

25 May 2021
Position Announcement

Project engineer with appreciation of architecture, trained for holistic thinking

Transsolar KlimaEngineering is an international climate engineering firm advising architects and clients on energy and climate design for construction projects of all scales all over the world. We are a group of engineers and architects who develop high-performance building concepts, validate them using simulation, hand calculations, and physical testing, and advise design teams on their implementation.

We are seeking an entry-level, talented, highly motivated and holistic thinker for our New York team with an engineering- or science-based degree and the professional background necessary to develop integrated climate concepts. If you have a scientific mind, but feel in-between architecture and engineering and want to contribute to the design of out-of-the-ordinary and high-performance buildings with a positive impact on the environment, then this position is for you!

Transsolar is involved in projects ranging from small schools in developing countries to stadia or entire cities. This diverse work shares a common focus on creating exceptional, people-focused indoor and outdoor spaces with a positive environmental impact. For more information about Transsolar and our international portfolio of high-impact projects, please visit our website at www.transsolar.com

What are we looking for?

We're looking for a team member with these qualifications:

Required

- Engineering or applied science education (typically a Bachelor of Science) related to building energy flows and building science: heat transfer, thermodynamics, fluid mechanics, indoor and outdoor human comfort, etc.
- Ability to develop and articulate engineering problems beginning with fundamental physics and use both analytical and computational methods to analyze unique and complex building physics and building systems

Preferred (in approximate order of priority)

- Professional experience or academic training (M.S. or M.Des.) in development of climate and energy concepts in response to local climate, site, architectural, and programmatic requirements, including key performance requirements for design concepts
- Experience collaborating and communicating in the early stages of an architectural design process with both technical and non-technical audiences
- Education/professional experience with current and advanced architectural technologies (e.g. building envelope)
- Experience with graphical representation of climate concepts
- Excellent oral and written communication skills
- Experience with Grasshopper visual programming and at least one text-based coding language. Fluency is not a necessity but understanding of general programming principals is helpful.
- Experience in the sustainability certification industry
- Experience with conventional whole-building energy simulation and ASHRAE 90.1 baseline modeling
- Familiarity with project design documentation, especially architectural and mechanical drawings and specifications
- Experience with physical testing of engineered systems: mock-up/prototype construction, instrumentation, measurement, and control

Responsibilities at Transsolar

We work as teams in an engineering studio environment. Daily work is diverse, and your responsibilities will vary and grow according to your interest and experience (and from project to project), but are expected to include:

- Development of climate and energy concepts in response to local climate, site, architectural, and programmatic requirements.
- Testing and validation of concepts, including comfort and energy analysis, via thermal simulation (using TRNSYS, but prior TRNSYS experience is not required) or physical testing via mock-up or field testing where appropriate
- Testing and validation of concepts, including visual comfort, via daylight simulations (using Radiance-based tools, but prior Radiance experience is not required) or physical testing via mock-up where appropriate
- Support of sustainability certifications such as LEED, Living Building Challenge, or WELL, according to your interest and experience
- Engineering analysis and tool development via hand calculation, spreadsheet analysis, and contemporary scripting tools (such Python, Javascript, or Grasshopper)
- Internal coordination with other team members, synthesis, and communication of overall analysis results and design recommendations
- Graphical representation of climate concepts and complex engineering analysis
- Writing reports
- Support the organization of meetings and design charettes
- Collaboration with German Transsolar offices (in English!)

How to apply

Interested applicants may submit their resume and cover letter via email to jobs@transsolar.com.

In your cover letter please answer (maximum 150 words each):

- Why are you interested in Transsolar and the right fit for this position? Be specific.
- What makes you excited about being a consultant?
- What is your potential start date?
- Whether you will now or in the future require visa sponsorship for employment at Transsolar.