

Position Announcement – Associate – Climate Engineering

Engineer with a passion for holistic indoor environment design – New York

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 a cosmopolitan team with employees from all parts of the world collaborating at low hierarchical levels.

We are seeking a talented, highly motivated engineer for our New York team with 0-3 years of professional experience with an engineering- or science-based degree and the professional training or background necessary to develop integrated climate concepts. If you have a scientific mind and engineering training 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

- Bachelor of Science in engineering (often mechanical engineering) or applied science, covering key engineering science basics including fundamental heat transfer, thermodynamics, and fluid mechanics
- 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)

- M.S. with a focus on building applications and indoor and outdoor human comfort
- Educational or professional 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 and HVAC technologies
- Experience with graphical representation of climate concepts
- 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 with conventional whole-building energy simulation and ASHRAE 90.1 baseline modeling
- 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
- Experience with physical testing of engineered systems: mock-up/prototype construction, instrumentation, measurement, and control
- Excellent oral and written communication skills
- Passion, flexibility, and creative energy required to collaborate with world-class architectural design teams
- Familiarity with project design documentation, especially architectural and mechanical drawings and specifications

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:

- 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 or physical testing via mock-up where appropriate
- Development of climate and energy concepts in response to local climate, site, architectural, and programmatic requirements
- Graphical representation of climate concepts and complex engineering analysis
- Review of project design documentation, especially architectural and mechanical drawings and specifications, to ensure successful realization of the climate concepts
- Engineering analysis and tool development via hand calculation, spreadsheet analysis, and contemporary scripting tools (such Python, Javascript, or Grasshopper)
- Support of sustainability certifications such as LEED, Living Building Challenge, or WELL, according to your interest and experience
- Internal coordination with other team members, synthesis, and communication of overall analysis results and design recommendations
- Writing reports and correspondence
- Participation in meetings and design charettes
- Collaboration with German Transsolar offices (in English!)
- Domestic and international travel to project meetings and sites

The base annual salary range for this position is \$55,000 - \$80,000 depending on the experience and background of the applicant. Transsolar offers annual bonuses, dependent on company performance, which are a meaningful portion of our total compensation package.

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 excites you about being a consultant?
- What is your potential start date?
- Do you currently have legal status to work in the U.S.? Will you now or in the future require visa sponsorship for employment at Transsolar?