

Our Offices

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UK:

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DESIGN MAGAZINE

MAR 2024 a journal on green architecture, design ideas, discovery and innovation

OUR PRODUCT: • design ideas

• innovations • local base global reach

• innovation [ingenuity • hypergreen |_{SUStainability} signature | style well-being [happiness] cost control |_{viability}

S T E R P L A N N I N G

[w] www.trhamzahyeang.com

what others say about us? ..3rd party endorsement..

.. wind, rain and sun in the minds of most architects, they are enemies, but what if buildings can utilise and respond to the conditions of the environment? what if the urban environment itself became a living, breathing organism? To <u>Ken Yeang</u> it is... scan to view video in "**e² :design**" Season 1 Episode 6 PBS documentary Brad Pitt says





MAR 2024



 design ideas • innovations local base global reach

OUR PROMISE:

• innovation | ingenuity

• hypergreen |_{SUStainability}

- signature | style
- well-being [happiness
- cost control Viability



1971 pioneer research on Ecological Design (Cambridge University)

1976 **establishing of company**, over 5 decades of experience & dependability brought to benefit the development



Tengku Robert



Ken Yeang Dr. Dato'

over 500 completed projects (since 1976) over 800 projects in more than 10 countries

> * design innovation specialist in ecological design (pioneered since 1971) * signature aesthetics * over 70 design awards * design happiness & well-being for human society



quality in everything we do we are committed to do work in the pursuit of excellence.

'saving the planet by design': design to fix the environmental crisis

develop architectural and planning solutions to fight climate change to address the environmental crisis



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see our website: https://trhamzahyeang.com/ T. R. Hamzah & Yeang Sdn. Bhd. © 2024 (5)

Personal Awards

- 2005 WACA (World Association of Chinese Architects) Gold Medal Award
 2011 Merdeka Award for the 'Environment' category
 PAM Gold Medal Award
 2014 Design Master of World Alliance of Sustainable Cities Design (WSC)
 MGBC Leadership in Sustainability Awards 2014 for Excellence and
- 2015 BCA-SGBC Green Building Individual Awards -Green Architect Lifetime Achievement Award
- 2016 Liang Sicheng Architecture Prize, China BUILD Award 2016: Sustainable Building Awards -Best Green Architect
- Identified as the 40th Most Famous Architects of the 21st Century
 Australian Institute of Architect Leadership in Sustainability Prize
 DOTY (Designer Of the Year) Lifetime Achievement Award (ACG Media)

our chief executive officer ...by signature ecology-based approach supplemented by meticulous management..

AA Dip. / APAM / FSIA / RIBA / FRSA / Hon. FAIA, D.Lit (Hon.) (Sheffield), PhD. (Cantab) Professor (Graham Willis Chair, Sheffield University) Adjunct Professor (RMIT, Melbourne) Adjunct Professor (University of Hawaii) Adjunct Professor (University of Hawaii) Distinguished Plym Proffesor (University of Illnois)



Ken Yeang received



Ken Yeang meets HH The Aga Khan (second left) at the 1986 AgaA Khan Award for Architecture Presentation Ceremony in Marrakesh, Morocco

Architectural Society of China Liang Sicheng Award 2016 received from Minister of Construction, China



Ken Yeang is an architect, ecologist and author known for his work in the field of ecological design. He is recognised as a pioneer in sustainable architecture. Yeang's approach involves integrating ecology-based principles into architectural structures as Applied Ecology, promoting environmentally sensitive, carbon neutral and energy-efficient solutions. His innovative ideas focus on creating buildings that harmonise synergistically with nature while addressing contemporary environmental challenges. He is among the few architects who does research, designs, builds and writes.

Yeang trained at the Architectural Association Yeang trained at the Architectural Association (London). His Cambridge doctorate was published as 'Designing With Nature' by McGraw-Hill (1985). His awards include the Aga Khan Award, Prinz Claus Award, Auguste Perret Award (from International Union of Architects), Liang SiCheng International Award (from Architectural Society of China), Gold Medal (from Malaysian Institute of Architects). In recognition of his green architecture, the Guardian named him one of the 50 people who could save the planet could save the planet.



Receiving the Government of Malaysia Merdeka Award for the 'Environment' category (2011) from Prime Minister



what we do that others do not? ...fixing the planet for future generations...

ecologically-authentic environmentally-aware **investors**. pleasurable to use, **SUPER Green** (beyond rating systems), innovative & **delivered** professionally on time, on budget that are durable and built with high quality...

...We are the only architect firm worldwide that delivers signature 'super green' architecture and masterplans for who want **signature designs** that are aesthetically unique, identifiably world class,

what delights users?

