Title: Hot & Wet Campus architecture

Abstract:

The School of Design and Environment at the National University of Singapore is massively reimagining its campus infrastructure with the newly-built net-zero energy building - SDE 4, the sustainable adaptive re-use of SDE 1 and 3, and a new vision for the redevelopment of SDE 2. The precinct showcases new prototypes of sustainable design that combine performance and beauty in the equatorial context while supporting the ambitions of the school to inspire people to perceive and respond to new environments.

Adopting the fundamental tenets of passive tropical design, each building is strategized to reduce their energy footprints through hybrid cooling systems, adaptive comfort strategies and engaging more actively with the equatorial atmosphere. Cohesively, the four buildings seek to redefine their immediacies in the tropics, infusing the campus with a new sense of architectural and spatial quality through transparent and perforated elevations.

This keynote lecture presents an overview of the architectural and performative ambitions that have fuelled the design/conception, execution, and operation of the precinct as a whole, and as individual artifacts strategically positioned at the Kent Ridge campus. It also seeks to discuss the criticality of designing building envelopes in the context of both new-build and renovation projects distinctively, to develop super low energy and socially activated campus architecture embedded in the equatorial context.