

HIGHLIGHTS

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SPM signs MOU with NTUC

The Society of Project Managers (SPM) and the National Trades Union Congress (NTUC), signed a Memorandum of Understanding (MOU) on 23 August 2016.

Dr Ting Seng Kiong, President of SPM and Mr Vivek Kumar, Director of U Associate and Future Leaders Programme, NTUC were the signatories. The witnesses were Mr Seah Choo Meng, Immediate Past President of SPM and Mr Zainal bin Sapari, Assistant Secretary-General of NTUC.



MOU signing – Front Row (from left): Seah Choo Meng, Ting Seng Kiong, Vivek Kumar, Zainal bin Sapari. Back Row: representatives of SPM and NTUC U Associate.

The NTUC U Associate Programme is a key initiative by the NTUC Labour Movement to reach out to professionals, managers and executives (PMEs) through professional associations and bring them the U Advantage of the Labour Movement. Launched in March 2011, the programme comprises an eco-system of associations across various sectors including Financial, Human Resource, Project Management, Marketing, Engineering and more. NTUC and its U Associates work with a sectorial focus to develop career and skills progression plans for the PMEs in these sectors. Through these alliances, the PMEs can be prepared to be future-ready and future-proof, and greater opportunities are opened up for both the associations and PMEs. NTUC U Associates empower the PMEs across four key areas – Protection, Progression, Placement and Privileges (4Ps).

With the need to stipulate good industry standards for the practice and provision of PM services in Singapore, NTUC and SPM are committed to work together to develop training programmes that will enable the practitioners to level up their knowledge and competency skills to be qualified for the Project Management Accreditation Programme, an initiative that is led by SPM to assess and certify qualified practitioners. Through the eco-system, this collaboration will bring about opportunities to work with the other existing U Associates in areas of re-skilling and up-skilling to ensure SPM members stay relevant and competitive in the industry.

Through this alliance, SPM can benefit from the access to a range of NTUC venues for training and events at preferential rates and funding support for programmes. SPM members can tap on the UTAP training grant for NTUC members to offset training cost.

As a new member in the U Associate, SPM participated in the U Associate Leaders' Circle on 24th August, the next day after signing the MOU. Participants had a fruitful time exchanging ideas and views in the dialogue with NTUC Secretary General, Chan Chun Seng.

Project Management: Where is it heading?

SPM - UniSIM Project Management Forum was held on 27 May 2016 at UniSIM Campus jointly organized by SPM and UniSIM. Objective of the Project Management forum was to discuss about Project Management and where is it heading?

As the roles and expectations of a project manager have grown significantly over the years, project managers are increasingly expected to possess the right skillsets to take on a multi-faceted role as a project leader, facilitator and integrator, and be versatile and adaptive in contextualizing their practice according to the socio-economic progress and the culture of the land. This forum brought together four experienced project managers with different backgrounds, to discuss the state of project management practice and the role of the project manager in public and private sectors in Singapore, as well as in China and Australia. Participants also

received insights on the upcoming accreditation scheme for project managers in Singapore.

During the forum, **Ms. Helen Chen**, Executive Director, Centre for Public Project Management, Ministry of Finance shared about "Leadership Principles for Project Success" and discussing on how the "Project success" and "Project failure" are defined from the Project Management perspective i.e. "time", "budget" and "quality" as compared to the "socio-economic" and "creation of the value" due to the project. She shared that as the project management professionals and the leaders we need to regularly review the "personal moral compass" that is the way project is being executed and whether it is moving towards the project success and meeting the vision of the project.

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President's Address at 20th AGM on 14 July 2016



I want to thank the members of the SPM council and the various working committees for the support and time they have given to promote the objectives of the Society.

During the past year 2015/2016, SPM had continued our engagement with our partners both internationally and locally.

We continue to be active in the Global Alliance for Project Performance Standards (GAPPS).

A delegation of three attended the 14th China International Construction Project Management Summit in Shijiazhuang from 11 to 12 October 2015 organized by the Construction Project Management Committee (CPMC) of the China Construction Industry Association.

The evening talks at UniSIM had been very well received and we had even conducted a half day forum involving not only local speakers but also overseas speakers on 27 May 2016. The Society will continue to be active in conducting talks and professional courses for our members. I hope all of you had been able to attend these talks as well as the lunch time talks at the SRC. We will be having a half day seminar on Game Changing Technology: PPVC in two weeks on 28 July 2016. Come and join us.

SPM had just conducted our 11th run of the course on Project Management for Professionals of the Building & Construction Industry with BCA Academy from 12 April to 27 May 2016.

Besides the book launch on 31 July 2015 after our last AGM, we just successfully completed a seminar and book launch on 1 July 2016. This was not only for launching the Singapore Journal of Construction Law, it was also a seminar covering the developments on the law relating to the certifier and other issues in construction contracts. We had 165 participants.

As I had reported at the last AGM, we focus much of our energy in the last one year on the development of the SPM accreditation of project managers. We have formed the PM Accreditation Board comprising of all our past presidents and chaired by our founding President. We are now in the midst of setting up the panel of assessors. These would be made up of practitioners who are highly regarded in our industry. Simultaneously we are working on the accreditation handbook. Of course as we progress, we would be looking at the training requirements as well as training providers.

With training in mind, we are going to sign an MOU with NTUC U Associate that hopefully would open the reach of SPM to an even wider audience.

Our annual dinner will be at the Marina Mandarin on 23 September 2016.

I look forward to your continued support and for more ideas on how we can make our Society even better.

Thank you.

