

ASVIN ANG CHIT SIK

PMO Director · Project Management · Strategy · Digital Infrastructure · AI · Digital Transformation

English (Native) | Malay (Proficient) | Mandarin (Intermediate, spoken)



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EXECUTIVE SUMMARY

A senior leader with 18 years of experience across civil engineering, infrastructure development, and digital transformation – with a consistent record of building the tools and systems that others rely on to make decisions and deliver outcomes.

Uniquely positioned at the intersection of **deep domain expertise** and **applied AI**: having designed transport masterplans, delivered data centre pre-development programmes across APAC, and independently built geospatial platforms, multi-agent AI pipelines, and PMO automation systems using Python, React, and large language models. Equally effective as an engineer, a strategist, and a builder – **the person who understands the problem, designs the system, and ships the tool.**

CORE COMPETENCIES

AI & Intelligent Systems

Multi-agent pipeline design
LLM integration (Claude, OpenAI)
Geospatial AI & automated analysis

Infrastructure Development

Data centre pre-development (APAC)
Industrial park masterplanning
Site selection & technical due diligence

Digital Transformation

Enterprise digitalisation strategy
Legacy-to-cloud migration
IoT, sensors & smart infrastructure

Geospatial & Data Platforms

Full-stack geospatial web apps
QGIS automation & spatial analysis
Open data pipelines (OSM, government)

Programme & PMO Leadership

End-to-end programme architecture
Executive reporting & governance
Cross-functional team leadership

Engineering Leadership

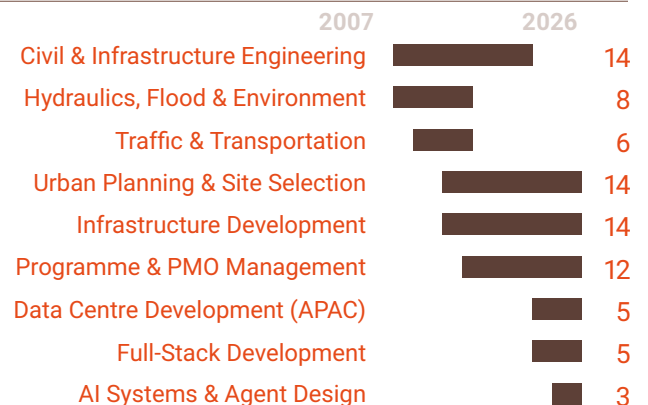
Civil, transport & hydraulic design
Procurement & contract management
Multi-disciplinary technical oversight

ABOUT

I turn ambiguous, undefined problems into frameworks and tools that organisations actually use. My career has moved across civil engineering, real estate development, industrial park operations, and data centre pre-development – not by accident, but because the same core skill applies everywhere: take a messy system, understand it fully, then build something better.

I approach every role with a systems-first mindset. I don't just fix a problem once – I build the platform so the problem doesn't come back. This has meant designing PMO frameworks, geospatial web applications, multi-agent AI pipelines, and enterprise automation ecosystems, often in parallel with running the day-to-day operations they were built to replace.

PROFESSIONAL EXPERTISE (YEARS)



WORK EXPERIENCE

Mar 2025 to
current

PMO Director

Zerra DC, SG

Roles and Responsibilities

- **Leads the Corporate PMO function** (Legal, Customer Success, PMO) for a data centre developer in Singapore, reporting to the CEO and executive leadership team.
- Acts as **Strategic Integrator** across commercial, design, development and finance – bridging high-level strategy with regional execution in a startup environment.
- Designs and governs the delivery operating model, including governance frameworks, reporting cadence, digital platforms and cross-functional tooling.

