

**CHAI
CHANG SAAR
(PTech, PhD)**



PERSONAL DETAILS

Age	39
Gender	Male
Citizenship	Malaysian
Date of Birth	13 Nov 1985

**ACADEMIC
QUALIFICATIONS**

Qualification	PhD (Civil Engineering)
Field of Study	Construction Management
Institute/University	Universiti Teknologi Malaysia
Date of Award	May 2014
Qualification	Master of Science
Field of Study	Construction Management
Institute/University	Universiti Teknologi Malaysia
Date of Award	May 2009
Qualification	Bachelor of Science
Field of Study	Construction
Institute/University	Universiti Teknologi Malaysia
Date of Award	May 2008

DESIGNATION

Visiting Professor Marine and Engineering School	Hainan University China Oct 2024- Present
Associate Professor School of Architecture, Building and Design	Taylor's University Malaysia May 2023- Present
Discipline Leader Faculty of Engineering, Computing and Science	Swinburne University of Technology Sarawak Feb 2020- April 2023
Senior Lecturer Faculty of Engineering, Computing and Science	Swinburne University of Technology Sarawak September 2019- April 2023
Director Digital Technology International Centre (DiTIC)	University of Reading Malaysia November 2017- August 2019
Research Lead School of the Built Environment	University of Reading Malaysia August 2017- August 2019

Senior Lecturer School of the Built Environment	University of Reading Malaysia August 2017- August 2019
Programme Coordinator MEng Construction Management	Universiti Teknologi Malaysia November 2015- July 2017
Senior Lecturer School of Civil Engineering	Univesiti Teknologi Malaysia June 2015- July 2017
Assistant Professor Faculty of Engineering and Green Technology	Universiti Tunku Abdul Rahman October 2014- May 2015
Research Officer	Universiti Teknologi Malaysia April 2014- July 2014
Research Assistant	Universiti Teknologi Malaysia April 2012- March 2014
Construction Manager	Tiong Seng Contractor Holdings Ltd, Singapore June 2011-March 2012
Senior Engineer	Tiong Seng Contractor Holdings Ltd, Singapore June 2010- May 2011
Site Engineer	Tiong Seng Contractor (Pte) Ltd, Singapore June 2009- May 2010
Site Engineer	Kimlun Sdn Bhd June 2008- May 2009

ACADEMIC ADMINISTRATIVE EXPERIENCE

Faculty Level

2015- Programme Coordinator MEng Construction Management	Universiti Teknologi Malaysia School of Civil Engineering
2016- Programme Coordinator MEng Construction Management	Universiti Teknologi Malaysia School of Civil Engineering
2016- Committee Member for Academic Postgraduate Programme	Universiti Teknologi Malaysia School of Civil Engineering
2016- Member for Strategic Planning	Universiti Teknologi Malaysia School of Civil Engineering

	2016- Committee Member Study Circle (Non Muslim)	Universiti Teknologi Malaysia School of Civil Engineering
	2017- Programme Coordinator MEng Construction Management	Universiti Teknologi Malaysia School of Civil Engineering
	2017- Committee member for Academic Postgraduate Programme	Universiti Teknologi Malaysia School of Civil Engineering
	2017- Member for Strategic Planning	Universiti Teknologi Malaysia School of Civil Engineering
	2017- Committee member Study Circle (Non Muslim)	Universiti Teknologi Malaysia School of Civil Engineering
	2017- Committee member for international UTM Bridge model competition (UTMBridge 2017)	Universiti Teknologi Malaysia School of Civil Engineering
	2017-2019 Research Lead	University of Reading Malaysia School of the Built Environment
	2020- Course Director- Master of Construction Management	Swinburne University of Technology Sarawak Campus
	2020- Committee member for School Executive Group	Swinburne University of Technology Sarawak Campus
	2021- Discipline Leader- Built Environment	Swinburne University of Technology Sarawak Campus
	2021- Committee member for School Executive Group	Swinburne University of Technology Sarawak Campus
	2022- Discipline Leader- Built Environment	Swinburne University of Technology Sarawak Campus
	2022- Committee member for School Executive Group	Swinburne University of Technology Sarawak Campus
University Level	2017- Task force for improve university QS Ranking	Universiti Teknologi Malaysia
	2017- Research Center Director	University of Reading Malaysia
	2017- Member for University Research Committee	University of Reading Malaysia
	2017- Committee member for Postgraduate Research Group	University of Reading Malaysia

