

# reports FROM DIVISIONS & OTHER COMMITTEES

## Associate Members Committee

In the 2002/2003 Session, the Associate Members Committee (AMC) organised or co-organised 24 activities. Of these, 19 activities, including nine seminars and six technical visits, were completed before April 2003. All were well attended. Due to the impact of SARS, the proposed technical visit to the Superslab Factory at Tai Po was cancelled.



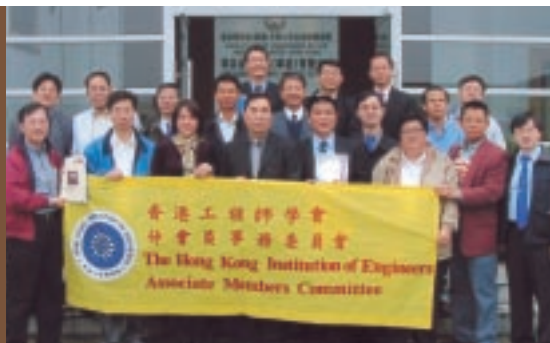
Mr Yuen Lai-man

During this Session, the AMC supported a presentation by the Mechanical, Marine, Naval Architecture & Chemical Division at Hong Kong Institute of Vocational Education (Tsing Yi). Many AMC's activities were held with the Young Members Committee (YMC) or other divisions of the HKIE.

We will continue to foster relationships with other committees and divisions of the HKIE.

In addition, the voluntary CPD scheme of Associate Members (AMs) and CPD requirements for candidates applying to AMs were approved by the Council and will be implemented in 2004. This will help AMs to meet the requirement of the Engineering Technologist Mobility Forum. Task forces were also established to study the membership development and structured training scheme for AMs. These two issues will have significant effect on the status of AMs and may be dealt with in a draft proposal over the coming Session.

Throughout this year, the AMC continued to implement its stated mission and objectives and provided comments, via the Institution, on the construction industry legal framework. The AMC also pursued the status of AMs in the supervision system under the Buildings Department of the HKSAR Government. With the support of each AM, we trust that our efforts will be fruitful.



AMC delegation visited a Hong Kong factory at Ningbo, the Mainland

## Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
5 Jul 2002	Neuro-linguistic Programming	Keith TO
26 Jul 2002	Research of Questionnaire – CityU	SUN Hongyi
30 Aug 2002	Wastewater Treatment System – Electroflocculation System	—
14 Sep 2002	Technical Meeting with Chongqing Visiting Team and Visit to Towngas Company	—
7 Oct 2002	Wealth Management of 21st Century for HK Engineers	Michael GOT
7 Jan 2003	Display Screen Equipment	H C CHEUNG
3 Mar 2003	An Environmental Method to Food Waste Management and Technology	Lawrence LAU
27 Mar 2003	New Environmental Technology for Air Quality Improvement and Odour Abatement	Patricia CHUNG
2 May 2003	Safety Justice in Construction Sites	Norbert FAN Jointly organised with SSG

## Technical Visits

Date	Title
31 Aug 2002	KCRC Construction Site at TCC 400 (Jointly organised with SSG)
28 Sep 2002	Solar Energy and Intelligent Building Design – Siemens Building Technologies (Jointly organised with YMC)
15-18 Nov 2002	Technical Visit to Factories at Ningbo & Hangzhou
30 Nov 2002	Cab Simulator of KCRC (Jointly organised with CA Division & YMC)
14 Dec 2002	Hong Kong Trade Development Council Business 'InfoCenter'
1 Mar 2003	Construction Metal Cladding Factories at Dongguan (Jointly organised with SSG, CA and MC Divisions)
24 May 2003	Concrete Pre-cast Products Factory at Shenzhen (Jointly organised with CV Division)

## Authorised Person / Registered Structural Engineer Committee

The 2002/2003 Session was a busy one for the Authorised Person / Registered Structural Engineer Committee. The Committee co-operated with the Buildings Department to organise a number of briefing sessions with the general public on the removal of Unauthorised Buildings Works. The Committee also worked with the Hong Kong Institute of Architects (HKIA), the Hong Kong Institute of Surveyors (HKIS) and the Building Division of the HKIE to organise a seminar on Unauthorised Building Works. Members of the Committee continued to contribute to the community by joining the Authorised Person Registration Committee Panel, the Structural Engineers Registration Committee Panel and the Contractors Registration Committee Panel. Members of the Committee continued to provide inputs to the new issues of Authorised Person / Registered Structural Engineer Practice Notes and to



Ir Dr James C W Lau

the new Code of Practices such as the Precast Concrete Code, the Reinforced Concrete Code, the Foundation Code and the Structural Steel Code. The contents of these new documents would seriously affect the professional practice of Authorised Persons and Registered Structural Engineers. It is therefore logical for the Committee to be heavily involved in the new Codes and Practice Notes.

### Biomedical Division

The Division Committee met four times during the 2002/2003 Session to plan the year's activities and events and to consider various matters including raising the profile and membership of the Division, continuing the professional development for biomedical engineers, and the most important issue – the formation of a corresponding Discipline. We actively co-ordinated with local universities regarding the formation and accreditation of biomedical engineering related courses.



Ir Albert K F Poon

The Division held a fruitful programme during the Session with 10 technical meetings/seminars, which attracted many members and delegates from different institutions. This Session, the Division played

a major role in membership promotion, in particular in the education and development of students and future young engineers for the biomedical engineering. A dedicated Working Group on Membership Promotion was formed to specifically address issues faced by the biomedical degree programmes at the University of Hong Kong and the Hong Kong Polytechnic University.



*Technical seminar on Safety Management of Medical Devices in Hospital*

### Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
3 Oct 2002	Technical Seminar on Safety Management of Medical Devices in Hospital	John ROBSON
8 Oct 2002	Membership Seminar with New First Year Medical Engineering Students of HKU	Albert POON Francis H Y CHAN
23 Nov 2002	Symposium on Rehabilitation and Biomedical Engineering	John EVANS Zev RYMER JIN Dewen Jonathan OPHIR
27 Nov 2002	Novel Biomaterials Application in Medicine	William BONFIELD
3-4 Dec 2002	Practical Workshop on How to Successfully Prepare and Obtain the US FDA Medical Devices 510(k) Clearance	Mark JOB
16 Jan 2003	MaSTEC 2003 and Workshop on Sterilmedical Device Manufacturing	—
26-28 Feb 2003	Training Course on International Regulatory Requirements & Standards for Manufacturing and Distributing Medical Devices: How to Comply with the Essential Requirements in Medical Device Good Manufacturing Practices (GMP)	李子偉 林家宏
3 Mar 2003	Membership Seminar with Health Technology (Bioengineering) Students of PolyU	Albert POON Arthur MAK
28 Apr 2003	Annual General Meeting	—
2 May 2003	International Micro Fabrication Technology Symposium	—

### Building Division

Despite the difficult times faced by the construction industry in general and the building sector in particular, the Building Division remained active in its pursuit of activities during the 2002/2003 Session. These activities, including technical visits, technical meetings, seminars and conferences, were all well supported by members and colleagues from related professions.

The Committee of the Division held monthly meetings to plan and discuss activities, with sub-committees formed for each activity. Full support was given by Committee members representing various sectors including government, private sector clients, consultants, contractors and academia.



Ir Tony K S Chan

Apart from organising activities by the Division, joint efforts with other divisions of the HKIE and other organisations such as the Hong Kong Institute of Architects (HKIA), the Hong Kong Institute of Surveyors (HKIS) and the Hong Kong Institute of Construction Managers proved successful. This has helped to enhance relationships and enrich the content of activities held with related professions.

The topic of the Division's second Annual Seminar was "Building Appraisal, Maintenance and Repairs". Speakers were invited from the Buildings Department, Housing Department and Architectural Services Department, and several consultants. Mr Marco Wu, Director of Buildings gave the keynote speech, with the opening address given by Ir Dr the Hon Raymond C T Ho and the closing remarks by Ir Dr Lau Ching-kwong. The seminar was attended by over 280 participants.

The Division also held its Annual General Meeting and Annual Dinner on 7 May 2003 at the Grand Ballroom of the Kowloon Shangri-La Hotel. Mr Macro Wu, Director of Buildings was the Guest of Honour.