Achievements

- **Established the E2E Asset Delivery Model** with 7-stage formal gates and standardised RACI – institutionalising accountability across the development lifecycle.
- **Designed and implemented the Smartsheet ecosystem** and migrated functions from static Excel to a live API-integrated database; launched Confluence as the central knowledge and AI tooling hub.
- Co-developed the **Elemental Cost Model** for standardised capex planning, bridging finance and project costing functions.
- Coordinated the **full rebranding transition from AGPDC to Zerra DC**, developing presentation decks, collateral, templates and internal materials.
- Built the **tender documentation for Project Dune**, supporting the Development Team in preparation of the GC tender package.

Jan 2025

Personal Projects

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Achievements

- Developed **Emerra.io** – a browser-based geospatial platform for infrastructure site suitability analysis using open data, constraint scoring and automated red flag reporting (React, FastAPI, GeoPandas, Firebase).
- Built a **nine-agent AI market entry system** (Claude API) producing fully branded research reports covering power grid, land, regulatory, connectivity, climate risk and competitive landscape – cutting research time from weeks to hours.

Apr 2023 to
Mar 2025

Senior Program Manager

AirTrunk, SG

Roles and Responsibilities

- **Led and owned the End-to-end Pre-development Programme** for 30+ data centre projects across Singapore and Malaysia, reporting directly to the CEO and executive leadership team.
- Designed and governed the pre-flight framework: orchestrating site selection, design, construction readiness, customer engagement, and utilities across internal functions.
- Independently built **AI-powered tools and automation systems** that improved programme visibility, accelerated research, and reduced manual reporting overhead.

Achievements

- **Designed and rolled out the End-to-end Programme Management Framework** adopted across 30+ pre-development projects – covering gates, templates, reporting cadence and risk governance.
- Delivered pre-construction programmes for **4 data centre projects in Singapore and Malaysia** on schedule.
- Built a **Smartsheet-to-Confluence PMO automation suite** – syncing project data, auto-generating narrative status reports, and feeding executive dashboards via Power Automate and Python.

Nov 2021 to
Apr 2023

Technical Manager – Land Acquisition (APAC)

Yondr Group, SG

Roles and Responsibilities

- Reported to the Head of Global Development Tech team.
- **Led the land acquisition technical due diligence activities** (fatal flaw analyses, site due diligence, engagement of consultants) across APAC, and **supported the Development team in coordination of investment negotiations** (site investigation, condition precedents for purchase and lease agreements).

Achievements

- Provided technical support in the assessment and **acquisition of a 300MW DC site in Johor, Malaysia**.
- Completed due diligence studies across Japan, Malaysia, Indonesia and Thailand on schedule and within budget.
- Developed consultancy procurement process including template scope documents, agreements and deliverables.
- **Redesigned and implemented a risk-based Fatal Flaw Analysis** framework based on ISO 13000.
- **Developed an automated QGIS site assessment tool** cutting DC site evaluation from 3 hours to 15 minutes.

Dec 2020 to
Nov 2021

Senior Manager – Deputy Head, Design & Construction

Sembcorp / Kendal, ID

Roles and Responsibilities

- **Deputy Head of Design and Construction**, overseeing Planning, Procurement and Construction departments.
- Head of Planning (team of 6) and Head of IT (team of 5), reporting to the President Director.

Achievements

- **Spearheaded the park's digital transformation**: IoT sensors, smart monitoring, mobile tenant app, QR-based asset management system, and full cloud migration from physical servers.
- Developed 1,000ha expansion masterplan including **strategy for acquisition of 300+ parcels** with costing and development schedule.
- **Delivered USD 500k savings** through commercial negotiations for a 24,000m³ Water Treatment Plant and 16,000m³ Sewage Treatment Plant.
- Assisted in negotiations of a **120MW power supply agreement** between PLN and KIK.
- **Prepared and rolled out a multi-year Digital Transformation Plan** shifting IT from hardware support to digital services platform.

Sep 2015 to
Dec 2020

Assistant Manager / Manager (2017)

Sembcorp Development, SG

Roles and Responsibilities

- **Carried out end-to-end project management** for self-built real estate developments across Vietnam, Indonesia and Myanmar.
- Conducted procurement, prepared tender documentation and evaluated design consultants and contractors.
- **Developed in-house masterplans and infrastructure budgetary cost estimates** in support of business development feasibility studies.
- Provided civil engineering technical oversight for utilities and infrastructure across several industrial parks.

