

REPORT FROM DIVISIONS AND OTHER COMMITTEES SESSION 2022/2023



Ir Darryl CHAN Chun Hoi
Chairman, Aircraft Division



Ir David WONG Yuk Ming
Chairman, Biomedical Division



Ir Anthony CHIU Yan Mong
Chairman, Building Division



Ir Sammy YEUNG Sau Kuen
Chairman, Building Services
Division



Ir William LUK Wai Lam
Chairman, Civil Division



Ir Prof GE Ming
Chairman, Control, Automation &
Instrumentation Division



Ir Mandy LEUNG Man Yee
Chairman, Electrical Division



Ir LEE Che Kit
Chairman, Electronics Division



Ir Dr Shelley ZHOU Wenwen
Chairman, Environmental Division



Ir Jeffrey LEUNG Kwun Hong
Chairman, Fire Division



Ir Walter AU Tat Kay
Chairman, Gas & Energy Division



Ir Dr Johnny CHEUK Chi Yin
Chairman, Geotechnical Division

August 2022

Control, Automation & Instrumentation Division:

Near 130 participants attended the CAD Paper Award Prize Presentation Ceremony via hybrid mode. Ir Dr S L MAK, OC Chairman delivered his welcoming speech and the champions – at the levels of undergraduate/sub degree, postgraduate & working professionals – delivered their presentation. Ir Prof Louis LOCK, OC Advisor & Ir Louis YIU, CA Division Event Convenor, presented certificates & prizes to the awardees.



September 2022

Building Services Division:

Organised by BS Division, the Joint Comprehensive Certificate Course on Fire Services System is useful for young engineers and practitioners to refresh and acquire knowledge in design, installation and maintenance of fire services systems. All guest speakers, who are experienced experts from government, universities, consultants, manufacturers, contractors and facilities management field, shared practical insights with participants.



October 2022

Aircraft Division:

In supporting the continuous learning of the Hong Kong aviation, AC Division conducted an HKAR-183 training course, which was attended by 20 participants.





Ir Ricky KWONG Wai Chuen
Chairman, Information
Technology Division



Ir Charles SO Hung Tak
Chairman, Logistics &
Transportation Division



Ir Norman CHAN Sin Wing
Chairman, Manufacturing,
Industrial & Systems Division



Ir Dr Tommy LO Yiu
Chairman, Materials Division



Ir CHANG Fan
Chairman, Mechanical, Marine,
Naval Architecture & Chemical
Division



Ir Prof Herman TSUI Yik Wai
Chairman, Nuclear Division



Ir Albert TAM A Ray
Chairman, Structural Division



Mr Indi WONG Wing Fai
Chairman, Associate Members
Committee



Ir Terence YAU Lap Yan
Chairman, Authorised Person/
Registered Structural Engineer/
Registered Geotechnical
Engineer Committee



**Ir Prof Joseph Duncan CHI
Wuh Jian**
Chairman, Safety Specialist
Committee



Mr Thomas LAM Chun Ho
Chairman, Young Members
Committee

Building Division:

The 20th Annual Seminar is the key highlight event of the Building Division. Held under the theme of “Disruptive Innovation to Buildings in Smart Cities”, it attracted actual about 250 people.



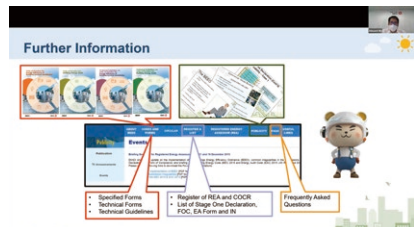
Electrical Division:

Electrical Division celebrated our 40th annual symposium since the first one was held in 1983. The theme of the symposium was “Co-innovation 40” in celebration of four decades of contribution by electrical engineers. The event also showcased our commitment to further co-innovate for a zero emissions world.



