



Flame Wizard (aka Thermal Systems Engineer)

Location: Delhi NCR, India; Hybrid working model

Work at the frontiers of deep-tech and hardware innovation that fights for climate justice.

Background

Takachar is a global organization, spun out of MIT, with a vision to dramatically increase the amount of biomass (crop and forest residues) economically converted into useful bio-products. Our impacts include income and job creation in rural areas, as well as mitigation of CO₂ emission and air pollution associated with conventional open-air biomass residue burning. We have been recognized and supported by awards such as the Earthshot Prize, Elon Musk's X-Prize, Bill Gate's Breakthrough Energy Fellowship and the UNEP Young Champions of the Earth Award 2020.



Our work has been covered by some of the world's top media outlets.

CNN: [Turning crop waste to fertilizer could fight air pollution in India | CNN](#)

BBC: [Earthshot Prize: First ever winners announced - CBBC Newsround](#)

National Geographic: [Facebook Watch](#)

Responsibilities

The thermal system engineer will work to define system requirements, conduct component search, and design specific thermal components to integrate with Takachar's product. The design lifecycle will include working with end users and customers (both in India and elsewhere internationally) to define technical requirements, contacting vendors for competitive bids, modelling system integration in Solidworks, supervising the fabrication and integration of parts for system assembly, and testing the final parts both in the lab and in the field with actual end users to verify that they do meet the initial requirements. Multiple iterations may be needed to finalize the component and its integration.

Skills and Experience

- Prior experience (min. 3 years) with design of thermal systems such as dryers, gasifiers, or boilers as well as their subsystems.
- Master's degree in Mechanical/Chemical Engineering or any other related discipline.
- Strong fundamentals in engineering thermodynamics, heat & mass transfer and fluid mechanics.
- Comfortable working with basic metal fabrication equipment and techniques, including: Cutting, rolling, bending, and (optionally) welding.
- Working knowledge of Solidworks, thermal/fluid modelling packages like Ansys Fluent.
- Willingness and prior experience of being hands-on in product development. This position will be a blend of desk work, outdoors testing of hardware and field travel.
- Be able to advise and brainstorm with the team on the best and/or fastest fabrication solution to achieve a certain goal.
- Ability to think critically, work independently and willingness to constantly learn and adapt while working in a growing start-up environment.
- Possession of required documentation to work in India.

To Apply

Please send your resume to careers@takachar.com.

What you will get:

- Salary and benefits commensurate to market rate and as per experience level.
- An opportunity to work with the world's most awarded biomass technology company.
- Opportunity to be at the forefront of climate action and pollution mitigation.
- A work environment that invests in your personal and professional growth.
- A culture that values empathy, curiosity & exploration.

Takachar is an Equal Opportunity Employer and does not discriminate on the basis or perception of race, colour, religion, sexual orientation, gender identity, national origin, disability, age, or any other consideration made unlawful by central government, state government, or local laws.