

**Appendix 1: Photos of the presentations of various awards**



The Honorary Fellow 2025 Ir Dr Andrew K C Chan (R) with President Ir Eric MA (L)



The Honorary Fellow 2025 Ir Prof Alexander P K Wai (R) with President Ir Eric MA (L)



Recipient of The HKIE Gold Medal Ir Stephen W K Chik (R) with  
President Ir Eric MA (L)



President Ir Eric MA (L) presenting Ir Duncan W O Wong (R)  
with President's Award 2025



President Ir Eric MA (L) presenting Ir Dr Zheng Pai (R) with Young Engineer of the Year Award 2025



Secretary for Development Ms Bernadette Linn (1st left), Secretary for Housing Ir Winnie Ho (2nd right), Secretary for Innovation, Technology and Industry Ir Prof Sun Dong (1st right), President Ir Eric Ma (2nd left), and the awarded project representative of "The HKIE 50th Anniversary Legacy Award" (Industrial)



Secretary for Development Ms Bernadette Linn (2nd left),  
Secretary for Housing Ir Winnie Ho (4th right),  
Secretary for Innovation, Technology and Industry Ir Prof Sun Dong (3rd right),  
President Ir Eric Ma (3rd left), and the awarded project team of  
“The HKIE 50th Anniversary Legacy Award” (Infrastructure)



Secretary for Development Ms Bernadette Linn (1st left),  
Secretary for Housing Ir Winnie Ho (2nd right),  
Secretary for Innovation, Technology and Industry Ir Prof Sun Dong (1st right),  
President Ir Eric Ma (2nd left) and the awarded project representative of  
“The HKIE 50th Anniversary Legacy Award” (Innovation)

## **Appendix 2: Biographies of the recipients of the HKIE Awards**

### **The HKIE Honorary Fellow 2025: Ir Dr Andrew K C Chan**

**Ir Dr Andrew Chan Ka Ching** is an eminent civil engineer of international stature, with a career spanning nearly 50 years. He has held major leadership roles in the Arup Group, including Chairman of the Hong Kong Office and East Asia Region, Deputy Chairman of the global Arup Group, and Chairman of the Arup Board of Trustees.

His contributions to the city's engineering landscape include the Hong Kong Bank Building, International Finance Centre, and International Commerce Centre towers, as well as major mass transit and infrastructure projects. A pioneer in Mainland China since the early 1980s, he has played pivotal roles in advancing Hong Kong engineers' expertise across Asia. The iconic 2008 Beijing Olympics venues serve as a notable example.

A Past President and Gold Medallist of HKIE, he has also led sustainability and green building initiatives, serving as Founding Chairman of Hong Kong Green Building Council. A Justice of the Peace, he was awarded the Bronze Bauhinia Star for his contributions to engineering and the built environment.

### **The HKIE Honorary Fellow 2025: Ir Prof Alexander P K Wai**

**Ir Prof Alexander Wai Ping Kong** is a distinguished academic leader and an eminent figure in photonics and optical communications. With a stellar record in academic leadership and research innovation, he is dedicated to fostering transdisciplinarity and STEAM education while enhancing Hong Kong's higher education.

Joining The Hong Kong Polytechnic University in 1996, he held key leadership roles, including Vice-President (Research Development) and Deputy President and Provost plus Chair Professor of Optical Communications. Now serving as President and Vice-Chancellor of Hong Kong Baptist University, he has pioneered the development of arts and technology and advanced the application of technology in Chinese medicine. His leadership during the COVID-19 pandemic provided vital resources for over 41,000 people.

A Justice of the Peace and a Fellow of multiple prestigious institutions, he has made significant contributions to education, community, and optical fibre communications



research. He also serves as a member of the 14th National Committee of the Chinese People's Political Consultative Conference.

#### The HKIE Gold Medal 2025

**Ir Stephen Chik Wai Keung** is a distinguished civil engineer with over 40 years of experience in railway and property infrastructure.

He presided over numerous major railway projects, including West Rail, Kowloon Southern Link, Express Rail Link, and Shatin to Central Link. As a senior leader at KCRC and later at MTR, he oversaw planning, engineering, and construction safety, shaping Hong Kong's railway expansion. A devoted HKIE Fellow, he has served as Chairman of the Civil Division and held prominent positions related to education, examinations, and professional certification within the Institution. His visionary leadership and dedication have been instrumental in Hong Kong's world-class infrastructure development.