•covered verandahway pedestrian arcade are designed with

'songket' patterned fritted-glass canopy to enhance pedestrians comfort.

central promenade

active public realm are designed with seating zones and planting areas as temporal event spaces that are shaded by the shadow of the tower blocks.



balconies with planter boxes

protruding balconies with landscape are visible from beyond the ass sun-shading, and crea andom patterns on the overall facad

what makes it sustainable?

•biodiversity matrix as basis of habitats creation



nique features

Putrajaya 2C5 is a 2 towers of 14-storey mixed-commercial development in the city of Putrajaya, Malaysia which is completed in 2017.

the double-skin facade are designed with 1 clear glass layer and a fritted (in Malay 'Songket' pattern) glass layer with 50% opaque coverage that provide sun-shading to the internal spaces.



(10)

what makes it innovative?



what delights the use



Events Plaza is communal space that becomes main focal point of the site and subsequently leading visitors to

what about





Over 6,300 m² are designed as 'green space' that creates urban "skycourts" providing a positive psychological effect on building users and improving general working environments. M

INSD

13 CLIMATE



use of **recycled and reused materials** (eg. carpet, wall fabrics and sustainable-forested local timber) contribute to an environmentally low impact design.

BCA Green Mark Platinum

awards received

CA Green Wark - Faultion 2000 ilver Award - 3rd SIA Facade Design Excellence Awards 2006 hortlisted in sustainability category -RICS Awards 2006 irst Prize - <mark>ASEAN Energy Efficiency Awards 2007</mark> ilver Award -BCA's Universal Design Awards 2007

unique featur

vcour

The Client wanted a cultural and tropical building to which the Architect responded with an open-to-the-sky naturally-ventilated civic plaza on the ground plane with opportunities for cultural activities and various 'outdoor' events. A rooftop 'bubble' designed to face the nearby waterfront was also popular with people for holding various functions.

NLB was the outcome of a winning competition scheme that underwent several design revisions before it was accepted by the Client.

delivering the spirit of innovation ..by biophilic vegetated skycourts..



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Calibering the spirit of innovation ..by mixed-mode glass-flue to reduce energy consumption in temperate climatic conditions..

what makes it innovative?



GREAT ORMOND STREET CHILDREN HOSPITAL EXTENSION

(15)



(16)



The DIGI Technology Operation Centre located in Malaysia's Subang High Tech Park was completed in 2010 and has since been awarded a GBI Gold rating. The Client's brief was to design a data centre with ecological features and is based on the 'IT Data Centre's Uptime Institute' Tier III platform with the possibility of scaling up to Tier IV security. A key feature of the DIGI Centre is a vegetated green wall that wraps around its four facades - meant to act as living habitats and as means of filtering and improving its ambient indoor air quality.

R. Hernzan & Yeang Scin. B

...to enhance phytoremediation and sequestering of aerial contaminants...

what delights users and public?





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19)

delivering signature & recognizable icon ...by designing a legacy as a bioclimatic skyscraper..

rooftop plaza

garden ferrace

three-storey planted mound



signature features:

(20)

Menara Mesiniaga is one of our early buildings that launched our work in ecological design as low-energy (bioclimatic) architecture and which received the Aga Khan Award. The year was 1992, and the building marked the beginning, both literally as well as figuratively, a new era in our work on deep green design.

what makes it significant?





(21)



MENARA MESINIAGA SUBANG, MALAYSIA

delivering iconic & distinctive aesthetic



...by modular roof units..



mzah & Yeang Sdn. Bhd. © 2024



enhancing comfort & well-being by mixed-mode cooling retail complex (without air-conditioning)..

what makes it innovative?



extractor fan



25)



enabling well-being, health & happiness ..beyond user satisfaction..

entrance



living area

promonade to sleeping area

engendering happiness hormones Serotonin **V**oxytocin Mendorphins

A REAL PROPERTY.



27)

effecting cost control ..through value engineering at every stage..



 innovation hypergreen • signature • well-being



(28)

OUR PROMISE ...this is what you get from us..



positive action on climate change



enable investor, developers & end users achieve their ESG aspirations & to address the environmental crisis

we exist to fix the earth





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our system

ecological design model ..as basis for design..

Ecological design by seamless & benign biointegration of the 5 sets of ecoinfrastructure to create human-made constructed ecosystems

