

Program Manager- Product Development Research Projects

About VigyanShaala

VigyanShaala is a multiple award-winning organization whose work is internationally recognized by G20, Department of Science and Technology India, NITI Aayog, IIM Bangalore, and Centre for Global Equality, Cambridge, UK, Falling Walls Berlin, Nature London. VigyanShaala's founders, board, mentors, and supporters are alumni of the top 0.1% of Global Universities, working to create deep meaningful systemic changes at scale. We aspire to be the leading execution and policy oriented STEM non-profit in India within the coming 5 years.

We believe everyone should have the opportunity to create a better world through science and we are on a mission to enable the innovators of tomorrow to achieve their dreams by bringing science, technology, and learning to their doorstep today. Our flagship She-for-STEM initiative is scaling with international presence and is an internationally award-winning initiative. Here we nurture Undergraduate Women in STEM. Our deeper intervention of Rural STEM Champions Program we build community labs in remote areas, primarily in the Himalayas and nurture bright STEM undergraduates from marginalized backgrounds as Community Champions. Join us in the next revolution in Science

About the Role:

Curiosity and scientific temperament are at the heart of everything we do. Curriculum both the VigyanShaala programs, Kalpana-She for STEM and the rural STEM champions fellowship, is intended to spark scientific temperament and innovation among students. We believe that the spirit of science can be introduced in students by nurturing their scientific temperament. Our research curriculum helps students develop a true understanding of scientific methodology, including observation, hypothesis development, asking questions, experimentation, data analysis and interpretation, and finally communicate their findings. We believe that hands-on science activities will help students to learn fundamental laboratory techniques, encourage independent and creative thinking, teaches them to rely on evidence and ask "why", and enhance their confidence to pursue career opportunities in STEM.

This is a **full-time** opportunity in **Pune with 70% travel and stay time in Uttarakhand (Pithoragarh District)**. The opportunity is **flexible to be full time at Uttarakhand** with travel to **Pune 10%**. We are looking for a dynamic and passionate teammate with awareness about the importance of hands-on experiential training in STEM. You will wear multiple hats, including scientific research project developer, teacher, mentor, researcher, and collaborator. You will be responsible for designing innovative and interdisciplinary research projects for UG students that research grade. We currently have 3 labs in remote colleges of Uttarakhand where highly motivated and selected students come pursue their STEM dreams. You will be expected to travel to these labs to train lab coordinators, work with students, troubleshoot experiments, and implement the research projects.

The Path to the Dream would require the following actions:

- You will predominantly be handling 3-4 labs in Uttarakhand and developing Research Grade projects.
- The Challenge you will solve is to build STEM projects that are:
 - I. Publishable in standard STEM Journals (I.F.>2-3)

- II. They will have to be performed by UG students and some PG levels
 - III. Resources are limited and the lab built up cost <5Lacs INR. It is predominantly a tinkering lab.
 - IV. The key is designing and implementing research projects with low cost sensors and automation. You will both design and implement-> Like your own research group.
- This is a unique challenge that is being tackled by very few groups globally <https://metastudio.org/> is a good resource to get a feel for the type of work.
 - Develop project documentation templates, including project writing format, materials required document, detailed experiment plans, and project report template.
 - Define student workflow, establish metrics, deliverables, and other processes for measuring research progress.
 - Collaborate with global STEM experts to create innovative cross-disciplinary research projects.
 - Assist students in performing experiments on the research projects.
 - Engage students interdisciplinary research projects and nurture scientific temperament by helping them follow scientific methodology.
 - Understand the needs of students coming diverse backgrounds, from the most marginalized communities from rural India (e.g., remote corners of Uttarakhand or Telangana Social Welfare colleges) to state-of-the-art urban institutes such as IITs, IISERs, Miranda House etc.
 - Inspire and mentor students to secure master's admission in top-notch Indian and foreign institutions.
 - Expected travel time is 75% if based in Pune and 10% if based in Uttarakhand.
 - Increase the visibility of VigyanShaala in National and International forums and societies-visit conferences and give talks online/offline.
 - Can preferably start the role immediately at the earliest possible date
 - Preferably someone who understands and feels passionate about the cause
 - Until such a time where the product offerings do not stabilize, you will face many times where you will have to take on tasks outside your JD, as each one of us does.

What we would prefer from our Applicants:

- PhD in STEM background from a Tier-1 University or Tier-1 Institute.
- A track record of publications in established reputable journals with at least 1 First Author publication in such a journal is mandatory.
- There will be lots of Python programming and interlacing with Arduino/Raspberry Pi etc. So experience in Python programming is a must.
- At least two to three years of work experience in developing research projects-Record of developing projects in a frugal manner is a plus
- Understanding of Data and Basic Stats that is a given in research is a must (Fitting, P Value, Regression, Error Bars, Variance etc.)
- Comfort in being a World-Leader and pushing the boundaries in this field globally. Think giving talks at Top Universities and Gov.t Agencies in the world
- Experience in Instrumentation and software's such as LabView is a plus.
- Excellent written and verbal English communication skills is critical.
- Experience in working with university students in a mentoring/teaching would be beneficial.
- Able to convey complicated concepts in a simple manner to non-expert audience.
- Adept at creating high-quality PowerPoint Presentations
- Start the role at the earliest possible date.
- You are expected to bring your own laptops – we can provide refurbished laptops in other circumstances

What we offer:

- Creativity and autonomy of a start-up environment with exciting global stakeholders
- Inspiring colleagues with an opportunity to build processes from ground up.
- Access to a Global network that is driven to create opportunities in STEM for the most marginalized
- An Opportunity to be a leader in the field of STEM-Projects and dissemination.
- You will be a growth partner, someone who will grow with the organization by constantly enhancing your own skills and competencies.
- An emerging social start-up venture with a dynamic working environment and tremendous scope for personal and professional growth.
- Our products shift regularly based on customer feedback, hence change happens fast and you will have a say on pivoting products quickly.
- The pay range is from 8LPA to 10LPA CTC. In case of Exceptional candidates with matching experience, a higher position can be offered for 10 - 12 LPA.

How to Apply:

For Applying to the position please Apply here through this form and upload your Cover Letter, CV, Motivation, LinkedIn Profile and work-sample if any:

<https://forms.gle/g4hfw7W6q2beKqxLA>

If you have any opinions or other queries please email to:

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