Dr Ting Seng Kiong

President

Society of Project Manager



Annual General Meeting



"The Annual General Meeting (AGM) 2016 was held on 16 July 2016 at the Singapore Recreation Club. As usual, it was preceded with a hearty buffet lunch. It was a good opportunity for members for networking and catching up with one another. As this is the AGM after the 1st year of the 11th Council (2015-2017), the meeting was conducted without any election of office bearers. ☑

Launch of the Singapore Journal of Construction Law Speech by the Honourable Justice Quentin Loh - Friday, 1 July 2016



Official Launch of Singapore Journal of Construction Law - Speech from Honourable Justice Quentin Loh

Good evening everyone. It gives me great pleasure to be here, amongst friends and practitioners, especially those at the Building & Construction bar, and to be involved in the launch of this very laudable journal.

Its General Editors, Mr Chow Kok Fong, Mr Mohan Pillay and Mr Christopher Chuah must be heartily congratulated for taking the initiative to start such a journal; and we should similarly like to acknowledge and thank the Contributing

Editors, Mr Gerlando Butera, Mr Melvin Chan, Mr Ian de Vaz, Mr Adrian Hughes QC, Mr Edwin Lee, Mr Peter Megans, Mr Paul Teo and Mr Toh Chen Han.

The appearance of such a journal in Singapore is not only very timely but also signals the aspirations of Singapore as a centre of learning and a deserving hub for building and construction dispute resolution. This is the first specialist journal on Singapore construction law and I am sure it will go on to fulfil two very important functions:

- (i) First, as a forum for analysis and discourse on contemporary issues of building and construction law and its associated fields, not only from within, but also outside, Singapore; and
- (ii) Secondly as a resource tool for construction lawyers, specialist advisers, contract administrators, architects, quantity surveyors and engineers.

This is amply borne out by this inaugural issue. There are 5 very topical articles, which contain references to case law and texts beyond our shores and 8 case digests and case reports on some of our most important decisions. The first three articles deal with issues arising from the Security of Payment Act, which have vexed end-users, practitioners and the Courts. One article most usefully suggests areas of reform. The next article deals with Liquidated Damages, which features in many construction disputes and the fifth article deals with something that practitioners in Singapore take for granted, because of our historical and current standard form contracts, where the risk of adverse soil conditions are placed on the shoulders of the contractor. This article examines foreign case law on what an "experienced contractor" is expected to know about sub-surface conditions from the usual borelogs provided during the tendering process. This is something that has yet to be decided in Singapore.

The cases digested include the very important decision in PT Perusahaan Gas Negara (Persero) TBK v CRW Joint Operation [2015] 4 SLR 364 which has an impact far beyond our shores – on the users and drafters of the FIDIC Form of contract and on infrastructure projects in Asia. No doubt almost all of you present will know this dispute involved the design, procurement, construction and commissioning of a gas pipeline in Indonesia and an important part of the dispute centred on Clause 20 of the 1999 Red Book FIDIC Form.

The launch of this Construction Law Journal is a vital cog in an overall expected growth of infrastructure spending in Asia and attendant need for dispute resolution services. In a recent article in the Straits Times, it was stated that "[t]he Asian Development Bank forecasts that Asia needs US\$8 trillion (\$11 trillion) in the decade to 2020 to plug the infrastructure deficit. As countries move up the value chain and urban populations expand, demand for transport, logistics and utilities will only continue to grow..."

A clear evidence of this forecast, can be seen within Singapore itself. According to the Building and Construction Authority's forecast, construction contracts worth \$27 billion to \$34 billion are to be awarded in 2016. In the coming years, the average construction demand is expected to be sustained between \$26 billion and \$35 billion in 2017 and 2018, and \$26 billion to \$37 billion in 2019 and 2020.

This increased spending on construction activities will bring opportunities for lawyers practicing in this area. Legal services will be called upon throughout the construction cycle, from land surveying and compliance with planning laws, to tender, financing and administration of construction contracts and to dispute resolution. Construction projects are more international in nature and it is imperative for our lawyers to be familiar with international standard form contracts.

Furthermore, as we well know, infrastructure projects more than most other contracts, will inevitably generate disputes. Interestingly a recent report on Global Construction Disputes 2016, has revealed that global construction disputes have hit record lengths. According to the Report, the value of disputes relating to major global construction projects was on average, US\$ 46 million in 2015 and the length of time to resolve a construction dispute took an average of 15.5 months, impacting parties involved in a dispute and the overall construction industry. With respect to Asia, in particular, the Report states that "Asia saw a significant increase of 62.5% in the length of construction disputes, replacing Continental Europe as the region with the longest time to resolve disputes." The Report predicts an increase in the number of disputes that we will be dealing with in Asia in the coming year.

Given these imperatives, the Ministry of Law and the Judiciary have been laying the infrastructure to make Singapore a dispute resolution hub. Hence we have the SIAC, the SMC, the SIMC and the SICC. We have also roped in influential foreign participants into these bodies to showcase our international outlook.

It is therefore vital for Singapore lawyers to hone and upgrade their legal and forensic skills to take full advantage of all these infrastructure disputes looking for a home. Singapore lawyers can no longer benchmark their skills against other Singapore lawyers. They have to benchmark themselves against the best global advocates and trial lawyers. Do not be daunted by this. The English started on this journey long ago. Today their solicitors, barristers and Queens' Counsel roam the world offering their forensic skills in a variety of jurisdictions. The top arbitrators in the world do likewise and our local arbitrators have to measure up against them. All these professionals move from country to country with the greatest of ease, displaying their expertise and adaptability wherever they are. To succeed, Singaporean professionals have to do likewise.