	2018- Member of MyRA I Audit Committee	University of Reading Malaysia
	2018- Member for Research Committee	University of Reading Malaysia
	2020- Committee member for Exam Board	Swinburne University of Technology Sarawak Campus
	2021- Committee member for Exam Board	Swinburne University of Technology Sarawak Campus
	2022- Committee member for Exam Board	Swinburne University of Technology Sarawak Campus
National Level	2020- Editorial Committee for Construction 4.0 Strategic Plan (2021-2025)	Construction Industry Development Board Malaysia
	2022- Editorial Committee for Construction 4.0 Action Plan (2023-2025)	Construction Industry Development Board Malaysia
International level	International Scientific Committee and Technical Committee Member	The Third International Conference on Construction and Building Engineering (ICONBUILD 2017)
	Steering Committee- Executive Chair	International Conference on Artificial Intelligence and Digital Technology in Construction Management, Dubai
	Guest Editor in Chief for Special Issue	Thinkspace Conference 2024, Malaysia
	2International Scientific Committee and Technical Committee Chair; Guest Editor in Chief for Special Issue	Taylor's Teaching and Learning Conference (TTLC) 2025, Malaysia
	Steering Committee- Executive Chair (Malaysia)	CivilTech Conference 2027, France
	Reviewer	<ul style="list-style-type: none"> - Pertanika Journal of Science & Technology (JST) - Journal of Construction in Developing Countries (JCDC) - Jurnal Teknologi - Malaysian Construction research Journal - Journal of Information Technology in Construction

- International Journal of Research and Innovation in Social Science
- Buildings
- Sustainability
- Conflict Resolution Quarterly
- Innovative Infrastructure Solutions

AWARDS

Digital Construction Category- Best Researcher Award 2025	CAD Conference 2025
1 First Prize; 2 Second Prizes	International BIM Competition, China, 2025
3 Silver Awards	International Creative & Innovative Idea Competition (ICIIC) 2025
InTex 2023- 1 Silver, 1 Bronze	Unimas Innovation
InTex 2022- Bronze Award	Unimas Innovation
Publication Award 2021	Swinburne Sarawak
Publication Award 2020	Swinburne Sarawak
Best Lecturer Award 2019	Reading University Malaysia Student Association
Best Lecturer Award 2019	Reading University Malaysia Built Environment Society
First Price 3 MT Competition 2013	Universiti Teknologi Malaysia
Best Engineer Award 2010	Tiong Seng Contractor (Pte) Ltd

PROFESSIONAL MEMBERSHIPS

International Society for Development and Sustainability (ISDA)
Lifetime Fellow

Higher Education Academy UK
Associate Fellow of Higher Education Academy (AFHEA)

Malaysia Board of Technology
Professional Technologist

Institute of Research Engineers and Doctors
Fellow

Chartered Institute of Building (CIOB)
Member

PROFESSIONAL CERTIFICATION

Certified Construction Project Manager (CCPM)
CIDB, August 2024

Cubicost- TAS, TRB, TBQ
Glodon, March 2022

Associate Fellow of Higher Education Academy (AFHEA)
Higher Education Academy UK, September 2019

CostX Inductor
Exactal, June 2019

Certified Revit User
Autodesk, January 2019

Certified Trainer (TTT)
HRDF, Jun 2017

MyCREST CIDB
Qualified Professional, March 2017

Higher Education Teaching and Learning Certificate, *Sijil
Pengajaran dan Pembelajaran Tinggi (SPPT)*
Ministry of Higher Education Malaysia, 2016

SPECIALITY AREAS

1. Digital Construction
2. Building Information Management
3. Building Information Modelling
4. Construction Project Management
5. Housing Affordability

RESEARCH GRANTS

INTERNATIONAL FUNDING (Accumulate Approximately USD 206, 434)

INDUSTRY GRANTS (Accumulate Approximately USD 50,000)

NATIONAL/ INTERNAL FUNDING (Accumulate Approximately RM 856, 110)

