

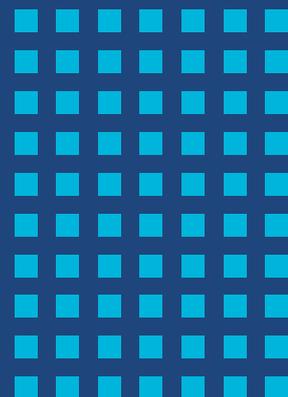


## PUNE KNOWLEDGE CLUSTER

Established by the Office of The Principal Scientific Adviser, to the GoI under The City Knowledge & Innovation Cluster Initiative (CKIC), the Pune Knowledge Cluster aims to bring together Academic Institutions, R&D organizations, Industries, NGOs, Civic Bodies, Local & State governments to collectively work for the betterment of Pune City by leveraging the science & technology capabilities of its partner organizations.

# From The PKC Desk

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Greetings, dear readers!

We're excited to bring you the latest edition of **PEAKS – PKC's Quarterly Newsletter**, covering highlights from April to June 2025.

This issue's **Cover Story** features **WEnyan: Strengthening the Pathways for Women in Science**, a transformative scholarship and mentorship initiative. The **Sneak Peek** section spotlights **SAFAL – Empowering Pune's Sanitation Workforce**. In this issue, we are **In Conversation** with **Ashish Vaishnav**, Director and CEO of Gangotree Energy Projects Pvt. Ltd.,

In **Innovations in Action**, we feature Panjurli Labs' unique Air Filtration Technology, **FNDR's end-to-end drug discovery platform**, and **Qure.ai's AI-driven diagnostics**, each addressing critical health and environmental challenges with scalable impact.

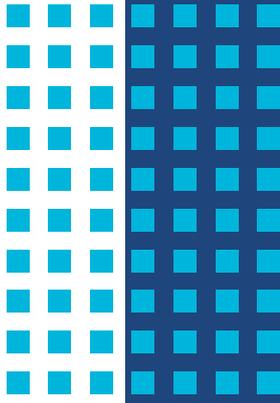
This issue also covers PKC's latest offerings and the national and international **events, partnerships, and citizen-centric talks** organized within the last quarter

Happy reading!



Issue available at  
<https://www.pkc.org.in/resources/newsletter/>  
Or Scan the QR Code

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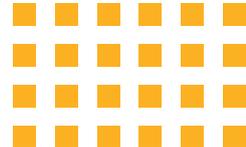
# Cover Story

## WEnyan: *Strengthening the Pathways for Women in Science*

The WEnyan Scholarship and Mentorship program was inceptioned with the aim of supporting and promoting participation of women in chemistry and sustainability. Since its inception, our unwavering focus has been to empower women pursuing higher education and research with financial support and a nurturing environment that fuels their passion towards building careers in the chemical sciences space.

Priya Nagaraj, CEO, PKC, talks more about the thought behind conceptualizing the WEnyan program, “STEM jobs have significantly increased in India in recent years. However, only 14% of the 40% of women STEM graduates go on to pursue careers in the field. This 'leaky pipeline' prevents many women from reaching leadership roles in science and technology. Initiatives like WEnyan play a key role in **reducing dropout rates and closing the gender gap in STEM.**”





Designed and implemented by the **Pune Knowledge Cluster (PKC)** with **financial support from BASF Chemicals**, and **enabled by the Office of the Principal Scientific Adviser to the Government of India**, WEnyan provides fellowships to undergraduate and postgraduate students for research-based projects, alongside prototyping grants for doctoral scholars and aspiring entrepreneurs with innovative business ideas in the chemical sciences. Since its inception, the program has extended targeted academic and professional support to **86 women scholars** across **31 districts of Maharashtra**.

## Bridging Systemic Gaps

While women's participation in science has seen gradual improvement over the past decades, systemic barriers related to **access, mentorship, exposure, and encouragement** continue to hinder their full potential, particularly in resource-constrained regions. WEnyan was conceptualized to address these gaps, especially at the **undergraduate level**, where foundational academic and career decisions are shaped.