Gas & Energy Division:

Published in 2021, the Hong Kong’s Climate Action Plan 2050 (CAP 2050) outlines the overall strategies, plans, targets and actions for Hong Kong to achieve carbon neutrality before 2050. EG Division organised an event on 18 Oct 2022 to invite the speaker, Ir Edward Siu, Engineer of the Energy Efficiency Office of the Electrical and Mechanical Services Department (EMSD) to share an overview on the latest development of the BEC 2021 and EAC 2021 and the EE&C of EMSD under the Climate Action Plan 2050 to participants.



Manufacturing, Industrial & Systems Division:

MI Division organised its annual conference with 200 participants. Distinguished speakers from the industry and academic were invited to share their views and insights on how to adopt a range of advanced technologies such as artificial intelligence, big data & analysis, blockchain technology and Internal of Things as part of Hong Kong's reindustrialisation.



Nuclear Division:

A professional short course was organised with experienced guests sharing in-depth learning and practical experience about climate vision and nuclear energy. Positive feedbacks were received from the audience as they gained a better understanding on the potential and importance of nuclear energy in creating a sustainable future.



November 2022

Building Services Division:

With the theme "City for Future – Journey to Carbon Neutral Building", the symposium is intended to bring together international and local speakers to foster all aspects of advances in building design and building services engineering. Sub-themes of the symposium included:

- Codes & Guidance
- Design & Research
- Operation & Application
- Maintenance & Performance



Environmental Division:

Annual Reception is one of our flagship events, which provides a casual and relax environment for the professional stakeholders to exchange views and strengthen our partnership.



Logistics & Transportation Division:

Annual dinner of LT Division aims to promote Logistics & Transportation engineering and to provide a platform for networking and knowledge sharing.



December 2022

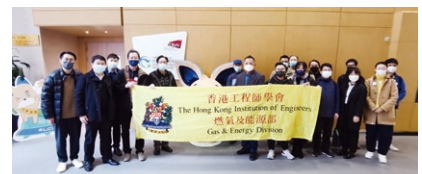
Control, Automation & Instrumentation Division:

Nearly 190 participants joined the Anniversary Ceremony cum Annual Dinner at Hong Kong Football Club. Ir Prof Sun Dong, JP of ITIB, Ir Dr the Hon W K Lo, LegCo member, Ir Eric Pang, JP of EMSD were invited as the officiating guests of the event. Ir Prof Louis Lock, OC Chairman, delivered his welcoming address and Ir Prof Ge Ming, CA Division Chairman briefed the guests on the Division's work in his opening speech. Ir Prof Sun graced the occasion with his keynote address and Ir Dr Lo performed Ambush from All Sides, a musical piece. The event also highlighted the close relationship that the Division maintains with counterparts on the Mainland, especially CAST, CAA & CIS. Ir Ray Choi, OC Deputy Chairman used his closing address to express his thanks on behalf of OC to generous sponsors for tables and table prizes.



Gas & Energy Division:

Ir Dr B L Luk, Laboratory Manager of Department of Mechanical Engineering of City University of Hong Kong and also Past Chairman of Nuclear Division, joined the technical visit to CLP Power Low Carbon Energy Education Centre and gave a guided tour to participants.



Nuclear Division:

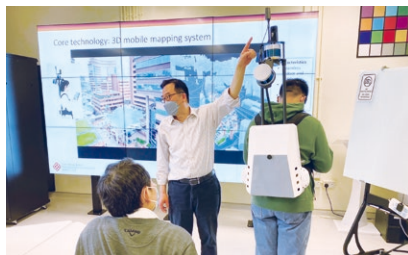
A one-day forum was organised to examine the role of nuclear energy in Hong Kong's future energy mix. Speakers, including academics and representatives of nuclear industry organisations, shared their insights into the latest technological developments and discussed how nuclear energy could support decarbonisation targets in Hong Kong and overseas.



January 2023

Information Technology Division:

Participants learned how the Hong Kong Polytechnic University fosters Smart City innovations through interdisciplinary research, innovative technologies and platforms when visiting the two laboratories of the university. Real-life applications making use of cutting-edge Smart City technologies, like spatial big data analytics, spatial data infrastructure, IoT, iBeacon and GIS were demonstrated during the visit.



