

ACES Rhino-Grasshopper Essentials



Build a “Helix Bridge” with Parametric Design and AI

Date: 19 Aug 2026 (Wed)

Duration: 6.30 pm to 10.30 pm (4 hours)

Mode of Delivery: Classroom

Venue: Seminar Room @ SMU

Singapore Management University, 81

Victoria Street Singapore 188065

Fee: \$80 nett per person

CPD: PDU to be confirmed

<https://forms.gle/7B8CJQaWGL9iRno46>



New to Grasshopper? Start Here.

Join our beginner-friendly Grasshopper with hands-on exercises that guide you step-by-step, ending with building your own “Helix Bridge” using using grasshopper, Python and a bit help from AI.

What is Grasshopper?

Grasshopper is a visual programming environment for Rhino that allows designers and engineers to create logic-driven models without traditional coding syntax. By connecting components and parameters, you can build powerful parametric and generative design workflows that respond instantly to design changes.

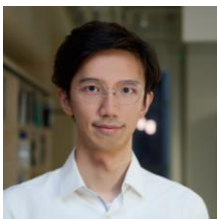
What is Parametric Design?

Parametric design is about defining relationships and rules instead of fixed geometry. Change a parameter once, and the entire model updates automatically, enabling faster iteration, better control, and more informed design decisions.

Pre-course set up

Please ensure you have Rhino 8 installed and the required Grasshopper packages set up (TBA) before the session. Please bring your laptop and charger as it will be a hands-on session.

Facilitator



Ranzi Huang is a senior structural engineer at Arup. He has 10 years of experience of using Grasshopper for cross disciplinary parametric workflow.



Adrian Foo is a structural engineer at Arup with extensive experience in applying Grasshopper on real projects to streamline and enhance design workflows.