AUTHORITY APPOINTMENT

1. Women Builders Creating Inclusive Future Principles- A Practical Guide for Policy Makers, 2021
Role Member
Project Duration 12 Months
Authority APEC
2. Development of Saudi Construction Cost Index, 2021
Role Advisor
Project Duration 6 Months
Authority Saudi Contracting Authority
3. Development of Construction 4.0 Strategic Plan, 2019- 2020
Role Editorial Board
Project Duration 18 months
Authority CIDB-CREAM

4. Feasibility Study for Indonesia Kalimantan, 2019-2020

Role	Researcher
Project Duration	12 Months
Authority	Malaysia External Trade Development Corporation

CONSULTANCY

1. Project Management Consultancy, 2015

Project Duration	6 months
Client	Robin Village Sdn Bhd

2. Housing the Bumiputra in Iskandar Malaysia, 2014

Project Duration	12 months
Client	Johor State Government

3. A Research on High Impact projects in Pengerang, Johor, 2014

Project Duration	12 months
Client	KEJORA

TRAINING CONDUCTED

1. Project Based BIM, 2024

Training Duration	10 days
Participants	25
Client	Jasa Jurutera Sdn Bhd

2. BIM for Architectural Design

Training Duration	4 days
Participants	10
Client	HPA Design Studio (Se Asia) Sdn Bhd

3. Virtual and Digital Construction, 2019

Training Duration	1 day
Participants	30
Client	Norwegian University of Science and Technology

4. Autodesk Revit– Contracts Administration, 2019

Training Duration	1 day
Participants	15
Client	SP Setia Bhd

5. Fundamental BIM, 2018

Training Duration	1 day
Participants	35
Client	Norwegian University of Science and Technology

COURSES ATTENDED

1. Cubicost, 2022

Training Provider	Glodon
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2. CostX Inductor Training, 2019

Training Provider	Exactal
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3. Certified Revisit User, 2019
Training Provider Autodesk
4. Associate Fellow of Higher Education Academy, 2019
Training Provider Higher Education Academy, UK
5. Train The Trainer, 2017
Training Provider Muhar and Associate Sdn Bhd
6. Faro 3D Laser Scanner and Point Sense Revit, 2017
Training Provider Bandwork GPS Solution Sdn Bhd
7. MyCREST Qualified Professional, 2017
Training Provider CIDB
8. PLS-Structural Equation Modelling, 2016
Training Provider International Business School, UTM
9. Sijil Pengajaran dan Pembelajaran Tinggi, 2016
Training Provider UTM
10. AMOS- Structural Equation Modelling, 2013
Training Provider Malaysian Postgraduate Workshop Series
11. Building Construction Supervisor Safety Course, 2010
Training Provider Building Construction Authority, Singapore
12. Construction Quality Assessment (CONQUAS 21)
Training Provider Building Construction Authority, Singapore
13. Integrated Formwork Systems to Improve Productivity and Safety in Building Construction
Training Provider Building Construction Authority, Singapore
14. Design of Integrated Formwork and Falsework Systems
Training Provider Building Construction Authority, Singapore

SUPERVISION

VISITING SCHOLAR

1. Ma GuiFen
Role Main Supervisor
Institution Guangxi Electrical Polytechnic Institute, China

POSTGRADUATE- Research

1. Dr. Nurul Alifah Binti Jatarona
Role Co-Supervisor
Institution Universiti Teknologi Malaysia
Programme PhD Civil Engineering
Status Graduated, 2018
2. Dr. Ali Raza Khoso
Role Co-Supervisor
Institution Universiti Teknologi Malaysia
Programme PhD Civil Engineering

	Status	Graduated, 2021
3.	Dr. Aref Charehzehi Role Institution Programme Status	Co-Supervisor Universiti Teknologi Malaysia PhD Civil Engineering Graduated, 2023
4.	Lily Xiong YaoLi Role Institution Programme Status	Main Supervisor Taylor's University Malaysia PhD (Architecture) On- going
5.	Bruce Lee Xia Sheng Role Institution Programme Status	Co- Supervisor Taylor's University Malaysia PhD (Architecture) On- going
6.	Gai Ming Role Institution Programme Status	Co-Supervisor Taylor's University Malaysia PhD (Architecture) On- going
7.	Santi Edra Nisa Lau Role Institution Programme Status	Co-Supervisor Universiti Teknologi Malaysia PhD Civil Engineering On-going
8.	Tey Kim Hai Role Institution Programme Status	Co-Supervisor Universiti Teknologi Malaysia PhD Civil Engineering On-going
9.	Michelle Zaiban Baird Role Institution Programme Status	Co-Supervisor Universiti Teknologi Malaysia PhD Civil Engineering On-going
10.	Ling Tien Heng Role Institution Programme Status	Co-Supervisor Universiti Teknologi Malaysia EndD Civil Engineering On-going
11.	Julaida Johan Role Institution Programme Status	Co-Supervisor Universiti Teknologi Malaysia MPhil Civil Engineering Graduated, 2017