Structural Division:

The Annual Dinner is one of the most significant events organised by the Structural Division, enabling a platform for distinguished guests and structural engineering professionals to foster friendship and expand their network in a relaxed environment. This year, we had the honour to invite Mr David Lam, JP, Under Secretary for Development, Development Bureau of the HKSAR Government to deliver the keynote speech.



February 2023

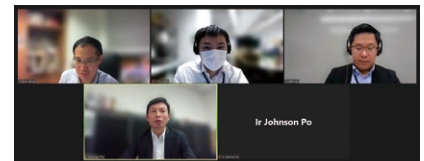
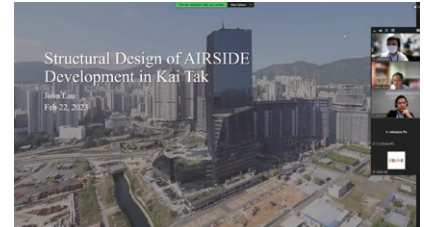
Aircraft Division:

AC Division runs the Aircraft Engineer Development Scheme (AEDS) to provide a platform for young engineers looking to obtain a Hong Kong Licensed Aircraft Maintenance Engineer. Technical visit to HAECO was organised to members who have joined AEDS.



Building Division:

AIRSIDE is the 1.9 million sq ft mix-used commercial development in the Kai Tak development area. The webinar on The AIRSIDE project was organised to feature rich content on the design and construction of this iconic high-rise building.



Civil Division:

Our Guest of Honours gave an inspiring speech and shared his insights about the forthcoming development opportunities offered by infrastructure and housing projects in Hong Kong at the Annual Dinner.



Environmental Division:

Presentation Ceremony of the Best Final-Year Environmental Project Award was organised to the awardee with prize.



Geotechnical Division:

Themed “Shaping our Carbon Neutral Future” Prof W M Leung gave an insightful presentation about the “Doomsday Clock” at the Annual Dinner.



Information Technology Division:

Participants experienced how Air Traffic Control Officers are trained in the immersive aerodrome environment of the Interim Two-runway System and Three-runway System operations of the Hong Kong International Airport during the technical visit to Civil Aviation Department.



Manufacturing, Industrial & Systems Division:

The half-day visit on new industrialisation featured a collaboration between Global online retailer YesAsia and Geek+ as well as Sanwa Biotech, both gold awards recipients in the “Reindustrialisation” category of the HKIE MIS Industry Award 2022. This visit raised the awareness of participants about the new industrialisation initiative nurtured by Hong Kong and we expect to see more smart manufacturing activities in the future.



Materials Division:

Materials Division organised a webinar to share the principles, difficulties and prospects of nuclear fusion. The webinar was separated into two sessions.



Safety Specialist Committee:

At the event held in the Hilti Customer Experience Centre, Hilti introduced key concepts in post-installed structural connection – including anchor and rebar connection – covering an introduction to the technical aspect and design software for anchor and rebar connection. It also explained the correct installation procedures and control system for safety and quality assurance. Participants were also invited to try to install the anchors and use tools as part of the event.



Young Members Committee:

The leadership training workshop provided opportunities for engineering students to develop teamwork and leadership skills through interactive activities. They also received information about the roles of engineers across different sectors and advices about career development.



March 2023

Aircraft Division:

The AC Division, alongside other HKIE Divisions, supported the Engineer Week's activities.



AC Division continued to collaborate with Cranfield University to deliver the 2-week flag ship Hong Kong Airworthiness Course, of which the first week was based on the foundation module of Cranfield University's MSc in Airworthiness.



Associate Members Committee:

The main component of Trunk Road T2 and Cha Kwo Ling Tunnel is a 2.4 km twin-tube sub-sea tunnel that will be constructed using Tunnel Boring Machines (TBMs) equipped with a number of state-of-the-art innovative technologies to cope with various engineering challenges encountered during construction. A technical visit was organised to members to understand the latest technology to be applied.