*Visit to the Hung Hom Station of the Kowloon-Canton Railway Corporation – East Rail Extensions*

### Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
2 Sep 2002	Achieving Ductility of Non-seismically Designed RC Columns: A Hong Kong Case Study	J S KUANG
4 Nov 2002	Fire Engineering	LUO Ming Chun
22 Nov 2002	KCRC-ERE Hung Hom Station Modification	Patrick NG Peter KWAN
13 Jan 2003	Partnering	Linda FAN
17 Feb 2003	ISO 14000	Joe LEE
24 Feb 2003	Green Building Conference	Jointly organised with EV and ST Divisions
19 Mar 2003	Conference on Duties of AP/RSE in Demolition of UBW	Jointly organised with HKIS and HKIA
28 Mar 2003	Second Annual Seminar – Building Repair and Maintenance	Jointly organised with Centre for Research & Professional Development
25 Apr 2003	Conference on Metal Scaffolding – Design, Construction and Safety	Jointly organised with HK Institute of Steel Construction (PolyU) and HKICM
7 May 2003	Annual General Meeting and Annual Dinner	—

### Technical Visits

Date	Title
6 Jul 2002	KCRC-ERE (Hung Hom Station Modification)
12 Oct 2002	KCRC-ERE (TSTE Station & Subways)
2 Nov 2002	International Finance Centre Tower II
22 Feb 2003	Cyberport
22 Mar 2003	Yantian International Container Terminals, Sha Tou Jiao, Shenzhen

### Building Services Division

The Division has been in collaboration with American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), Chartered Institution of Building Services Engineers (CIBSE) and the Institution of Fire Engineers (IFireE) for many years in organising technical visits, meetings, seminars and symposia for our members. This Session, we extended our collaboration with the Building Services Operation and Maintenance Executives Society (BSOMES) and the Hong Kong Electrical Contractors' Association (HKECA). The Division, in joint efforts with BSOMES and HKECA, has arranged a series of 12 short courses, emphasising the operation and maintenance of building services installations.



Ir Howard T H Lok

The Committee recommended that the Division should establish scholarships to award Building Services engineering students with outstanding achievements. The proposal was endorsed by the Learned Society Board and starting from this Session, a maximum of four students will be selected with each awardee receiving HK\$5,000 and a Certificate of Achievement.

The Division has maintained close contacts with overseas institutions and this Session we met and conducted discussions with representatives from the Australian Institute of Refrigeration, Air Conditioning and Heating, CIBSE, and the Institute of Plumbing (IoP) during their visits to Hong Kong.

Apart from organising the learned society activities, the Committee also organised social functions to strengthen links with colleagues and associates from different institutions. A soccer tournament was arranged and members from ASHRAE, CIBSE, IFireE, IoP and Young Members Committee (YMC) of the HKIE were invited to participate. The event was held over two weekends with over 80 people on the field either as players or supporters at each event to enjoy the game as well as fellowship.

With the full support of the Institution and members, the Division will continue to grow and expand its scope of services to meet the needs and interests of members.



*The 13th Annual Joint Symposium on Achieving Sustainable Performance in Built Environment*

## Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
8-10 Jul 2002	Chongqing – Hong Kong Joint Symposium 2002	Jointly organised with ASHRAE, CIBSE, HKPU and Chongqing University
22 Aug 2002	Innovative Energy Efficient Pilot Projects Carried out by Energy Efficiency Office, EMSD	Martin WU
23 Aug 2002	Construction Claim Implementation	Johnson SO
9 Sep 2002	LV Switchboard – Introduction, Construction and Operation	Jointly organised with BSOMES and HKECA
13 Sep 2002	LV Switchboard – Protection, T&C and Maintenance	Jointly organised with BSOMES and HKECA
16 Sep 2002	Main Cable	Jointly organised with BSOMES and HKECA
20 Sep 2002	Lighting	Jointly organised with BSOMES and HKECA
23 Sep 2002	Dispute Resolution in the HK Construction Industry, an Overview	Christopher TO
27 Sep 2002	Busduct, Submain System and Distribution Switchgear	Jointly organised with BSOMES and HKECA
30 Sep 2002	UPS	Jointly organised with BSOMES and HKECA
4 Oct 2002	HV Installation	Jointly organised with BSOMES and HKECA
7 Oct 2002	ELV Systems – 1	Jointly organised with BSOMES and HKECA
11 Oct 2002	Automation Application in Intelligent Buildings	Ming LI
	ELV Systems – 2	Jointly organised with BSOMES and HKECA
18 Oct 2002	Lightning and Earthing	Jointly organised with BSOMES and HKECA
21 Oct 2002	Harmonics	Jointly organised with BSOMES and HKECA
25 Oct 2002	Control System	Jointly organised with BSOMES and HKECA
30 Oct 2002	HV Distribution System in Buildings	N F CHIN
1 Nov 2002	WR2 Inspection	Jointly organised with BSOMES and HKECA
2 Nov 2002	Case Studies on Sustainable Design	Max FORDHAM
4 Nov 2002	Generator – Design and Basic Concept	Jointly organised with BSOMES and HKECA
8 Nov 2002	Generator – Installation, T&C and Maintenance	Jointly organised with BSOMES and HKECA
19 Nov 2002	Symposium on Achieving Sustainable Performance in Built Environment	Jointly organised with ASHRAE and CIBSE
16 Dec 2002	Automatic Refuse Collection System	K Y LEUNG
11 Jan 2003	Plumbing and Drainage Systems for High Rise Buildings	William CHEUNG
	Power Quality	Jointly organised with BSOMES and HKECA
20 Jan 2003	Underfloor A/C System	Alex CHAN
25 Feb 2003	Revised CoP in Electricity Wiring Regulations	HO Wai Yip
8 Mar 2003	Evaporative Cooling Tower – Design and Application	Brian KARNEY
22 Mar 2003	Presentation & Demonstration on High Pressure Water Mist Fire Protection System	Jointly organised with IFireE

## Technical Visits

Date	Title
20 Jul 2002	Tseung Kwan O Extension
25 Jan 2003	Shatin Government Office
22 Feb 2003	TVB City
29 Mar 2003	Hong Kong Science Park
26 Apr 2003	Cyber Center at Cyberport

### Civil Division

The 2002/2003 Session has been a very active year for the Civil Division, which has organised successful events with overwhelming support.

On the technical event side, a total of three conferences, three seminars and 16 technical meetings were held during this Session. The highlight of the year was the International Conference on Innovation and Sustainable Development of Civil Engineering in the 21st Century held in Beijing on 1-3 August 2002. This was the first joint conference with the China Civil Engineering Society (CCES) and over 150 delegates from all over the world attended the conference. Looking ahead, another international conference jointly organised with the Civil Engineering Department and supported by the Environment, Transport and Works Bureau with the title "Coastal Infrastructure Development – Challenges in the 21st Century" is being planned for the end of 2004.



Ir Prof William H K Lam

Following the success of the Nanjing and Shanghai Civil Construction Technology Winter Camp for Youth of Hong Kong in 2000, we held another Winter Camp with the Zhan Tianyou Civil Engineering Foundation of the CCES during 25-31 December 2002. Led by senior members of the Division, over 30 civil engineering students, graduates and young professionals enjoyed a memorable trip in Xian, Xiaolangde Hydraulic Works and Luoyang in the Mainland.

It is another record year of site visits in the 2002/2003 Session – a total of 32 site visits were organised and were well received by over 1,000 members. The visits covered not only major railway projects like the West Rail and the East Rail Extensions, but also other infrastructure projects such as the International Finance Centre II and Trunk Road T7, etc. Several Mainland visits were arranged and included trips to the tunnel boring machine site in Shenzhen and an epoxy-coated water main fabrication factory in Panyu. The Civil Division is grateful to its hosting organisations and companies, and in particular to those voluntary helpers who led visiting groups on the visits.



Site visit at Ma On Shan Rail

## Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
5 Jul 2002	A Search for Sustainable Integrated Waste Management Technologies for Hong Kong	Jointly organised with HKWMA, EV and MC Divisions and HKPU
23 Jul 2002	Design and Construction Aspect of Vacuum Sewerage System at Tai Wai	Henry LEUNG K W LIU W C LO
1-3 Aug 2002	International Conference on Innovation and Sustainable Development of Civil Engineering in the 21st Century	Jointly organised with CCES and held in Beijing
5-6 Sep 2002	Constructing a Green Digital City	Jointly organised with HKIA, HKIS, HKPC and IT Division
24 Sep 2002	Planning and Construction of Island Eastern Corridor Improvements Section between North Point Interchange and Sai Wan Ho	Alex C W CHAN Bonny M B HUANG
26 Nov 2002	ECO Architecture	Patrick S S LAU
3 Dec 2002	Seminar on Innovation and Sustainable Development of Civil Engineering in the 21st Century	—
5 Dec 2002	Data Automation for Pavement Management	Kelvin C P WANG Jointly organised with ASCE HK Section and HKPU
10 Dec 2002	KCRC West Rail Contract DB350 – A “Design and Build” Hard Rock Bored Tunnel Project	John TATTERSALL Leo HARNETT David LAU Jointly organised with IHT-HK Branch
19 Dec 2002	Using GIS and Remote Sensing to Investigate Air Quality in an Urban Environment: a Case Study of Atlanta, Georgia, USA	C P LO Jointly organised with EV Division and HKPU
25-31 Dec 2002	Youth Winter Camp – Xiaolangde	—
9 Jan 2003	New Contracting Arrangements for Hong Kong – Models for Success	Steven HUMPHREY Arthur MCLNNIS Jointly organised with ICE – HK Office and SCLHK
13 Feb 2003	Application of Jet Grouting in Tunneling According to the New Austrian Tunneling Method	Herbet A MANG Jointly organised with CED and HKU
14 Feb 2003	Geotechnical Earthquake Engineering Design and Analysis of Major Toll Bridges in San Francisco Bay Area	Bill C M MOK Jointly organised with ASCE HK Section
10 Mar 2003	Legal Series – Lecture 1: Claims Management	Chris MORGAN
27 Mar 2003	Design and Construction of CT9	Michael CHALMERS Jointly organised with ICE – HK
11 Apr 2003	Intelligent Engineering Applications of Digital Remote Sensing Technology	Jointly organised with EV and GE Divisions
13 May 2003	Annual General Meeting – Civil Division and Technical Meeting on “Sustainable Development of Hong Kong’s Transport Infrastructure”	MAK Chai Kwong
9 Jun 2003	Legal Series – Lecture 2: Insurance	Michael WITHINGTON Gareth THOMAS