We cannot deny our small population base. The United Kingdom can easily throw up 15,000 to 20,000 able and credible legal professionals of international standing from their population base of some 64 million. [0.03%] But we can make up with education, superior knowledge and the will to match them. It is not beyond our reach. Some of our top advocates face Queen's Counsel on an even keel and I have personal acknowledgements from top QCs that our top advocates and solicitors are equal to their best and the best on the international stage.

But we need to raise the general level of our practitioners as a whole wherever we can. Journals like this therefore play a crucial role in this endeavour.

Our Chief Justice has asked for a study of and recommendations for a pilot accreditation scheme for building and construction lawyers in his Opening of the Legal Year 2016 Speech. One of the chief aims of this accreditation scheme is to encourage lawyers, especially our younger lawyers, to upgrade their knowledge to the highest possible levels and to hone their legal skills. This is yet another step in our drive for excellence and for us to put Singapore on the world map of dispute resolution.

In many ways, the SIAC has been a trail blazer. So for the sceptics, I say this – it can be done and it has been done in the sphere of international arbitration. Let us ensure it can be done for the building and construction Bar.

I would encourage all of you present, including those with contacts in other jurisdictions, and to those in academia and other professional bodies, to contribute to this journal and make it a success it deserves to be. You will also know by doing so that you played a not insignificant part in causing "Singapore" to be writ large in the world of dispute resolution.

Thank you. 🇸🇬

New SPM Members

Chang Kin Boon (Ordinary)
Chew Boon Huat (Ordinary)

Land Transport Authority
Ang Cheng Guan Construction
Pte Ltd

Chua Mui Hia (Ordinary)

RLB Consultancy Pte Ltd

Goh Sai Meng Simon (Associate)
Nyein Khant (Associate)

DH Deco Pte Ltd
Ang Cheng Guan Construction
Pte Ltd

Yap Septonius (Associate)

IRMS Pte Ltd

SPM-UniSIM Project Management Forum

As a leader it is important to empower the team and follow the 3E's (Energy – how the team members contribute to a team as a whole, Engagement – how the team members communicate with one another and Exploration – how teams communicate with one another), 5C's (Competency, Consistency, Connection, Commitment and Communication) principle and regular stakeholder analysis. She also shared about the 10 commandments of Project LEADERSHIP. Please refer to page 5 for Helen Chen's presentation - Principles of Project Leadership.

Ms. Yvonne Butler, CEO, Australian Institute of Project Management (AIPM) shared that every organization does only two things - "Processes" (ongoing a day to day operations) and "Project" (discrete activities with a start and finish). She also shared that the one of the most important role of the project manager is to be a "Integrator" and "Facilitator". It was discussed that currently in the global industry anyone could call themselves as Project Manager (PM) therefore the certification of the PM is important so that these professionals also get similar global professional recognition like doctors, qualified engineers and architects who are globally recognized based on their certification and competencies. For a project success it is very important that project have the "right resources at right time".

Mr. Bill Young shared about the Agile China Versus the Traditional Western approach to Project Management. He shared about the PM practices in China versus the West in different approaches and context to the cultural dimensions. He shared that like the metric and imperial measuring systems that are actively used in the world today we must recognise and accept the existence of these two different Project approaches and apply them smartly. Likewise Agile, Traditional project approaches, both Chinese and Western approaches work best in their own context (culture / environment)

The 10 'Commandments'

- 1 **L** Cultivate **learning** and knowledge sharing
- 2 **E** **Enable** oversight and control
- 3 **A** **Act** to fix issues and barriers to project delivery
- 4 **D** **Develop** strong teams, provide necessary resources
- 5 **E** **Engage** stakeholders, listen and be fair
- 6 **R** Take **responsibility** for success or failure
- 7 **S** Build vision, link **strategy** to project deliverables
- 8 **H** Be **honest** and consistent in our actions and decisions
- 9 **I** Take ownership of **interdependencies** within and between projects
- 10 **P** Promote **planning** & risk management to ensure realization of project benefits

The practice of Project Management will be the activity that makes or breaks many global companies in this economic environment" - 2008 Forbes Leadership Meeting.



Figure 1: PM as an Integrator and Facilitator

We are now here



Figure 2: PM Now - no differentiation



Figure 3: Accredited PM

Mr. Yip Kim Seng shared about current Project Management in Singapore and why it is important to raise the Bar. He elaborated in Singapore context and what should be the method to identify the right PM. Currently project teams receive unhappiness from developers regarding project delay, cost overrun, defective work quality, poor supervision of the works. These are also happening due to lack of the project management skills which is not

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Principles of Project Leadership

The Project Leader is a person who champions the cause of the project, leads the project through a selection of options and is involved with important issues such as critical reviews and change authorizations when the risk is high.

Project leaders must have a longer term horizon for the realization of benefits. As the project environment becomes more complex, it is not enough to manage outputs but to manage outcomes. The traditional definition of a successful project is based on completion within time, budget and quality targets. Organizations are adopting triple-bottom line (TBL) frameworks to create better business value. TBL, which focuses on economic, environmental and social outcomes, is a more sustainable method to evaluate project success.

Consider this example. The Sydney Opera House was completed in 1973, 10 years delayed at a cost of A\$102 million, 15 times the original cost estimate. In a 2014 report, Deloitte and Touch valued this social asset at A\$4.6 billion. Is the project a success or failure? From the project management perspective, it was a failure due to poor estimation, planning and implementation. However, it is not a failure of strategy as tremendous value has been created with the project vision.

