

Build News

SIBL NEWSLETTER
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Written by
AMILA GAMAGE

How to avoid construction disputes

Sometimes, construction projects end up with disputes. Considering the scale of projects and the amount of money spent on the completion of projects, there are many possibilities for disputes or disagreements. Although there are alternative dispute resolution methods such as mediation and arbitration available, some of the disputes may need litigation to resolve. Considering the time, money, and effort to spend on resolving construction disputes. It is worth taking action to avoid or mitigate such disputes.

Therefore, here are some of the things that are worth following to avoid or mitigate possible construction disputes.

Know your contract



Although the contract document is vital for successful project closure, sometimes it is ignored. Misinterpretation of some of the clauses can lead to construction disputes.



Therefore, both employers and contractors need to be familiar with their project contracts and, at the same time, the standard contract documents. Some clauses affect construction disputes, such as variations, notice requirements, payment, delay, and differing site condition clauses, which are worth reading and understanding properly.

Stick to your contract

Project management skills are essential for construction project delivery. However, at the same time, it is vital to pay attention to contract management. The drawings, written instructions, specifications, and contract clauses are parts of the contract document which affect the successful project completion. While cost, time, and quality play a major role in a successful project, safety and disputes are other factors that can affect a project's success. By sticking to your contract and making decisions that align with the contract, it is easy to avoid most of the possible disputes.

Maintain clear and effective communication

Communication is vital for successful project delivery. Therefore, it is easy to avoid possible disputes due to misunderstanding by communicating clearly and keeping things in writing. On the other hand, effective communication can also create a collaborative environment.

Don't forget to take advantage of technology

With digitalization in the construction industry, new tools such as building information modelling (BIM) enhance collaboration within the team. With enhanced information sharing possibilities in different stages of a project, parties can easily identify the possible design issues or effects of material changes in advance. Don't forget to utilize these capabilities to reduce or resolve possible disputes at a later stage.



About the Author: Amila Gamage , Sihela Consultants

Amila Gamage is the founder and contracts manager of Sihela Consultants, where she offers quantity surveying services, consultancy, and training solutions for her clients in Singapore and overseas. As an ACLP certified trainer and a lecturer for different educational institutes and organizations, she helps learners to gain industry knowledge on relevant topics, including Facilities Management and Contract Management.

If you see a possible cause for a dispute, try to resolve it before it becomes a major dispute that needs more time and resources. Negotiation is one of the best options to resolve disputes and misunderstandings. Therefore, don't ignore the minor disputant issues. Try to resolve as soon as possible instead of waiting.

Finally, construction projects are a team effort, and disputes can affect its successful delivery. Therefore, do not ignore the possible disputes and try to avoid or mitigate them as much as possible.





What are Digital Twins?

Written by Vanessa Tang

A digital twin is a realistic digital representation of a physical asset, process, or system in the built or natural environment. More importantly, a digital twin is dynamic because their physical versions are changing every day too. Digital twins learn, update, and communicate with their physical counterparts by exchanging data throughout the asset lifecycle.

Such dynamic simulations and communication are facilitated by the widespread and cost-effective use of the Internet of Things (IoT) for completed physical assets and Building Information Modelling (BIM) technologies for facilities at the design and construction stage.

The information collected in digital twins is largely influenced by the information requirements of the project, and the information is meant to help teams become more efficient and effective in their processes by forecasting events before they physically occur in real life, optimising the built environment.



Image from:

<https://www.bentley.com/en/products/product-line/digital-twins>

Digital Twins at Design and Construction Stage

In Singapore, at the design and construction stage, Building Information Models (BIM) are routinely created to help teams understand the design and construction processes of the physical asset before its actual physical construction. As BIM drives the digitisation of the construction industry, multidisciplinary models and cloud collaboration informs the design and management of built assets and the systems inside.

Use cases of digital twins at design and construction stage includes:

1. BIM models of various disciplines, such as Architectural, Structural, Mechanical and Electrical BIM models that are clash detected and coordinated ahead of construction
2. Simulation of construction processes, such as in 4D BIM, interfacing a construction programme created in Primavera P6 or Microsoft Projects with the BIM model

Digital twins help us to advance existing BIM-centric processes by improving data quality and accessibility. BIM helps to realise the full potential of digital twins at the operations stage, by connecting data and processes with real-time information management.