The program aims to build **competence, confidence, and continuity** for young women in science by offering:

- **Structured mentorship** by experienced professionals from academia, research, and industry
- **Skill-development workshops**, scientific exposure visits, and Role Model Talks
- **Financial assistance** to support independent research and prototyping
- **Career guidance** and access to internships, fellowships, and higher education pathways

## A Model of Inclusive STEM Engagement

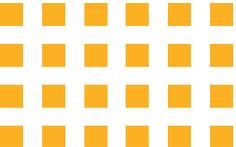
A distinguishing feature of WEnyan is its strong emphasis on **mentorship**. Each awardee is paired with a dedicated mentor who provides guidance throughout their academic journey and beyond. The scholars, many of whom are **first-generation learners** from Tier II and Tier III towns, have demonstrated remarkable resilience and commitment. Through the program, they have not only gained financial and academic support but also developed a sense of belonging to a larger, supportive scientific community.

WEnyan stands as a replicable model of **inclusive STEM engagement**, illustrating how thoughtfully designed interventions can foster **equity and excellence** in science.

## Program Reach and Impact

Over the past four years, the WEnyan initiative has successfully established its presence across Maharashtra through extensive outreach and collaboration with academic institutions. Key highlights include:

- **69 awareness sessions** conducted across **35 colleges**, reaching **2,973 students** and **45 faculty members**
- **1,357 total applications**: 704 undergraduates, 553 postgraduates, and 100 doctoral students
- **86 grantees selected**: 32 undergraduates, 41 postgraduates, and 13 doctoral students representing **19 districts**
- **206 mentoring hours** delivered by **40 mentors**
- **10 industry visits**, **15 Role Model Talks**, and **7 Skill-Building Workshops** conducted



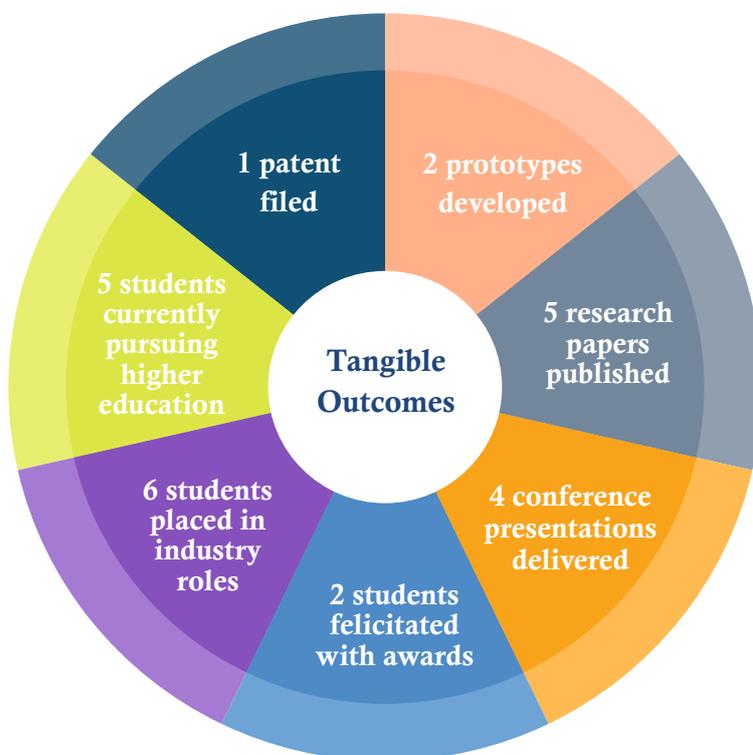
Talking about the success and impact of the program, Johannes Hoecker, R&D Manager, BASF, says, “This is truly a collaborative program. It is inspiring to witness the individual development stories of the grantees.”



WEnyan Footprint Across Maharashtra

## Tangible Outcomes

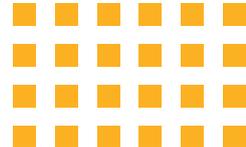
The achievements of WEnyan grantees are a testament to the program's impact:



These outcomes reflect the success of a multifaceted support system that not only fuels academic progress but also fosters innovation, professional growth, and leadership among young women in science.

## Looking Ahead

The WEnyan Scholarship and Mentorship Program reaffirms the potential of focused, inclusive, and collaborative efforts in building a future where women in science are not only participants but leaders and changemakers. Through the continued dedication of its partners, mentors, and scholars, WEnyan remains committed to nurturing a generation of women scientists equipped to shape the future of chemistry and sustainability.



