# **SCI - NEW TRAINING MODULES**

Inspection, Repair and Durability

# Ten New Courses

## Lecturers:



### Fong Weng Khiong

B.Eng. Civil Engineering, University of Glasgow, United Kingdom, 1991 (2<sup>nd</sup> lower)

**Mr Fong Weng Khiong** is currently a Director of **Ascent Facilities Engineering Pte Ltd**, offering specialist consultancy advice on structural/condition surveys and investigation, materials specification and project management of repair contracts. He spearheads marketing and is responsible for the complete business and operations of the company. He worked for Taywood Engineering Limited from 1991 to 2000, learning as a graduate engineer to becoming Projects Manager. He was Principal Engineer in SETSCO Services Pte Ltd from 2000 to 2004 before setting Ascent Facilities Engineering Pte Ltd. He has worked on projects in China, Vietnam, Indonesia, Malaysia and Singapore.

He is also a Director of Singapore Concrete Institute and is involved in teaching technical courses in the field of concrete deterioration and inspection. He is a Senior Member of Institution of Engineers Singapore since 1994. He was co-investigator on a research jointly sponsored by NUS-SETSCO on the topic "Life Cycle Costing of Paint and Plaster for Façade Maintenance". Mr Fong has been involved in more than 50 projects in projects of such nature:

- a. Service Life Prediction
- b. Technical Due Diligence of Building Assets
- c. Structural / Condition Surveys
- d. Remedial Strategies
- e. Upgrading / Repair Project Management
- f. Material Specification and Contracts
- g. Building Diagnostic Inspection
- h. Concrete Technology on Cracks Mitigation



#### Yosesh Chhabra B.E. (Civil), Delhi University MBA, NUS

**Mr Yogesh Chhabra** obtained his B.E. (civil) degree with distinction from Delhi College of Engineering India in 1983 securing 3<sup>rd</sup> position in Delhi University. Subsequently, he obtained masters degrees in civil engineering (Major in structures) and Master of Business Administration (MBA) from the National University of Singapore. He has twenty two years of diverse experience in the construction industry throughout Asia pacific involving structural investigation, repair/rehabilitation, specialist civil engineering products, structural design, project management, general management and business development. He has expertise in the fields of structural rehabilitation & blast mitigation using advanced

composite materials, concrete repair, bridge bearings-expansion joints, heavy lifting/ bearing replacement, bridge retrofit and prestressing works.

He has been actively involved in the development, testing, marketing and proliferation of FRP (Fibre Reinforced Polymer) composite systems for structural retrofitting and blast mitigation in the Asia Pacific for the past eight years. He has accomplished and managed numerous infrastructure and building projects in various countries including Singapore, Malaysia, Hong Kong, Thailand, Philippines, Taiwan, and India involving use of specialist civil engineering products such as FRP retrofit systems, bridge bearings, expansion joints etc. He is a Chartered Engineer and has contributed several papers and articles on the development and use of composite materials, structural investigation, repair/ rehabilitation and blast mitigation in numerous international seminars, conferences and journals. He has conducted courses and seminars on concrete repair and FRP retrofit at Singapore Concrete Institute (SCI), Institution of Engineers Singapore (IES), Association of Consulting Engineers Singapore (ACES), National University of Singapore (NUS), Philippines Institute of Civil Engineers (PICE), Indian Institute of Technology Roorkee & Chennai, Thailand Concrete Institute etc.

He had worked in several local & Multi National Companies of Singapore in the past decade before starting his own company, Novaars International Pte Ltd. Earlier, he was employed in the capacities of Asstt. General Manager, Senior Vice President with L&M Group and Fyfe Asia Pte Ltd respectively. Currently, he is the managing director of Novaars International Private Limited Singapore, which is involved in providing consultancy services & training in the fields of structural appraisal, concrete repair/ rehabilitation and FRP retrofit and marketing/ distribution of specialist construction and structural retrofitting products in Asia Pacific.



#### Dr Dennis Song BEng, MBA, PhD, CEng, MIMechE, AMIoM

**Dr Dennis Song** is currently the managing director of FOSTA Pte Ltd (fos-ta.com), an EDB invested hi-tech structural monitoring and strengthening company. He designs, fabricates, installs and operates structural health monitoring (SHM) systems using fibre optic sensors (FOS) and other sensing devices for structural and geotechnical works in Singapore, Malaysia and China.

He is also involved in redevelopment of powerful total station and geoscope software

system, which is known worldwide as reference tool and software in the field of structural monitoring and instrumentation. Dennis is a composite specialist who develops advanced glass and carbon fibre composite materials for structural strengthening. Before FOSTA, he was the Senior Manager of Regional Business Development Division and Technology Division of CPG Laboratories Pte Ltd, a subsidiary of CPG Corporation. Dr Song has 20 years of working experience to provide engineering testing and consultancy services for various industries. Before joining CPG, Dennis was a Senior Consultant and Project Manager of PSB Corporation Pte Ltd.

Dr Song graduated from China in Engineering in 1984. He obtained PhD from Imperial College, UK in 1993, followed by MBA from NTU in 1992. He has more than 20 publications in journals and conferences, and hold three patents in composite material, car-park management and fibre optic sensors. He is a UK registered engineer and members of Institute of Mechanical Engineers, Institute of Materials (UK), Singapore Non-Destructive Testing Society and FRP Society.



