



She for STEM

Career Development program
for Women in **Sciences & Engineering**

15,000+

Fellows Mentored

1,000+

Global STEM
Mentors

950,000+

Mentoring Hours

28 States

Across India

70%+

First-Generation
Learners

75%+

Families Earning
< ₹3L/yr

64%+

SC / ST / OBC
Communities

2025

Nikkei Asia Prize
Winner

Nurturing Women Scientists, Technologists & Engineers of Tomorrow

A NOTE FROM THE FOUNDERS

Why We Built This



VigyanShaala was started by two scientists who believed the next great mind in science could come from a government college in Uttarakhand or a small town in Telangana, provided someone showed up for her at the right moment.

Darshana grew up in Delhi, in a family that had left Uttarakhand for a better life. Science lived in her textbooks, not her hands, until one mentor changed what she believed her life could be. She went on to earn a doctorate and become the first woman President of the Cambridge Graduate Union.

Vijay grew up in Pune, the son of a scientist. Science was dinner conversation at home, then dulled by a school that made it feel distant. One question stayed with him: why can't every child feel this?

They met at JNCASR Bangalore, carrying that same question from different directions. They left established careers to build what neither of them had. She for STEM is the result: a structured, long-term mentoring fellowship, one scientist or engineer beside every enrolled woman, week after week, until her own path becomes visible.

THE PROBLEM WE ARE ADDRESSING

2 out of 3
women who
study STEM in
India do not
enter
the workforce.



Women make up nearly 43% of STEM undergraduates in India. They hold fewer than 15% of STEM jobs. This is not a talent gap. The women are there. The ability is there. What is missing is structured support at the moment when careers are made or abandoned.

The six barriers that cause this are well documented: low visibility of relatable role models, gender stereotyping of fields, low self-efficacy, insufficient hands-on STEM experience, family-work conflict, and no guidance at the critical moments, when a student is trying to figure out whether to apply for a postgraduate program, how to prepare for IIT JAM or GATE, or simply whether someone like her belongs in science at all.

For students in the 60%+ of colleges located in rural or semi-urban India, every one of these barriers is sharper. Laboratories are outdated. Industry is distant. There is no placement cell. There is often no one in the faculty who has worked outside academia. The decision about whether to stay in STEM is made, in most cases, by default.



The common barriers

1. Low visibility of role models

Most women studying STEM have never had a conversation with a working scientist or engineer from a background like their own.

2. Gender stereotyping

Fields are described as “not for girls” often before a student is old enough to evaluate the claim herself.

3. Low self-efficacy

Without early research exposure or professional mentoring, women systematically underestimate their own capability.

4. No hands-on STEM experience

In under-resourced colleges, science stays theoretical. Students graduate without having designed an experiment or worked on a real problem.

5. Family-work conflict

Socio-cultural expectations compress the window for career decisions at exactly the point when those decisions are most consequential.