12.	Chan Sze Wen	
	Role	Main Supervisor
	Institution	Swinburne Sarawak
	Programme	Master of Engineering (Civil)
	Status	Graduated, 2024

13.	Shan Jian Cheng	
	Role	Main Supervisor
	Institution	Swinburne Sarawak
	Programme	Master of Engineering (Civil)
	Status	Graduated, 2024

POSTGRADUATE- Taught Course

1.	Yvonne Zhu Yunni	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia
	Programme	Master of Science in Virtual Design Construction
	Status	Graduated, 2024

2.	Huang Chaojie	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia
	Programme	Master of Science in Virtual Design Construction
	Status	Graduated, 2024

3.	Jiao Yang	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia
	Programme	Master of Science in Virtual Design Construction
	Status	Graduated, 2024

4.	Wang Jiayi	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia
	Programme	Master of Science in Virtual Design Construction
	Status	Graduated, 2024

5.	Kueh Ling Lee	
	Role	Main Supervisor
	Institution	Swinburne Sarawak
	Programme	Master of Construction Management Practice
	Status	Graduated, 2024

6.	Chang Pei Shi	
	Role	Main Supervisor
	Institution	Swinburne Sarawak
	Programme	Master of Construction Management Practice
	Status	Graduated, 2024

7.	Niu YuFeng	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia

	Programme	Master of Science in Virtual Design Construction
	Status	Graduated, 2023
8.	Hatem Ramsis	
	Role	Main Supervisor
	Institution	Swinburne Sarawak
	Programme	Master of Construction Management
	Status	Graduated, 2022
9.	Dewi Noorain Bt Bolhassan	
	Role	Main Supervisor
	Institution	Swinburne Sarawak
	Programme	Master of Construction Management
	Status	Graduated, 2022
10.	Grace Anak Ago	
	Role	Main Supervisor
	Institution	Swinburne Sarawak
	Programme	Master of Construction Management
	Status	Graduated, 2022
11.	Syahrir Iman Bin Suib	
	Role	Main Supervisor
	Institution	Swinburne Sarawak
	Programme	Master of Construction Management
	Status	Graduated, 2022
12.	Lily Xiong YaoLi	
	Role	Co-Supervisor
	Institution	Universiti Teknologi Malaysia
	Programme	MEng Construction Management
	Status	Graduated, 2020
13.	Ling Luen Hui	
	Role	Co-Supervisor
	Institution	Universiti Teknologi Malaysia
	Programme	MEng Construction Management
	Status	Graduated- Best Student Award 2020
14.	Chin Li Wei	
	Role	Main Supervisor
	Institution	Universiti Teknologi Malaysia
	Programme	MEng Construction Management
	Status	Graduated- Best Student Award 2017
15.	Fatin Afiqah Binti Ahmad Bajuri	
	Role	Main Supervisor
	Institution	Universiti Teknologi Malaysia
	Programme	MEng Construction Management
	Status	Graduated, 2018
16.	Fakhira Bt Azmi	
	Role	Main Supervisor
	Institution	Universiti Teknologi Malaysia
	Programme	MEng Construction Management