Project leadership is both an art and a science. The Science attributes include planning, scheduling, controlling while the Art attributes include communication, collaboration and negotiation. Project leaders deal with complexity, ambiguity, take ownership of the vision and make decisions based on instinct and tacit knowledge. We keep an eye on emergent patterns and are aware of what is going on outside as well as inside the project. Project leaders must integrate multiple, competing and often conflicting interests, be flexible enough to respond and be courageous enough to change direction, if required. It is important to understand that leadership is not a result of the job title we hold but of the attitudes, skills and behaviors that we possess.

Are we ready for the challenge to make an impact on people and deliver successful projects every time? Below are some guiding principles.

1. Lead with sense of purpose
 - *Build trust and have the courage to speak the truth.*
2. Lead with vision
 - *Link deliverables with strategy and communicate the vision*
3. Innovate
 - *Promote diversity of views and challenge the status quo*
4. Empower teams
 - *Leverage on the strength of our people and lead by objectives*

5. Engage stakeholders
 - *Connect and take ownership of the mission*
 6. Enable oversight
 - *Put in place control and risk management systems and stay involved*
 7. Execute with intent
 - *Fix the causes rather than the symptoms*
- Make the transformation happen now! 🚀

Acknowledgement



Ms Helen Chen
*Executive Director,
Centre for Public Project
Management,
Ministry of Finance*

Ms Chen completed her Bachelor of Engineering (Hons) course at Princeton University, Masters in Architecture at the Harvard Graduate School of Design and the Advanced Management Programme at the Harvard Business School. She was the Director in a large private architectural practice and has designed and led award winning projects, locally and overseas, including the Raffles Hotel and Fullerton Hotel. In the public sector for 12 years, she has held senior management positions at the Ministry of Community, Youth & Sports, the Ministry of Law and the Ministry of Finance. Ms Chen has been actively involved in strategic policy and legislative reviews as well as in major public project reviews and developments. She sits on various steering committees and advisory panels in the public sector.

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legislated in Singapore. He shared that it is important to have an established standard for the PM to coordinate and integrate the project team and requirements like the "Orchestra Conductor" to create Melody and not noise. Please refer to page 8 for Yip Kim Seng's presentation - Accreditation of Project Managers - Raising the Bar.

How do you know that which apple ("PM) is good?

Therefore it is important to establish the accreditation scheme for the PM which the Society of Project Management (SPM) has developed it as the "STAR" framework. (Standards, Training, Assessment system, Recognition). Please refer to Page 8 for details.

The Project Management Forum culminated in a panel discussion with fellow panellists Ms. Helen Chen, Ms. Yvonne Butler, Mr. Bill Young and Mr. Yip Kim Seng. It was an interesting discussion on the various topics raised during the presentations with many participants sharing their views pertaining to the Project Management in Singapore context discussing the role of the project management team from the developer, operators, managing agencies, consultant and the importance of the PM certification and alignment of the stakeholders. 🚀

Written by:
Manish Banga,
Senior Project Manager

Management of Rail Construction



In 2013, the Land Transport Authority (LTA) of Singapore refreshed its Land Transport Master Plan (LTMP), to set out the rail network expansion programme as part of LTA's key strategy to build a sustainable land transport system. Its major endeavour to increase the public transport mode share during peak hours shall see the city's Rail Transit System (RTS) double from 178km to 360km by 2030, to further enhance the RTS' role as the backbone of the public transport system.

The current rail projects underway are the Tuas West Extension, Downtown Line Stage 3, Thomson-East Coast Line and Circle Line Stage 6. Future rail projects include the Downtown Line Extension, Jurong Region Line, North East Line Extension and Cross Island Line.

Given the timeline, scale and complexity of building several rail lines concurrently in an already densely built-up Singapore, sound project management is crucial in the successful implementation and completion of these rail projects. Beyond the ubiquitous scopes of any typical form of project management, the management of rail construction projects entails extensive collaborative efforts internally within LTA and externally with a large number of parties from consultants, contractors, government departments, statutory boards, public utility agencies, rail operators, neighbouring stakeholders to the general public.

"Consultants" alone comprises of people from a wide array of disciplines, namely the architects, civil & structural engineers, mechanical & electrical engineers, railway systems engineers and specialist consultants for lighting, acoustic, landscape, noise & vibration, artists, as well as civil and system-wide contractors, to design, innovate, construct and complete the increasingly complex rail transit system with timeless aesthetics.

Even the number of main contractors involved in the delivery of a single rail line can be 20 or more, without accounting for their subcontractors, suppliers etc. They are:

1. Civil contractors for the construction of stations, viaducts/tunnels, depot, ancillary railway facilities
2. Contractors for advanced works e.g. sewer, utility diversion, earth-cutting
3. Instrumentation and monitoring contractors
4. System-wide contractors (SWCs) for
 - a. Trackwork
 - b. Trains
 - c. Signalling System & Platform Screen Doors
 - d. Power & Traction Supply
 - e. Integrated Supervisory Control System
 - f. Maintenance Management System
 - g. Communication System
 - h. Commercial Info-communication Services
 - i. Access Management System
 - j. Lifts
 - k. Escalators
 - l. Automatic Fare Collection System

- m. Tunnel Ventilation System and Environmental Control System
- n. Electrical System
- o. Fire Protection system
- p. Water Handling Equipment
- q. Artwork
- r. Selected architectural finishes

Together with more than 30 government departments and statutory boards, 10 or more utility companies and the rail operators, the number of project partners that each LTA project team has to be working, coordinating, interfacing and collaborating with is enormous, and this is before considering the other project stakeholders and the general public.