6. No guidance at key moments

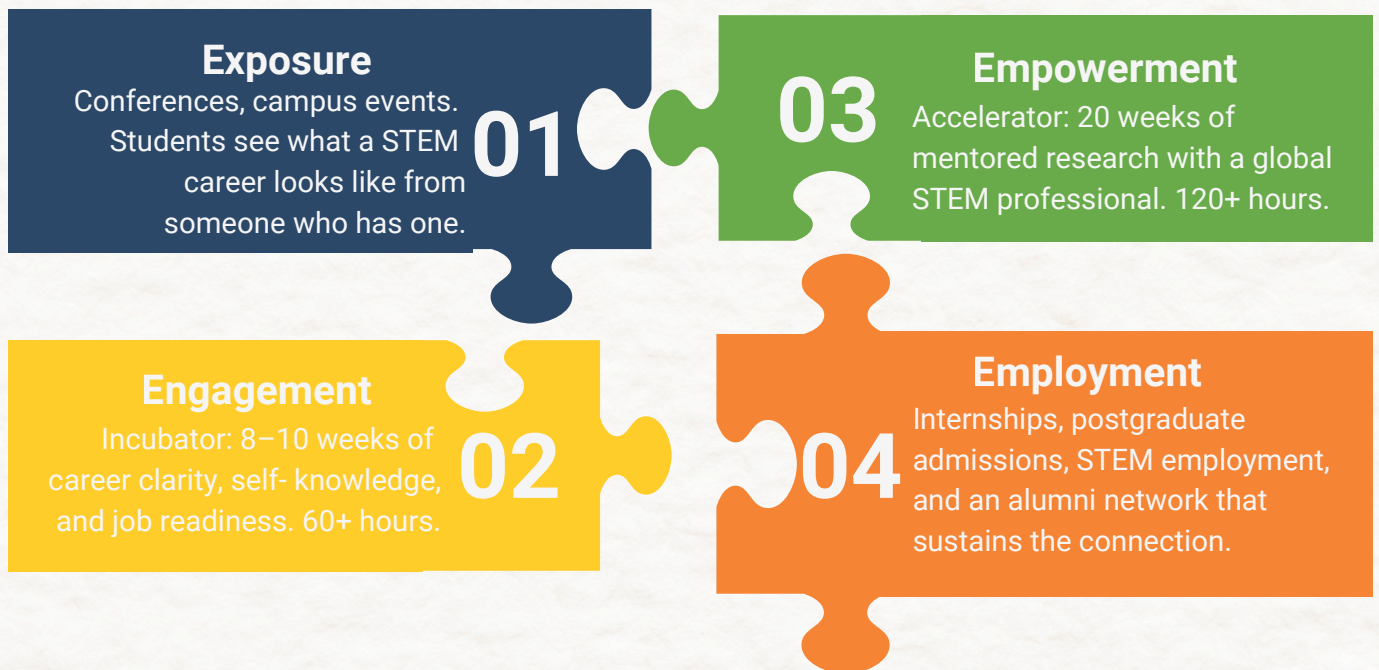
GATE, IIT JAM, postgraduate applications, internship searches. Most women navigate these entirely alone, often making uninformed choices.



HOW SHE FOR STEM WORKS

From exposure to employment: a four-stage journey

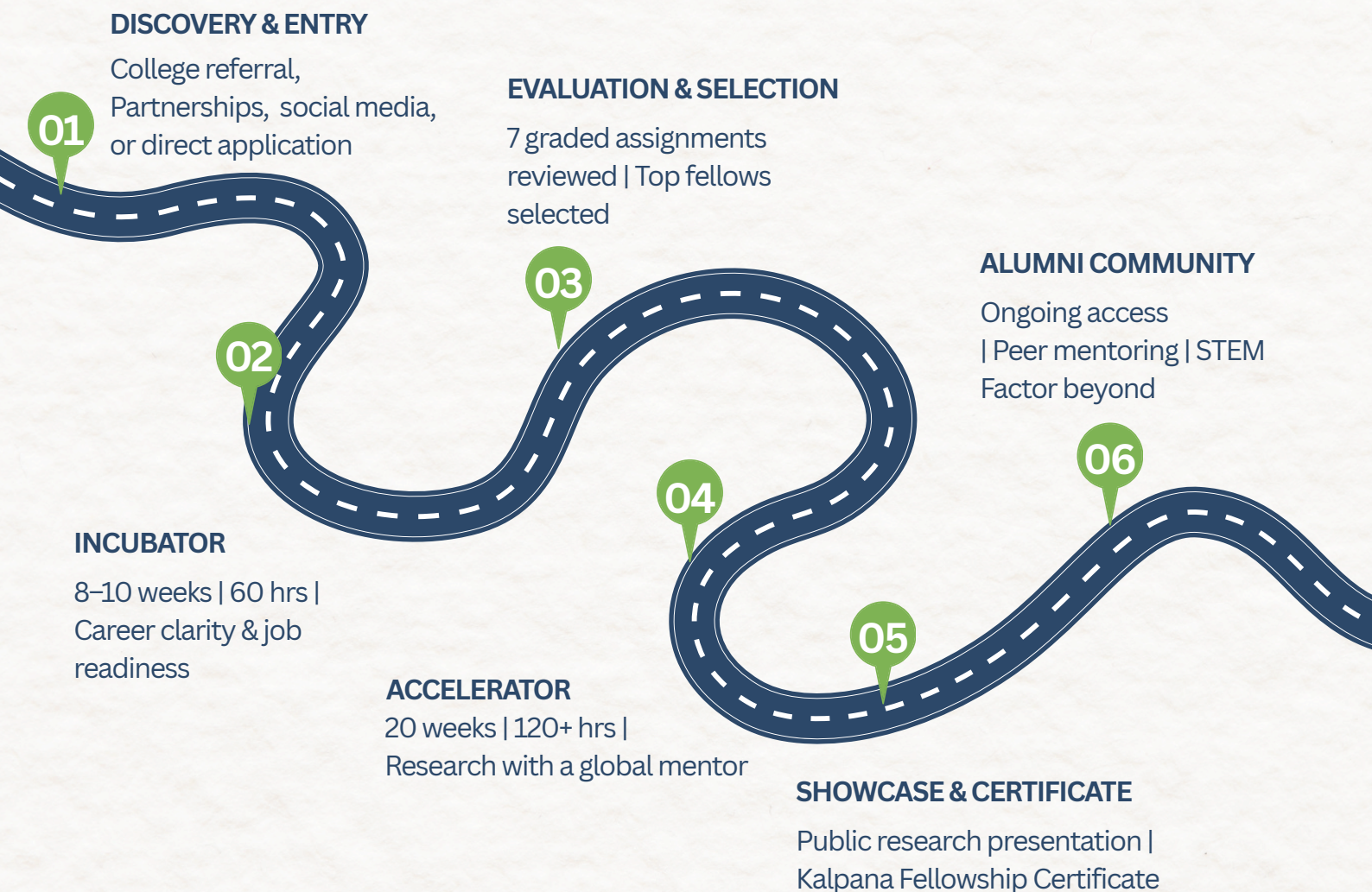
She for STEM is built on a theory of change with four stages. Each stage is designed to address specific barriers and prepare the student for what the next stage asks of her. The stages are not a rigid pipeline, students re-enter, return, and sometimes move through them in different orders. But the progression is intentional.