Image from: <https://azure.microsoft.com/en-us/overview/iot/>

Digital Twins at Operations and Maintenance Stage

At the operations stage, digital twins help facility owners and operators to understand how their products are performing, driving more value to their projects. Owners can collaborate with engineers and contractors upfront to set performance priorities and expectations, thus maximising investment through greater energy savings and improved maintenance. The digital twin can also be used to identify potential faults and troubleshoot remotely. Its efficiency can help you to improve customer satisfaction.

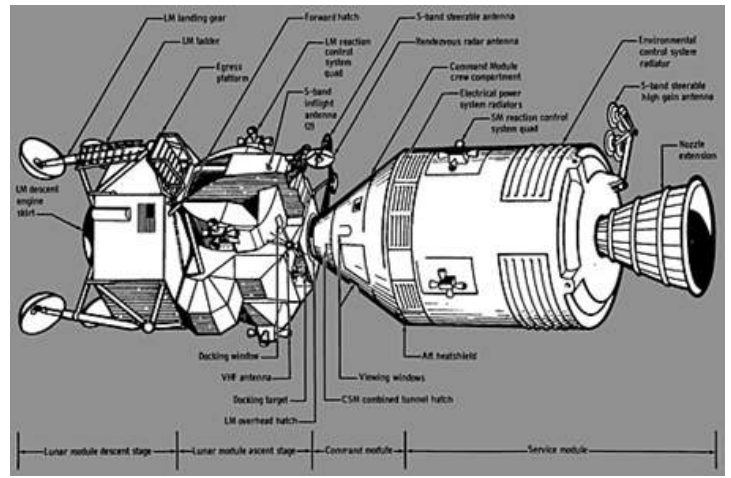
Use cases of digital twins at the facilities management stage include:

- Operation data for Mechanical and Electrical systems
- Maintenance data and parts
- Environmental data collected through IoT sensors

History of Digital Twins

According to Forbes, NASA was one of the first organisations to experiment with digital twins. It allowed them to operate, maintain and repair systems that were not in physical proximity to them.

When an oxygen tank in the service module failed two days into the mission of Apollo 13, it was the innovation of mirrored systems on earth that allowed engineers and astronauts to determine how they could rescue the mission. Today, NASA uses digital twins to develop new recommendations, roadmaps, and next-generation vehicles and aircraft.



(Left) Image of the Mission Operations Control Room before the Apollo 13 accident, and (Right) image of the Apollo 13 spacecraft configuration, from Wikipedia.

The Challenge with Digital Twins

While digital twins are meant to provide a digital thread that combines aggregate data in a simple way, the challenge in creating quality digital twins is that information often comes from various sources, and in different platforms that may not be interoperable.

Depending on the type of asset, digital twins can have different mixes of data sources and features. Moving data from one platform to another can cause a drop in the quality of the data or may require additional human intervention for the data to be moved across platforms.

Digital Twin Solutions

There are several digital twin platforms in the market that allow you to organise and structure information. Bentley's iTwin, for example, allows you to combine data from different sources into a single repository, unlocking data previously in model files to be accessed in a database-like form. Autodesk Tandem harnesses BIM information created through the project lifecycle to deliver insightful data at the handover stage, accelerating operational readiness and empowering better business decisions.



Image from: <https://adsknews.autodesk.com/news/tandem-public-beta>

IBM's Maximo lab services "turns on" visual and voice features that enable you to see your assets in a new dimension and get immediate access to critical data. Microsoft Azure's Digital Twin platform allows you to connect custom domain models using an open modelling language, connecting your IoT devices across assets into a single environment.

What you choose depends on the information requirements of your project, and of course, your approach towards information architecture.

About the Author: Vanessa Tang, AcePLP

Vanessa Tang is an SIBL Director and a leading BIM Advisor for guiding firms in the Built Environment to digitise and enhance their Integrated Digital Delivery workflows. She is a Corporate Development Director at AcePLP, which offers Building Information Modelling, Virtual Design, and Construction, reprography, and digitisation services. Her clients include government agencies, consultants, and contractors working on Singapore's Built Environment projects. She works with Autodesk, Bentley, and Trimble to deliver technological and information management solutions for her clients. She also helps to set up BIM teams and groom future talent for the Built Environment.