Building Services Division:

The Women in Building Services Engineering Group (WBSE) of BS Division co-organised a wine tasting workshop with ASHRAE-HK Chapter and CIBSE-HK Region. The workshop, which was attended by full house of 60 VIP guests and participants, aimed to promote membership and provide support to women engineers.



Civil Division:

Civil Division organised a game booth – Car Racing Game in Tseung Kwan O – Lam Tin Tunnel BIM Model at the Hong Kong Engineers Week 2023 Charity Run with KOL support.



Electrical Division:

Professional Short Course in Electrical Engineering is a series of classes designed to cover different aspects of electrical systems which are under active development and exploration in Hong Kong. These courses are targeted at engineers from different sectors who seek to refresh or acquire emerging knowledge on the topics covered.



Fire Division:

The main theme of the Annual Dinner was “Create, Change, Connect” and the event sought to foster a new atmosphere for promoting fire engineering, to develop new fire engineering insights adapted to our changing environment and to connect with professionals.



Geotechnical Division:

GE Division visited Singapore during 19-23 March 2023. Visited sites included TBM tunnels, propped excavation, high rise buildings adopting modular integrated construction method, government authorities and industrial experts on the regulatory control of geotechnical projects, strategic underground space planning and two mega reclamation projects, two leading universities and learned societies to exchange knowledge on researches and professional practices.



Information Technology Division:

Co-organised by the HKIE, Mini Robocon Hong Kong, an extension of Robocon Hong Kong, is targeted at junior secondary school students, to promote robotics, practical skills, and teamwork to our younger talents. Themed “Tou-Hu (投壺)” this year, the event featured 22 competing teams.



Logistics & Transportation Division:

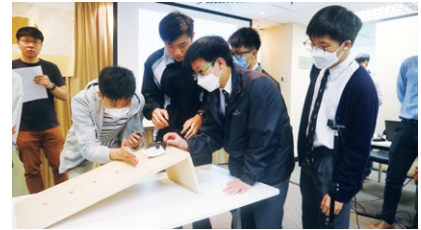
To promote engineering among the public, Hong Kong Engineers Week Carnival featured the theme “Our living, we engineer (E食住行)”, and our LT Division booth showcased logistics-related technology applications and transport infrastructure to the public in a compelling manner.



Mechanical, Marine, Naval Architecture & Chemical Division:

The Young Inventor Competition (YIC) is an annual event co-organised by the MC Division, the Institution of Mechanical Engineers (IMechE) Hong Kong Branch, and the American Society of Mechanical Engineers (ASME) Hong Kong Section. Under the technical guidance of Ir K K Lo, the event aims at promoting mechanical engineering among secondary school students in Hong Kong.

Participating teams were tasked with designing, engineering, and producing their own engineering products in accordance with Ir Lo’s topic and rules.



Company visits were also organised by the Division. In response to the President’s theme in 2022/23 “We are proud to be engineers”, a number of companies were invited to share experience with young mechanical engineers from different organisations such as ATAL, EMSD, CLP among others to showcase the achievements of our Mechanical Engineers and promote the MC Division.



Structural Division:

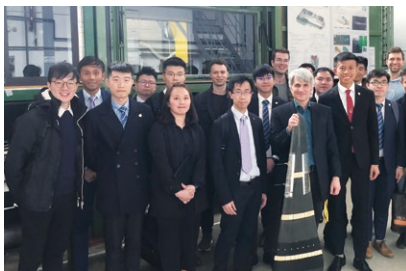
The theme of the Annual Seminar 2023 was “Sustainable Structural Design and Construction”. This important event featured distinguished overseas and local speakers from academia and prominent practicing professionals who were invited to share their insights, experiences and innovative ideas from recent research in structural engineering and application in construction projects. The Annual Seminar promoted innovation and new technologies in an effort to drive forward productivity, efficiency, and enhanced project delivery outcomes in the construction industry.





Young Members Committee:

The delegation study consisted of desktop research, a total of 11 technical seminars and visits in Hong Kong and a trip to Germany to visit government agencies, universities, companies and engineering institutes to gain and share insights on topics like digital transformation, energy transition and sustainable city.