THE STUDENT JOURNEY

What a fellow experiences, from first contact to alumni

The journey begins with discovery, through a partner institution, a social media post, or a friend who heard about the program. It ends at certification and continues into an alumni community where many former fellows now return as mentors, masterclass speakers, or members of The STEMM Factor, an initiative She for STEM alumni started to bring career guidance to secondary school students in Tier 2 and Tier 3 cities.



Entry to the Accelerator is by evaluation and selection. In FY 2025–26, 757 students were selected from a 6377 strong Incubator cohort. This selectivity is intentional, the Accelerator is a demanding program, and selection is based on readiness, not background.

The Incubator

The Incubator runs over 8–10 weeks. Every week has three live sessions: a Monday Workshop, a Thursday Reflection Hour, and Saturday Tracks (Masterclasses or Speak Up Kalpana), alongside one graded assignment. The time commitment is approximately 4–6 hours per week. The curriculum moves deliberately: from understanding what STEM careers exist, to understanding oneself, to building a dual career plan, to producing a job-ready resume. By the end, every fellow has a Career Vision with Goal A and Goal B mapped to real job titles and companies, a Personal SWOT analysis, a 5-year milestone plan, and a professional resume.

Week	Theme	What happens
0	Orientation	Program structure, expectations, and the She for STEM journey. Introduction to the fellow community and platform.
1	Discovering STEM	What is STEM? The breadth of STEM disciplines and the range of careers available across industries.
2	Career Exploration	STEM Career Map: real job roles, salary bands, career progression. Assignment 1: LinkedIn/Naukri research.
3	Personal SWOT	Career self-awareness. Strengths, weaknesses, opportunities, threats for a chosen STEM goal. Assignment 2: SWOT for a short-term goal.
4	Goal A & Goal B	Dreaming big and planning smart: a dream career (Goal A) and a strategic alternate path (Goal B) with skill overlap.
5	Career Skills	Hard and soft skills: mapping what you have and identifying what you need. Assignment 3: Career Planner.
6	Mapping Milestones	SMART milestones at 1, 3, and 5 years. Assignment 4: Career Vision Board with resources and timeline.
7	Resume Essentials	Professional resume structure, ATS-friendly formatting. Assignment 5: Resume submission (PDF).
8	Tailoring & Polish	Rewriting statements with precision. Tailoring the resume for a specific role. Transition to Accelerator.

