## ///// RESEARCH & INNOVATION



## **ABOUT WEB EARTH.**

Web Earth are leading consultants in environmentally sustainable design, providing holistic solutions to create resilient and cost-saving buildings and infrastructures.

Established in 2011, Web Earth's environmental design team grew within acclaimed engineering firm Web Structures and we enjoy direct access to our parent company's world-class expertise. Our international diversity—in our team members' qualifications and the countries where we work—provides fertile ground for innovative solutions.

Visit our website at: www.webearth.com.sg

## FUNDAMENTAL DESIGN.

Web Earth's built environment specialists use advanced modelling techniques to provide guidance on everything from the fundamentals of building design to simulations of the latest cutting edge technologies.

Our research and investment in the latest technological innovations keeps us ahead of the competition and allows us to equip our collaborators and clients with the essential data that they need to make informed decisions throughout the design process.

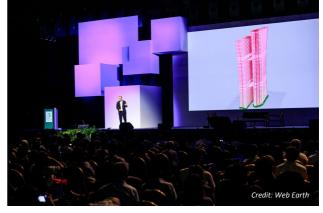
Our advanced software enables us to model the latest developments in the industry and simulate their performance. Examples of our iterative assessment capabilities include:

- The impact of a design's window-to-wall ratio on air conditioning energy consumption.
- The ability of electrochromic glazing to reduce the peak cooling load of a test model.
- The airflow patterns of a room using passive displacement ventilation, an innovative approach that maintains thermal comfort levels whilst dramatically cutting energy consumption.
- The thermal environments of spaces applying adaptive comfort design principles.

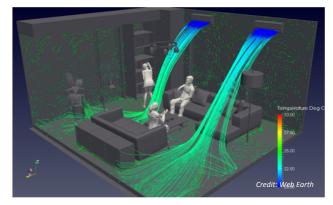
## **COMPUTATIONAL ENGINEERING.**

The new field of computational engineering enables specialists to quickly model multiple building design iterations to find optimised design solutions based on the input parameters and desired performance outputs. In this area of innovation, Web Earth enjoys close collaborations with our pioneering colleagues at Web Structures and Milan Research Lab.

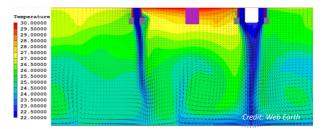
For more information, please contact Ms Jessie Tan, Director-Projects: <u>jessietan@webstruc.net</u>



Web Earth Director Dr Hossein Rezai speaking about computational engineering at the International Skyrise Greenery Conference



Adaptive comfort modelling



Passive displacement ventilation (PDV) simulation

Credit: Web Earth Electrochromic glazing modelling

