"This year has marked another challenging year for the consulting engineering business and the built environment."
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This year has marked another challenging year for the consulting engineering business and the built environment. The manpower issues such as the tightening of Employment Pass and S-Pass has affected many of our fellow consultants. There are also concerns on the extremely competitive professional fee being offered and its long term effect on the industry being able to attract and compete for talents into our profession.

ACES has raised these issues repeatedly with all stakeholders and recently, Building Construction Authority (BCA) has initiated an Industry Consultation Session on Proposed Enhancement of Quality-Fee Method (QFM). Our Chairman Business 
Et Professional Practice, Er. Russell Cole has feedback to BCA to indicate ACES support in principle of BCA’s broad aims to address concerns over fee diving and its effect on the building consultancy industry. Separately, Ministry of National Development (MND) has also convened a Built Environment Industry Rebranding Committee (BEIRC) and PEB/BCA/ACES and IES have also organised a committee to look into the various issues affecting the industry.

ACES hope the mechanisms of procurement by Singapore Government agencies can be improved so that appropriately qualified firms are awarded with reasonable fees that reflect their effort and quality of work. ACES had given some suggestions to BCA for consideration to make the QFM more effective.

Lastly, we like to thank all members who have come forward and help to contribute any ideas they may have in the issues facing the industry.
The 9th ACES-ACEM Dialogue was held on 23 November 2013, and this time around was hosted by ACES in Singapore, at the ACES premises. The meeting was attended by 6 Council members of ACEM and 9 ACES Council members.

It was a good meeting, many of the council members had met at the last dialogue and had fond memories of the time that we had spent together.

The dialogue started with ACES President Er. Koh Boon Liang giving an overview of the recent developments affecting the consulting practice in Singapore; the Productivity Drive; Green and sustainable environment; Design for Safety; the implementation of the Eurocodes; manpower and fees issues.

Er. Koh also presented on the need to Design for Safety (DfS) and its effect on every stage of the building life cycle, from design to construction to maintenance and repair and decommission / demolition. The stakeholders are not just the PEs, but include the developers and contractors.

Ir. Dr Wong Wai Wah gave a presentation on the "Construction Industry Payment and Adjudication Act (CIPAA) 2012, which had been gazetted, but the Regulations had not been approved by the Minister. This Act is very similar to the Singapore’s Security of Payment Act, except that CIPAA also looks at the amount to be paid, overpayment and underpayment.

Following the presentations, there was an interesting exchange of ideas on how the practices on both sides of the causeway can combat the manpower and low fees, but both side agreed that these issues are complex and difficult to resolve, as they are affected by market conditions and government initiatives.

ACEM also gave an update on the Malaysian’s registration of Engineers Act, ACPE, the Singapore-Johor MRT and the KL-Singapore high speed train.

Other discussions centered on the use of BIM, backward compatibility of Revit, and the ASEAN Chartered Professional Engineers.

Following the dialogue session, the group visited the Sky Bridge at Pinnacle @ Duxton, the intention is to show them the PSA Container Port while it is still at Tanjong Pagar, before it moved to Tuas. From here, one can get a clear view of the Central Business District, and as far as to the M-S site where the joint project between Malaysia and Singapore at Ophir Road. The group also visited the Cloud Forest and Flower Dome at Gardens by the Bay.

The technical visit ended with a dinner hosted by ACES, where the past presidents of ACES were also present to welcome the ACEM delegates to Singapore.
In line with the registration of C&S RE/RTO through the joint effort of IES/ACES, it is a matter of time before the IES/ACES will embark on the registration of M&E RE/RTO. And as such, this effort was started in early 2012 via the leadership of IES’s Er. Ong Ser Huan and ACES’s Er. Callan Lam.

The intention of the Registry was to establish a pool of competent Engineers and Technical Officers to assist Consulting Engineers in undertaking the site supervision work. In time to come, it is also envisaged that training programmes will be organised to further lift the standard of our site supervision.

The Registry was launched in May 2013 and to-date, we have received more than 200 applicants and have arranged interview for almost 150 applicants. Out of these interviewed, almost 100 applicants are found suitable to be accepted into the Registry. All successful applicants have also been given letter of confirming their acceptance into the Registry.

We look to the continual support of our member firms to encourage more of their M&E RE/RTO to be registered and also give preference to those within the Registry for appointment of M&E RE/RTO.

Preparation for staging Structural Engineering World Congress 2015 (SEWC 2015) is underway. The organizing committee has in principle selected Raffles City Convention Centre as the venue for the convention. About 600 delegates from all over the world are expected to attend the conference which will be held during 18 to 22 October 2015.

The Conference is organized by the Association of Consulting Engineers Singapore (ACES) and Prestressed and Precast Concrete Society (PPCS) and is supported by BCA, LTA, HDB, NUS, SIA, SSSS, SCI, SCAL, TUCSS and SGBC.