Saturday Tracks: Masterclasses & Speak Up Kalpana

Every Saturday, fellows join one of two parallel sessions.

Masterclasses

Saturday sessions by practicing STEM professionals, covering:

- LinkedIn and professional networking
- PG entrance exams: GATE, IIT JAM, CUET etc.
- Scholarships — national and international
- Job interview preparation
- Securing internships
- Resume building
- Applying to universities abroad

Speak Up Kalpana

A candid conversation between She for STEM fellows and global STEM leaders, held every alternate Saturday. Speakers come from every corner of STEM. What they share is not a curated highlight reel. It is the honest account: the career detours, the experiments that failed, the supervisors who did not believe in them, the discoveries that came from unexpected places.

For many fellows, this is the first time they have spoken directly with a scientist who has navigated something like what they are navigating now.



The Accelerator

The Accelerator is where the real work happens. Each cohort group of five fellows is assigned a global STEM professional, a practising scientist, engineer, researcher, or technologist from industry or academia. They meet weekly for 60–90 minutes. The fellow leads each session from Week 5 onwards. The mentor asks questions, stress-tests reasoning, and models how professionals think, not just what they know.

The program runs in three phases:

Phase	Weeks	What happens
Phase 1	1–4	Mentor and fellows build a working relationship. Psychological safety, SWOT deep-dive, SMART goals, and project ideation. Every fellow commits to a project direction by the end of Week 4.
Phase 2	5–16	The fellow leads. Problem statement, literature review, methodology, data collection, analysis, peer review. The mentor asks, challenges, and holds space for uncertainty. Milestones at Week 5 (project synopsis) and Week 10 (mid-review).
Phase 3	17–20	Scientific writing, professional identity, showcase rehearsal, final report submission, certification, and transition to the alumni community.

What fellows actually research

Projects are student-designed and mentor-guided, built under real constraints: no more than ₹5,000, available materials, accessible tools. They are research in the true sense, a question the student chose, a method she designed, a finding she owns. Here is a sample from the previous Accelerator cohort:

The STEM **projects**

- AlphaFold analysis of mutations in SARS-CoV-2
- AI-based early-stage diabetes detection
- Drug design strategies against drug-resistant tuberculosis
- Plant-based membranes for water desalination
- Biomimetics for solar power conversion
- Carbon capture modelling for rural India

- Biodegradable plastic from potato starch
- Deep learning for financial forecasting and network security
- Low-cost spectrometer design for spectral analysis
- Atmospheric shift analysis over the Western Ghats
- Exoplanetary research and atmospheric modelling
- In silico analysis of antimicrobial peptides

What every Accelerator graduate leaves with

- A complete, independently designed frugal STEM research project report
- Demonstrated skills in literature review, methodology design, data collection, and analysis
- A public research showcase delivered to peers, families, and the VigyanShaala community
- A LinkedIn profile, professional elevator pitch, and a STEM cover letter

- At least one professional contact made outside the program
- A mock interview completed with mentor feedback
- A clear, specific next step — internship application, postgraduate exam preparation, or employment
- Access to the She for STEM alumni network

FELLOWS WHO TRANSFORMED

Real women. Real outcomes. Across geographies and backgrounds.

These are not the only stories we could tell, and they are not the most exceptional ones we know. They are representative. The outcomes span direct employment in technology companies, postgraduate admissions at national and international universities, and international fellowships. Most of the women in these stories are first-generation learners.

Komal's parents run a small ironing stall in Dehradun. Neither of them finished school. When Komal joined She for STEM through partner organisation Udayan Care, she was a B.Sc. Mathematics student with, as she puts it, "no clear path." Her mentor introduced her to research mathematics and helped her secure an internship at the Institute of Mathematical Sciences, Chennai.



She learned about IIT JAM there. She cleared it. She then had to convince her family to allow her to move to Mumbai for IIT Bombay, a conversation that took months. A postgraduate fellowship from Mudita Alliance helped with the costs. She graduated from IIT Bombay and works today as a BI Developer at Axis Mutual Fund, bridging mathematical insight with real-world financial data problems.