Accrediting Green Building Professionals

The SGBC Green Mark Professional Qualification Scheme succeeds the BCA Green Mark Specialist programme and aims to uplift, upskill and recognise green building competencies of professionals active in the built environment sector.

Certification Types

Green Mark AP

The Green Mark AP certification qualifies industry professionals with the knowledge and expertise needed for the implementation of Green Mark projects.

- Green Mark Accredited Professional (*Green Mark AP*)
- Green Mark Advanced Accredited Professional (*Green Mark AAP*)

Green Mark AP (FM)

The Green Mark AP (FM) certification qualifies industry professionals with the knowledge and expertise needed to maintain and operate green buildings.

- Green Mark Accredited Professional (Facilities Management) [*Green Mark AP(FM)*]
- Green Mark Advanced Accredited Professional (Facilities Management) [*Green Mark AAP(FM)*]

Continuing Professional Development

A key feature of the SGBC Green Mark Professional Qualification Scheme is the establishment of a Continuing Professional Development (CPD) framework for all Green Mark APs. Through a host of meaningful programmes and activities, Green Mark APs are able to remain abreast of industry trends and stay ahead of sectoral developments.

Green Mark AP certifications are renewed annually upon fulfillment of the renewal requirements.

Renewal requirements
for **Green Mark AP and
Green Mark AP (FM)**



12 SGBC-GMAP
CPD Points

Renewal requirements
for **Green Mark AAP and
Green Mark AAP (FM)**



18 SGBC-GMAP
CPD Points



About the
scheme



Upcoming
CPD activities



Renewal
Requirements



Frequently Asked
Questions

SINGAPORE INSTITUTE OF BUILDING LIMITED MANAGEMENT TEAM



41st Board of Directors (2021-2022)



1st Vice
President
Shane D Ward
1vp@sibl.com.sg



President
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sussie@sibl.com.sg



2nd Vice President
Farizan
d'Avezac de Moran
2vp@sibl.com.sg



Honorary
Secretary
Ho Wee Leong
hon.secretary@sibl.com.sg



Asst. Hon.
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Subhadra
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SINGAPORE INSTITUTE OF BUILDING LIMITED MANAGEMENT TEAM



Honorary Adviser and Immediate Past President



Honorary Adviser
Hon. FSIB
Dr. Teo Ho Pin



Immediate
Past President
Dr. Victor Ong
Chee Wee

Independent Director



Lead Auditor
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Secretariat



SIBL Admin/
PA to President
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SIBL - CIJC Admin
Marianne Ang
marianne@sibl.com.sg

SIBL SUB COMMITTEE 2020 - 2022

1. Accreditation & Professional Development (APDC)

Chairman: Dr.Keow Yeong Ming

Members: Mr.Moong Khai Chee, Dr.Parvathy, Ms.Vanessa Tang,
Mr.Vineet Shrivastava, Mr.Sonny Andalis, Mr. Darren Tang,
Ms.Valerie Tang

2. Commercialisation Strategy Committee (CSC)

Chairman: Mr.Moong Khai Chee

Members: Mr.Shane D Ward, Mr. Andre Chia,
Mr.Ng Pin Yuan, Ms.Danna Er, Mr. Jeremy Tan

3. Enterprise Membership Services Committee (EMSC)

Chairman: Mr.Ivan Teo

Members: Mr.Vineet Shrivastava, Mr.Shane D Ward,
Mr.Hossain, Mr. David Shanmugam

4. Media, Marketing & Industrial Relationship Committee (MM & IRC)

Chairman: Ms.Shirley Chan

Members: Mr.Shane D Ward, Mr.Vineet Shrivastava,
Ms.Vanessa Tang, Ms.Amila, Ms. Nora Tan