Rail Group

LTA's Rail Group plays a pivotal role in the management of rail construction projects to ensure the rail projects are delivered safely, timely, of quality, within budget and to the stakeholders' satisfaction.

A Project Director (PD) is appointed to oversee each new rail project. Reporting to the PD are the Project Team, Design Management Team and Contract Admin that administer the various civil contracts under the PD.

The Project Team is in charge of the workplace safety, health and environmental (WSHE) aspects of the project, risk management, coordination and liaison with internal and external parties, and public relations. In accordance with the Building Control Act and Regulations, on-site supervision of civil, geotechnical and structural works is undertaken by the Qualified Person (Supervision) [QP(S)], Qualified Person (Geotechnical) [QP(Geo)] and their team of resident engineers and resident technical officers.

The Design Management Team manages the Authority's design consultants (for Build-only contracts) and design development process (for Design & Build contracts). It also monitors the statutory submissions and approvals, and oversees the Instrumentation and Monitoring (IM) contracts. Contract Admin handles contractual matters such as payments, variations and claims.



In addition, the PD receives specialist support from within LTA under a matrix system in the areas of, but not limited to, safety and environmental, programme planning, site survey and community engagement.

Unique in LTA's project management is the way the rail project risks and safety issues are systematically identified and minimised, and the extent of community engagement efforts to reach out to the stakeholders who would be affected by the rail construction works.

Risk and Safety Management

Even though the contractor is the legal occupier of the construction worksite and has the legal responsibility for safety, LTA as the developer, plays an active role in upholding our high safety standards in the construction industry and continually seeks to do better.

Projects in Land Transport Authority



Construction of the Downtown Line Rochor Station under the busy Bukit Timah Road and existing Bukit Timah Canal required diversion of the canal and multiple stages of temporary road and traffic diversions that involved close coordination and interfaces with numerous stakeholders such as utility companies, government departments, building owners etc.

LTA has a Project Safety Review (PSR) process, which aims to “reduce risks at source” throughout the rail project cycle. This process addresses the risks that would not only safeguard the safety of the personnel on site but also stakeholders and the general public within the vicinity of the worksite.

LTA adopts a three-pronged approach to underpin the PSR Civil (Safe-to-Build) process:

1. Engineering – Risks are identified upstream during the design phase from the concept stage to the final design. Risks such as how the structure will be constructed and maintained when completed are considered. Wherever possible, risks are either eliminated or mitigated during the design phase. Risks that can be mitigated by the contractors are passed downstream to the construction phase where the risks are managed through a rigorous risk assessment and management process.

2. Education – Education and promotion are used to develop and maintain awareness of the commitment to safety and each individual’s responsibility to support that commitment. This is done through the safety performance award scheme, safety training, safety information and knowledge sharing and events such as the Annual Safety Award Convention (ASAC).

3. Enforcement – Compliance with the statutory and contractual requirements, and in-house rules. Joint site inspections are conducted to identify shortcomings and actions for rectifications.

Community Engagement

The successful implementation of the rail projects would not be possible without the support and understanding of surrounding stakeholders and the general public. It is essential to get buy-in from them since day one of the project and to constantly engage them throughout the course of the construction. This is especially so with rising public expectations that has put LTA incessantly under scrutiny in every work that it does.

LTA’s dealings with the stakeholders can range from constituency level up to national level, depending on the significance of the issues at hand because a new rail line can pass through housing estates, commercial, industrial and institutional zones or environmentally-sensitive areas. The daily routine of many people would inevitably be affected during construction. Many a times, the public expects LTA to be the liaison party when the feedback involves cross-governmental bodies.



Working right next to the public and residences requires comprehensive noise mitigation measures and the community’s support to bear with the inconveniences so as to enable works to proceed safely and timely



Construction of the Downtown Line Bencoolen Station under the narrow Bencoolen Street, right next to hotels, schools, offices and private residences requires close supervision of construction works at all times, constant management of construction risks and strong oversight on the workplace safety, health and environmental conditions

A project information centre (PIC) is usually set up at one of the project sites for anyone to visit and learn more about the rail project in the form of information charts, 3-D models of the stations, tunnel boring machines, and other construction machines and equipment, digital visualisation of the project and photographs of the works.



PIC for the section of Thomson-East Coast Line from Outram Park Station to Gardens by the Bay Station

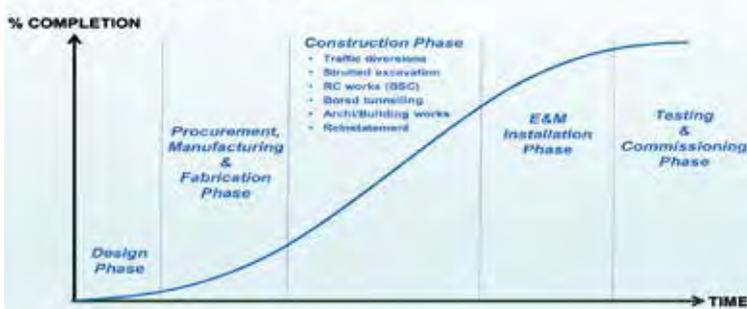
To generate awareness of the benefits of a new rail line or celebrate milestones achieved, LTA also organises events such as the Ground Breaking Ceremony, project roadshows and media briefings cum site visits etc.