Komal Diwakar

DAV PG College Dehradun → IMSc Chennai → IIT Bombay (M.Sc. Mathematics) → Data Engineer, Axis Mutual Fund

Shramana joined She for STEM in her second year of Bachelor's studies. Through her mentor's support she secured an internship with BioXspace, USA. Together with three other She for STEM fellows she started The STEMM Factor — an initiative bringing career guidance to school students in Tier 2 and Tier 3 cities. She was selected for the inaugural cohort of The Quad Fellowship from Schmidt Futures and is now pursuing her graduate studies at Johns Hopkins University.



Shramana Guchhait

University of Delhi → BioXspace USA → The Quad Fellowship (Schmidt Futures) → Johns Hopkins University, USA → Scientist at AstraZeneca

Tanisha was mentored by Raj Ramanatha, based in the USA, who has led large-scale technology programs at Apple, AT&T, Wells Fargo, and Synopsys. Over five months, he guided her through complex, industry-relevant research projects. Tanisha is an Associate Solutions Engineer at Razorpay.

Tanisha echoes this sentiment: "Being part of VigyanShaala gave me the courage to pursue my dreams and become more vocal. It connected me with incredible role models from STEM, and I had the opportunity to learn invaluable lessons."



Tanisha Gupta

MAKAUT, Kolkata → Associate Solutions Engineer at Razorpay

Diksha grew up in Pithoragarh, in the mountains of Uttarakhand. An ecology student, she was selected for a year-long internship with Dtime.ai, a London-based think tank, where she worked with Dr. Hemant Tripathi from UNEP-WCMC Cambridge to develop a forecast tool for mitigating ecological and environmental shocks. She is now enrolled at ATREE Bangalore for her M.Sc in Environmental Studies – Conservation Practice, bringing the concerns of her Himalayan community into the work of conservation science.



Diksha Nagarkoti

LSM PG College, Pithoragarh → Dtime.ai, London (year-long internship) → M.Sc Environmental Studies, ATREE Bangalore

Purva's She for STEM project began with a question about patterns, inspired by the structure of foam inside a handwash bottle. It led her, through a series of connections she built during the program, to a year-long internship at IUCAA Pune. She was subsequently awarded a full scholarship to pursue M.Sc Neurophysics at Radboud University in the Netherlands.



Purva

Fergusson College, Pune → IUCAA Pune (year-long internship) → M.Sc Neurophysics, Radboud University, Netherlands (full scholarship) → Donders Institute for Brain, Cognition, and Behaviour

During the pandemic lockdown, Aparna worked with Dr. Swathi from Saint-Gobain India to study electrochromic devices at home, observing reversible colour change induced by electrochemical oxidation and reduction with a simple home setup. That project led to an internship at JNCASR Bangalore and later to the Globalink Graduate Fellowship for summer research in Canada. Aparna is currently pursuing PhD from Max Plank Institute, Germany.



Aparna Manoj

IISER Bhopal → Home electrochemistry experiment → JNCASR Bangalore → Globalink Graduate Fellowship 2023, Canada → Max Plank Institute, Germany

Gauri joined She for STEM as a B.Sc. student at Delhi University. She earned a research fellowship at Caltech, completed two Master's degrees in France at Université Paris-Saclay and PSL Research University, and received a fully funded PhD offer in Astrophysics at the University of Leeds. The night before she was to confirm, flash floods destroyed her family's home in Kullu. Her supervisor deferred her place. The She for STEM community rallied around her. This year, she walked through Leeds' doors.



Gauri Patti

University of Delhi (B.Sc. Hons.) → SURF Fellow, Caltech, USA → Masters, Paris-Saclay & PSL / Observatoire de Paris → PhD in Astrophysics, University of Leeds

IN THEIR OWN WORDS

Fellows speak about what changed

The stories on the previous pages show where fellows ended up. These, in their own words, show what the program felt like while they were in it. Most of the women quoted here are first-generation learners, describing a process, not just a result.



“My accelerator mentor, Mr. Raj Ramanatha sir, provided significant guidance, not only with respect to my technical project but also concerning personality development throughout our weekly meetings. I am deeply grateful for this wonderful program by VigyanShaala that has helped me nurture my all-round personality.”

