

Job Title: Computational Design Engineer – Structures
Reports to: Group Director
Job Purpose: We require a computational designer in our London office supporting the Structural engineering team

DESCRIPTION

Eckersley O'Callaghan is seeking creative thinkers to join its growing team in London. EOC is one of the most innovative engineering design firms in the world, with an international reputation cultivated through a commitment to research and innovation.

We are committed to a low-carbon future and are investing heavily in design tools and techniques to improve the sustainability of our projects and our operations. Our committed team of intelligent and hard-working engineers is engaged with industry bodies and academia to stay at the forefront of design thinking, and we maintain our reputation for innovation by investing in R&D and participating in industry conferences for facade and glass engineering, circularity and computational design. Our principal office is in London, with other offices in Manchester, New York, San Francisco, Los Angeles, Paris, Milan, Hong Kong, Shanghai, Delhi and Sydney.

Our structures team in London is expanding to service our growing list of projects across the world. We are currently working with some of the world's leading architects on projects across all market sectors, including cultural venues, high-rise towers, education buildings, transport hubs and commercial offices. Our dynamic office of enthusiastic, intelligent, hard-working engineers provides a stimulating work environment and great opportunities for personal development.

DESCRIPTION

We are looking for people with the following:

- A degree in engineering, architecture or materials science,
- 2-6 years' proven experience in structural design
- A passion for digital design, scripting, and development of digital tools to improve engineering outcomes and processes
- An innovative mind that understands latest technology developments and pioneers to apply them to structural design.
- Experience in the design of complex structural systems using different materials and typologies
- Experience in the application of engineering principles and design methods for structures, such as structural calculations, dynamics, seismicity and embodied carbon calculations
- Experience in the application of computational design methods to support structural design development
- Experience in Rhino and Grasshopper, C#
- Excellent verbal and visual communication skills
- Good organisational skills and the ability to multitask
- Ability to work to deadlines

RESPONSIBILITIES

- Engaging with workflows employed within group and identify opportunities for digital design to improve them
- Working within project teams to solve complex analytical tasks such as rationalisation of complex geometries, producing parametric models, extracting and adding building information from/to BIM
- Developing tools and scripts (in Rhino / GH, Python, C#, VB) to support the workflow of the structures team, e.g. calculation tools, automation and optimisation routines, geometry studies, software interoperability
- Coordinating with digital design specialists in other teams and EOC global offices as relates to group-wide standards and protocols, sharing best practice using our intranet platform
- Generating analytical output in a graphically coherent and engaging format
- Supporting project teams in streamlining workflows, information management, and problem solving
- Provide support to project teams in developing or applying digital design tools
- Supporting a culture of interest and enthusiasm for digital design

- Supporting company-wide strategy for adopting and improving digital design capabilities
- Contributing to technical development and R&D initiatives related to digital design
- Supporting Digital Design Lead in providing digital design training within the structures group
- Maintaining knowledge sharing sections of company intranet for digital design tools within the structures group and disseminating knowledge

PREFERRED ATTRIBUTES

- A strong motivation for sustainable design; experience in developing low-carbon designs (e.g. whole-life carbon assessments, solar and daylight assessments)
- A motivation for learning new programming languages
- A keen interest in architecture
- Experience in using Revit

WE OFFER

- A stimulating work environment with a smart, diverse and motivated set of colleagues
- A competitive benefits package
- Volunteer and outreach opportunities
- Flexible working around core hours
- Opportunities for continuing professional development including mentoring to chartership
- An internal training programme for employees at all levels
- Opportunities for career growth
- Opportunities to take part in internal R&D activities
- Collaboration opportunities with our international offices
- World-class projects with leading architects and collaborators