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## GREEN ARCHITECT OF THE YEAR

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### AR. KHOO POH BIN

Deputy Managing Director  
DCA Architects

Ar. Khoo Poh Bin is the Deputy Managing Director at DCA Architects. He is a Registered Architect in Singapore, a Registered APEC Architect, and a Registered ASEAN Architect. After his studies, he worked in the London before settling down in Singapore in 1994. He joined DCA Architects in 1996 and was made Director in 2002. He is a registered Architect with the Board of Architects in Singapore since 2000 and also a member of the Singapore Institute of Architects with over 15 years' experience in design, design development and overseeing a diversity of projects in Commercial, High-rise Residential, Institutional, Retail and Master Planning both locally and abroad.

Ar. Khoo's design projects brought him to UK, France, Spain, UAE, Sri Lanka, India, Myanmar, Thailand, Malaysia and Singapore. He has led a great number of Green Mark projects and is a key driver for BIM and various simulation software to validate architecture design.

### MINIMISING ENVIRONMENTAL IMPACT THROUGH DESIGN EFFICACY

Ar. Khoo firmly believes in sustainable architecture, designing buildings using a conscious approach to energy and ecological conservation.

Working with BCA to establish the Green Mark criteria in 2005, Ar. Khoo adopted a practical design concept for the One George Street commercial development. The 1st storey was conceived as one fluid environment with the green from Hong Lim Park opposite flows into

the public plaza and in turn into the lobbies. This gesture facilitated natural ventilation in between the free standing lobbies and with the introduction of reflective pools and planting helped to cool the surface area. The project was one of the early office buildings to have sky gardens punctuating the building at certain storeys as green lungs in the cityscape. Auto irrigation was introduced to optimise water usage together with water retention gel in the soil mix to improve water holding capacity reducing the need for frequent watering. The other prominent feature of the building was the louvered façades. It was one of the first office buildings to use aluminium sun shading louvers. Sustainable materials such as ceiling boards, carpets, waterproofing, drywalls, MDF boards used had recyclable content, energy efficient features introduced such as motion detectors, T5 lighting, water efficient fittings, infrastructure to receive NEWater and so on.

The building was one of the pioneer buildings to obtain Green Mark Gold certification in 2005 for the features it adopted and results of energy savings which was beyond expectations during operation of the building from readings taken. This eventually led to its recognition in the ASEAN Energy Awards Best Practice for Energy Efficient Building category in 2006.

As an advocate of BIM, Ar. Khoo also speaks regularly at seminars and conferences sharing on the use of BIM and sustainability tools on how parameters like climate analysis, sun and shadow studies, solar load analysis, wind analysis, lighting and life cycle are studied using BIM in the projects. 🌱