Achievements

- **Developed the 500ha Myanmar Hlegu Industrial Park Infrastructure Masterplan** in GIS with an 8-year infrastructure cost and financial model.
- **Oversaw design and construction of 2 warehouses** (30,000m² GFA) in Hai Phong, Vietnam.
- Developed **Project Management Standard Operating Procedures** and in-house tools for real-time site progress tracking.

Sep 2012 to
Sep 2015

Engineer / Senior Engineer (2014)

Surbana International Consultants, SG

Responsibilities

- Assistant Team Lead, Transport department – reporting to the Director of Overseas Infrastructure.
- Completed **Transportation Masterplans for Kigali (Rwanda), Bujumbura (Burundi), Amaravati (India), Zhongwei (China) and Changi East Industrial Zone.**
- **Designed roads and infrastructure for Changi Airport Terminal 5** pre-construction works.
- Implemented GIS-based project planning tools across active projects.

Feb 2012 to
Aug 2012

River Basin Management Engineer

Halcrow / CH2M, MY

- Prepared flood mitigation schemes and **flood risk analysis for the UK and Bangkok, Thailand**; designed flood mitigation measures for a section of the River Thames.
- Standardised flood simulation workflows, **cutting preparation time from 2 hours to 10 minutes** per simulation.

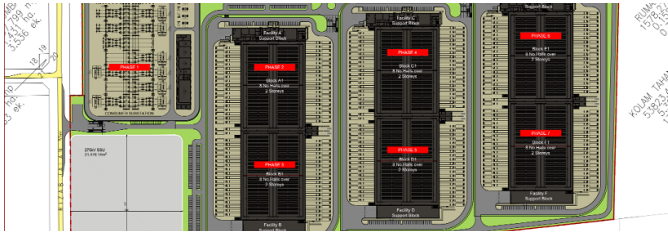
Sep 2007 to
Feb 2012

Intern / Project Engineer

AKSWard Ltd, UK

- Prepared engineering design, drainage, transport and design-and-access statements, drawings and specifications for UK planning applications.
- Implemented quality management systems and ensured health and safety compliance across projects.

KEY PROJECTS PORTFOLIO



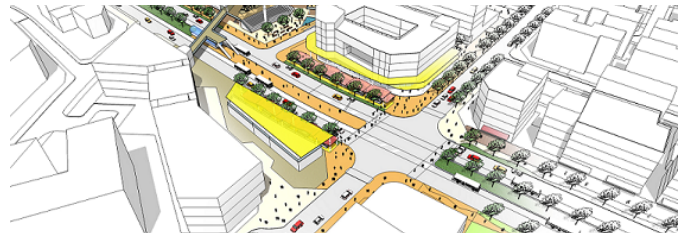
**Concept Design & Land Acquisition –
300MW Data Centre, Johor, Malaysia**
Technical Manager · Yondr Group



**Infrastructure Design –
Changi Airport Terminal 5, Singapore**
Engineer · Surbana International



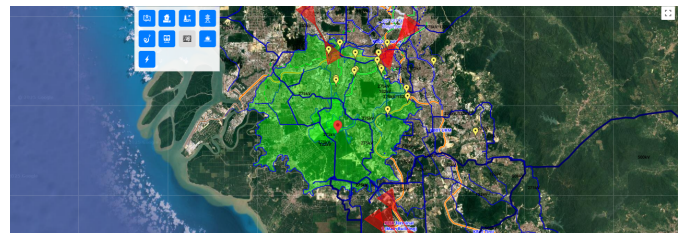
**Infrastructure Masterplan –
Myanmar Hlegu Industrial Park**
Project Manager · Sembcorp Development