April 2023

Associate Members Committee:

AMC organised a technical webinar on Smart Water Healthy System, an accredited CPD lecture by WSD, for waterworks Licensed Plumbers.



Membership talk was also organised to promote HKIE for engineering students in IVEs and Universities.



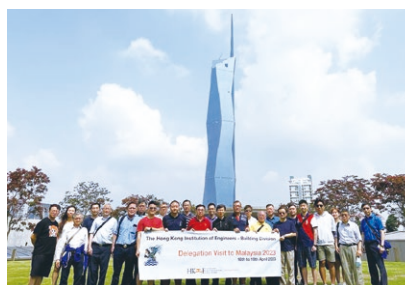
Biomedical Division:

We toured the Multi-Scale Medical Robotic Center (MRC) and introduced the modern hybrid operation theatre, advanced imaging equipment and animal preparation labs.



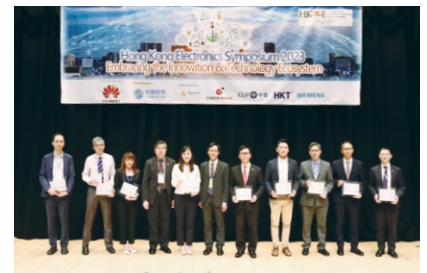
Building Division:

After three years of suspension due to Covid-19, the delegation visit resumed this year and the Division visited the Malaysia Institution of Engineers (IEM), the University of Malaya and the Merdeka 118 Tower.



Electronics Division:

The Hong Kong Electronics Symposium 2023 was held on 24 April 2023, with the theme “Embracing the Innovation & Technology Ecosystem”. Topics featured AI on Cloud, Creating a powerful industrial ecosystem, ESG + Cybersecurity, I&T political & Development Ecosystem of HK, Mobile IoT, and Smart Railway.



Gas & Energy Division:

The Japan trip included visits to leading companies such as Mitsubishi Heavy Industries, Shinki Bus Co Ltd, Iwatani and Kawasaki Heavy Industries, which are working on developing hydrogen fuel cell technology for various applications such as transportation and power generation. Participants also visited Panasonic’s 100% Renewable Energy Fuel Cell Plant, which uses hydrogen produced from renewable energy sources to power its fuel cells.



Environmental Division:

In the Annual Forum, leaders from public and private sectors discussed opportunities to unlock accelerated progress for the net zero transformation of Hong Kong across three topics: 1) driving net-zero transition in power generation sector; 2) scaling-up actions for building energy consumption; and 3) roadmap for net zero mobility and road transport system.



Mechanical, Marine, Naval Architecture & Chemical Division:

STEM x Marine Vehicle Design and Construction Competition is a new annual event which started in 2021. Organised by The Hong Kong Institute of Marine Technology and MC Division, it aims at promoting marine engineering to secondary school students in Hong Kong.



Nuclear Division:

A technical seminar was organised to discuss the handling of ALPS-treated water and the way forward on Fukushima reconstruction.



Structural Division:

The Structural Excellence Award aims at promoting excellence in structural engineering through design and construction of buildings/infrastructures as well as research and applications.

There are 6 categories:

1. Residential
2. Non-Residential
3. Heritage & Special Structure
4. Infrastructures and Footbridges
5. Mainland (including Macau and Taiwan)/Overseas
6. R&D

May 2023

Biomedical Division:

Ir David Wong was invited to be the keynote speaker for two symposiums in May 2023. For the first symposium, he delivered a speech on “The Ecosystem of Hong Kong Innovation & Technology”.



For the second symposium, Ir David Wong delivered a speech titled “Hong Kong Innovative Technologies & Smart Hospital Planning”.