## Technical Visits

Date	Title
29 Jun 2002	Wind/Wave Tunnel Facility in HKUST (Group 1)
6 Jul 2002	Ma On Shan Rail (Group 1)
20 Jul 2002	Ma On Shan Rail (Group 2)
27 Jul 2002	Wind/Wave Tunnel Facility in HKUST (Group 2)
24 Aug 2002	International Finance Centre II (Group 1)
31 Aug 2002	International Finance Centre II (Group 2)
14 Sep 2002	KCRC East Rail: Tsim Sha Tsui Extension
12 Oct 2002	Hong Kong Planning and Infrastructure Exhibition Gallery
19 Oct 2002	Trunk Road No T7 (Group 1)
2 Nov 2002	Shenzhen Metro Project Phase 1 – TBM Site
23 Nov 2002	A HOKLAS Accredited Fire Test Laboratory
	Trunk Road No T7 (Group 2)
	East Rail – East Tsim Sha Tsui Station and Subways
30 Nov 2002	West Rail – Mei Foo Station
28 Dec 2002	Yam O Tuk Service Reservoir at Lantau
18 Jan 2003	Water Main Fabrication Factory at Panyu and Paint Factory at Shekou
15 Feb 2003	Ma On Shan Rail – Permanent Way (Group 1)
22 Feb 2003	Ma On Shan Rail – Permanent Way (Group 2)
1 Mar 2003	Ma On Shan Rail (Group 1)
15 Mar 2003	Ma On Shan Rail (Group 2)
29 Mar 2003	Renewable Energy Demonstration Project at Wan Chai Tower
26 Apr 2003	Northern Access Road to Cyberport
17 May 2003	KCRC Kowloon Tong Southern Concourse and Passenger Subway
24 May 2003	Precast Concrete Components Factory at Shenzhen
14 Jun 2003	Shenzhen River Regulation Works
	Dongjiang-Shenzhen Water Supply Improvement Project

### Control, Automation & Instrumentation Division

With a team of courageous, hardworking and supportive Committee members, all the division activities were held as scheduled, even during the difficult times of the outbreak of SARS.

The number of membership registered under Control, Automation & Instrumentation Division and Discipline shows continuous growth. The Division has more than 1,500 members, including over 700 Corporate Members / Fellows. Growth of membership is expected to continue in the coming years.

As one of our missions is to act as a forum to exchange new technologies and to share experience, a number of technical seminars and visits were organised. Some of them were jointly organised with external institutions or other divisions of the HKIE. In particular, the 21st Century Transport and Logistics Conference was organised by institutions from Jinan, Taiwan, Macau and Hong Kong. The Conference was held successfully in Jinan, Shantung in August 2002 and attended by over 200 participants. The Division led a delegation of about 30 people to attend this Conference. Thanks to Ir Louis Lock and Ir Morris Cheung for making this a very successful event.



Ir Thomson S W Cheung

The Annual Control, Automation & Instrumentation Symposium was also held in March this year with over 60 participants. Speakers from a wide spectrum of industries made this an interesting symposium.

An arrangement for signing the Reciprocal Recognition Agreement with the Institute of Measurement and Control was finalised. This will help to attract more members to both the Division and the Discipline. The Division continued to maintain close connections with other institutions such as the International Federation of Automatic Control, Chinese Association of Automation, the Institution of Electrical Engineers and the Macau Institution of Engineers.

The results for the year are a true reflection of the help, participation and support of members. I would like to thank all Committee members and helpers for their contribution to the Division.



*Committee members of Control, Automation & Instrumentation Division, Ir Dr Lau Ching-kwong, the President (third from the left) and Ir Dr Alex Chan, Vice President (fourth from the left) at the Symposium on Challenges to Control, Automation and Instrumentation Engineers in the 21st Century*

### Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
14-15 Aug 2002	21st Century Transport & Logistics Conference in Jinan, Shandong	Co-organised with Shandong Association of Science & Technology
29 Nov 2002	Quality Management	Louis LOCK
12 Dec 2002	Symposium on "Intelligent Buildings"	Organised by AIIB and supported by CA Division
7 Jan 2003	Occupational Health for Display Screen Equipment	Jointly organised with IT and EN Divisions and AMC
26 Mar 2003	Symposium – Challenges to Control, Automation and Instrumentation Engineers in the 21st Century	Jointly organised with AMC, YMC and the Macau Institution of Engineers

### Technical Visits

Date	Title
24-27 Sep 2002	Delegation to visit Miconex, Beijing
30 Nov 2002	KCRC Cab Simulation
14 Jan 2003	Delegation to Visit the Macau Institution of Engineers, Macau

### Electrical Division

The 2002/2003 Session has been a very eventful year for the Electrical Division. A total of nine technical talks/seminars and nine local technical visits were successfully organised and attracted high attendances. To foster closer relationship with counterparts in the Mainland, a technical visit was organised in November 2002 to the Yangpu Power Station at Hainan. During the visit, members had the opportunity to see the facilities at the Power Station. Members were briefed on the latest electricity market development at Hainan as well as the Power Plant's plan to convert the two light-fuel turbine generators to natural gas combined-cycle turbine generators.



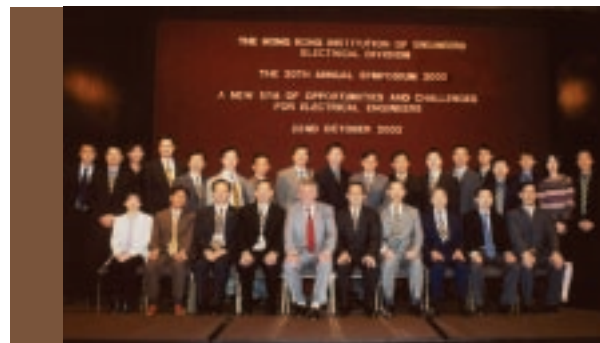
Ir Uy Tat-ping

The 20th Annual Symposium was held on 22 October 2002 at the Sheraton Hotel. The theme of the Symposium was "A New Era of Opportunities and Challenges for Electrical Engineers". Over 300 delegates attended to discuss and share views on various issues facing the electrical industry.

The Division has provided support to the Institution in the organisation of the International Conference of Electrical Engineering 2003, which is scheduled to be held in July 2003 in Hong Kong. Over 300 paper abstracts have been received and reviewed.

To arouse the public interest in science and technology, the Division and the Science Museum jointly organised two popular science lectures for members of the public. The first one, held on 20 January 2003, was on "Electric Power Transmission" and the second one, held on 29 March 2003, was on "Basic Law on Electrical Safety". Both events received overwhelming responses.

The Division celebrated its 25th Anniversary this year. A video was produced to record the major activities of the Division as well as the achievement and development of electrical engineering in Hong Kong during the past quarter of a century. With the support of members, I am confident the Division will continue to grow and expand its activities to meet the needs and aspirations of the members.



*The 20th Annual Symposium on a New Era of Opportunities and Challenges for Electrical Engineers*

## Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
27 Jun 2002	Energy Management of Water Pumping Stations in Hong Kong	H S WONG
17 Sep 2002	Applications of Renewable Energy Technologies	Joe CHAN
8 Oct 2002	Community Activity Room – Metaphor for Interstate Transmission Highway	Stephen T LEE
11 Oct 2002	Symposium on Sustainable Electrical Energy Development for the 21st Century	Jointly organised with IEEE-HK and PolyU
22 Oct 2002	Annual Symposium on A New Era of Opportunities and Challenges for Electrical Engineers	—
30 Oct 2002	Active Filters – Coming of Age	Rudy T WODRICH
13 Dec 2002	Recent Development and Applications of Evolutionary Optimisation Techniques	K P WONG
26 Jan 2003	Popular Science Lecture: Electric Power Transmission	K M YUNG Raymond HO H T WAN
12 Feb 2003	Energy Consumption Indicators and Benchmarks	C K LEE
29 Mar 2003	Popular Science Lecture: Basic Law on Electrical Safety	H C CHAN
31 Mar – 1 Apr 2003	Symposium on Research and Development in Railway Engineering in Asia-Pacific	Jointly organised with PolyU
7 May 2003	Modern Trends of University Education	K P WONG

## Technical Visits

Date	Title
22 Jun 2002	Ngau Tam Mei Water Treatment Work
20 Jul 2002	Hong Kong Mail Delivery Centre at Chek Lap Kok
31 Aug 2002	CLP Power Castle Peak Power Station
28 Sep 2002	Marine Department Vessel Traffic Management Centre
26 Oct 2002	Light Rail Maintenance Depot at Tuen Mun
22-25 Nov 2002	Mainland Technical Visit to Hainan Province
25 Jan 2003	MTRC Chai Wan Depot
22 Feb 2003	Hong Kong University of Science and Technology
26 Apr 2003	Hong Kong Electric Co Ltd – Cyberport 22kV Substation
31 May 2003	Hong Kong Science and Technology Parks

## Electronics Division

The 2002/2003 Session was an eventful, challenging but satisfying year for the Electronics Division and its Committee. The Committee has planned, organised, co-organised, and supported around 30 learned society activities over a wide range of technical meetings, visits, seminars, forums, symposium, exhibition, distinguished lectures and a study mission to the Mainland.