**Transport Masterplanner –
Kigali City Transport Masterplan, Rwanda**
Co-author · Surbana International



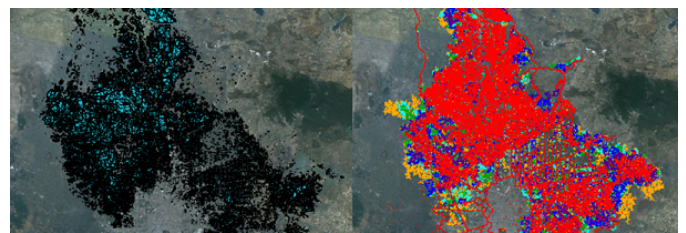
**Transport Masterplanner –
Andhra Pradesh Capital City Masterplan, India**
Co-author · Surbana International



**Emerra.io –
Geospatial site suitability platform & nine-agent AI
market entry system · emerra.io**
Personal Project



**Real Estate Development –
Phase 3 Warehouses, Hai Phong, Vietnam**
Project Manager · Sembcorp Development



**Flood Modelling –
Dam Break, Flood Risk Analysis & River Thames
Mitigation Design**
Engineer · Halcrow / CH2M

SOFTWARE PROFICIENCY

| Category | Tool / Platform | Proficiency |
|------------------------|---|-------------|
| AI & LLM Systems | Claude API – multi-agent orchestration & tool use | ●●●●● |
| | OpenAI API – Whisper, GPT | ●●●●○ |
| | LLM prompt engineering & chain design | ●●●●● |
| | Agent SDK & agentic workflow design | ●●●●○ |
| | Python – automation, data, AI pipelines | ●●●●● |
| | React – web application frontends | ●●●●○ |
| Geospatial & Data | QGIS – analysis, automation, plugin development | ●●●●● |
| | ArcGIS | ●●●●○ |
| | GeoPandas / Shapely / Overpass API | ●●●●○ |
| | FastAPI – geospatial backend services | ●●●●○ |
| | Firebase / Firestore | ●●●●○ |
| PMO & Workflow | Smartsheet – API integration & automation | ●●●●● |
| | Confluence – automated publishing | ●●●●● |
| | Power Automate / Microsoft 365 | ●●●●○ |
| | Microsoft Project | ●●●●○ |
| | LaTeX typesetting | ●●●●○ |
| Cloud & Infrastructure | Google Cloud Run – serverless backends | ●●●●○ |
| | GitHub / GitHub Pages | ●●●●○ |
| | Google Firebase – auth, hosting, Firestore | ●●●●○ |
| | SharePoint / OneDrive / Dropbox | ●●●●● |
| | Android Studio / Flutter SDK | ●●●●○ |
| Engineering Design | AutoCAD InfraWorks / Civil3D | ●●●●● |
| | PTV VISUM / VISSIM – transport modelling | ●●●●● |
| | Micro Drainage / Flood Modeller – hydrology | ●●●●○ |
| | PDS Ground Modelling & Highways Design | ●●●●○ |
| | Trimble SketchUp / Revit Structure | ●●●●○ |

EDUCATION, CERTIFICATIONS & MEMBERSHIPS

MEng in Civil Engineering

University of Portsmouth, UK

📅 2006–2009

🏆 Distinction

BSc in Building Construction Management

Sheffield Hallam University, UK

📅 2006

🏆 2nd Class Upper Honours

Advanced Diploma Technology (Building)

TAR College, Malaysia

📅 2002–2006

🏆 Merit

Certifications & Memberships

Project Management Professional (PMP)

Member (MICE)

Member (MCIHT)

Member

Member

Project Management Institute

Institution of Civil Engineers, UK

Chartered Institute of Highways & Transportation, UK

Board of Engineers Malaysia (BEM)

Mensa Singapore – SIG Director (2022/2023)

References available upon request. Portfolio and live project demos at asvinang.github.io | Board game design · Programming · Strategy · Backpacking