Control, Automation & Instrumentation Division:

Nearly 400 participants attended the Summit face-to-face & online at the Jockey Club Auditorium, HKMU JCC. Ir Eric Pang, JP of EMSD, Ir Dr the Hon W K Lo, LegCo member, Ir Prof C C Chan, Prof Paul Lam, HKMU President, Ir Prof Philips Wang, HKMU SST Dean and others were invited as officiating guests for the AM session. Prof Lam & Ir Prof Eddie Lock, OC Chairman delivered their welcoming addresses and Ir Prof Ge Ming, CA Division Chairman gave his opening address. Ir Prof Wang kicked off the PM session with a welcoming address while Ir Dr Barry Lee, Senior VP used his opening address to express his interest in the views of his counterparts in the GBA as it echoed the theme of the panel discussion. Some VIP guests from the GBA, like Mr Nan Sun of SZAST and Prof Y H Yiu of GAA also delivered keynotes addresses while Mr C K Wu of Macau Legislative Assembly member/AEM President expressed his congratulation via a video presentation. A panel discussion titled “科普、科技、自動化、創新、大灣區、中國夢” was moderated by Ir Prof Louis Lock, OC Executive Advisor. The ideas and experience related to the innovation & technology development in the GBA were shared among the VIP guests from across the GBA, Ir P K Lee of AES and Ir Dr Tony

Lee, OC Deputy Chairman (Academic). Five guest speakers made presentations after a short break before Ir Dr Lee used his closing speech to express his sincere gratitude on behalf of OC to all participants.

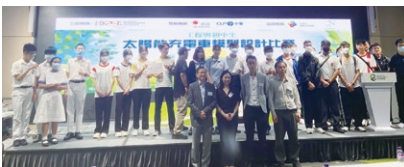


Technical visits to Schneider Electric Innovation Hub and the Legislative Council Complex were arranged for VIP guests from our counterparts from the Mainland, CA Division & OC members in May 2023.



Electrical Division:

For nurturing youngsters and arousing interest in engineering to build a talent pipeline, two flagship events resumed in Session 2022/2023, and over 90 innovative secondary students were invited to demonstrate innovative ideas in the smart use of electrical energy.

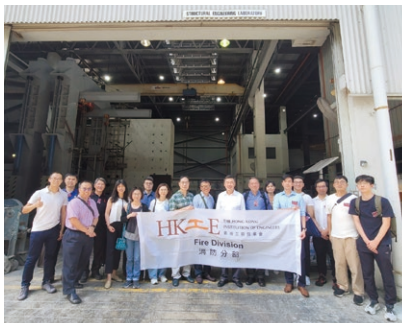


Fire Division:

The theme of the Symposium this was “Create (Innovation & Advancement), Change (Industrial Evolution & Transformation), Connect (Environmental, Social & Governance)”. Our speakers shared their research updates and valuable experience to address various issues and challenges being encountered in fire safety.



Fire Division also organised visit to Singapore. The visit helped enrich participants’ knowledge about state-of-the-art fire engineering technology, fire safety and firefighting operations, and participants had the opportunity to network with fire professionals in Singapore.



Geotechnical Division:

The Division’s 43rd Annual Seminar themed “Towards a Smart-Green-Resilient Geo-Future for World-class City Development” featured 18 presentations both physical and as TED talk on sustainable linear and vertical construction. 27 papers were published in the proceedings as the hybrid mode attracted online participants from Indonesia, Malaysia, Singapore, the Philippines and Vietnam.



Logistics & Transportation Division:

LT division and the Department of Civil and Environmental Engineering of The Hong Kong Polytechnic University (PolyU) jointly organised the annual symposium. Titled “The Future of Transport and Logistics in Hong Kong” and held on 6 May 2023, it attracted more than 100 participants.



Safety Specialist Committee:

SSC invited Ir Thomas Ho as the Guest of Honour for the Annual Dinner. The winners of Student Project Competition were awarded during the Annual Dinner.



June 2023

Civil Division:

Delegates visited a range of smart facilities and a leading university in Shanghai to explore the latest technologies used in creating a livable, sustainable and digital city lifestyle. The visit also enriched engineers' knowledge about smart city planning relating to transportation infrastructure management and the provision of municipal services.