	Status	Graduated, 2018
17.	Abdul Rahman A. Usmani	
	Role	Co-Supervisor
	Institution	Universiti Teknologi Malaysia
	Programme	MEng Construction Management
	Status	Graduated, 2017
18.	Mohamed Abdelraouf Abdalrahman	
	Role	Co-Supervisor
	Institution	Universiti Teknologi Malaysia
	Programme	MEng Construction Management
	Status	Graduated, 2018
	<i>UNDERGRADUATE</i>	
1.	Jacky Poon	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia
	Programme	Bachelor of Quantity Surveying (Hons)
	Status	Graduated, 2024
2.	Neo Wei Sin	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia
	Programme	Bachelor of Quantity Surveying (Hons)
	Status	Graduated, 2024
3.	Chan Yin Thong	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia
	Programme	Bachelor of Quantity Surveying (Hons)
	Status	Graduated, 2024
4.	Axel Naiken	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia
	Programme	Bachelor of Quantity Surveying (Hons)
	Status	Graduated, 2024
5.	Kenneth Wong	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia
	Programme	Bachelor of Quantity Surveying (Hons)
	Status	Graduated, 2024
6.	Steve Ng	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia
	Programme	Bachelor of Quantity Surveying (Hons)
	Status	Graduated, 2024
7.	Sim Ee Wei	
	Role	Main Supervisor
	Institution	Taylor's University Malaysia
	Programme	Bachelor of Quantity Surveying (Hons)

	Status	Graduated, 2023
8.	Sharifah Ain Role Institution Programme Status	Main Supervisor Swinburne Sarawak BEng Civil Graduated, 2022
9.	Nur Baizura Alif Role Institution Programme Status	Main Supervisor Swinburne Sarawak BEng Civil Graduated, 2022
10.	Joseph Tang Role Institution Programme Status	Main Supervisor Swinburne Sarawak BEng Civil Graduated, 2022
11.	Chin Chun Yong Role Institution Programme Status	Main Supervisor Swinburne Sarawak BEng Civil Graduated, 2022
12.	Lee Ming Hui Role Institution Programme Status	Main Supervisor Swinburne Sarawak BEng Civil Graduated, 2022
13.	Alfred Chua Role Institution Programme Status	Main Supervisor Swinburne Sarawak BEng Civil Graduated, 2022
14.	Theodoore Wayne Role Institution Programme Status	Main Supervisor Swinburne Sarawak BEng Civil Graduated, 2022
15.	Shan Jian Cheng Role Institution Programme Status	Main Supervisor Swinburne Sarawak BEng Civil Graduated, 2021
16.	Franky Kiu Role Institution Programme	Main Supervisor Swinburne Sarawak BEng Civil

	Status	Graduated, 2021
17.	Amul Hamal Role Institution Programme Status	Main Supervisor Swinburne Sarawak BEng Civil Graduated, 2021
18.	Ling Luen Hui Role Institution Programme Status	Main Supervisor University of Reading Malaysia BSc Quantity Surveying Malaysia Top 10 QS Dissertation Award, 2019
19.	Man Yin Yi Role Institution Programme Status	Main Supervisor University of reading Malaysia BSc Quantity Surveying Graduated, 2019
20.	Liew Wen Hui Role Institution Programme Status	Main Supervisor University of reading Malaysia BSc Quantity Surveying Graduated, 2019
21.	Tay Jing Hieng Role Institution Programme Status	Main Supervisor University of reading Malaysia BSc Quantity Surveying Graduated, 2019
22.	Lai Lee Yau Role Institution Programme Status	Main Supervisor Universiti Teknologi Malaysia BEng Civil Engineering Graduated, 2017
23.	Po Jian Chuan Role Institution Programme Status	Main Supervisor Universiti Teknologi Malaysia BEng Civil Engineering Graduated, 2017
24.	Lee Huan Boon Role Institution Programme Status	Co-Supervisor Universiti Teknologi Malaysia BEng Civil Engineering Graduated, 2017
25.	Lim Chong Sien Role Institution Programme	Co-Supervisor Universiti Teknologi Malaysia BEng Civil Engineering

Status	Graduated, 2017
26. Lim Shin Yee	
Role	Co-Supervisor
Institution	University Tunku Abdul Rahman
Programme	BSc Construction Management
Status	Graduated, 2016
27. Teong Kok Boon	
Role	Co-Supervisor
Institution	University Tunku Abdul Rahman
Programme	BSc Construction Management
Status	Graduated, 2016
28. Michael	
Role	Co-Supervisor
Institution	University Tunku Abdul Rahman
Programme	BSc Construction Management
Status	Graduated, 2016