Getting Ready for the Future

Managing rail construction projects will become more challenging in the future due to the speed of which new projects are being rolled out with dwindling number of trained and experienced railway engineers in Singapore and world-wide to take on the projects. It is therefore imperative to attract young people into this profession and expedite on the finding of alternative construction methods that would require less manpower.

LTA collaborates closely with local tertiary institutions to raise interest and encourage students to take up engineering as a profession. There are also partnerships with the institutions and other industry players on research projects to explore new technologies for more productive, safer and environmentally-friendlier ways to carry out construction.

Rail Project Cycle



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Singapore has in recent years seen larger and more complex building and infrastructure projects. The delivery of development projects no longer involved just a handful of parties. Modern construction project development involves specialisation of work and disciplines. Project delivery has multiple development stages from concept design to construction and completion, involving various modes of procurement. Integration of the inputs of the various parties and disciplines, between and over several stages, has become ever more critical. Professional project management is key to delivering successful projects in providing the integration and leadership.

In January 2016, the Building and Construction Authority, BCA, forecast construction contracts to be awarded in the year would be in the region of S\$27 billion to S\$37 billion in the next four years, at an annual average of S\$30 billion. Do we have sufficient qualified and professional project managers in our midst to handle these multi-million dollar projects? And we are increasingly seeing projects in billions of dollars as well! Can we identify such project managers easily?

Complexity and Challenges

Projects typically involve multiple stakeholders. They bring into the project varied, and sometimes even conflicting, views and expectations. Agreement and alignment to common project objectives is critical to successful project delivery.

Specialisation of work has increased in project delivery. Large complex projects involve even more professional disciplines and specialists. We have the architects, urban planners, master planners, landscape architects, interior designers, environmental sustainability design consultants, geo-technical engineers, structural engineers, mechanical engineers, electrical engineers, traffic engineers, façade engineers, acoustics engineers, blast and security engineers, environmental engineers, health and safety specialists, info-com and tech specialists, project type specialists, and the list can go on. With greater specialisation, there is a tendency for the individual disciplines to work independently and in silos. However, projects need the various disciplines to work inter-dependently. Their individual contributions have to be well coordinated, and integrated.

Integration

Projects require well-coordinated, inter-disciplinary efforts to succeed.

Under the prevailing government policies and regulations in construction industry – like Building Information Modeling (BIM), procurement approach – early contractor involvement (ECI), design for safety (DfS), environmental sustainability design (ESD) or Green Mark requirements, buildability and constructability, construction quality (CONQUAS) and productivity – projects require well-coordinated, inter-disciplinary efforts to succeed.

Development of a project and the resultant built asset is no longer just purely a capital cost consideration. With the concern for sustainability, both environmental and economic, the consideration of future operation cost and future relevance has become increasingly prominent. Whole life value of the built asset has to be optimised. Integration of both capital and operation costs is imperative.

We need to recognise the fragmented nature and the need for inter-dependency, and to ensure there is good communication channels to manage the integration of inputs of various parties and to manage any conflicts. A good and effective Project Manager (PM) is expected to have sufficient knowledge and understanding of the work each discipline that he is managing to enable him to interact intelligently with these consultants. The PM is expected to have the ability to integrate the inputs of the various and varied consultants (or trades of sub-contractors, in the case of a contractor's PM) in his project team with astute leadership and management skills. This a unique role.

Good and professional Project Management

will certainly contribute to lifting the standard of our Built Environment/Construction Industry in terms of project delivery, productivity, environmental sustainability and health and safety.

Raising Quality of Project Management Practice

Project Managers in the building and construction industry must rise up to this unique role and meet the challenge.

Unlike other developed economies, like United States, United Kingdom, European Union, Australia, and Japan, we do not have a set of project management practice standards to guide the construction and built environment industry in Singapore. Without standards, the project management practice is rather disparate and fragmented. Currently, anyone can call himself a "Project Manager" and claim that he can do project management. There is lack of clear and more formalised criteria to qualify a person to be a competent Project Manager.

Project Management exists in project delivery in many quarters – in the developers' setup (as either in-house PM or independent outsourced PM); in consultants' setup (as coordinator and integrator of technical matters) and in contractors' setup (as coordinator and manager of sub-contractors, and even consultants in design and build projects).

Developers and consumers of Project Management (PMgt) service find the quality and standard of PMgt service vary widely. Some developers have questioned why their consultants or contractors claimed that their design and supervision service included project management and yet found that their projects ran into delays, with cost overrun or laden with poor quality or defective work.

For a client or an employer, it is hard to ascertain the quality and competence standard of a person who calls himself a "Project Manager". The verification process to ascertain the quality of a potential PMgt service provider or an employee can be

The Unique Role of the Project Manager

He is expected to have the ability to integrate the contributions and inputs of the various and varied consultants and contractors in his project team with astute leadership and management skills.

PROJECT MANAGERS

Raising the Bar

tedious. Generally, one would need to go through his resume, check his education qualification, his project experience, the nature and complexity of the projects he has managed, job scope of PM work, etc. It will also invariably include interviews. This all is time consuming. How can we cut through and speed up this process?

Accreditation of Project Managers

To handle the project challenges and manage the complexity, we need to increase the quality of PMgt practice. We need to raise the bar for PMgt practice; we need to have a set of industry PMgt standards as the benchmark.

The Society of Project Managers (SPM) is leading the way in developing an accreditation scheme to assess and certify qualified practitioners in Project Management. The Accreditation of Project Managers (APM) scheme will pave the way for consumers of PMgt services to sieve out and differentiate the good and competent project managers from the mediocre ones, and to help identify the capable and experienced project managers to manage larger and more complex projects. The GAPPS Project Manager Standards will be used as a reference standards.