The series of distinguished electronics lectures, delivered by a panel of highly respected Chair Professors on the contemporary definition of the traditional Electronics Discipline and career openings and academic research opportunities offered to young electronics engineers, proved popular. The lectures attracted very good attendances, both from students and industry members.



Ir Jolly C K Wong

The Electronics Division has been very active over the year in maintaining established relationships and developing new partnerships. Some outstanding technical events held in collaboration with partners include the Information and Communications Technologies (ICT) awareness seminars at Asia IT Expo 2002; the Arbitration and Intellectual Property Rights related to electronics engineers (together with Young Members Committee (YMC)), the Occupational Health & Safety for Display Screen Equipment (together with Associate Members Committee (AMC)), and the Internet Security at School (together with Education and Manpower Bureau).

The Electronics Division, co-organised with Information Technology Division and the British Computer Society (Hong Kong Branch) a delegation to visit Jinan between 17 and 20 October 2002. Over 20 delegates, including Ir Prof C C Chan, Past President, members and industry gurus, attended the high level IT Innovation Conference and Exhibition, visited a software park and met up with representatives from the local IT industry.

The Division has initiated an application to the Professional Services Development Assistance Scheme (PSDAS) to help develop a competence-building programme which will enable Hong Kong engineers to join the Integrated Circuits design and related professions.

The Electronics Division, with its supportive committee and membership, continues to be an advocate for innovation across all of its activities.



Ir Jolly Wong, Chairman of Electronics Division presenting the souvenir to Mr William Kong (left) at the Seminar on Arbitration in Electronics Industry

### Technical Meetings / Seminars

Date	Title	Speaker(s)/ Remarks
2-3 Aug 2002	Emerging Challenges of Mobile Media Services	—
13-14 Aug 2002	CA Expo Hong Kong 2002	—
18-21 Sep 2002	The HKIE ICT Awareness Seminars in Asian IT Expo 2002	—
30 Oct 2002	21st E-Security Project	—
5-7 Nov 2002	Asia-Pacific Software Engineering Process Group (AP-SEPG) Conference 2002	—
6 Nov 2002	Internet Security at School	Jolly WONG C K LI Jointly organised with Education and Manpower Bureau
29 Nov 2002	The 1st Distinguished Lecture on IC Design	Philip CHAN
11 Dec 2002	Seminar on Drastically Changing Electronics Industry	—
8-10 Jan 2003	Symposium on Electronics in Air Transport Industry	—
9 Jan 2003	Arbitration in Electronics Industry	William KONG
24 Jan 2003	Intellectual Property Rights for Engineering Management	Hans LEE
17-19 Feb 2003	Workshop: Introduction to Capability Maturity Model Integrated (CMMI)	—
21 Feb 2003	The 2nd Distinguished Lecture on Microwave & Millimetre-wave Subsystem for Wireless Communication	C H CHAN
26 Feb 2003	The 3rd Distinguished Lecture on Next Generation Wireless Networks	Victor LI
14 Mar 2003	The 4th Distinguished Lecture on Power Electronics	Y S LEE
17 Mar 2003	Challenges of Hong Kong Electronic Industry & Its Countermeasure	Samson TAM
21 Mar 2003	Seminar on Occupational Health & Safety for Display Screen Equipment	—
30 Apr 2003	The 5th Distinguished Lecture on Recent Trends in Hand-free Communications	P C CHING
23 May 2003	Services from Hong Kong Accreditation Service (HKAS)	Terence S S CHAN
10 Jun 2003	Smart ID Card	Raymond WONG
20 Jun 2003	Symposium: Last Mile Technology	K B HA Spencer TAO John MAK Allan WONG

### Technical Visits

Date	Title
18-21 Oct 2002	The International Forum & Expo on Information Technology Innovation in Jinan, the Mainland
26 Oct 2002	MTRC – Tseung Kwan O Line

### Environmental Division

In the 2002/2003 Session, the Division held a variety of technical meetings and visits, averaging over two events per month and including air quality, noise, green building, remote sensing, water and wastewater treatment, solid waste and energy. All activities were over-subscribed with high attendance by enthusiastic members.

Apart from our own activities, we also co-organised, sponsored and participated in a number of other environmental engineering activities such as Green Building (Building and Structural Divisions) and the Application of Remote Sensing (Civil and Geotechnical Divisions). We collaborated with the Institution of Mechanical Engineers (IMechE) and Hong Kong Productivity Council (HKPC) on the Professional Services Development Assistance Scheme (PSDAS) project to secure funding from the Government to promote environmental initiatives on the Mainland.

The Division has been actively participating on various boards and committees of the Institution. We were represented on various task forces and working committees organised by government departments, Legislative Council's Panels and joint professional organisations. The Division also supported the Environmental Discipline in actively promoting the registration of Registered Professional Engineer (R.P.E.) in the Environmental Discipline.



Ir Dr Simon S O Ho



Committee members and guests at the Annual Reception of Environmental Division

## Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
27 Jun 2002	The Odour and Chlorine Removal System	Sherry LO
5 Jul 2002	The Search for Sustainable Integrated Waste Management Technologies for Hong Kong	—
16 Jul 2002	GBD Series – Ma Wan School	Daniel CHAN
30 Jul 2002	Solid Waste Operation in the USA	Glenn T MEEKS
14 Aug 2002	GBD Series – INTEGER – UK and HK Experience	David PLANNER
20 Aug 2002	GBD Series – Kadoorie Biological Sciences Building, The University of Hong Kong	Ian Y L LEE
26 Aug 2002	Total Recycling: Future-oriented Resources Management	Gerhard FAHRBNACH
28 Aug 2002	Evaluation of Waste Management Options: A New Global-oriented Approach Emphasising Long-term Aspects of Landfill	Paul H BRUNNER
25 Sep 2002	Global Warming – Extreme Climate	W T WONG
24 Oct 2002	GBD Series – Hong Kong Science Park	YIU Wai Keung
28 Oct 2002	Earth Summit – Personal Observation at Johannesburg	Elvis AU C Y MAK
29 Oct 2002	Climate Change and the Living World	C Y LAM
27 Nov 2002	Examples of Sustainable Slope Works	K P YIM
17 Dec 2002	Hong Kong, Macau and Zhuhai Bridge – Early Planning Experience	Leo K K KEE
19 Dec 2002	Using GIS and Remote Sensing to Investigate Air Quality	C P LO
14 Jan 2003	Novel Bioprocesses and Biofactors in Environmental Biotechnology	M C M Van LOOSDRENT
15-17 Jan 2003	First International Conference on Energy Efficiency & Conservation	—
23 Jan 2003	Water Reuse in Japan	Masashi OGOSHI Yutaka SUZUKI
28 Jan 2003	Corporate Responsibility and Transparency	A C CHIU
19 Feb 2003	Green Building of UK and Netherlands	Green Building Delegation
24 Feb 2003	Green Building	Joint Seminar with BD and ST Divisions
25 Feb 2003	Environmental Rose Garden Scheme	Stephen LEE
17 Feb 2003	Annual Reception	CHOY So Yuk
26 Mar 2003	Geographic Information Systems	Mike BRAINS
3 Apr 2003	The Tolo Highway Noise Barriers: Some Personal Reflections	K C LAM
11 Apr 2003	IE Application of Remote Sensing Technology in Hong Kong	Joint Conference with CV and GE Divisions
30 May 2003	Modelling Specialist Corner – Air Pollution Modelling	Chris FUNG

## Technical Visits

Date	Title
26 Oct 2002	West Kowloon Drainage Improvement – Kai Tak Transfer Scheme
31 Mar – 4 Apr 2003	Shanghai Waste Management Facilities

## Gas & Energy Division

Activities were organised to offer members opportunities to enrich their Continuing Professional Development (CPD) as well as to bring them up to date on the latest development on gas and energy related topics.

Besides the technical talks by professionals in their own areas of expertise, the Division also actively participated in learned society activities. These included the co-sponsoring of seminars with other external parties such as the Institution of Gas Engineers and Managers (IGEM) (Far East District Section), the Institution of Energy (Hong Kong Branch), Hong Kong Productivity Council, Chartered Institution of Building Services Engineers (CIBSE) and American Society of Mechanical Engineers (ASME). These seminars covered a range of topics.



Ir Paul P F Kwong

During the term, the Committee was invited to make comments on a number of consultation papers issued by the HKSAR Government and other institutes, which were particularly related to gas and energy issues. Five Committee members also participated in the drafting of the working paper on the gas & energy option as part of the engineering diploma course for submission to the Hong Kong Institute of Vocational Education.