POSTGRADUATE EXAMINATION/ VIVA

1. Co-Chairman to the PhD Viva panels for Mohammad Abedi, 2016
2. Co-Chairman to the PhD Viva panels for Nur Farhayu binti Ariffin, 2016
3. Co-Chairman to the PhD Viva panels for Libriati bt Zardasti, 2017
4. External Examiner to Master of Research (Civil Engineering) Viva, Zheng Yu Sheng, 2019
5. External Examiner to Master of Research (Civil Engineering) Viva, Vikram Kumar, 2019
6. External Examiner to Master of Research (Civil Engineering) Viva, Lim Shi Hang, 2019
7. External Examiner to Master of Research (Civil Engineering) Viva, Zeng Zhe Song, 2019
8. Chairman to the PhD Viva panels for Chukwuka Christian Ohueri, 2020
9. Examiner to the PhD Viva for Girirajan Arumugam, 2024
10. External Examiner to Master of Research (Built Environment), Tan Jin Hong, 2025

PUBLICATIONS

SELECTED INDEXED PUBLICATIONS

1. **Changsaar Chai**, Heap-Yih Chong, Chia Kuang Lee, Ling Lee Kueh, Laura Fan Su-ling. (2025). Addressing Building Information Modelling (BIM) Ownership Issue based on DEMATEL Analysis. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*. 17 (4). 04525042.
2. Yaoli Xiong, **Changsaar Chai**, Yee Siang Gan, Heap Yih Chong. (2025). 3D generative early-stage building design from 2D images: Integration of multimodal data with GAN (3DMM-GAN). *Innovative Infrastructure Solutions*. Vol. 10 (5), 162.
3. TD Moshood, Yee Voon Ling, **Changsaar Chai**, Chia Kuang Lee. (2024). Intention to engage in inter-contractor cooperation: a belief elicitation study in the construction industry. *Engineering, Construction and Architectural Management*. Vol. ahead-of-print No. ahead-of-print.
4. Kai Chen Goh, Jia Wen Kong, **Changsaar Chai**, Chia Kuang Lee. (2024). Exploring the potential of solar power for residential use in Malaysia: Insights from solar companies and local authorities. *Journal of the Malaysian Institute of Planners*. Vol. 22(3), 502 – 514.
5. Lam Tatt Soon, Lik Syuen Wong, Myzatul Aishah Kamarazaly, **Chai Chang Saar** and Habizah Sheikh Ilmi. (2024). Comparison of BIM-based quantities take-off in quantity surveying profession. *Journal of the Malaysian Institute of Planners*. Vol. 22(3), 150 – 164.