5. Membership Services Committee (MSC)

Chairman: Mr.Shane D Ward

Members: Mr.David Shanmugam, Mr.Ho Wee Leong,
Mr.Ivan Teo

SIBL SUB COMMITTEE 2020 - 2022

6. Memorandum & Association Committee (M & AC)

Chairman: Dr.Sussie Ketit

Members: Mr.Vineet Shrivastava, Mr.Ho Wee Leong

7. Environment and Sustainability Committee (E&S)

Chairman: Ms.Farizan

Members: Dr.Parvathy, Ms.Vanessa Tang, Ms. Nora Tan

8. Corporate Social & Event Committee (CS & EC)

Chairman: Dr.Sussie Ketit

Members: Mr.Vineet Shrivastava, Mr.Thomas Loh

9. Young Member Committee (YMC)

Chairman: Ms.Siddhi

Members : Mr.Ng Pin Yuan, Mr Jayden Lek, Mr Miguel Tan

We welcome all members' involvement in our various internal and external sub-committees. Contact SIBL Secretariat to indicate your interest at admin@sibl.com.sg.

SIBL EXTERNAL COMMITTEES REPRESENTATIVES 2020 - 2022

Construction Industry Joint Committee (CIJC)

BCA - CIJC Committee

1. Dr. Sussie Ketit
2. Mr. Shane D Ward
3. Ms. Farizan
4. Mr. Ho Wee Leong
5. Mr. Moong Khai Chee

Constructing Our World Conference and 40th Anniversary Celebration

1. Dr. Sussie Ketit
2. Mr. Shane Ward
3. Ms. Farizan d'Avezac Moran
4. Mr. Ho Wee Leong
5. Mr. Moong Khai Chee
6. Dr. Parvathy
7. Dr. Keow Yeong Ming
8. Ms. Vanessa Tang
9. Ms. Siddhi Suresh Nevkar
10. Ms. Rohaidah

Singapore Green Building Council SGBC-SIBL (2 Reps)

1. Mr. Vineet Shrivastava
2. Ms. Siddhi

SPRING Technical Committee (2 reps)

1. Dr. Victor Ong
2. Mr. Moong Khai Chee

BCA BuildSG Tripartite Committee (2 reps)

1. Mr. Vineet Shrivastava
2. Ms. Vanessa Tang

Smart FM Conference -yearly with BuildTech Asia (3 reps)

1. Mr. Vineet Shrivastava
2. Ms. Danna Er
3. Mr. David Shanmugam
4. Ms. Amila

BCA Manpower and Industry Development TaskForce (FM)

1. Dr. Sussie Ketit
2. Ms. Farizan d'Avezac de Moran
3. Mr. Darren Tang

Membership Admissions - New Members/Associate Members

S/N	Name	M/No.	Membership Class	Company	Title/Position
1	Moorthy Perumal	326570	Member	Oxley Holding Ltd	Construction Manager
2	Chun Sin (Deckson) Ang	372577	Member	Mott Macdonald Singapore Pte Ltd	Senior Engineer
3	Kim Hwee Alan Goh	372793	Member	CPG Facilities Management Pte Ltd	Deputy Chief Executive Officer
4	Philip Kwang	374336	Member	Facade Global Master Pte Ltd	Managing/Director
5	Shaju	376437	Associate Member	Hong Dat Engineering Pte Ltd	Assistant General Manager
6	Marianne Ang	376482	Member	Marine Parade Town Council	Quality Service Manager
7	Thamaraiselvan Natarajan	378234	Associate Member	Hong Dat Engineering Pte Ltd	Project Manager
8	Keith Vincent	391080	Member	Land Transport Authority	Principal Assistant Project Engineer
9	Hualan Wong	391994	Member	Ginlee Construction Pte Ltd	Contracts Manager
10	Karthick Muthu	398040	Associate Member	Hong Dat Engineering Pte Ltd	BIM Modeller
11	Sarker Nandan Chandra	398199	Associate Member	Joydom Engineering Pte Ltd	Operation Manager
12	Samsudeen Sheik Abdul Nazeer	425533	Associate Member	Hong Dat Engineering Pte Ltd	Electrical Engineer
13	Nora Tan	429420	Associate Member		
14	Chin Hin Chong	434109	Member	Santarli Construction Pte Ltd	Head, Corporate HSE/PE