[See also SPM APM Scheme article on Page 3]

- b. Clear path for skills and career upgrading
 - c. Better recognition of the PMgt profession and PM service
 - d. Better employability for the accredited PMs
 - e. Exportable service, beyond Singapore shores
- ii. For the consumers in the market place
- a. Clearer distinction of service providers
 - b. Better assurance of quality service standard
 - c. Higher level of PMgt service (with clear PM practice benchmark)
 - d. Better project outcomes
 - e. For employers, easier recruitment assessment of candidates with PM accreditation.

Summary

The challenges brought about by increasing scale and complexity of building and infrastructure projects are evident. The Project Manager plays a key role in providing leadership, management and facilitation of integration.

The benefits of having an APM scheme are clear. It is not a licensing scheme or one to be empowered by legislation. PM Accreditation will encourage construction professionals who are

a positive impact on implementation and delivery of projects, affecting all players and stakeholders – developers, consultants and contractors. This will certainly contribute to lifting the standard of our Built Environment/Construction Industry in terms of project delivery – timeliness, within budget and good quality – productivity, environmental sustainability and health and safety.

The standard of Project Management practice has to be raised to meet the challenges and needs of the industry. Accreditation of project managers is the way forward.

Written by:

Yip Kim Seng

*2nd Vice President, SPM
Chair of APM Committee*

Acknowledgement



Yip Kim Seng

*2nd Vice-President of the Society of Project Managers (SPM),
Board Member of the Global Alliance of Project Performance Standards (GAPPS)*

Kim Seng is passionate in advancing Project Management competency, and sharing knowledge and experience in Project Management. He is a registered Architect and has more than 25 years of PM experience in the Built Environment Industry. As MD of PM Link from 2006 to 2011, he oversaw many other large infrastructure projects, both local and overseas. He has personally led and managed the following projects: the Singapore Management University, Woodlands Checkpoint, Changi Airport Terminal 4, National Museum of Singapore, MOE HQ Building and St. Andrew's Village. Kim Seng is the 2nd Vice-President of the Society of Project Managers (SPM) and is a board member of the Global Alliance of Project Performance Standards (GAPPS). As an Associate Faculty of SIM University, he teaches in the Building & Project Management program. Kim Seng is currently in private practice providing consultancy and training in Project Management.

APM Scheme



Benefits of the APM Scheme

The APM scheme will provide benefits to the individual PMgt practitioners and service providers as well as consumers. These benefits are:

- i. For the individual PM practitioners/PM service providers
 - a. Clear PM practice benchmark

serious in practicing and providing good quality PM service to upgrade to the required standard expected by the consumers in the Built Environment/Construction Industry. It will assure the market a minimum standard for good PM practice. Good and professional Project Management will certainly have

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SkillsFuture Credit can be used on top of existing government course subsidies to pay for approved work-skills-related courses at UniSIM.

Looking Forward...

You can look forward to the following in the coming issues:

Management of Mediacorp Project

Calling for feature Articles and Sponsorship!

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We invite you to contribute articles of Project Management interest so that this could be shared with and learnt by the project management fraternity.

We also invite you and your esteemed company to place an advertorial under our sponsorship scheme. The cost of sponsorship is \$3,000 for one full page or \$2,000 for a half page. Your advertorial can be in the form of a feature article such as a write-up on a project or projects undertaken by the sponsor or on any subject of project management interest and practice.

You can convey your interest to societyofprojectmanagers@gmail.com
We sincerely looking forward to your contributions and support.

Editorial Team

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The "Rail Story" roving exhibitions in shopping malls: Parkway Parade, Thomson Plaza, Bedok Mall and Katong 112

For example, a rectangular tunnel boring machine is currently used to construct a pedestrian underpass at Havelock Station on the Thomson-East Coast Line. This trenchless construction method allows the digging to be conducted without affecting work on the surface, which would otherwise require the roads, canals and utilities running on the surface to be diverted if the conventional excavation method is used. The new method not only minimises inconvenience to the stakeholders, it will also save about 30 per cent of the manpower.

Moving forward, LTA will continue to respond to the needs of the future by evolving and enhancing its roles as the land transport infrastructure developer, while constantly seeking out new solutions to ensure all the new rail lines will be delivered in a professional and sustainable manner. 🚧

from the Editorial Team...

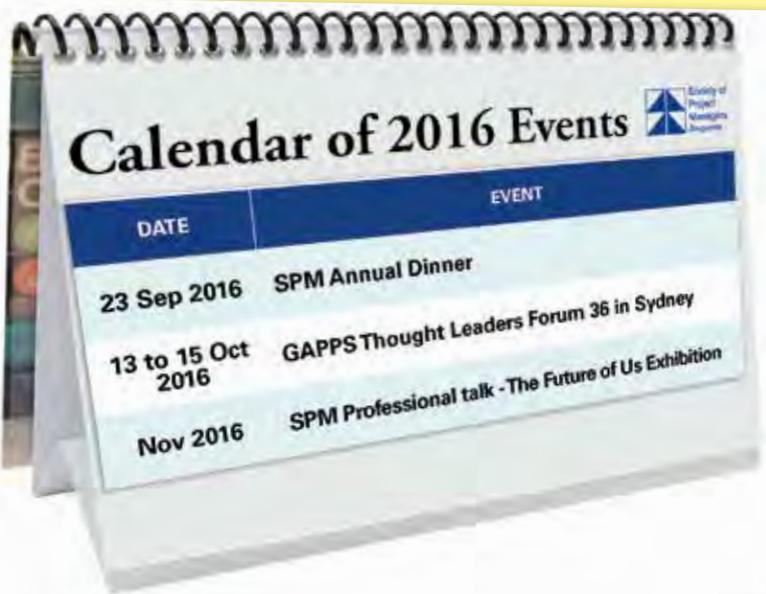
Dear Readers,

Wishing you and your family...