The Committee has proactively taken steps to respond to the suggestion of merging or re-grouping divisions with relatively small numbers of members, in particular those divisions without corresponding disciplines. The committees of the Gas & Energy Division and the Nuclear Division, have set up a task force to study the feasibility of merging the two Divisions and establishing an "Energy" Discipline. It is believed the merger, if successful, will significantly help promote the image of the HKIE by enhancing and focusing the support of engineers and experts in the industries related to gas, energy and nuclear to join the HKIE.

This has been a successful year for the Committee with major achievements in the quality and quantity of services offered to members. Special thanks to the Committee members for their voluntary hard work and effort.



Group photo taken at the Gas & Energy Division Annual Dinner

### Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
10 Oct 2002	Fuel Cell	Tadashi KIMURA Jointly organised with IGEM (Far East District Section)
25 Oct 2002	One-day Symposium: Safety Management Culture in Hong Kong from Above Ground, Marine to Underground Work	Jointly organised with CISA
9 Nov 2002	Flexible Mechanisms of the Kyoto Protocol & the Consequences on the Economics of CHP Plants	Ulrich SAWETZKI
30 Nov 2002	Half-day Seminar: Prevention of 3rd Party Damage to Underground Gas in Hong Kong – A Towngas Success Story	Simon NGO Jointly organised with HKIVE
	Half-day Seminar: Innovative Technology for Intelligent Homes – Towngas' World 1st Automatic Meter Reading System	Philip SIU Jointly organised with HKIVE
17 Dec 2002	Photocatalytic Purification of Contaminated Water & Indoor Air	Yogi GASWAMI Jointly organised with Mechanical Engineering Dept of HKU
15-17 Jan 2003	3 Days International Conference: Energy Efficiency and Conservation	Jointly organised with HKPC, IOE, CIBSE, BS and EV Divisions
22 Jan 2003	Approval Scheme for Domestic Gas Appliances	C P CHAN K P IP
5 Feb 2003	Gasification Plant Technology (Pt 1)	P S KWAN
12 Mar 2003	Gasification Plant Technology (Pt 2)	Ronnie LO
9 May 2003	Half-day Seminar: Intelligent Location and Marking System	—

### Technical Visits

Date	Title
9 Nov 2002	Seamen's Training Centre
23 Nov 2002	CLP's Black Point Power Station
14-15 Dec 2002	CLP's Pumped Storage Facilities in Conghua in the Mainland
11 Jan 2003	Desiccant System Installed in Hin Keng Market
22 Feb 2003	Wind Farm Renewable Energy Facilities in Shanwei, the Mainland
20-24 Mar 2003	Visits to Nanjing and Shanghai
8 Apr 2003	Swagelining – Towngas' Franchised Trenchless Technology at Lai King
12 Apr 2003	Shek Kwu Chau Wind Turbine

### Geotechnical Division

The Annual Seminar hosted by the Geotechnical Division was held on 9 May 2003 with an audience of over 500. The theme of the seminar was "Case Histories in Geotechnical Engineering". Ir Dr Andrew Chan, the Chairman of Ove Arup & Partners Hong Kong Limited, delivered a stimulating Keynote Lecture.

Some highlights of our busy technical meetings schedule included the 2nd Lumb Lecture, Seminar on Recent Tunnelling Research & Development in Singapore and Hong Kong and the presentation on Soil Nail in Loose Fills by Ir Dr Jack Pappin. The 5th and 6th Mainland China-HK Geotechnical Lecture Series by experts from the Mainland were also held.

A special site visit was organised to Kuala Lumpur in January 2003. The site visit team, including committee members and 12 young members, was well received by representatives of the Institute of Engineers, Malaysia.

The 9th Annual Dinner took place on 21 March 2003 with the Permanent Secretary for the Environment, Transport and Works, Ir Y C Lo, JP, as Guest of Honour. He briefed the audience of nearly 400 on the efforts and achievements of the HKSAR Government and the local geotechnical profession in terms of slope safety and his aim of ensuring Hong Kong slopes to meet the world's highest safety standards. Ir Fred Ng, Chairman of the Division, focused on the Division's work and achievements over the Session.

The winner of this year's Fugro Prize was Ir Jenny Yeung of the Geotechnical Engineering Office, with a paper entitled "Modelling the Behaviour of Granitic Fill Slopes under Rainfall". The Geotechnical Paper of the Year Award for 2001 was awarded to Ir Dr F C Dai and Ir Prof C F Lee on their paper entitled "Terrain-based Mapping of Landslide Susceptibility Using a Geographical Information System: A Case Study". Book prizes and student prizes were also awarded.



Ir Fred H Y Ng



Site visit at Kuala Lumpur, Malaysia

## Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
29 Jul 2002	Integrated Site Visits – Experience Sharing Meeting No 1	—
4 Oct 2002	Preparation Meeting for SSTRB Meeting	—
15 Oct 2002	Pile Design in Seismic Areas	Harry POULOS Jointly organised with ST Division
17 Oct 2002	R & D Forum	—
24 Oct 2002	Second Lumb Lecture – “Failure of Slopes and Soil Property Characterisation”	Kenji ISHIHARA
28 Oct 2002	Rock Mechanics Modelling and Rock Engineering Design	John HUDSON Jointly organised with HKU
2 Nov 2002	Integrated Site Visits – Experience Sharing Meeting No 2	—
18 Nov 2002	Dynamic of Rock Avalanches	Oldrich HUNGR Jointly organised with IMM and HKU
25 Nov 2002	Soil Nails in Loose Fill	Jack PAPPIN
28 Nov 2002	Deep Excavations Adjacent to Buildings – From Chater to Changi	Richard DAVIES
9 Dec 2002	HK-Mainland China Geotechnical Lecture Series No 6: Some Geotechnical Issues for Three-Gorges Project	ZHENG Yingren ZHU Weishen Jointly organised with HKU
10 Dec 2002	Meeting with SSTRB	—
18 Jan 2003	Half-day Seminar – Slope Stability Analysis	Delwyn FREDLUND Y M CHENG
11 Feb 2003	Talk on Lessons Learned in the Technical Visit to Kuala Lumpur, Malaysia	Young members of the site visit team
5 Mar 2003	Fugro Prize Competition	—
8 Mar 2003	One-day Seminar – Recent Tunnelling Research & Development in Singapore & Hong Kong	Jointly organised with HKUST, AGS and NTUAA(C&G) in HK
11 Mar 2003	Natural Terrain Landslide Studies	H N WONG
11 Apr 2003	Intelligent Engineering Applications of Digital Remote Sensing Technology	Jointly organised with CV and EV Divisions
9 May 2003	Annual Seminar on “Case Histories in Geotechnical Engineering”	—
24 May 2003	Retaining Wall Design	Jack PAPPIN Jointly organised with CityU
26 May 2003	Introduction to Bond Market	Brian YIU

## Technical Visits

Date	Title
5 Oct 2002	Integrated Site Visit No 2
7 Dec 2002	Northern Access Road to Cyberport
11 Jan 2003	Shatin Trunk Road T7
15-17 Jan 2003	Overseas Visit to Kuala Lumpur, Malaysia
15 Mar 2003	Kwun Lung Lau Redevelopment, Kennedy Town
22 Mar 2003	Integrated Site Visit No 3
10 May 2003	LPM Upgrading Works at Lai Cho Road and Stubbs Road
7 Jun 2003	Castle Peak Road Improvement Works

## Information Technology Division

The Information Technology (IT) Division continued its success of the past 12 years by playing an active role in the promotion of information technology and related applications to Hong Kong's engineers and the community at large. Apart from organising training activities using its own resources and channels to disseminate latest progress and awareness of IT developments to our members, the Division also collaborated with other divisions of the Institution and related professional organisations. These activities included seminars, exhibitions, symposiums, workshops, technical visits, etc. To celebrate the reciprocal recognition between the HKIE and the British Computer Society (BCS), the Division jointly organised its Annual Dinner with the BCS (HK) on 30 May 2003. This joint function provided a good networking opportunity for members of both Institutions.



Ir John T W Sze

The IT Division has also actively contributed comments and views on legislation relating to IT practitioners and the industry. We have submitted our comments on the Amendment Bill of Registration of Person to the Government. A task force has been set up within the Division to provide comments on National Security related to IT to the Government for consideration. We will continue to contribute for the benefits for the IT practitioners and industry.

The IT Division is working closely with the Electronics Division to conceive an application for the Professional Services Development Assistance Scheme (PSDAS) on the Integrated Circuits (IC) design and related professions aiming to create an IC design and application industry in Hong Kong.

The IT Division's success is dependent on members participating in organised events. Support over the past Session has been extremely encouraging. Thanks go to all Committee members, YMC and AMC members and helpers who have contributed so much to the organisation and promotion of our activities.