*Through WEnyan, PKC is actively building a more inclusive, equitable, and empowered scientific future for women in India.*

## Mentor & Scholar Voices

*“As Neha Kuity's mentor, I observed her steady growth. She coordinated with multiple vendors for a pilot project, significantly improving her communication and confidence. WEnyan transformed her outlook—from a student mindset to a business perspective. The direct financial disbursement enabled her to attend her first scientific conference.”*

— **Dr. Seema Sambrani**

*HOD & Assistant Director, SK Somaiya College*

*“WEnyan's biggest success is its outreach to rural and interior regions of Maharashtra. Many girls here lack financial support, which WEnyan provides. The training and proposal guidance boost their confidence, and we've seen a marked increase in their interest in research.”*

— **Dr. Dilip Thube**

*Vice-Principal, New Arts, Commerce & Science College, Ahmednagar*

*“The funding made my project feasible at the undergraduate level. Workshops and seminars helped me connect with industry experts, and learning from their journeys taught me life-changing lessons.”*

— **Komal Pawar**

*B. Pharmacy, Palghar*

*“While WEnyan has already evolved into a flagship program in Maharashtra, it has great potential to **expand its reach and impact** across the state.”*

— **Ritika Ganguly**

*Project Manager, PKC.*

# In Conversation

## Mr Ashish Vaishnav

*Director at  
Gangotree Energy Projects Pvt. Ltd.*



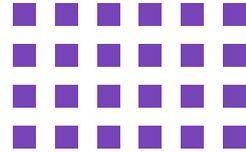
### **Could you tell us about the history of Gangotree Energy Projects? When was it established?**

Gangotree Energy Projects was originally started over 30 years ago (1995) with a focus on water sustainability, especially in rural environments. The name “Gangotree” symbolizes 'at the source', reflecting its foundational emphasis on self-sufficiency. About six years ago, I joined the organization with the intention of expanding its scope. My prior three-decade experience at Thermax in energy, environment, heating, and cooling helped steer Gangotree toward clean energy innovations using solid waste as a resource.

### **What are the primary focus areas of Gangotree Energy Projects?**

Today, Gangotree primarily focuses on creating green, decentralized energy solutions that address the massive problem of municipal solid waste. Our unique approach includes converting dry waste—often ignored or deemed unusable, into fuel-grade pellets called **Urjwala**. These pellets can be used effectively in industrial boilers as a sustainable substitute for coal, thus enabling energy recycling and helping mitigate climate change.

In this issue of PEAKS, we are In Conversation with Mr Ashish Vaishnav, who is a Director at Gangotree Energy Projects Pvt. Ltd. He has 30 years of extensive global experience in the energy and environment sector, specifically in the development of decentralized power and Tri-generation solutions. He is currently developing Green solutions to mitigate the challenge of Climate Change through alternate renewable energy and cooling, heating, and power solutions in Gangotree.



## **Let's talk more about the technology you use for solid waste processing. Can you share some success stories?**

Our flagship innovation lies in converting Refuse-Derived Fuel (RDF) into uniform, clean-burning pellets. These pellets are accepted by industries because they are standardized, clean, and efficient. We have successfully implemented decentralized waste-to-energy units in locations like Blue Ridge (Pune), Khadki Cantonment Board, IIT Bombay, and even Leh–Ladakh under extreme conditions with the Indian Army (Siachen Warriors). Each of these stories highlights how waste can be transformed from a burden into a reliable source of energy.

## **Who do you mainly collaborate with, and what do you generally look for in your partners?**

We collaborate with institutions, municipal bodies, and private waste handlers who are already engaged in the collection or basic processing of waste. We look for partners who are open to decentralization, willing to adopt segregation at source, and committed to sustainability beyond material recycling, basically, those who see value in energy recycling as a parallel track. Enthusiasm, local ownership, and a willingness to experiment with scalable models are the key traits we seek in our partners.

