Building Energy Modelling Engineer – Green Building Engineer
MALAYSIA, Kuala Lampur - ASAP

Our Company

Headquartered in Paris, TERAO is a global consulting and engineering company that has been involved in energy efficiency and green building engineering for 30 years. Created in 1993, TERAO is one of the pioneers of energy-saving and sustainable buildings. With a 50+ team of multidisciplinary engineers, TERAO is a leading independent French green building engineering company active worldwide (South-East Asia, China, Africa, and Latin America).

Terao operates on the whole building life cycle, from design (green building specifications, energy efficiency design and calculation, etc.) to operation and maintenance (energy audits, certifications in operation, …).

TERAO capabilities include the following:

- Environmental Certification Management for new construction and existing buildings (LEED, Greenmark, BREEAM, WELL, etc.)
- Building Simulations (Energy/Thermal Modelling, Daylight Simulations, CFD, etc.)
- Sustainable Design Solutions for new constructions and renovations
- Low-carbon design (Carbon Footprint Study, LCA, sustainable materials)
- Energy Audits level 1/2/3
- Commissioning missions
- Energy management (ISO 50 001, IPMVP, energy monitoring, etc.)

Position overview:

As a Building Energy Modelling Engineer at Terao Asia, you will be responsible for developing and utilizing advanced energy modelling techniques to assess and improve the energy efficiency of building designs. You will work closely with our multidisciplinary team of engineers and sustainability experts to contribute to the development of environmentally responsible and high-performance buildings.

Job responsibility:

Under the responsibility of the Malaysia Operations Manager, the Building Energy Modelling Engineer participates in TERAO projects across Asia and globally, and covers the following main tasks:

- **Energy Modelling and Data Analyst**: Develop and perform energy simulations and modelling using industry-standard software (e.g., Design Builder, IESVE) to evaluate the energy consumption, thermal comfort, and daylighting of building designs. Analyze simulation data to provide insights and optimize building performance
- **Analysis and Optimization**: Analyse modelling results to identify opportunities for energy efficiency improvements and sustainable design strategies. Collaborate with project teams to implement these solutions into building designs

- **Data Collection**: Gather and validate data related to building systems, materials, and occupancy patterns to create accurate energy models. Ensure data integrity and accuracy in all modelling efforts

- **Code Compliance**: Stay updated with local, state, and federal energy codes and standards (e.g., ASHRAE, IECC) ensuring that building designs meet or exceed these requirements, with a particular focus on **Singapore and Malaysia standards** such as **GBI, GreenRE, GreenMark**
- **Sustainability Integration**: Collaborate with engineers to integrate sustainable design features, such as renewable energy systems, passive design strategies, and energy-efficient design modifications, into building projects
- **Documentation**: Prepare comprehensive energy modelling reports in English, documentation, and presentations for internal and external use
- **Continuous Learning**: Stay current with industry trends and emerging technologies in building energy modelling and sustainable design practices

Requirements

Qualifications

- Master of Engineering (M.Eng.) / Master of Science (M.S.) or equivalent education in Mechanical, Electrical, Architect or related majors
- 2-5 years of previous experience with building energy modelling and simulation software
- **GBI facilitator** or **GreenRE Accreditation** is an advantage
- Knowledge of HVAC systems, building automation, and renewable energy technologies
- Familiarity with energy codes and standards
- Strong analytical and problem-solving skills
- Ability to work collaboratively in a multidisciplinary and multi-cultural team environment

Skills

- Strong knowledge of HVAC systems, fluids, heat transfer, building envelope and energy-efficient technologies
- Computational fluid dynamics simulations (DesignBuilder, Ansys) to assess indoor operating conditions for occupant health and comfort will be highly appreciated
- Understanding of Passive design strategies and implementation.
- Understanding of green building certification schemes (e.g. LEED, BREEAM, GBI, GreenRE, GreenMark, etc.) is appreciated
- On site experience, such as energy audits, is also considered a plus

Abilities

- Technical aptitude with the ability to quickly learn and integrate new concepts and tools
- Strong writing and verbal communication skills
- Strong judgment and critical thinking to challenge assumptions and solve problems
- Strong organizational and time management skills

Software

- Proficient in at least one Energy Modelling software (DesignBuilder, IES-VE, Ansys, etc.)
- Proficient with Microsoft Office Suite (including Word, Excel, PowerPoint)
- Experience with OneClick LCA is a plus