Electronics Division:

The Annual Dinner was held in Sheraton HK Hotel on 13 June 2023 and provided a great opportunity for industries representatives and members to get connected after the pandemic.



Geotechnical Division:

The inaugural Geotechnical Project Excellence Awards received 11 entries across three categories: Ground Engineering, Slope, and Tunnel. The judging Panel comprised local and overseas experts and the Award Presentation Ceremony, which was held at the Cordis Hotel, was attended by 160 guests from clients, governmental agencies, consultants, contractors and universities.



Safety Specialist Committee:

The Symposium featured speakers presenting research, views, and experiences on smart safety, making the event informative and comprehensive while aligning with the theme "Smart Safety in HK Construction Industry."



Young Members Committee:

Over 330 young engineers and professionals gathered to enjoy a seminar delivered by Dr Ricky Chiu who shared his insights about innovation success and how to foster friendship and exchange ideas in a relaxing environment with food and entertainment. Awards were presented to recognise the contribution of outstanding helpers and best reporters.



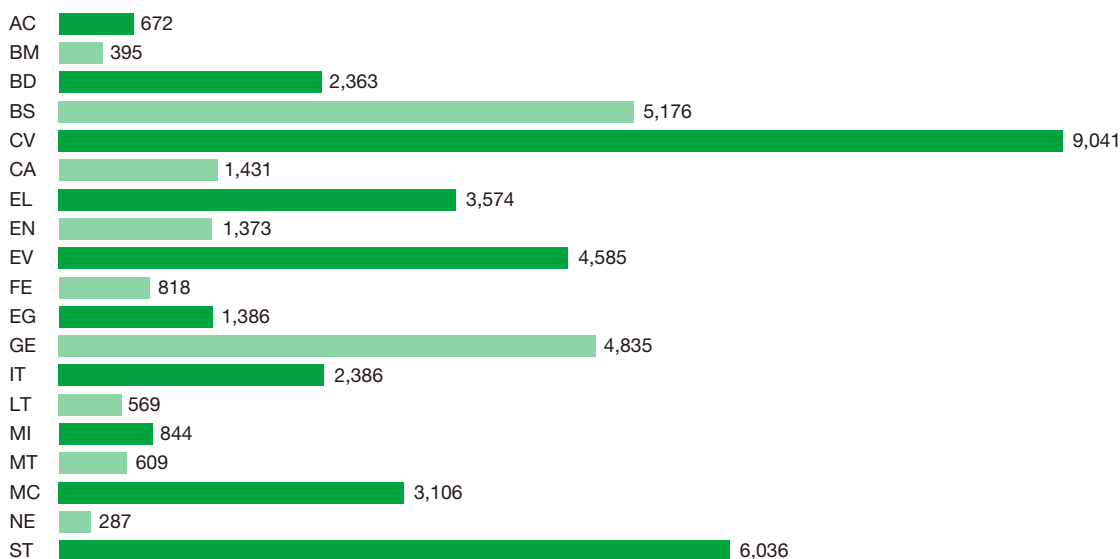
Membership of Divisions/Committees

As at 28 June 2023

Division		Membership
Aircraft Division	AC	672
Biomedical Division	BM	395
Building Division	BD	2,363
Building Services Division	BS	5,176
Civil Division	CV	9,041
Control, Automation & Instrumentation Division	CA	1,431
Electrical Division	EL	3,574
Electronics Division	EN	1,373
Environmental Division	EV	4,585
Fire Division	FE	818
Gas & Energy Division	EG	1,386
Geotechnical Division	GE	4,835
Information Technology Division	IT	2,386
Logistics & Transportation Division	LT	569
Manufacturing, Industrial & Systems Division	MI	844
Materials Division	MT	609
Mechanical, Marine, Naval Architecture & Chemical Division	MC	3,106
Nuclear Division	NE	287
Structural Division	ST	6,036

Committee		Membership
Associate Members Committee	AMC	663
Safety Specialist Committee	SSC	7,333
Young Members Committee	YMC	3,707

Divisions



Committee