de	esign factors	design objectives	\langle
nature (ecosystems & b - biogeochemical cycles - habitats - biotrope - species - biodiversity	iogeochemical cycle) - ecosystem conservation & regeneration - biomes - biosphere - abiotic constituents - biotic constituents	(Net Positive Ecological Impact)	
human (well-being & ho - social - - economic - political - - institutional - - cultural	Society appiness) ecologically responsible behavior ecological responsible diet human health, well-being & happiness	NWS (Net Well-being & Happy Society)	
built sys (zero wastes and - artefacts - building (zero carbon materials) - recycling - reuse - carbon capture - smart systems	stems & art d emissions) - large scale electricity storage - hydrogen production without emitting carbon - low embodied energy & carbon construction - food production	efacts NZW/E (Net Zero Waste / Emissions)	
 energy (renewable energy) ambient (solar, w water, geotherma energy) passive-mode syst mixed-mode syst smart full-mode syst 	systems - productive-mode syst. ind, - hydrogen production - biofuels - battery systems st thermal storage - net surplus energy syst.	NSE/C (Net Surplus Energy / Carbon)	
water manager water reuse & re - rainfall - wate - dew - seas - snow - lakes - ground - wate	CVCCC ment & conservation: ecycling) rways - desalination - water s conservation reuse - ground water	NZW (Net Zero Water)	

 ground /ate

& recycling

recharge







habitats to survive at all season



IA

(34)

Peacock Pansy

Rapala iarbus iarbus

nmon Red Flash

effecting energy & water cost savings ..by sustainable design.. (case-study: Solaris, Singapore)

Green Mark Platinum

annual energy savings

Items	Reference(MWh/year)	Proposed (MWh/year)	Energy saving
AHU and FCU Fans	2,861,45	1,313.58	54.09%
Split Cooling Unit	5.14	3.96	23.01%
Mechanical Fans	699.87	239.41	65.79%
Chilled Water Pumps	239.5	98.95	58.68%
Domestic Pump	43.54	43.54	0.00%
Exterior Lighting	191.39	65.21	65.93%
Office Receptacle	1,845.84	1,845.84	0.00%
Retail Receptacle	41.01	41.01	0.00%
Water Heater	17.33	17.32	0.00%
Lifts	647.62	582.86	10.00%
Lighting	2,348.98	1,410.84	39.92%
Total Energy Consumption	8,940.98	5,662.52	36.67%
	Reference (Tons)	Proposed (Tons)	
Cooling load Reduction	1,998.55	1,667.65	16.56%

annual water savings

Items	Reference(m ³)	Proposed (m ³)	Saving (m ³)
Water efficient fittings	54,752	42,970	111,782
Rainwater collection	0	-3,105	3,105
AHU Condensate	0	-904	904
Total	54,752	38,961	15,791

estimated annual savings:

SGD 655,692 (energy) + SGD 36,335 (water) SGD 692,047 (USD 530,000)

"..the daylight central atrium .. "



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effecting energy & water cost savings ..by sustainable design..

(case-study: Suasana Putrajaya, Malaysia) Green Building Index Silver rating



"..the fritted glass double skin facade.."

	Provided	Req/ baseline	Unit	
	OTTV= 29.11	<50.00	W/m²	
	RTTV= 20.88	<25.00	W/m ²	
	LEI= 30.21	38.55	kWh/yr/m ²	
e Relative	A/Cei= 58.57	92.57	kWh/yr/m²	
motor power 1 building. 1g EE 0n	BEI= 136.00	<150.0	kWh/yr/m²	

ruipose	FIOVILLEU	ney/ baselille	UIIIL
w rate for toilet fittings or landscape irrigation r for landscape irrigation ter consumption by using: system instead of sprinkler system ate water recovery	32,900 11,055 6,000 30,879 55.00%	55,477 - - >50.00	m ³ /yr m ³ /yr m ³ /yr (demand) %reduction
,			



conserving the site's ecology ..by using ecological land-use method..



Sola

Wind

rapid delivering of design solutions ..by the "Basis for Design" approach..



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(39)

providing builtform & aesthetic options ..by innovative design solutions..

option 3: "interlocking J"

builtform options _J







aesthetic options ∇

preferred



creating design themes to enable effective marketing Opt 1: "Caribbean, Calypso" ...ideas & options..

example of the rooftop of a luxury apartment with 4 pools: shower lap poo B family poo staircase access to L37 mezzanine floor (changing room & toilet)



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nature-to-nature biointegration

nature-based approach

creating innovative state-ofthe-art solutions that are:

- functional (it 'works')
- make people happy (enhancing people's health & well-being)
 - (cost, time, quality, legislative) • aesthetically fulfilling
 - (immensely beautiful and signature)
 - hypergreen (sustainable)

quick, efficient, timely & neat delivery

what you get from us? ..creating a high-value product for you..



well-designed, refined, elegant and exquisitely beautiful



design that gives the **highest level of pleasure**



exclusiveness of product that many others cannot have or enjoy



product possession by purchasers as **reward of their personal success**



possession of well-designed exclusive product as proof of financial standing



product possession as by owner's **recognition of status**



accompanying **privileges and service** created for the designed product



functional rationale for ownership of designed product

bringing our award-winning experiences to benefit your ..over 70⁻awards in <u>25</u> years.. projects

