

Senior Engineer I Digital Design Specialist

Reports to: Advanced Engineering, Materials & Technology Group Director

Eckersley O'Callaghan is one of the most innovative engineering design firms in the world, with an international reputation cultivated through a commitment to research and innovation. 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 principal office is in London, with other offices in New York, Los Angeles, San Francisco, Paris, Manchester, Delhi-NCR, Hong Kong, Shanghai and Sydney. We enjoy working with a range of materials, forms and building types across diverse sectors and project scales to deliver imaginative solutions.

Our expanding team in London is looking for an experienced Senior Engineer with a passion and experience of Digital Design, scripting, geometry studies, in-depth analysis, and parametric design expertise to lead the design on a variety of complex and specialist international projects, ranging in both scale and scope.

We are looking for a candidate with the following

- A good degree in engineering or architecture, and preferably a relevant postgraduate degree
- 4+ years' proven experience in either special structures, glass or facade design, digital design and detailing in a consulting or construction capacity
- A passion for wider digital design and associated processes, geometry studies and scripting and how we can constantly improve and utilize these to improve our workflows
- A strong understanding of complex geometry and associated analysis
- Being able to look for new opportunities for how we can improve our Digital Design skillset and experience, and share this knowledge with the wider team and help with others training and development
- Working knowledge of BS/EN and international standards
- Ideally a rounded knowledge of the engineering aspects of nonstandard building materials such as glass, complex structures and facades
- Strong communication skills and collaborative approach
- A keen interest in embracing a wide range of engineering challenges, project types and materials
- Experience and understanding of the process, technical and financial aspects of project management
- Strong analytical skills and experience of undertaking complex FE analysis
- A good level of practical experience of working on projects through to construction stage
- Ability to work under pressure and to deadlines
- A keen interest in architecture and a willingness to travel

Key responsibilities

- Report to the Advanced Engineering, Materials and Technology Group Director in London
- Assist in leading digital, scripting and parametric design skills across the Group
- Look for ways to improve our workflows as relates to digital design, particularly with respect to more sustainable designs, and make suggestions to Director
- Represent Eckersley O'Callaghan at workshops, design team meetings and site meetings with our clients and collaborators
- Lead projects internally with colleagues to allow deliverables to be issued to the client
- Coordinate with architect and other engineering consultants to determine the best design outcomes
- Mentor and manage junior team members, and report to Associates
- Contribute to production of technical development and R+D initiatives to include but not limited to digital design.
- Maintain up to date technical knowledge
- Use analytical software effectively and interpret the outputs well
- Highlight and look for solutions to potential problems
- Assist with preparation of fee proposals and expressions of interest.
- Monitor and report on team performance against agreed timelines, and fees/budgets
- Reviews own and others' work as part of quality assurance
- Uses their awareness of new materials and methods in consideration of client solutions.

- Maintains up to date technical knowledge
- Demonstrate a working knowledge of structural analysis (FEM) software and 3D modelling software (Rhino, AutoCAD, etc)
- Uses analytical software effectively and interprets the outputs well.
- Proactively supporting projects internally, producing sketches, reports and specifications, coordinated with other parties
- Collaborates with other EOC team members; participating in knowledge sharing and producing technical notes
- Carries out site inspections, factory visits, witnessing of mock-ups and testing and preparing technical reports
- Develops design solutions through the structural use of glass and other non-standard materials
- Applies theory to practice and in a logical way.
- Highlights potential problems and ensures there is resolution.

Job knowledge, skills and experience

- Strong experience and a passion for using latest digital design tools to have a positive impact on engineering, and how we can utilize state of the art processes
- Chartered (or nearly) membership of a relevant professional institution (ICE, CIBSE, RIBA, IStructE, SFE)
- Use of 3D modelling tools including Rhino and Grasshopper
- Proficient with digital and parametric design tools - Rhino, Grasshopper, Karamba, and others
- Working knowledge of relevant design software, including for structural analysis, building physics assessments and glass selection tools
- A keen interest in architecture and a willingness to travel
- Creative designer
- Someone who enjoys their work and is indisputably passionate about delivering great engineering
- Able to prioritise own workload, meet tight deadlines and work effectively under pressure at times
- Able to build effective working relationships with professionals of all levels and disciplines within the organisation

Personal qualities

- Good organisational skills and the ability to cope with a variety of tasks
- Desire to develop professionally, take on responsibility and contribute to the growth of the practice
- A flexible, positive approach and the ability to work as part of a team in a busy, creative atmosphere
- Excellent interpersonal skills with the ability to communicate with people of all levels
- Can do attitude that drives for success

**Please email your CV and a covering letter with subject line
'EOC-LON-SEDDS' to: recruitment@eocengineers.com**