

President's Message

As the 13th President of the Singapore Concrete Institute and on behalf of the Board of Directors, it gives me great pleasure to pen this message to launch the inaugural issue of SCI Concretus, our first technical magazine-cum-directory.

This is yet another important milestone for SCI as we celebrate our 31st Anniversary this year. It will become the voice of SCI reaching out to our members, professionals, academics, researchers, practitioners, concrete and construction industries locally and overseas. A bi-annual magazine, it is distributed to our members as well as learned readers in the region and also it will be hosted on SCI website.



Through this publication, we aim to:

- Uphold the standards of excellence in the use of concrete;
- Publish technical articles on concrete technology and good practices;
- Improve concrete technology and encourage the use of concrete;
- Facilitate and coordinate the interchange of ideas and information related to concrete;
- Improve visibility of companies and promote their products and services.

I am encouraged that our members and many associated businesses and companies come out strongly to support the publication of this magazine. The SCI Concretus will serve as an important resource for the concrete industry and be a connector to all related businesses in the building and construction industries in Singapore and the region.

I would like to take this opportunity to thank our partner, Infrastructure Asia for their effort and support in the publication of SCI Concretus, all our sponsors for financing this inaugural issue and lastly our Directors who have tirelessly collected and put together many of the interesting articles contributed by various organizations and individuals. May this new SCI Concretus serve as an invaluable resource to all.

Oh Lock Soon
President
Singapore Concrete Institute
17 November 2009

Board of Directors 2009/2010



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Peter Lee Bay Tseng (1978-1984)



Following an unsuccessful attempt by Er. Phillip Chow to start a learned institution for concrete, I approached Er. Francis Mak, then President of The Institution of Engineers Singapore (IES). He confirmed that he sees no conflict of interest between the proposed institution and IES, and encouraged me to proceed. I formed a Protem Committee comprising a wide spectrum of representation from the academic, statutory, construction and conference organising fraternities with interest in the science, technology, production and use of concrete in all aspects of construction. We decided on the name, The Singapore

Concrete Institute, and organized a design competition to select and decide on the logo for the Institute.

The early goings has not been a bed of roses, but I was privileged to work with an able and passionate team of co-workers who have rapidly spread the message throughout the industry and formally constituted The SCI on 10 March 1978. The Protem Committee members then constituted the first Board of Directors of SCI and I was elected by acclaim the Founder President and the First Ordinary Member of SCI. We decided to invite not only ordinary members but also group or corporate members of companies and organisations to subscribe from the beginning.

The SCI jointly organize and support the annual Our World in Concrete and Structures Conferences. Other learned activities include seminars of topical interest, visit to important construction

sites and above all in research and development work in universities, polytechnics, cement and ready-mix concrete production, quarrying, sand dredging and importing facilities. We produced and distributed the Good Concrete Practice booklets to raise the processing and usage standards of concrete in the construction industry. In these activities Professor Tam Chat Tim, among other co-workers, was a pillar of strength and naturally succeeded me as the second President of SCI. Since the founding of SCI, Singapore has witnessed a tremendous leap in construction activities in the past thirty years for high-rise buildings, transportation, water supply and regeneration, waste-water management and many other infrastructural and defence facilities. All built environment in Singapore uses predominantly concrete in various forms such as plain, reinforced and pre-stressed concrete. So much so that we are experiencing challenging situation in the procurement of basic aggregate materials of sand and stone even from far away locations in the world. Singapore has advanced in financial, material and technological terms during this period of thirty years, but for the future generation of our society and nation we discern urgent need to advance the moral character of our people and government. Else all our physical achievement would be in vain, and decline inevitable as we have witnessed in recent history of the relentless and mostly self-inflicted decline of the Anglo-Saxon and Caucasian Civilisation. SCI as a citizen institution of our nation also has the responsibility to exercise moral advancement for the long term greater welfare of our people for whom we help to deliver the built-environment. May the Almighty God, Creator and Ruler of the universe bless and keep Singapore and the Singapore Concrete Institute to His eternal glory.

