

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

Eckersley O'Callaghan is one of the most innovative engineering design firms in the world, with a global reputation cultivated through a commitment to research and creative thinking. We enjoy working with a range of materials, forms and building types across diverse sectors and project scales to deliver imaginative solutions. Our multiple award-winning collaborations with forward-thinking architects such as Foster + Partners, Zaha Hadid Architects and Heatherwick Studio, for clients that include Apple, Google, Vitsoe and Bulgari, have placed us at the forefront of design in structures and facades. Our commitment to sustainability, digital design, and continuous research and development remains at the core of our approach.

We offer a stimulating work environment with enthusiastic, intelligent, hard-working colleagues, and support personal development through training and project opportunities. Our principal office is in London, with other offices in Manchester, Paris, Milan, New York, Los Angeles, San Francisco, Delhi, Hong Kong, Shanghai and Sydney.

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