The Editorial Team

Mr Teoh Wooi Sin (Chairman)
Mr Yip Kim Seng (Advisor)
Mr Tan Kok Siong (Advisor)
Mr Carlson Ng

Mr David Cheong
Mr Lee Kok Boon
Mr Manish Banga
Mr Shaun Yeo



Acknowledgement



Sim Wee Meng
Senior Group Director,
Rail - LTA

Mr Sim Wee Meng has 33 years of railway experience and has been working with the railway authority since 1983. He is the Senior Group Director of Rail in the Land Transport Authority (LTA) of Singapore, leading an 1800-strong team in the Rail Infrastructure & Expansion Group and Thomson-East Coast & Cross Island Lines Group. He oversees all the current and future rail projects to fulfil LTA's strategic objective of loving public transport in its Land Transport Master Plan.



Francis Han
Senior Project Manager,
Thomson East Coast Line,
Team 4 - LTA

Mr Francis Han is a Senior Project Manager with the Land Transport Authority (LTA) of Singapore. He is a member of the management team for the Thomson-East Coast Line (Civil Team 4), overseeing the construction of two rail transit stations and associated tunnels in Marina Bay and Shenton Way. Since joining LTA, he has been involved in several road and rail projects such as the Kallang-Paya Lebar Expressway, Circle Line Stage 1, Downtown Line Stage 1 and North South Line Extension.

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SPM SEMINAR CUM LAUNCH OF JOURNAL - Singapore Journal of Construction Law

In the past year, Singapore courts have passed several landmark judgments that have far-reaching implications on the construction industry. Since such decisions often result in the formation of new laws, it is pertinent for all professionals of the construction industry and law practitioners to keep abreast of such latest rulings and their impacts. The Singapore Journal of Construction Law

is hence an important tool that allows all parties to better understand their rights and obligations. 🚧

Written by:
David Cheong,
Manager

SPM SEMINAR CUM LAUNCH OF JOURNAL - Singapore Journal of Construction Law

1 July 2016, National Gallery Singapore – Formerly part of the Singapore Supreme Courts building, it was here that the SPM held the seminar on the Developments of the Law relating to the Certifier and Other Issues in Construction Contracts followed by the Launch of the new Journal – Singapore Journal of Construction Law by the Singapore Academy of Law.

The event commenced with an opening address by SPM Immediate Past President, Mr Seah Choo Meng followed by Mr Chow Kok Fong of SAL.

Three prominent construction law practitioners delivered their speeches during the event.

The event culminated with the launch of the Singapore Journal of Construction Law by The Honourable Justice Quentin Loh, who delivered a memorable speech. Please refer to page 3 for the Honourable Justice Quentin Loh's speech.

Mr Christopher Chuah, Head of Infrastructure, Construction and Engineering Practice Group at Wong Partnership LLP shared insights on the Operation of Section 36 of the SOP Act and Post Termination Claims which included a discussion on the decision of the High Court in *Choi Peng Kum* and another v *Tan Poh Eng Construction Pte Ltd* [2014] 1 SLR 1210 followed by an examination on the applicability of the SOP Act in relation to post-termination claims.

Mr Melvin Chan, Head of Litigation and Dispute Resolution at TSMP Law Corporation, spoke on the Application of the Independent Contractor Defence to Consultants and the impact of the decisions made by the High Court in the recent case of *Management Corporation Strata Title Plan No 3322 v Mer Vue Developments Pte Ltd & Ors* [2016] 2 SLR 793, where the MCST brought claims against the Developer, Main Contractor, Architect and the M&E Engineer. This was a significant case as the defendants sought to rely on the Independent Contractor Defence as a complete defence (and were successful) to the MCST's claims where they had delegated their duties in relation to the design and construction of the development to independent competent contractors. He noted that the

decision of the High Court and the subsequent dismissal of the appeal by the MCST at the Court of Appeal have substantial impact on condominium owners, developers, main contractors, architects, engineers and other key professionals in the construction industry.

Mr Mohan Pillay, Joint Head of the Singapore Joint Law Venture, Pinsent Masons MPillay LLP shared his views on Re-examining the Independence of the Certifier in a Building Contract. Cases were shared, where contract administrators were indicted for acting in an unfair manner such as certifying completion even when the proposed development had just failed the BCA TOP inspection (the TOP was expressly stated as a requirement for substantial completion in the contract).



SPM Seminar (front left): Chow Kok Fong, Christopher Chuah, Edwin Lee, Melvin Chan and Mohan Pillay

The seminar culminated in a panel discussion chaired by Mr Edwin Lee, founding partner of Eldan Law LLP, with fellow panelists Mr Christopher Chuah, Mr Mohan Pillay, Mr Melvin Chan and Mr Chow Kok Fong. It was a lively discourse on the various topics raised during the presentations with many participants sharing their views pertaining to the application of the Independent Contractor Defence.



Official Launch of Singapore Journal of Construction Law by the Honourable Justice Quentin Loh

**The event rounded off
with the official launch
of the Singapore Journal
of Construction Law by
the Honourable Justice
Quentin Loh.**

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