*Peter Lee Bay Tseng
Founder President
Singapore Concrete Institute
5 November 2009*

Dr Tam Chat Tim (1984-1986)

Dr Tam is a Founding Member of the American Concrete Institute (Singapore Chapter), a Past President of the Singapore Concrete Institute and also a frequent speaker in local and overseas conferences and seminars. He has received several awards for his contributions to the concrete industry in Malaysia and Singapore. Before joining the National University of Singapore in 1979, he had been Head of the Department of Civil Engineering in University of Malaya. He has provided technical advice to many projects and organizations and an authority in concrete and concrete constituent materials. He served as a co-coordinator of the Task Group on materials in the review of EN standards and has been involved in standardization for over 40 years.



Dr Lau Yat Sun (1986-1988)



Dr Lau was Adjunct Professor at NTU from 1985-2002; Chairman, Singapore P.S.B. Technical Committee on Structural Engineering Practice 1993 – 2001; Member, Singapore P.S.B. Technical Committee on Code of Practice on the Structural Use of Concrete 1990 –1999; Member, LTA Advisory Panel 2002

From 1952 to 1959, Dr Lau has held positions as Assistant Engineer to City Engineer, Nottingham. Municipal engineering and design of prestressed concrete viaducts. He has also been Assistant Engineer to Maurice Nachshen, Consulting Engineer, London. Site Investigations and design of multi-storey buildings and Engineer in Taylor Woodrow, Ltd, U.K.. Planning and construction of power station substructures, precast concrete design, missile launching site construction. He established a civil/structural consultancy in Kuala Lumpur, Malaysia in 1960 and in Singapore in 1964, with overall responsibility for investigation, planning, design and supervision of works including foundations, tall buildings and towers, wharves, roads, bridges, water supply, sewerage, drainage, industrial plants, aircraft hangars and other airline facilities, in Malaysia, Singapore, Thailand, Indonesia and Iran, serving public authorities, statutory boards and others. Dr Lau is currently interested in the field of forensic engineering.

Dr Khoo Kay Chai (1988-1989)



Dr Khoo Kay Chai born in Singapore 1935, studied Civil Engineering at the University of Malaya and graduated in 1961. From 1961 to 1964, he worked as Engineer in Singapore's PWD, where he was in-charge of the South Division of the Roads, Bridges and Drainage Department.

In Dec 1964, Dr. Khoo left PWD to join Singapore Polytechnic as an Asst Lecturer in Civil Engineering. He taught courses at both the diploma and degree levels. Whilst a lecturer, Dr. Khoo undertook several engineering consultancy projects.

In 1966, awarded a French Government scholarship to study Aerial Photogrammetry in Paris. In 1967, Dr. Khoo was asked

by McNamara Engineering Consultants to prepare a comprehensive Engineering Topological plan for the island of Blankang Mati (now Sentosa) through an Aerial Photogrammetric Survey.

In 1972, he studied Education at the University of Manchester, UK and in 1986, attended the Senior Executive Program at the Sloan School of Management at MIT in the US.

Dr. Khoo served as Principal of the Singapore Polytechnic from 1976 until he retired in 1995. In this period, the polytechnic became model institution in the region.

He also served on several committees in both the public and private sectors. Dr. Khoo was Chairman of the Activities Committee of IES from 1968 to 1970 and Hon. Secretary of IES from 1970 to 1972. He has received Honorary Doctorates from universities in Australia, Mongolia, the Philippines and the UK.

Dr P Paramasivam (1989-1995)

Dr P Paramasivam is a Professorial Fellow at the Department of Civil Engineering, National University of Singapore, Singapore. He is serving as an Advisor to few Engineering Colleges in India and also as a consultant in Civil and Structural Engineering.



He was the President of SCI from 1989-1995. During this period, he was actively promoting SCI Activities and organized three International conferences. The booklets on concrete practices are updated and Fifteenth Anniversary of SCI was celebrated. For his contributions, the SCI honored him with Life Member of SCI.

Dr Ho Nyok Yong (1999-2001)

Dr Ho is a Director of Samwoh Corporation Pte Ltd, a leading integrated engineering and infrastructure company. He has many years of diversified experience in civil engineering, design and consultancy works, teaching and business development. He has worked with multi-national organizations and has involved in many prestigious construction projects.



Dr Ho is also actively involved in R&D works on efficient utilization of waste materials, sustainable construction and concrete technology. Presently he is the 1st Vice President of SCAL. In his career, he has received a number of awards in recognition of his meritorious contributions.