#### President's Award 2025

**Ir Duncan Wong** is an exemplary engineer with over four decades of experience in the gas industry.

Ir Wong joined Towngas in 1981 and retired in 2022 as General Manager – Marketing & Sales. He led many “first-in-kind” projects, including supplying town gas to the Hong Kong International Airport and Disneyland, as well as Hong Kong's first combined heat and power generation project in hospitals. A Past President of IGEM, he has also held significant roles in HKIE and international engineering organisations. After retirement, he remains active in advancing the profession and serving the community.

#### Young Engineer of the Year Award 2025

**Ir Dr Zheng Pai** is Associate Professor at The Hong Kong Polytechnic University and a prolific researcher in smart manufacturing and robotics.

He has secured over \$25 million in research funding and collaborated with major industrial partners. With two monographs, over 120 journal papers, numerous patents and international awards, his contributions are recognised globally. Ir Dr Zheng actively serves in prestigious scientific committees and editorial boards, including *HKIE Transactions*, to advance engineering innovations.

## **Appendix 3: “The HKIE 50th Anniversary Legacy Award” awarded project introductions**

### Industrial

#### **Daya Bay Nuclear Power Station: A Key Player in Hong Kong's Zero-Carbon Power Generating Industry**

In the power generation industry, Daya Bay Nuclear Power Station, jointly developed by CLP and CGN (China General Nuclear Power Corporation), has been supplying clean, safe, and affordable nuclear power to Hong Kong since 1994 through a dedicated plant and dedicated line, supporting Hong Kong's economic and social development. It also reduces carbon dioxide emissions by 7.5 million tonnes each year. Over the past 30 years, it has cumulatively supplied Hong Kong with more than 320 billion kWh of zero-carbon electricity.

### Infrastructure

#### **A New Era on Mobility – Hong Kong's First Metro Subway**

The growing population of Hong Kong between the 1950s and up to 1990s prompted the Government to undertake study for a rail network to provide efficient public transportation. The MTR Corporation was officially chartered in 1975 and, under the request of the Government, managed the construction and commissioned the “Modified Initial System (MIS)”, the first metro subway system in Hong Kong. The project was completed in 3 separate phases between 1979 and 1980 and the full MIS including the first rail crossing beneath Victoria Harbour was opened on 12 February 1980. This sparked the modern era of metro subway system in Hong Kong.

### Innovation

#### **Fibre Optic – Revolutionary Change in Modern Telecommunications by Professor Charles K. Kao**

Fibre optic has proven to be an impactful technology that has transformed modern communications in many areas. Professor Charles K. Kao's invention in the field of fibre optic revolutionised modern communications and enabled the rapid growth of the Internet, which has changed the way people live. He is often referred to as the “Father of Fibre Optic”. His unique contribution to science was recognised in 2009 when he was awarded the world-renowned Nobel Prize in Physics. His global achievements and contributions, as well as his pioneering spirit and passion, will continue to inspire innovators and impact researchers around the globe.

## Appendix 4: List of “The HKIE 50th Anniversary Legacy Award – Merit” awarded projects

### Industrial

- Engineering Solutions and Applications of Magnesium Alloys (1990s)
- DCC6000-16000 GIGA DIE Casting Machine (2010s to present)

### Infrastructure

- Development of Satellite Town – Shatin New Town (1970s)
- Lion Rock Tunnel (1980s)
- Island Eastern Corridor (1990s)
- Harbour Area Treatment Scheme (HATS) (1990s)
- Shenzhen Bay Bridge (2000s)
- Hong Kong West Drainage Tunnel (2010s to present)
- Admiralty Station Extension, Hong Kong (2010s to present)
- From Sea onto Land and into the Sky – Hong Kong International Airport Three-Runway System Project (2010s to present)
- Hong Kong-Zhuhai-Macao Bridge Hong Kong Section and Related Projects (HKP, HKLR & TMCLKL) – Enhancing Connectivity and Sustainable Development (2010s to present)

### Innovation

- Pioneering Smart Distribution Network in the World by Using Self-developed Remote Terminal Units (RTUs) in HK Electric since 1980s (1980s)
- Pioneering Development of Advanced Electric Vehicles (1990s)
- Novel Wearable Intelligent PPG-based Cuffless Blood Pressure Technologies and Devices (2000s)
- Plate-reinforced Composite Coupling Beam (2000s)