#### Mr Lim Sun Nee MEng, BSc (Hons)

Mr Lim Sun Nee received his MEng degree from the National University of Singapore in 2001. He has been involved in numerous research and development projects on development of advanced concrete materials and consultation projects. His current interest include corrosion control, concrete repair and fibre strengthening. He is currently the Specifications and Technical Manager in Fosroc Singapore spearheading the technical division of electrochemical corrosion control solutions, fibre strengthening of structures and concrete repair for reinforced concrete structures.



#### Zhang Min Hong BSc, Dr Eng

**Dr. Zhang Min-Hong** is Associate Professor with Department of Civil Engineering and Director of Centre for Construction Materials and Technology, National University of Singapore. She obtained her BSc from Tongji University in Shanghai, People's Republic of China, and Dr. Eng. degree from the Norwegian University of Science and Technology in Trondheim, Norway. Prior to joining NUS, she was Research Scientist at Canada Centre for Mineral and Energy Technology (CANMET), a Canadian Federal Government research organization in Ottawa.

Dr. Zhang is Director of Singapore Concrete Institute. She is a Professional Engineer registered in Ontario, Canada, a Fellow of American Concrete Institute (ACI), and a

member of ACI Committees 213-Lightweight Aggregate and Lightweight Concrete, 232 - Fly ash and Natural Pozzolans, and 234 - Silica Fume in Concrete. She is also a member of ASTM Committees C1-Cement and C9-Concrete and Aggregate, and a former member of International Federation for Structural Concrete (FIB) Task Group on lightweight concrete.

Her research interests include lightweight aggregate concrete, high-strength high-performance concrete, rheology of fresh concrete, and microstructure of composite materials. She has authored and co-authored more than 60 papers which include more than 40 papers in peer reviewed international journals. She is listed in the 23rd edition of Marquis Who's Who in the World, 2006.

#### Honey Lim Diploma – Civil Engineering, Singapore Polytechnic

Honey is currently running her own consultancy firm HL Advisory Services. The firm gives advise on construction problems particularly on concrete repairs, flooring & waterproofing as well as marketing and business plans. She is also a Director at Westin Media International Pte Ltd.

She has held various technical sales and management positions with Temco, Fosroc, I.R.E and Sika in the last 30 years dealing in construction chemicals for various projects.

She has been a Director of Singapore Concrete Institute from 1985 till present and had received a Merit Award from PSB in 2003 for contributions in several Singapore Standard committees. Since 2001, she is a Committee Member of Lighthouse Club, a charity for Construction Industry.

She has been an invited speaker in various seminars & talks over the years to JKR, IES, SCI, NUS, CPG, NTU, Singapore Polytechnic, Ngee Ann Polytechnic & CIDB on various topics on concrete repairs, structural strengthening, sealants & waterproofing.



#### Willie Kay A.M.I.C.T., FCS, FSCI

Mr Willie Kay is the Managing Director of WAK Consultants & WAK Trading Pte Ltd and the Technical Director of MC Bauchemie (Malaysia) Sdn Bhd.

Willie has more than 40 years of working experience in Concrete Repair and is a **Specialist Contractor involved** in innovative injection and repairs to concrete platforms being built in Scotland. Developed new techniques and material application to enable new methods of sealing to be evolved.

Served in various roles in both UK and S.E. Asia including Special Project Engineer, Technical Manager Commercial Manager and served in various roles in both UK and

S.E. Asia including Special Project Engineer, Technical Manager, Commercial Manager and Fosroc Singapore then Malaysia supported operations in Japan, Korea, Indonesia and India.

As Managing Director of WAK Consultants, he is involved in the following projects:

- 1) Repair of World Trade Centre, Colombo after the bomb blast.
- 2) Repair of sea water in-take canals in Indonesia, over 20 kms of crack repair and joint sealing.
- 3) Concrete consultant to Hume Industries (Malaysia) Sdn Bhd in resolving strength problems in pre-cast units.
- 4) Consultant to Redland Precast on repair methods and concrete variability
- 5) Involved in specification writing and repairing Tunnel leaks in projects in Singapore.
- 6) Currently writing repair and injection method statements for Deep Sewer Tunnel Project in Singapore.
- 7) Overall in charge technically to the repairs and re-waterproofing the Islamic Museum in Malaysia.
- 8) CWRP Changi Project supply of additives and specialized material, consultant to ECON Corporation on Projects C2A and C2B

His Technical/Professional achievements :

- Fellow of UK Concrete Society
- Associate member Institute of Concrete Technology U.K.
- Member of ACI International
- Life Member Indian Concrete Institute
- Fellow and Director of Singapore Concrete Institute

Member of two (2) committee for Production Singapore Standards/CP (Code of Practice):

- (1) Admixtures SS320
- (2) Code or practice for waterproofing

Worked with BCA, HDB and other bodies developing specifications and training programmes.

Have presented over thirty (30) papers worldwide including UK, Ireland, Japan, Hongkong, Thailand, Malaysia and have presented the high performance concrete, lecture at World of Concrete Asia twice.

He has written more than 40 technical papers for presentation around the world and chaired numerous technical sessions for the SCI, RMCA in Singapore and including ACI, Rilem, and World of Concrete. He has presented papers in many countries including Japan, HongKong, Vietnam, Thailand, Malaysia and India.

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