Abha Bharge

MKSSS Cummins College of Engineering for Women, Pune
→ Former SWE Intern in VISA



“Before this program, I didn’t know about tools like CAP and SMART goals. The milestones section was a gem of that module. For SMART Goals, the ‘time-bound’ point helped me understand exactly how to move ahead step by step. My biggest achievement this year: I got accepted at The University of Tennessee Health Science Centre for my Master’s thesis project.”

Rishita Deore

The Maharaja Sayajirao University of Baroda, Gujarat
→ The University of Tennessee Health Science Center, US



“My journey with She for STEM has been very educational and fun. It introduced me to a range of new STEM careers. I especially learnt a lot from my mentor on how to set goals and the right way to approach them. The sessions have been very inspiring – to interact with such powerful speakers with all inspiring lives and backgrounds.”

H Pinky Ruth Chanu

NIT Manipur → PhD scholar at IIT Guwahati



“My mentor took my special classes to help me understand all the sessions I had missed when I fell ill during the pandemic. That moment stayed with me. Someone from the other side of the world, giving extra time for me.”

Kanchan Bafila

Delhi → IIT Bombay (M.Sc.)
 → BIT Mesra, Ranchi
 Postgraduate College, Berinag, Uttarakhand →
 Fergusson College, Pune

“I’m a final-year BS-MS student at IISER Tirupati, currently at the Max Delbrück Centre for Molecular Medicine in Berlin, researching how exosomes drive cancer metastasis. She for STEM gave me skills my degree never covered – CV building, navigating higher education abroad, AI tools in research. The Speak Up sessions showed me what a STEM career could actually look like for someone like me. The Accelerator gave me my first real computational research project. I came in uncertain. I left with direction.”

Tejaswini Venkatramanan

IISER Tirupati → Master Thesis at Max Delbrück Center, Germany



THE TEAM

Founded and led by **scientists**



Dr. Darshana Joshi, Ph.D.
University of Cambridge, UK
Founder & CEO



Dr. Vijay Venugopalan, Ph.D.
Marie Curie Fellow
Founder & COO



Sreejith Srinivasan
Ex-Tata DLT
**Program Manager,
She for STEM**



Dr. Tripti Joshi, Ph.D.
Columbia University
Manager, Partnerships



Dr. Arohi Srivastava, Ph.D.
University of Hertfordshire, UK
Product Lead



Bhuwan Joshi
M.A. - JMI | BASS - TISS Mumbai
**State Program Manager,
Uttarakhand**



Daisymol Manjaly
Ex - EY, Deloitte
**Program Manager,
She for STEM**



Muskan Gupta
Banasthali University
**Senior Executive -
Operations**



Reema Das
RIE Bhuvaneswar
Lead Educator



Bhavani Mailapilli
IIIT Ongole
Training Lead



Titty Chakraborty
Visva-Bharati University
Executive Education



Priyanka Rai
Fergusson College
Executive Education



Shubham Jaybhaye
Fergusson College
**Senior Operations
Executive**



Akshata Satpute
Symbiosis Statistical
Institute
**Senior Executive-Data
Operations**

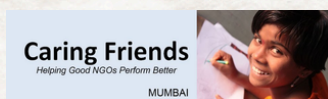
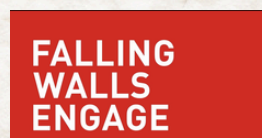
Our Powerhouse



UNIVERSITY OF
CAMBRIDGE



Office of the Principal
Scientific Adviser to
the Government of India



MAKER'S
ASYLUM



Be A Part of Our Tribe

Apply as a Fellow

For women undergraduates ready to build a STEM career path.

The program is fully online and 100% free, always.

→ Register at <https://uk-cohort.vigyanshaala.in/>

Volunteer as a Mentor

For practising scientists, engineers, and STEM professionals with an hour or two a week to guide a small group of fellows.

→ Register at <https://mentor.vigyanshaala.in/>

Partner with Us

For institutions, colleges, and organisations looking to bring She for STEM to their students, or to support the program.

→ Write to communications@vigyanshaala.com

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