Ir John Sze, Chairman of IT Division, presenting a silver plate to Prof Tsui Lap-chee, Vice-Chancellor of the University of Hong Kong at the Annual Dinner of the Division

### Technical Meetings / Seminars

Date	Activity	Speaker(s) / Remarks
12 Jul 2002	Collaboration & Security Issue on Project Management	—
13 Aug 2002	Meeting with The Hon Henry Tang, Secretary for Commerce, Industry and Technology to Introduce the Role and Contribution of the HKIE to the Government	C K SIN
5-6 Sep 2002	Construction of a Digital City	Organised by HKPC and supported by IT Division
	The HKIE ICT Awareness Seminars in Asian IT Expo 2002	Co-organised with EN Division
5-7 Nov 2002	Conference on Asia Pacific Software Engineering Process Group	Organised by HKPC and supported by IT Division
28 Nov 2002	Lunch meeting with Mr Alan Wong, Director of Information Technology Services Department on the IT policy	—
7 Jan & 21 Mar 2003	Health Talk on Occupational Health for Display Screen Equipment Users	—
28 Apr 2003	Annual General Meeting	—
30 May 2003	Annual Dinner	Co-organised with BCS (HK)

### Technical Visits

Date	Title
18-21 Oct 2002	Delegation to the International Forum & Expo on Information Technology Innovation in Jinan, the Mainland
14 Dec 2002	TDC Business Information Centre
15 Mar 2003	Logistic Monitoring Centre
29 Mar 2003	Hong Kong Science and Technology Parks

### Manufacturing & Industrial Division

The Manufacturing & Industrial (MI) Division performs the function of a learned society in the Manufacturing & Industrial Discipline. With the objective of promoting the Discipline interest and the endeavor of Continuing Professional Development, our Division organised a number of activities for our members. These activities provided a forum for members to exchange their experience and ideas and to learn about new developments in the field of industrial and manufacturing engineering.



Ir Dr Stephen S F Lee

The Division organised many workshops, seminars and courses in this Session. Unfortunately, a number of projects including YEP! 2003 were cancelled in April due to the outbreak of SARS.

There were several significant developments in this Session. A programme of scholarships, established for students of manufacturing and industrial engineering in local universities and IVEs, was launched. Ten companies have agreed to sponsor the scholarships.

The project "Young Manufacturing and Industrial Engineers Career Development Program in Pearl River Delta" initiated by the Division for the application of funding from the Professional Services Development Assistance Scheme (PSDAS) was approved by the Government.



Committee members and Ir Dr Lau Ching-kwong (centre), the President at the Presidential Address & Dinner

The success of the activities organised or sponsored by the Division relies on the support, contribution and participation of members. The Committee of the Division thanks members for their support over the past several years and looks forward to continuous support in the future.

### Technical Meetings / Seminars / Visits

Date	Title	Speaker(s)/ Remarks
20 Sep 2002	The Theory of Inventive Problem Solving Training Course	Darrell MANN
13 Nov 2002	Upgrading ISO9001:2000 Training Course	TQM
22 Nov 2002	Continuous Improvement (Kaizen) Training Course	TQM
10-12 Dec 2002	International Conference on Manufacturing Automation (ICMA 2002)	—
11 Dec 2002	Seminar on Patent Strategies	Darrell MANN
12 Dec 2002	Upgrading ISO9001:2000 Training	TQM
14 Dec 2002	Lean Manufacturing Training Course	TQM
Dec 2002 to Jan 2003	Certificate Course Series on Toys Design	—
26 Jan 2003	YEP!2003 Orientation Program	—
8 Feb 2003	YEP!2003 Seminar: IE Development Trend & IE in Supply Chain Economy	Ricky YEUNG Victor LO
1 Mar 2003	YEP!2003 Seminar: IE in Transportation Industry and Technology Commercialisation	Frankie YICK Y F LI
6 Mar 2003	Executive Briefing for Triz: The Secret Weapon for Product Innovation	Darrell MANN
29 Mar 2003	Company Visit to Kerry Logistics	—

## Materials Division

The 2002/2003 Session has been another action-packed year for the Materials Division and has required considerable input from the Committee. As usual our theme of 'small-but-active' has underscored our work throughout the year. A highlight was the Materials Science and Technology in Engineering Conference (MaSTEC) held in January 2003.



Ir Anthony S Read

The programme included 10 technical seminars, five workshops, five visits and one conference. The detailed programme illustrates the technical applications, which range from novel NDT techniques to welding, from cement chemistry to precast piling, from Plasma vapour deposition to polymers in medical application.

The MaSTEC was the Division's first experience of organising and hosting a major conference. Thanks go to Ir Eric Lim (our programme secretary) and to Christina Lam from the Hong Kong Productivity Council (HKPC) who put an enormous amount of energy into ensuring that things ran smoothly. The Division's main objective in organising materials topics and events was to ensure they would be of use to practicing engineers in other disciplines. The result was a first class event, which would have done credit to any of the major divisions in the HKIE.

The MaSTEC was also the kick-off event for our new PSDAS-funded venture, which we successfully obtained funding from the PSDAS in this Session. Our two-year PSDAS programme will enable us to provide one conference, 24 seminars, eight workshops and eight forums under the general theme of 'Materials solutions for a sustainable future of Hong Kong'. The programme is being run through the HKPC and our thanks are due to Ir Dr Jonathan Chung of the Division and Dr Christina Chan of HKPC for setting up the contract and heading the programme. I signed the contract on behalf of the HKIE in October last year and it is now getting into full swing.

I am stepping down as Chairman this year and would like to thank my very active Committee for their support over the last two years and I wish my successor Ir Prof Haydn Chen every success in continuing the work.



*Ir Anthony Read, Chairman of Materials Division, presenting a souvenir to Prof Stephen Yeomans at MaSTEC 2003*

## Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
31 Jul 2002	Turning Rubber into Road	K M LEE
23 Aug 2002	Properties of Lightweight Aggregate	Tommy LO
9 Sep 2002	Shearography: A Novel Optical Measurement Technique and Applications in Nondestructive Testing	Michael HUNG
10 Sep 2002	From Material Problems to Solutions	G W GREENE Jointly organised with MC Division
28 Sep 2002	Tiling System Failure	—
10 Oct 2002	Precast Concrete Piles, Are They Fit for Purpose?	Z F CHEN
12 Oct 2002	Coatings: Processes and Characterisation	Sponsored by MT Division
25-26 & 28-29 Oct 2002	Workshop on Welding in Structural Engineering	Stephen YEOMANS Co-organised with SAFE
28 Oct - 1 Nov 2002	The 5th International Symposium on Cement & Concrete	Supported by MT Division
29 Nov 2002	Engineering Applications of Piezoelectric Materials	C W LIM
12 Dec 2002	Smart-cut <sup>®</sup> , an Advanced Technology for Flat Panel Display	S S LAU
15-17 Jan 2003	Materials Science and Technology in Engineering Conference (MaSTEC) 2003 (PSDAS Project)	—
17 Jan 2003	Best Paper on Materials 2002	—
20-21 Jan 2003	Sputter Deposition (PSDAS Project)	—
12 Feb - 22 Mar 2003	Case Studies of Failure Investigations	Co-organised with the Department of Mechanical Engineering of HKU
24 Feb 2003	Inter-laboratory Comparison of Accelerated Mortar Bar Tests for Alkali-aggregate Reaction in Concrete	C K CHEUNG
19 Mar 2003	Applications of Radio Frequency Identification Technology (RFID) for the Construction Industry	Corey HO
11 Apr 2003	Forum on "Strengths of, and Challenges for the Materials Division and Discipline" & Materials Division Annual Dinner	—
19-21 May 2003	2003 International Conference on Industrial Applications of Nanomaterials and Advanced Composites	Jointly organised with FMM, HKPC, NRCAN and CMRS
22-23 May 2003	Workshop on Selection and Application of Polymers for Medical Device Manufacturing (PSDAS Project)	—

## Technical Visits

Date	Title
21 Dec 2002	Recent Applications of Pre-cast Concrete Piles in Macau
8 Mar 2003	Better Polymer (Shenzhen) Co Ltd of Vinidex
22 Mar 2003	MTRC laboratory on Application of Radio Frequency Smart Chips
May 2003	Guangdong Golden Glass Technologies Ltd
12-15 Jun 2003	Study Mission: Microwave Plasma Assisted Chemical Vapour Deposition (PSDAS Project)

## Mechanical, Marine, Naval Architecture & Chemical Division

In this Session, the Division Committee has been focused on collaboration with local professional bodies and academia such as the American Society of Mechanical Engineers (ASME), Institution of Mechanical Engineers (IMechE), Institute of Quality Assurance (Hong Kong) (HKIQA), Institute of Energy (IE), Project Management Institute (PMI), the Hong Kong Polytechnic University, the University of Hong Kong, and the Hong Kong University of Science and Technology. Conferences, seminars, technical talks and industrial visits have been organised jointly with these organisations, drawing an overwhelming response from Division members.



Ir Chow Wai-keung

A young inventor competition, jointly organised by IMechE, ASME and IE, was held in February this year, with full coverage by Radio Television Hong Kong (RTHK). The event was so successful that RTHK held a "Challenge the Expert" with the participation of Ir Dr Alex Chan, Ir Edmund Leung and Ir Dr Chris Chao.

A CD-ROM containing information about the nature of work in Mechanical, Marine, Naval Architecture & Chemical Disciplines, with input from local professional bodies and organisations to inform the general public and students at large about engineering in the 21st century, will be ready for distribution in the fourth quarter of this year.

Special efforts were made in organising activities such as young engineer forums, career talks and soft skill training for young engineers.

Members of the Division held active roles on various working groups, task forces, committees, advisory panels and appeal boards within the Institution and Government Departments. As a result, professional opinions on relevant matters were made on behalf of the Division.

