fugro Prize from the Geotechnical Division Committee of the Hong Kong Institution of Engineers. Louis presented his from his final year project entitled, "Application of Transient Seepage Analysis for Groundwater Design of Slope". Louis was supervised and encouraged by Dr. Clarence E. Choi to participate in the competition. The Fugro Prize was established and organized with the very generous support of Fugro (Hong Kong) Limited to promote and encourage young geotechnical engineers in Hong Kong to recognize geotechnical, study, research or project work with significant contributions to the advancement of the geotechnical practice. The prize is an annual award for the best paper in geo-data, geotechnical and/or geo-environmental engineering.



« Daryl receiving the award from Mr. Fong Hong-Shing

**Mr. Daryl Kevin**, a civil engineering graduate (Class of 2022) was nominated for the HKIE Civil Division Best FYP Award and won the Grand Award. His FYP project was on the Seismic Performance of Precast Concrete Segmental Bridge Piers with Resettable Sliding Joints. The Project attempts to improve the seismic resilience of bridge piers by providing sufficient seismic isolation mechanism to minimize damages from earthquakes. Supervised by Professor F.T.K. Au and his team, he conducted a series of shaking table tests and numerical simulations to assess the performance of the scheme.



**Ir LEE Ming Kiu, Owen**, the former class representative of the class of 2013 of BEng (CivE), is the first engineer in Hong Kong who has received both **CIC Young BIMers 2020** and **Autodesk Young BIMer of the Year 2020** through his vision and involvement in driving BIM adoption as well as his contribution and achievement in the promotion of BIM in Hong Kong. He is one of the youngest CIC-Certified BIM Managers (CCBM). He is a Registered Professional Engineer, Chartered Civil and Geotechnical Engineer, Civil Engineering Surveyor, Registered Ground Engineering Professional and Accredited Adjudicator with extensive experience in tendering, construction, engineering design, contract administration and BIM management of mega infrastructure projects.

Owen is the Resident Engineer (PROG/BIM) of AECOM, leading the digital transformation, BIM adoption and construction innovation of the DC/2018/05 – Relocation of Sha Tin Sewage Treatment Works to Caverns – Site Preparation and Access Tunnel Construction. He is an advocate of adopting BIM in engineering design, construction planning and safety. The project has also been selected as the CIC BIM Projects 2020 and Autodesk BIM Awards 2020 - Honorable Mention.



Owen is also committed to share his BIM knowledge and connect with the industry. He is currently the Lecturer (Part-time) at the Technological and Higher Education Institute of Hong Kong (THEi) and Hong Kong Institute of Vocational Education (IVE) teaching BIM and construction management. He is a member of the BIM dispute committee of the HKICAdj and a professional member of HKIBIM and HKICBIM.

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### UNDERGRADUATE PROGRAMME

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