Calling for papers will commence soon with abstract submission is expected to be by 16 March 2015 and final paper submission is by 16 July 2015. The papers are to be focusing on the following 20 topics:

1. Structural Conceptualization and Design
2. Innovations in Structural design, Modelling and Construction
3. Innovations in Construction Materials and Construction Techniques
4. Tsunami and Earthquake
5. Challenges and Advances in Wind Engineering
6. Sustainability and Green Structures
7. Vary Tall Buildings
8. Conservation of Buildings and Structures
9. Bridge and Tunnel Infrastructure
10. Underground Structures and Caverns
11. Aviation / Airport Structures
12. Marine and Water Infrastructure
13. Industrial Structures / Structures for Industrial Facilities
14. Defense Structures
15. Architecture in Engineering, Façade Design, etc.
16. Design and Construction Productivity
17. Professional Practice and Codes
18. Software
19. Precast Construction
20. Foundations

Another term has started and work has been underway to consolidate our effort in representing our concern and interest to various parties in the course of work. First of such activities, was a meeting held with EMA with regards to certification of works to be undertaken by Professional Engineer (PE) prior to gas charge in. It was resolved that PE need only endorse on work undertaken. As for integrity of appliances connected to gas, suppliers need to furnish appropriate certificate to establish integrity of the appliances.

There was a meeting with PUB to establish a clear line of responsibility for PE who endorse for works prior to final connection of house sewer to external sewer.

Presently, we have been asked to review the limitation of large pipe passing through fire compartment walls and are working with some of our members to resolve with FSSD.

We have also appointed representative as per request from FSSD on the study of services within dry wall.

There is a suggestion that the NPQS may be revised and we will need volunteers to assist when this happens.

We have been fortunate to get support in all our representative work. For this we need to thank the willingness of many of our members to assist and look forward to getting more involved.
After a heavy downpour, silt gets washed down from exposed earth surfaces and construction sites into the waterways and reservoirs. To tackle the problem of silty water from the construction sites, PUB works hand in hand with the construction industry on public education and engagement, use of technology, and enforcement.

To promote awareness and technical competency, PUB holds courses/seminars on erosion and sediment control, organised together with the Institute of Engineers, Singapore (IES) and Association of Consulting Engineers Singapore (ACES) and other government agencies.

To set standards for silt control, the Sewerage and Drainage (Surface Water Drainage) Regulations, supported by the Code of Practice on Surface Water Drainage, stipulates minimum requirements for control measures (ECM) at worksites. Contractors are required to provide ECM plans, designed and endorsed by Qualified Erosion Control Professionals (QECP), before the start of any construction work. The plan would include facilities to be installed to contain and treat rainwater runoff before it is channelled back into the drains.

In essence, an effective ECM plan comprises two aspects, namely erosion control — to minimise bare earth surfaces; and sediment control — to control, store and treat silt sediments in compliance with Clause 6.3 of the Code of Practice on Surface Water Drainage. QECPs engaged by the contractors should work closely with the contractor to design adequate and effective ECM so that the measures can be sustainable over the whole development period and various construction phases.

PUB continues to promote best practices and fine-tune its silt control programme in tandem with environmental and technological changes. Some key revisions made to date, as well as areas currently being reviewed are summarised as follows:

**CLIMATE CHANGE**
To cater to the prevalence of heavier and more unpredictable rainstorms, since 1 Apr 2012, the ECM design standard has been revised from 1 in 2 years storm design to 1 in 5 years storm design. This translates to about 30% increase in the holding sump and treatment capacity requirements for silty water.

**INDUSTRY FEEDBACK**
From the industry feedback, PUB has worked with IES and ACES to form a QECP Review Panel since 1 Mar 2013. The Panel carries out quarterly reviews of QECP’s service standard by inviting QECPs to present their working ECM plan for the construction sites. Demerit points are given to QECPs who provided poor ECM plans for their clients and the review outcome is shared with the QECP community.

**CONTINUOUS PROGRAMME REVIEW**
PUB has monitored the effectiveness of its CCTV requirement over the years, leading to its revamp in Sep 2013. Under the new requirement, contractors of constructions of 0.5 ha and above, sites within sensitive areas or problematic sites are required to install the CCTV system at the public drain to monitor the discharges from its discharge outlet(s) and discharges in the public drain, at a 5-min snapshot interval. Previously, the CCTV system is installed within the site and hence would not show the actual discharges in the drain. Also, the contractors found it difficult to handle the 30-day video footage required previously.

**TECHNOLOGY ADVANCEMENT**
Technologies that PUB is now exploring to further enhance silt control at the construction industry includes, smart phones apps for site inspection reporting, ceramic membrane for silty water treatment and image sensing technology to auto-detect silty discharge.

