

# Digital and computational design workshop

Tuesday 30 September 2025 | 10:00 – 17:30 BST | Institution London HQ

## About the workshop sessions

Led by **SCIA**, (**ALLPLAN**) In this session, you will learn how to fully utilise modern computational power for everyday and advanced structural analysis and design.



Attendees will discover how to perform more precise analysis and comprehensive design calculations and will be introduced to full secondorder analysis considering global and local imperfections (according to EN 199311) using SCIA Engineer.

Led by **IDEA StatiCa** this session looks at optimising connections, automating calculations, and how to integrate with leading computational design tools.



Attendees will learn how software can transform traditional workflows - enabling you to design and verify connections that push the boundaries of innovation while maximising efficiency and safety.

Led by **SkyCiv**, in this session, you will learn how to develop and leverage digital skills for workflow automation and enhanced productivity



Attendees will be guided through a brief review of different tools and digital workflows available and undertake a hands-on exercise in building a calculation using SkyCiv Quick Design, Apps, and/or API.

Led by **StruSoft**, in this session, you will learn about nonlinear plastic material models for reinforced concrete in finite element analysis, and typical situations where a more detailed analysis of reinforced concrete is crucial.



You will work through a workflow for multivariable optimisation of a concrete structure using Grasshopper and multivariable optimisation.

## Agenda

09:30	Registration and refreshments
10:00	<b>Welcome and introduction</b> James Bayley, Software Architecture Lead, WSP
10:10	<b>Utilising digital computational design to create wider impact</b> Emily Scoones, Head of Digital and Innovation, Ramboll
10:40	<b>Workshop session 1</b> In small groups attendees will rotate through all four workshop sessions
11:55	Refreshment break
12:15	<b>Workshop session 2</b>
13:30	Lunch and networking
14:30	<b>Workshop session 3</b>
15:45	Refreshment break
16:05	<b>Workshop session 4</b>
17:20	Closing comments
17:30	Drinks reception and networking
18:30	<b>Close</b>