Er Ng Say Cheong (2005-2007)

Er Ng Say Cheong is currently Deputy Director (Upgrading Construction Management) in HDB. Prior to his current appointment, he is the Head of Prefabrication Technology Centre (PTC),



HDB. During his term as President of SCI, the book, 'Blue Prints for successful Public Housing Development', a compilation of informative technical articles regarding construction technology, was successfully published.

Er Ng is in the IES Council and is the Chairman of the Civil & Structural Technical Committee.

Er Lau Joo Ming (1995-1997)

Currently, Er Lau is the Managing Director at HDB Building Research Institute. Prior to this appointment, he was DCEO of HDB. In addition, he is President of Professional Engineers Board.



Er Lau brought SCI to new heights through strong collaboration among government agencies, institution of higher learnings and private sectors. Notably, he was instrumental in housing SCI in permanent office. SCI stayed on course in sharing and dissemination of knowledge on concrete technology and materials.

Prof Gary Ong (2001-2003)



Dr ONG Khim Chye (Gary) is Associate Professor and Deputy Head in the Department of Civil Engineering, NUS. He was President from May 2001 to April 2003.

“My term as President of SCI coincided with a previous economic downturn. As I look back, I cannot help but marvel at the contrast in impact the current economic slowdown has on stakeholders in Singapore’s Concrete fraternity. This time, the construction sector is experiencing a bumper season despite the economic slowdown! Looking ahead, new challenges are ahead in the form of sustainability and green concrete.”

“I am still actively contributing to SCI as its representative in the Technical Committee on Building Structure and Sub-Structure, Building and Construction Standards Committee (BCSC), of the Standards, Productivity and Innovation Board as Convener of WG2 for Singapore’s migration to Eurocodes”.

Willie Kay (2007-2009)

I work in the construction chemical business supplying materials from MC Bauchemie as well as training, supervision and QA/QC to ensure the products are utilised correctly.



I have spent my life in the concrete industry of which 30 years in Asia. I have been involved with PSB on various codes in the construction industry. I am a member of the Institute of Concrete Technology and a Fellow of the UK Concrete Society.

During my term of President, we made formal ties with neighboring concrete institutes; and in 2008, SCI became a member of ACF the Asian Concrete Federation. I also represented SCI on the Euro code EN206 as joint task force leader with Prof CT Tam.

Tan Kheng Hwee (1997-1999)

Mr Tan Kheng Hwee Andrew was a founding member and appointed as the Managing Director/CEO of BBR Holdings (S) Ltd since 1 April 1994. He is responsible for the management and business development of the Group. Prior to setting up the Company, he spent two years after graduation in the public service and worked another 13 years with another public listed company.



He holds a Bachelor of Engineering (Honours) from the University of Singapore and a Master of Science from the National University of Singapore. Mr Tan is also a registered Professional Engineer and a member of the Institution of Engineers (Singapore).

Tan Tian Chong (2003-2005)

Mr Tan Tian Chong is the Director, Technology Development Division of the Singapore Building and Construction Authority (BCA). He oversees the BCA Green Mark Incentives Scheme for private developers of Green buildings. His Division also runs the Construction Quality Assessment System (or CONQUAS) to assess the workmanship quality of majority of the building projects in Singapore.



He is a member of the Singapore Standards Council and the Deputy Chairman of the Building and Construction Standards Committee.

He is also the President of the Singapore Structural Steel Society (2005 to 2009).

Current President

Er Oh Lock Soon

Er Oh Lock Soon (BSc University of Southampton, MSc Imperial College of London) President of Singapore concrete Institute (SCI) is a registered Professional Civil Engineer in Singapore. He joined HDB as a



Structural Engineer in 1982. From 1995, he was the Head of HDB Prefabrication Technology Centre. After serving the HDB for 21 years with distinction, Er Oh left for the private sector to join the CapitaLand Group in 2003. In 2006, he was assigned to be the Chief Operating Officer of the TCC Capital Land Limited in Thailand. He left the Group in Dec 2008 and joined the Qingjian Group in 2009 as the General Manager (Precast Business).