Notwithstanding the above continual improvements in its ECM programme, PUB would urge the construction industry professionals to play an active role in working with the contractors in preventing silty discharge, so that everyone in Singapore will have active, beautiful and clean waterways and reservoirs to enjoy.

More information on the ECM programme is available at www.pub.gov.sg/ecm.
FIDIC Centenary Conference 2013

Quality Of Life – Our Responsibility

By Er. Thomas Cheang

This year FIDIC celebrates her hundredth-year anniversary!

In 1923, as a result of a research for independent expert consultants for the World Fair Exhibitions in 1913, a number of consulting engineers met to discuss the possibility of forming a global federation. The meeting was a success in that it led to the formal constitution on 22 July 1913 of FIDIC, Fédération Internationale des Ingénieurs Conseils, or later, the International Federation of Consulting Engineers.

This year FIDIC Centenary Conference was held in Barcelona, 15 – 18 September 2013, the capital of Catalonia and the second largest city in Spain. The venue of the conference was at Palau de Congressos de Catalunya. The FIDIC Centenary Conference was very well received with about 1,200 participants from the member countries.

FIDIC Centenary Awards was celebrated at FIDIC Gala Dinner in Barcelona on 16 September 2013. FIDIC was delighted to award Trophies of Excellence for projects and individuals having made a significant contribution over the last 100 years.

Over the last century, consulting engineers have made a truly significant impact on society worldwide. Innovative advances in transport, water supply, energy, buildings, and vital infrastructure have all led to improved health and economic development, and hence a much better quality of life.

The past one hundred years of engineering excellence have shown what can be achieved. The foundations for a sustainable future have been provided, with the consulting engineer now established as an essential partner for an improved society. Effective engineering is clearly fundamental for humankind, but the strategic planning skills of engineers need to be universally recognised and used for the benefit of everyone.

However, much of mankind still struggles for food, clean water and even survival. These issues need to be addressed more effectively. Technical solutions alone are insufficient in the broader discussions on effective governance and restricted finance. Engineers need to become more involved in the political and social debate and its impact on the solutions offered to global challenges, to better match available resources to the needs of society. The past one hundred years of engineering contribution have shown what can be achieved. The foundations for a sustainable future have been provided, with the consulting engineer now established as an essential partner for an improved society. Effective engineering is clearly fundamental for humankind, but the strategic planning skills of engineers need to be recognised and used for the benefit of everyone.

The FIDIC Centenary Conference had provided an opportunity for consulting engineers, their clients and partners, for politicians and financiers, the media and civil society to gather together to help celebrate the achievements of consulting engineers and to become involved in identifying strategies for broader and more sustainable solutions to global challenges.
BST Global Introduces

BST10 at the FIDIC Centenary Conference in Barcelona, Spain

By Mr. Eduardo

BST10 represents the world’s first “multi-lingual” business software crafted for leading Architects & Engineers available on-premise and in the “Cloud.”

BST10 is the world’s first “multi-lingual” business system crafted for Architectural and Engineering consultancies to support sixty-seven (67) languages in a single integrated database. The result is that a project team member in Shanghai can have BST10 appear entirely in Mandarin Chinese and seamlessly work with another colleague on the same project in Amsterdam where the language of choice is Dutch, all in one single integrated environment.

BST10 Cloud is the Architecture and Engineering industry’s first multi-lingual business software solution available in the “Cloud.”

BST10 has a new completely redesigned and simplified user experience marking the industry’s first solution that is 100% process based and work flow driven.

BST10 delivers Project Managers a new unified and integrated user experience with complete flexibility in how they manage their portfolio of projects. BST10 “liberates” Project Managers with a completely new and flexible Work Break Structure that can support just one level or up to 10 levels deep with Gantt chart visibility as well.

BST10 affords Project Managers the ability to “visually” edit online pre-bill invoices and workflow their changes to the financial team for ultimate review and approval eliminating duplicative efforts and manual paper flow, streamlining the billing process.

BST10 brings together multiple information sources into one, simple integrated user experience. BST10’s new dashboards, inquiries and reporting architecture are all truly integrated delivering timely, meaningful and unified information access.

BST10 is built on a new platform that affords Architectural and Engineering consultancies the ability to be agile as their business evolves. Every field, screen, dashboard and workflow can be tailored to suit the needs of a consultancy business.

About BST Global

BST Global is the leading global provider of business management software and Cloud solutions for Architectural, Engineering and Environmental Consulting firms. Over 100,000 end users across six continents and more than 65 countries rely on BST Global’s innovative solutions to manage projects, resources, finances and client relationships.

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Design for Safety Coordinator (DfSC) Course
7 & 8 October 2013

ACES-SIA DfSC Course (4th run), supported by MOM-WSHC and granted with WDA funding was held on 7 & 8 October 2013. The two trainers were Er. Koh Boon Liang and Mr. Darren Benger. There were a total of 13 learners, all of them with more than 9-10 years experiences in both design and construction with the relevant construction related qualifications accepted by recognised construction-related institutions.