6. Chun Aik Lim, **Changsaar Chai** and Chia Kuang Lee. (2024). Predicting safety compliance and behaviour: an extended theory of planned behaviour. *Journal of Engineering Science and Technology (JESTEC)*. (In Press).
7. Jiancheng Shan, **Changsaar Chai**, Bibiana Chiuyiong Lim, Palaneeswaran Ekambaram, Khairolden bin Ghani. (2024). Unveiling the digital horizon: bridging the realms of digital twinning and construction project management performance. *Journal of Infrastructure, Policy and Development*. (In Press).
8. Su-Ling Fan, **Changsaar Chai**, Bibiana Chiu-Yiong Lim, Shao-Ming Lu and Hun-Chuen Gui. (2024). Ameliorating the profound gender wage gap in the architecture, engineering and construction (AEC) industry among the APEC members: the could and should. *Asian Journal of Business Research*. Vol 14(1).
9. Szewen Chan, **Changsaar Chai**, Bibiana Chiuyiong Lim, Palaneeswaran Ekambaram, Khairolden bin Ghani. (2024). A Kaleidoscope Model to address the Construction 4.0 policy changes in Malaysia. *Journal of Infrastructure, Policy and Development*. 8(3) 3422.
10. Ngie Hing Wong, Zong Yang Kong, Ratanak Sambo, **Chang Saar Chai**, Ali Raza Khoso, Jibril Adewale Bamgbade, Jaka Sunarso. (2024). Physicochemical characteristics of silicomanganese slag as a recycling construction material: an overview. *Mining, Metallurgy & Exploration*, 1-17. Springer Link.
11. Chun Xiang Kang, Chia Kuang Lee, Marián Bujna, **Changsaar Chai**. (2024). Formulation of safety predictors in construction sites through the lens of theory of planned behaviour: a DEMATEL based model. *Journal of Governance and Integrity*. 7(1), 682-691.
12. Szewen Chan, **Changsaar Chai**, Chiuyiong Bibiana Lim, Palaneeswaran Ekambaram, Mohd Khairolden Bin Ghani and Chiakuang Lee. (2023). Navigating the path to Construction 4.0: Policies, challenges, and strategies in Malaysian construction industry. *Journal of Business Economic Review*. 8(3), 89-103.
13. Chia Kuang Lee, **Changsaar Chai**, Marian Bujna, Muhammad Ashraf Fauzi and Ying Qi Boo. (2024). Understanding the causes of design errors in construction projects: A DEMATEL-based framework. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*. Vol 16(2). 04524002.
14. Azi Izwani Nor Hamzah, Chia Kuang Lee, Marián Bujna and **Changsaar Chai**. (2024). Team performance in the construction industry: a systematic literature review. *International Journal of Industrial Management*. 18(1), 1-10.
15. Sam Tan Chek Siong, Lim Fang Lee, Wai Soon Han and **Chai Chang Saar**. (2023). Passive cooling of breathable roof system in residential houses: a case study in Malaysia. *Malaysian Construction Research Journal*. Vol. 40 (2). 77-92.
16. **Changsaar Chai**, Szewen Chan, Lily Yaoli Xiong, Bibiana Chiuyiong Lim, Jiancheng Shan. (2023). Digital tools adoption towards construction industry revolution. *Journal of Engineering Science and Technology*. Special Issue on STAAUH. 231 – 243.
17. **Changsaar Chai**, Joseph Tzuenyao Tang, Szewen Chan, Chiakuang Lee, Kaichen Goh. (2023). BIM integration in agile scrum during the design phase. *Journal of Engineering Science and Technology*. Special Issue on STAAUH. 302 – 316.
18. JA Bamgbade, MM Hosany, WA Ajibike, **CS Chai**. (2023). Green Supply Chain Nuances in East Malaysian Construction Industry. *International Journal of Construction Management*, 1-9.
19. Minghui Lee, **Changsaar Chai**, Yaoli Xiong and Hunchuen Gui. (2022). Technology Acceptance Model For Building Information Modelling Based Virtual Reality (BIM-VR) In Cost Estimation. *Journal of Information Technology in Construction*. 27, 914-925.
20. Theodore Wayne, **Chang Saar Chai**, Shirly Siew Ling Wong, Fang Lee Lim, Kai Chen Goh, Nur IzieAdiana Abidin. (2022). Evaluation of Digital's Role in Sustainable Built Environment. *Journal of Science and Technolog*. 31(3), 1335-1351.
21. DN Bolhassan, **CS Chai**, AR Khoso, SC Loo, NH Wong, JA Bamgbade. (2022). Towards Adoption of Smart Contract in Construction Industry in Malaysia. *Journal of Science and Technology*. 30(1), 141 - 160.