- 2022 Australian Institute of Architect 2022 Leadership in Sustainability Prize 2021 The Edge Malaysia-PAM Green Excellence Award (Honorary Mention)-Putrajaya Suasana (2C5) 2021 PAM Gold Medal Award 2020: Commercial (High Rise) Category -Putrajaya Suasana (2C5) 2020 ASA Gold Medal 2020 ASA Gold Medal
 2020 Global Forum on Human Settlements (supported by UN Environment Sustainable Development) Planning and Design for Putrajaya Suasana (2C5)
 2020 Global Forum on Human Settlements (supported by UN Environment Sustainable Development) Outstanding Contribution
 2020 Malaysia Green Building Council Best Research
 2018 Malaysia Green Building Council Best Commercial Building Putrajaya 2018 Malaysia Green Building Council Best Continencial Building Putrajaya
 2017 Suasana Cityscape Award for Putrajaya Suasana 2C5
 2016 Liang Sicheng Architecture Prize, China
 2016 FIABCI World Prix d' Excellence Awards: Solaris (Fusionopolis)
 2016 PAM Award Commendation: Single Residential - R-House
 2015 40th Most Famous Architects of the 21st Century
 2015 The Malaysian Construction Industry Excellence Awards: Prominent Player
 2015 BCA-SGBC Green Building Individual Awards: Green Architect Lifetime 梁思成建筑奖颁奖典礼
 - Architectural Society of China Liang Sicheng Award 2016 received from Minister of Construction, China
 - 2010 Green Good Design Awards Solaris (Fusionopolis)
 2010 MATRADE Export Excellence Award: Services
 2009 CNBC Asia Pacific Property Award: Spire Edge, Manesar, India
 2009 BCA Green Mark Platinum Award: Solaris & Singapore National Library
 2009 CNBC Asia Pacific Property Award: Best Residential Apartment TTDI Plaza
 2008 MARTRADE Export Excellence Award: Winning Entry Solaris (Fusionopolis)
 2007 ASEAN Energy Efficient Building Awards: 1st prize 'New & Existing' Buildings
 2007 BCA Singapore Silver Award: Universal Design
 2006 Lynn Beedle Award (Council of Tall Buildings and Urban Habitat)
 2006 Royal Institute of Chartered Surveyors (RICS) Award
 2006 SIA Facade Design Excellence Silver Award: Singapore National Library
 2006 MCIEA (Malavsian Construction Industry Award) 2006 SIA Pacade Design Excellence Silver Award. Singapore National Library
 2006 MCIEA (Malaysian Construction Industry Award)
 2005 BCA Singapore Green Mark Platinum Award: Green and Sustainable Building
 2005 World Association of Chinese Architects (WACA): Gold Medal Award
 2001 Hunter Douglas Competition (Open), Malaysia: Winning Entry
 2000 Beijing World Science & Trade Centre Competition (Invited): Winning Entry
 2000 Huanan Masterplan Competition for Honsons Award. China: Winning Entry Huannan Masterplan Competition for **Hopsons** Award, China: Winning Entry **RAIA** International Architecture Award: Menara Mesiniaga

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"..you deserve the award.." eipt of Merdeka Award (2011)

2014 FuturARC Green Leadership Award: Solaris (Fusionopolis)
2014 World Alliance of Sustainable Cities Design: Design Master
2014 AIA IR Design Awards, Hong Kong: Solaris, Fusionopolis
2014 NPark Leaf Certificate Awards: Solaris, Fusionopolis
2013 MGBC Excellence & Leadership in Sustainability Award
2013 ARCASIA Award: Honorary Mention, Industrial Building - DIGI
2013 Universiti Malaya - Honorary Doctorate in Architecture
2012 Green Building Index, Malaysia - Plaza VADS (Annex Block)
2012 RAIA International Architecture Award: Finalist - Solaris (Fusionopolis)
2012 Green Building Index, Malaysia: Gold - DiGi
2012 Council on Tall Buildings and Urban Habitat: Finalist
2011 RIBA International Award: Solaris, Fusionopolis
2012 RIBA International Award: Solaris, Fusionopolis 2011 Regional Holcim Award: Solaris, rusionopolis
2011 Regional Holcim Award for Sustainable Construction: Putrajaya Lot 2C5
2011 WACA Gold Medal Award: Solaris (Fusionopolis)
2011 LEEDS Platinum status on the pre-certification for Spire Edge, India
2011 PAM Gold Medal Award: Solaris (Fusionopolis)
2011 PAM Gold Medal Award: Solaris (Fusionopolis)
2011 PAM Award Commendation: Ganendra Art House
2011 Merdeka Award for the 'Environment' category
2011 Feed Comment Margh Jeauwit TOP 10 March Improvement Arabitrat Firm 2011 Fast Company, March Issue: TOP 10 Most Innovative Architect Firm

1996 Aga Khan Award for Architecture, Switzerland: Menara Mesiniaga



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