Learners of this course had gain the knowledge and skills for fulfilling the role of the Construction Project Safety & Health Coordinator in accordance with the Guidelines on Design for Safety in Buildings and Structure. They are required to pass both Assessment I (MCQ) and Assessment II (written project report) in order to be awarded with a Certificate of Completion.

These competent candidates will be certified as DfS Coordinators by WSHC. The latest on-line listing of certified DfS Coordinators can be downloaded at iWSH Portal


ACES 6th Networking Night
18 Sep 2013

The ACES 6th Networking Night held on 18 September 2013, 7.00pm at Ballroom, Amara Singapore Hotel saw a large turnout of about 70 ACES participants.

It was an enjoyable evening with participants catching up with old friends and making new friends over a sumptuous buffet dinner with great French wine.

ACES is most grateful to Cementaid’s generous sponsor to this well received event and sharing their expertise and key products and case study. All participants had also benefited with knowledge on simple Feng Shui Concept shared by Master Dave Hum.
ACES Upcoming Events

January 2014 (Date to be confirmed)

**ACES- SLECMA SEMINAR ON LIFTS SYSTEM**
28 Feb 2014 (Fri)

**SEMINAR ON SUBMISSIONS TO AUTHORITIES FOR M&E ENGINEERS**
22 Feb 2014 (Sat)

**1-DAY COURSE ON EUROCODE 0 AND EUROCODE 1**
15 – 16 Apr 2014 (Tue/Wed)
19 – 20 Aug 2014 (Tue/Wed)

**ACES-SIA SCHEDULE FOR DFSC 2014 (5TH & 6TH RUN):**

29 Mar 2014 (Sat) and 12 Apr 2014 (Sat)

**2-DAYS COURSE ON DESIGN OF CONCRETE STRUCTURES – EUROCODES VERSUS BRITISH STANDARDS (EC 2)**
4 half-day sessions: 10, 17, 24, 31 May 2014 (Sat)

**2-DAYS COURSE ON DESIGN OF STEEL BUILDINGS USING EUROCODE 3**
Date to be confirmed

**1-DAY COURSE ON EUROCODE 7 – GEOTECHNICAL**
ACES-YPC Brewerkz – Beer appreciation
11 September 2013

We have enjoyed a few exciting months. Our membership continues to grow under the continued strong support of ACES, and our supporting partners. In early September we opened this term’s events with the YPC Beer Appreciation evening hosted at Brewerkz Riverside Point. Strong participation from existing members and a huge number of new members saw the YPC vision come together with fantastic company, great surroundings, and fine food and refreshments. Thanks to Brewerkz staff who provided an exclusive tour of their brewery in the heart of Singapore. This was followed by tasting of their unique range of craft beers. It was great to see the dialogue amongst our members continue into the later stages of the evening as relationships and networks flourished across the engineering consulting community.

ACES-YPC Inter Consultant Futsal Tournament
28 September 2013

The 28th of September saw spirited competition and networking continue through the Annual YPC Inter-consultant Futsal Tournament. Eight (8) consulting firms came together at the Singapore Khalsa Association in pursuit of this year’s YPC Futsal champion title. ITW Construction Products (distributor of Ramset products) ensured all teams looked the part this year in matching uniforms. After a full morning of enthusiastic rivalry, DE Consultants took the Champions Trophy, with AECOM proving a worthy first runner-up. All teams put their hearts and bodies into the competition and the spirit of YPC was played out both on and off the courts. Well done and thank you to all teams who took part in this year’s event. We look forward to seeing you all again in the pitch next year.

ACES-YPC- Nature Walk to Chek Jawa
19 October 2013

The events continued in October which we saw a good turnout of 20 participants for the Chek Jawa Wetland tour at Pulau Ubin. It was the first of the kind family event organized by ACES-YPC bringing our participants close to nature enjoying the rustic character of the island with the nature walk guide sharing with us on the unique ecosystems and native plants of this mangrove forest. It was certainly an enjoyable event to all participants who experienced Chek Jawa’s amazing natural heritage.

As we start to wind down for the year-end festive season, we wish all our members a safe and prosperous year ahead. 2014 promises to bring new opportunities for our YPC members as we strive to offer even greater membership benefits through training, social engagement, and professional support events. The events continue with more exclusive site visits, a social quiz evening, bowling tournament, and much more. We look forward to your continued engagement and support as we promote awareness and advancement for young professional consulting engineers across Singapore. To learn more about YPC vision, membership, and events, visit our YPC webpage www.aces.org.sg/ypc_about.asp, YPC on Facebook https://www.facebook.com/YPCACES, or contact any member of the YPC Committee.