22. **Changsaar, Chai**; Abidin, Nur IzieAdiana; Khoso, Ali Raza; Luenhui, Ling; Yaoli, Xiong; Hunchuen, Gui. (2022). Optimising Energy Performance of an Eco-Home Using Building Information Modelling (BIM). *Innovative Infrastructure Solutions*. 7(2), 140.
23. AR Khoso, AM Yusof, **C Chai**, MA Laghari. (2021). Robust Contractor Evaluation Criteria Classification for Modern Technology Public Construction Projects. *Journal of Public Procurement*. 21(1), 53–74.
24. AR Khoso, AM Yusof, **CS Chai**, MA Laghari. (2021). Improving Performance in Construction Projects: A case study of Malaysian Public Projects. *Journal of Science and Technology*. 29 (4), 2579 - 2604.
25. S Jiancheng, **C Changsaar**, G Hunchuen, X Yaoli. Enhancing Project Integration Using Cloud-based Building Information Modelling: A Conceptual Model. *International Journal of Advanced Research in Technology and Innovation*. 3(3), 12-25.
26. Usmani, A., Elshafey, A., Gheisari, M., **Chai, C.**, Aminudin, E. and Tan, C. (2020), A scan to As-Built Building Information Modeling Workflow: A Case Study in Malaysia. *Journal of Engineering, Design and Technology*. 18(4), 923–940.
27. Elshafey, A., **Saar, C.C.**, Aminudin, E.B., Gheisari, M., Usmani, A. (2020). Technology acceptance model for augmented reality and building information modeling integration in the construction industry. *Journal of Information Technology in Construction*. 25, 161–172.
28. Goh, K.C., Bilal, K., Goh, H.H., Mohamed, S., **Chai, C.S.**, Gui, H.C. (2019). Cloud Computing Awareness in Malaysia Construction Industry. *International Journal of Recent Technology and Engineering* Vol 8 (Special Issue), 71-76.
29. **C Chai**, K Mustafa, S Kuppusamy, A Yusof, CS Lim, SH Wai. (2019). BIM Integration in Augmented Reality Model. *International Journal of Technology* 10 (7), 1266-1275.
30. Kai Chen Goh, Ting Yuan Teoh1 Hui Hwang Goh, Kamalludin Bilal, **Chang Saar Chai**. (2019). Blockchain potentials in enhancing construction stakeholders collaboration. *Malaysian Construction Research Journal*. 7(2), 177-189.
31. Lee Huan Boon, **Chai Chang Saar**, Santi Edra Nisa Lau, Eeydzah Aminudin, Rozana Zakaria, Abdul Rahim Abdul Hamid, Noor Nabilah Sarbini, Rosli Mohamad Zin. (2019). Building information modelling integrated project delivery system in Malaysia. *Malays. Constr. Res. J.* 6, 144-152.
32. **Changsaar Chai**, Klufallah Mustafa, Sivaraman Kuppusamy, Aminah Yusof, Chong Shien Lim, Soon Han Wai. (2019). BIM integration in augmented reality model. *International Journal of Technology* 10 (7), 1266-1275
33. Maychuan Theong, RA Rashid, **Changsaar Chai**. (2018). Implication of Industrialised building system (IBS): The case of trade contractors in Malaysia. *International Journal of Engineering & Technology* 7(2), 766-771.
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Book Chapter

1. Shan Jiancheng, **Chai Changsaar**, Eeydzah Aminudin. (2024). Digital Twinning in the Malaysian Construction Industry. *Digitalization in Construction*, Routledge, 271-293.
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1. A Kaleidoscope Model to Address Changes in Construction 4.0 Policy (CRLY2023Q03799)
2. Categorization of AEC BIM Implementation Challenges (CRLY00006528)
3. BIM Investment Benefits Framework (CRLY00006525)
4. BIM Conflict Resolution Framework (CRLY00006889)
5. Engineering Consultancy Practice Business Model (CRLY00012758)
6. 4Cs Integration Model (CRLY00006531)

INVITED/ GUEST SPEAKER/ KEYNOTE

1. Chai Chang Saar, Panel Speaker, 2nd Digital Construction Summit 2025, 30 October 2025
2. Chai Chang Saar, Forum Speaker for Glodon Malaysia Digital Summit, 24 April 2025
3. Chai Chang Saar, Moderator for Transformative Digital Leadership Forum. 28 June 2024.
4. Chai Chang Saar, Keynote- CHINA Digital Building SUMMIT 2023. 9 June 2023.
5. Chai Chang Saar, Plenary Session: Seminar On Shaping The Future of Digitalisation in Construction. 11 Oct 2023.
6. Chai Chang Saar, Chair for the Transformative Digital Leadership Forum, 1 Nov 2023.
7. Chai Chang Saar, Digital Construction for IR4.0. Forum Chair for ASEAN Australian Engineering Congress (AAEC) 2022, 12-15 July 2022.
8. Chai Chang Saar, Construction project Management, lecture given for Sarawak State Implementation and Monitoring Unit, 14 March 2022.
9. Chai Chang Saar, Digital Construction. Civil Engineering Week at University of Malaya, 25 May 2021.
10. Chai Chang Saar, Construction 4.0: Sarawak Outlook. ACEM (Sarawak Branch), 7 October 2020.
11. Chai Chang Saar, Towards Construction 4.0- CIDB Initiatives, public lecture at Swinburne Sarawak, 27 Feb 2020.
12. Chai Chang Saar, BIM now and future, lecture given at Tamkang University, 13 June 2018
13. Chai Chang Saar, Breakthrough of Construction Management Research, public lecture at Tamkang University, 15-17 November 2017.