The Division takes this opportunity to thank Committee members and helpers who, through their time and effort, have contributed to the success of this Session.



Technical visit to Lee Kum Kee Production Facility

## Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
5 Jul 2002	The Search for Sustainable Integrated Waste Management Technologies for HK	Jointly organised with HKWMA, CV & EV Divisions, YMC
15 Jul 2002	Prize for the Best Final Year Project for the Academic	Jointly organised with ASME and IMechE
29 Aug 2002	Road Transportation Pollution and Alternative Fuel	Dennis LEUNG
11 Sep 2002	From Material Problems to Solutions	George GREENE Jointly organised with MT Division
28 Sep 2002	Regulation of Civil Aviation	Jointly organised with SSG
5 Oct 2002	Noise Control in Hong Kong and Other Asian Cities	Jointly organised with HKIOA
12 Oct 2002	Essential Skills for Engineers I	Terence K L WONG Jointly organised with ASME and IMechE
2 Nov 2002	Traffic Noise Control in Hong Kong and Other Asian Cities	Jointly organised with HKIOA
9 Nov 2002	Technical Seminar on Energy Saving and Audit & Presentation of Prizes for Best Final Year Project Award	Jointly organised with ASME and IMechE
25 Nov 2002	Food Waste Management in Hong Kong	Jointly organised with YMC
12 Dec 2002	Latest Development in Organic Waste Treatment	Jonathan WONG
14-17 Dec 2002	Solar Energy – The Natural Solution for Energy and Environmental Problem	Jointly organised with ASME
15-17 Jan 2003	International Conference on Energy Efficiency and Conservation	Jointly organised with IoE and HKPC
16 & 23 Feb 2003	Young Inventors Competition	Jointly organised with ASME, IMechE and IoE
26 Feb 2003	Red Wine Tasting Series – Session I	—
28 Feb 2003	Spring Dinner	Jointly organised with ASME, IMechE, HKJB, HKIMT and HKIOA
1 Mar 2003	Young Engineers' Forum on Career Development: Part 1 – Public Utility Sector	—
21-22 Mar 2003	One and Half Day Symposium on Development and Modernisation of Ship-building & Ship-repairing Industry 2003	Jointly organised with HKJB, HKIMT, IMEST and GSNAME
22 Mar 2003	Project Management – Essential Skills for Becoming a Project Manager	Jointly organised with ASME, IMechE and PMI
26 Mar 2003	Red Wine Tasting Series – Session II	—
13 May 2003	Annual General Meeting and Dinner	—
19 Jun 2003	Testing and Examination of Suspended Working Platforms	Jointly organised with SSG

## Technical Visits

Date	Title
27 Jul 2002	FSD Flagship – Fire Boat 'Elite'
24 Aug 2002	KMB Bus Body Construction Depot
14 Sep 2002	North East New Territories (NENT) Landfill
26 Oct 2002	Future's Safe Waste Paper Recycling Plant
	KCR West Rail Depot
16 Nov 2002	Aviation Fuel Tank Farm at CLK
30 Nov 2002	Lee Kum Kee Food Production Facility at Tai Po
14 Dec 2002	Tai Po Production Facility of HK Oxygen
21 Dec 2002	Production Facility of HKO
28 Dec 2002	Ocean Park at Wong Chuk Hang
18 Jan 2003	Aviation Fuel Tank Farm at Sha Chau
22 Feb 2003	Foster Wheeler Boiler Manufacturing Plant in Xinhui City, the Mainland
	Lee Kum Kee Food Production Facility at Tai Po
	NG FUNG Slaughterhouse at Sheung Shui
14 Jun 2003	Hong Kong Aero Engine Services Limited (HAESL) in Tseung Kwan O

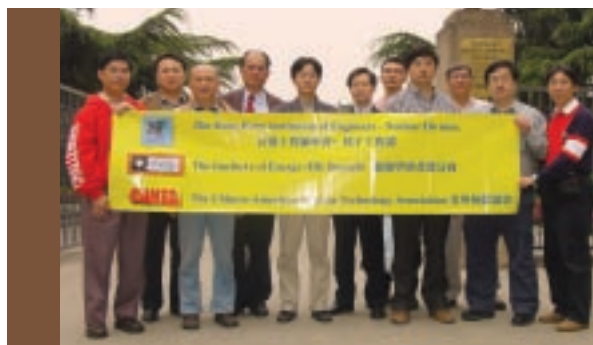
### Nuclear Division

The Nuclear Division has made good progress in the 2002/2003 Session, which also proved to be an eventful year. In addition to the popular technical visit to Guangdong Nuclear Power Station and Lingao Nuclear Power Station held in November 2002, the Division jointly organised with the Chinese American Nuclear Technology Association and Institute of Energy (Hong Kong Branch), a technical visit to the nuclear institutions in Chengdu / Wuhan and the Three Gorges Project site. This was successfully held on 2-10 April 2003. The visits further promoted our technical exchange with Mainland institutions and fostered our relationship with external institutions, both locally and overseas. It also introduced our members to the latest technology and developments. The Division also successfully organised four seminars with distinguished speakers from Hong Kong, the Mainland and the USA to promote an understanding of nuclear technology.



Ir Kenneth S K She

Following the introduction of the new Divisional Rules, we have strived to establish direction for the Division over the coming years. In this Session, we have set up a joint task force with Gas & Energy Division to study the merger proposal for the two Divisions. The feasibility of establishing the "Energy" Discipline is being studied in parallel. Discussion at the joint task force meetings will continue in the next Session. The Division believes that the merger, if successful, will help promoting the image of the Institution by enhancing and focusing the support of engineers and experts in the industries related to nuclear, gas and energy. Members will be kept informed of developments and are welcome to send in their views and comments on the merger proposal.



Group photo taken at the Institute of Nuclear Science and Technology of Sichuan University, Chengdu, the Mainland

## Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
15 Jul 2002	Nuclear Energy – an Important Composition for the Sustainable Development of Energy in China	PAN Ziqiang
30 Sep 2002	Status of Post 9-11 Nuclear Security in the US	L C PO
11 Oct 2002	The Application of Fire Risk Assessment for Nuclear Power Plants	Vincent HO
23 Oct 2002	Probabilistic Risk Assessment Applications in Nuclear Power Plants	James FU
9 May 2003	Emergency Radiation Monitoring and Assessment in Hong Kong	M C WONG

## Technical Visits

Date	Title
23 Nov 2002	Guangdong and Lingao Nuclear Power Stations
2-10 April 2003	Nuclear Institutions in Chengdu / Wuhan and the Three Gorges Project Site

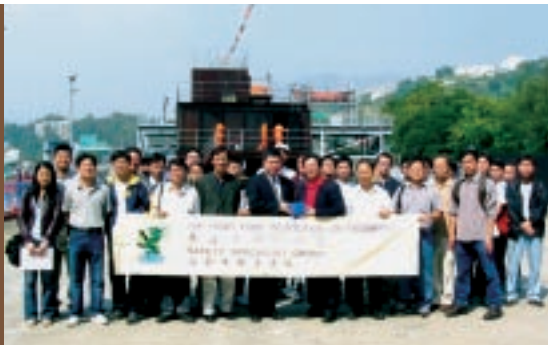
### Safety Specialist Group

The Safety Specialist Group (SSG) continued to achieve its mission in promoting the safety awareness of the HKIE members, upholding safety standards in engineering practice and successfully disseminating safety-related information to fellow engineers. Our task teams made good progress in providing seminars and CPD events, liaising with safety related organisations, maintaining the internet web page to keep fellow members abreast of updated information and arranging technical visits to share safety management experience. SSG representatives attended meetings held by the Learned Society Board, Community Service Committee, Continuing Professional Development Committee, Public Relations Committee of the HKIE, and other external organisations.



Ir Robert S T Tam

The Group has maintained links with safety professional institutions both at home and overseas, namely Professional Committee of Construction Industry, the Association of China Construction Industry, Shenzhen Construction Safety Supervision Station, Guangzhou Construction Quality & Safety Supervision Station, Zhuhai Construction Safety Supervision Station, Department of Health & Safety at Work of Government of Macao, Construction Industry Training Authority, Occupational Safety and Health Council, Hong Kong Occupational Safety and Health Association and the Labour Department of the HKSAR Government.



*Technical visit to Seamen's Training Centre at Tai Lam Chung*

On 14 March 2003, three delegates from the Japan Construction Safety and Health Association (JCSHA) visited the Institution to share safety management experience with the SSG Committee members. Delegates from the SSG participated in the Safety Conference organised by the Professional Commission of Construction Safety of Construction Industry Association of the Mainland, which was held at Beijing in April 2003.

The Committee takes this opportunity to thank members who volunteered their valuable time on the Committee or helped with events, which contributed to the success of this Session.

### Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
28 Sep 2002	Regulation in Civil Aviation	LOK Kung Nam
25 Oct 2002	Safety Management Culture in Hong Kong	—
8 Nov 2002	Safety Aspect in Lighting Installation	K W PUN
30 Nov 2002	Seminar on Innovative Technology Application – Successes in Gas Industry	Simon NGO Philip SIU
2 May 2003	Technical Seminar on Safety Justice	Norbert C Y FAN

### Technical Visits

Date	Title
31 Aug 2002	KCRC Tai Wai Station
9 Nov 2002	Seamen's Training Center of Vocational Training Council
28 Dec 2002	Ocean Park

## Structural Division

The Session started off with the Institution of Structural Engineers (IStructE) Gold Medal Address delivered by Ir Dr Cheng Hon-kwan on 2 July 2002, hosted by the President of the IStructE, Professor Blockley in Hong Kong. Ir Dr Cheng is the 35th recipient of the Award and the only Chinese structural engineer to receive the Award since it was established in 1922. The address was well received with more than 450 people in attendance.



Ir Johnny S K Fan

During the year, the Division carried out a series of joint activities with the IStructE on professional examination matters. In September 2002 a number of senior Members were invited to conduct the Pre-Part 3 examination as interviewers. The fifth NABSER / IStructE Supplementary Test was held successfully in January 2003 in Shanghai for mutual recognition of professional structural engineers between United Kingdom and the Mainland China. The Part 3 Examination had also taken place as usual in April 2003.

The Division also provided channels for practising engineers to achieve Continuing Professional Development. Ten technical meetings and two joint seminars were held during the year. The Annual Seminar with the theme "Structural Safety & Hazard Mitigation" was held on 6 June 2003.

The Annual Dinner was one of the important events organised by the Joint Structural Division. This year, we also had a full house of more than 450 guests and our Guest of Honour was Ir Y C Lo, Permanent Secretary for the Environment, Transport and Works.

In October 2002, Division members visited Tokyo and Yokohama in Japan where they were warmly received by the Urban Development Council Technology Centre and Taise Construction Co. Members also took the opportunity to attend the Structural Engineering World Congress 2002.

To enhance public image of structural engineers, the Division responded actively to public concern by offering comments and technical opinions on issues of public concern such as the collapse of factory building under demolition in Lam Tin, the collapse of temporary bamboo scaffolding in Tsim Sha Tsui, and a gas explosion in Tsui Chuk Garden.

The Annual Joint Division Special Award this year went to Cyberport commercial development. This was announced after the Division's Annual General Meeting and a press release was issued.

The Division would like to thank our President, Ir Dr Lau Ching-kwong and Committee members for their continual support and contribution and looks forward to an even better Session in the coming year.



*The delegates of Annual Visit and the representatives of the Urban Development Corporation in Tokyo, Japan*

## Technical Meetings / Seminars / Visits

Date	Title	Speaker(s) / Remarks
9 Aug 2002	The Structural Use of Glass in Buildings	Christopher JOFEH
19 Sep 2002	Ma Hang Phase 3 – A Practical Demonstration of Partnering for Quality Building	C C WONG Y W SO Stephen C K LI Alan S L AU
8-12 Oct 2002	Annual Visit to Japan	—
15 Oct 2002	Pile Design in Seismic Areas	Harry POULOS
14 Nov 2002	The Development of the Alternative Design of the West Rail Viaducts	Nick SOUTHWARD
13 Dec 2002	The Application, Development and Prospect of Prestressed Long-span Steel Space Structures in Mainland China	Shi Lin DONG
16 Jan 2003	Widening of Fo Tan Road and Related Improvement Measures in Fo Tan	Y K POON
17 Feb 2003	Ultimate Load Analysis of Reinforced Concrete Plates and Shells by an Adaptive Finite Element Method	H A MANG
20 Feb 2003	Examination Techniques for the IStructE Part 3 Examination	C K LAU K S LAW H K NG David VESSEY
20 Mar 2003	Predicting Nonlinear Behaviour of Large and Slender Spatial Structures	S KITIPORNCHAI
23 Apr 2003	Construction Monitoring and Control for Yamen Bridge	D J HAN C SU
19 May 2003	Design and Construction Aspects of the Castle Peak Road Improvement from Tsuen Wan to Ka Loon Tsuen	Simon ILLINGWORTH Michael HARFOOT
6 Jun 2003	Annual Seminar on Structural Safety & Hazard Mitigation	—

## Young Members Committee

Young Members Committee (YMC) has organised over 60 events this Session including 30 seminars and 15 technical visits. Other than those activities organised to enhance professional development of members, we also organised a wide variety of activities including community services, social activities, graduates' promotion and students' promotion to provide young engineers of the Institution and potential engineers ample opportunity to develop themselves professionally and personally. In addition to the usual activities, significant events included the successful completion of the Green Building Delegation held in September 2002, the winning of the Most Innovative Design Award in the Solar Cart Race organised by Friends of the Earth, organisation of associate membership entry courses with the Hong Kong Institute of Arbitrators and Hong Kong Mediation Centre, and establishment of close links with other divisions and committees of the HKIE and external professional bodies.



Ir Janice W M Lai

Unfortunately some of our other major events such as visits to the Guangzhou Whampao Military Training Camp and to schools in the Mainland organised by Sowers Action had to be postponed due to the outbreak of SARS. Other than the core working groups mentioned above, the human resources, publicity, public relations, and webmaster working groups had also contributed a lot of their efforts to support the events organised by other working groups of the Committee. These included frequent gatherings for the helpers and launching of a new YMC website to keep members up to date on the latest activities organised.

The successful Session is due to the contribution and support of all Committee members and helpers of YMC.



The YMC Solar Cart Race Team won the Most Innovative Design Award in the 3rd Solar Cart Race

### Technical Meetings / Seminars

Date	Title	Speaker(s) / Remarks
5 Jul 2002	Search for Sustainable Integrated Waste Management Technologies for Hong Kong	—
11 Jul 2002	Management Series V for Young Engineers: Life Management	Stephen C K CHOW
17 Jul 2002	Technical Seminar on Ma Wan School	—
5 Aug 2002	China Series III: Do We Understand China? – Before Our Professional Services	Charlie XUE
14 Aug 2002	Technical Seminar on Integer – UK and HK Experience	David PALMER
20 Aug 2002	Technical Seminar on Kadoorie Biological Sciences Building, the University of Hong Kong	Ian Y L LEE
12 Sep 2002	香港建築業系列一之就業問題及機會	李卓人
12 Oct 2002	Successful Path to China – Career Opportunities for Hong Kong Construction Professionals	Jacob LAM
18 Oct 2002	香港建築業系列二之反貪實錄	梁翠霞
24 Oct 2002	Technical Seminar (Green Building Delegation Series) on Science Park – Green Provision	YIU Wai Keung
11 Nov 2002	Contract Series 1 – Evolution of Construction Dispute Resolution in HK	Raymond LEUNG
20 Nov 2002	The Modern Architecture of Satellite Master Antenna Television	Jackey CHENG
25 Nov 2002	Food Waste Management in Hong Kong	Jonathan WONG
14 Dec 2002	Communication Workshop Series I – Public Speaking and Presentation Skills	Experienced Toastmasters
7 Jan 2003	Occupational Health for Display Screen Equipment	CHEUNG Hon Chung
9 Jan 2003	Is There Opportunity for Electronic Engineers in the Alternative Dispute Resolution Field or Is It a Mere Hoax?	William KONG
24 Jan 2003	Intellectual Property Rights for Engineering Management	Hans LEE
18 Feb 2003	Contract Series 2 – Features of Construction Arbitration	Gary SOO
19 Feb 2003	Technical Seminar on Green Buildings of the United Kingdom and Netherlands	Delegates of GBD 2002
22 Feb 2003	Professional Indemnity and Contractors-All-Risk	Glenn HALEY Craig SHEPHERD
21 Mar 2003	Second Seminar on Occupational Health for Display Screen Equipment	—
24 Mar 2003	New Opportunities for Engineers through Co-operation with PRD Cities	Sarah LIAO
29 Mar 2003	Seminar on Human Resources Management	K S YEUNG
16 Apr 2003	Contract Series 3 – Features of Construction Mediation	Sylvia SIU
26 Apr 2003	Integrated Seminar and Visit: Intelligent and Green Systems at the Hong Kong Science and Technology Parks	—
3, 10, 17, 24, 31 May 2003	Hong Kong Institute of Arbitrators and Hong Kong Mediation Centre Joint Associate Membership Course	—

Date	Title	Speaker(s) / Remarks
13 May 2003	How Wireless Technology Can Help to Improve the Management and Productivity of a Business	Lawrence CHEUNG
29 May 2003	Annual Seminar on Synopsis of Hong Kong's Partnering, its History and Future Expectations	Colin JESSE Bryan CLIFFORD
	The 18th Annual General Meeting	—

### Technical Visits

Date	Title
6 Jul 2002	CLP Castle Peak Road Power Station, Black Point Power Station and Electric City
24 Aug 2002	Fire Station
14 Sep 2002	Super Terminal 1
22 Sep – 2 Oct 2002	Green Building Delegation
28 Sep 2002	Solar Energy Building and Intelligent Building System
26 Oct 2002	Wong Chuk Hang Police Training School
16 Nov 2002	Vessel Traffic Center Visit
30 Nov 2002	KCRC Cab Simulator
28 Dec 2002	Ocean Park
25 Jan 2003	EPD Island West Refuse Transfer Station
15 Mar 2003	West Rail Training Center at Pat Heung
22 Mar 2003	Castle Peak Road Improvement between Sham Tseng and Ka Loon Tsuen, Tsuen Wan