Membership Admissions - New Members/Associate Members

S/N	Name	M/No.	Membership Class	Company	Title/Position
15	Guo Wei, Desmond	434485	Member	Dr. D Plumping and Sanitary	Owner
16	Seak Hong Cheng	445775	Member	AD Incorporation Pte Ltd	Director
17	Nelson Ng	445780	Member	AD Incorporation Pte Ltd	Project Manager
18	Kelly Zhang	445782	Member	AD Incorporation Pte Ltd	Quantity Surveyor
19	Kwan Wan Fung Ken	451551	Member	Hong Kong Productivity Council	Manager
20	Tin Pui Alex Leung	468762	Member	China Harbour Engineering Pte Ltd.	Senior Business Development Manager
21	Guorong Chen	471213	Associate Member	Captivate Builders Pte Ltd	Construction Site Supervisor
22	Felix Teh Hing Seng	479918	Associate Member	Figtree Projects Pte Ltd	Site Manager
23	Jeremy Tan	482470	Member	Excelco Group of Companies	Group Executive Director
24	Zhi Sheng Tan	538368	Member	Miraz International Pte Ltd and Sika (Singapore) Pte Ltd	Consultant
25	Li Chaofeng Alan	542963	Member	CPG Facilities Management Pte Ltd	Senior Vice President
26	Christopher Vitung	544033	Member	Chye Joo Construction Pte Ltd	BIM Manager

Membership Admissions - New Members/Associate Members

S/N	Name	M/No.	Membership Class	Company	Title/Position
27	Miguel Tan	559981	Student		
28	Darren Charles Hawkins	569856	Member		

Membership Admissions - Affiliate Members/Enterprise Members

S/N	Name	M/No.	Membership Class	Company	Title/Position
1	Vijay Shinde	370822	Affiliate Member	Jacobs International Consultants Pte. Ltd.	Sr. Project Manager
2	Andre Chia	380825	Affiliate Member	JA Signature (Pte. Ltd.)	Director
3	Jiayun Summer Foo	385598	Affiliate Member	AIA Singapore	Financial Service Consultant
4	Jun Hao Seah	395619	Affiliate Member	Simple-Group Private Limited	Director
5	Jayden Lek	398000	Affiliate Member	JA Signature (Pte. Ltd.)	Co-Founder
6	Chris Yio	378228	Enterprise Member	Procore Technologies	Regional Sales Director ASEAN
7	Teo Ho Pin	447400	Enterprise Member	Building & Estate Management	President
8	Cindy Chong	455073	Enterprise Member	Alumni iClick Media Pte Ltd	General Manager
9	Chua Eng Eng	465586	Enterprise Member	King Wan Corporation Limited	Managing Director
10	Jonathan Tan	466206	Enterprise Member	Silver Eagle Construction Pte Ltd	Chairman
11	Chan Richard	464089	Enterprise Member	ISO-TEAM Corporation Pte Ltd	General Manager



SIBL President wins Community in Bloom Award

The Community in Bloom (CIB) Awards recognises excellence in gardening efforts by community groups and aims to encourage community gardeners to improve the standards of their gardens while continuing to enjoy gardening as a fun and healthy activity.

The awards programme was launched in 2005 to foster a love for gardening and steward of greenery, bringing residents to build community bonds and social resilience in Singapore.



The gardens were judged by the garden quality, which includes considering factors such as the impact of the garden, good horticultural and plant health, as well as garden upkeep. A second criterion is for Community Engagement and Inclusiveness, such as the types and frequency of gardening activities. A third criterion is pertaining to biodiversity and sustainability efforts.

319 participating gardens were awarded Platinum, Gold, Silver, or Bronze based on their overall score according to the judging criteria.

Starting from 2020, the CIB Awards are presented annually in view of the growing number of CIB gardening groups, so that due attention and recognition can be accorded for each category.



We are pleased to share that President of SIBL, Dr Sussie Ketit's Bukit Panjang Butterfly Garden was awarded the Gold Award. Congratulations, Dr Sussie!

For more information on the Community in Bloom programme, visit the Nparks website at www.nparks.gov.sg/cib or email CommunityInBloom@nparks.gov.sg

All images in this article are from the National Parks Board: <https://www.nparks.gov.sg/>



Community in Bloom Awards 2021



Bukit Panjang Butterfly Garden
Achieved
GOLD


Kenneth Ee

Chief Executive Officer
National Parks Board



**Have something to
tell us?
We'd love to hear
from you!**

Write us at admin@sibl.com.sg