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PRESIDENT'S MESSAGE AT 9TH ANNUAL CONFERENCE ON "OUR WORLD IN CONCRETE AND STRUCTURES"

The Singapore Concrete Institute is joining the Ready-Mixed Concrete Assn. of Singapore (RMCAS) in sponsoring the Conference on Our World in Concrete and Structures for the first time. This is the ninth Conference in the series which has been held annually with the first in 1976. Since then, the series has grown both in the number of papers as well as in the number of countries from which participation has come. It has become the regular venue for those interested in concrete to come together to exchange ideas and experiences. It has also provided the forum for the transfer of technology from overseas. All these coincide with the aims and objectives of the Singapore Concrete Institute. It is our hope that in the years to come, the Conference will grow further in its scope and strength. Perhaps, one may even consider, in future years, to hold the Conference, now and then, in the neighbouring countries.

The Singapore Concrete Institute has been formed for just over six years.

The idea to form such a national body was in fact first publicly discussed at the 1977 Conference of this series. Currently, the membership has passed the 400 mark and is expected to reach 500 by the next Annual General Meeting in April 1985.

Besides organising talks, seminars and technical visits, the Institute publishes a bi-monthly Circular and a quarterly Newsletter. In addition, the Institute has recently published the third bilingual booklet entitled Formwork and Shores, in its Good Concrete Practice Series. Other topics under preparation include concreting, reinforcement and prestressing. They are intended to provide guidance for the men on the job. All these booklets are distributed free of charge to organizations approved by the Board of Directors of the Institute and the printing cost is met by donations specially set aside for this purpose.

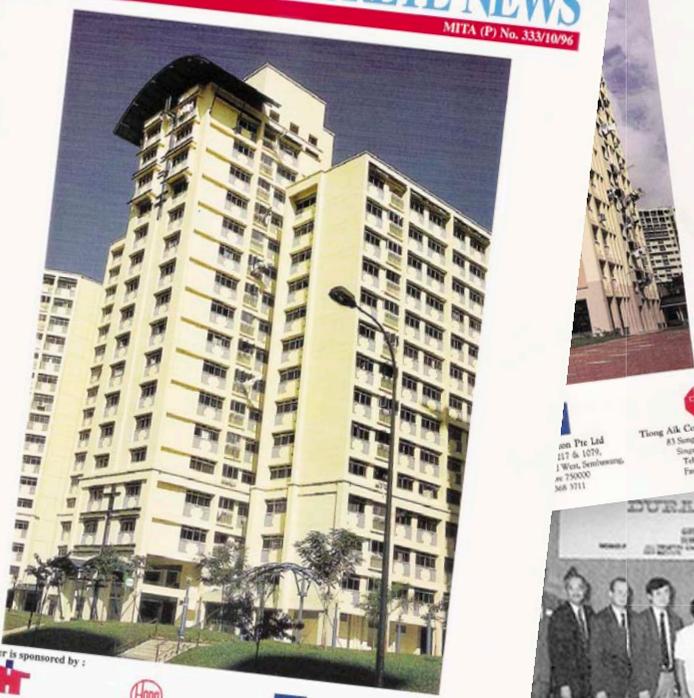
The Institute together with the Singapore Chapter of the American

Concrete Institute, is formulating a set of criteria for awards in the innovative use of concrete in design or construction and will also be organising an essay competition for students in tertiary educational institutions on some aspects of concrete industry. It has already been awarding annually book prizes for excellence in the studies of concrete at tertiary institutions of engineering education. The Institute contributes towards promoting the better use of concrete through its representatives serving on the various Technical Committees of SISIR in drafting standards related to the concrete industry. The Institute will continue to play an active role, together with organisations of similar interest, such as RMCAS and the Singapore Chapter of ACI, in all matters related to concrete, including this series of annual Conferences on Our World in Concrete and Structures.

Tam Chat Tim
27 August 1984

Singapore Concrete Institute is not responsible for statements and opinions expressed by the authors of technical papers published in this Newsletter.





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- Chap Hean Construction Co (Pvt) Ltd
101 Upper Cross Street,
905-24 People's Park Centre,
Singapore 050512
Tel.: 531 7544/6/7 Fax: 65 534 3071
- Hong Leong Asia Ltd
7A Tanjong Pagar Road,
Singapore 080079
Tel.: 362 3562 Fax: 364 0674
- Shimizu Procon Pte Ltd
Lot 113-11, 217 & 1079,
Off Admiralty Road West, Sembawang,
Singapore 750000
Tel.: 368 9711
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83 Sungei Kadah Drive,
Singapore 729566
Tel.: 363 7668 Fax: 363 5572



SCI-JCI joint seminar in 2005



2006 Annual Dinner and Lecture



2006 site visit to Kim Chuan depot