## **Could you talk more about your experience of working with PKC and the collaborative work undertaken?**

Working with the Pune Knowledge Cluster (PKC) has been enriching. Their emphasis on knowledge-sharing, innovation, and ecosystem building aligns perfectly with our mission. PKC has helped create visibility and validated our work through stakeholder engagement, storytelling, and knowledge dissemination activities that are particularly valuable in a field full of myths and misconceptions around waste. The recognition by reputed forums for our innovative approach was also facilitated through PKC's network.

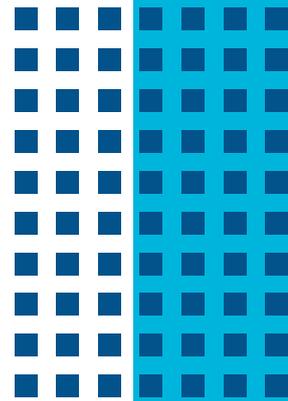
## **Would you like to share any upcoming projects that you are looking forward to?**

We are currently expanding our decentralized units across different parts of India—including Nashik and Baroda, through partnerships with local waste aggregators. A lot of interest is coming from small towns and institutional campuses where decentralized, low-cost, and sustainable solutions make real impact. We are also focusing on standardizing our pelletization machines and training more communities to become self-sufficient in managing their waste and generating energy.

<https://gangotreeenergy.com/>

# Sneak Peak

## *Empowering Pune's Sanitation Workforce through SAFAL*



With cities generating thousands of tonnes of waste daily, plastic pollution remains one of the most urgent environmental challenges of our time. Effective waste management is no longer just a civic responsibility, it is central to achieving global sustainability goals such as **SDG 11 (Sustainable Cities and Communities)** and **SDG 12 (Responsible Consumption and Production)**.

Recognizing the need for inclusive and effective approach to plastic waste management, the **SAFAL initiative**, a collaborative effort by the **Pune Knowledge Cluster Foundation (PKC)**, **Social Lab**, and the **Pune Municipal Corporation (PMC)**, organized **hands-on training sessions for over 300 Kachra Vechaks and Safai Sevaks on June 3 and 10, 2025**.

The sessions included interactive modules on:

- Identifying different types of plastics, including **Multi-Layered Plastics (MLPs)**
- Sorting and segregation techniques
- Safe handling practices
- Correct usage of **Personal Protective Equipment (PPE)** for workplace safety





## Why SAFAL Was Conceived

In 2024, PKC received a fresh mandate from the Office of the Principal Scientific Adviser (PSA) to the Government of India to address the growing challenge of plastic waste. As part of this mandate, the PKC team conducted field visits to understand ground realities and identify systemic gaps.

One such visit to the Hadapsar Garbage Depot revealed that informal contract workers were seen sorting waste without any protective gear or prior training. These observations highlighted the urgent need for structured interventions and inspired the design of a dedicated training series under SAFAL to upskill Kachra Vechaks and Safai Sevaks working across PMC zones.

## Addressing a Critical Gap

Kachra Vechaks and Safai Karamcharis play a vital role in maintaining cleanliness and sanitation in urban India. However, most of them have never received formal training in their line of work. Acknowledging this need, the National Skill Development Corporation (NSDC) has also emphasized structured capacity-building programs for sanitation workers.

Training informal waste workers is not just a welfare measure, it is a critical step toward realizing the goals of the Swachh Bharat Mission in both letter and spirit.



## Linking Waste Workers to Social Security

In addition to technical training, the workshop enabled the successful registration of around 140 participants for E-Shram cards. Workers were briefed on the associated social security benefits and entitlements, ensuring they are informed about their rights and have better access to government welfare schemes.

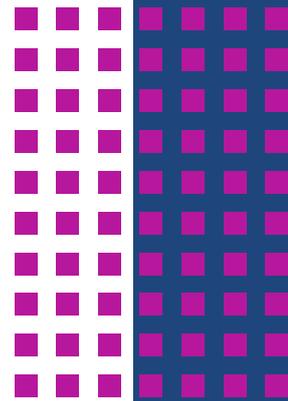




## What's Next

More such workshops are planned in the coming months, aiming to build a resilient and empowered sanitation workforce. By focusing on both technical skills and social inclusion, the SAFAL initiative seeks to create a sustainable waste management ecosystem where those at the forefront of the battle against waste are recognized, respected, and well-equipped.

# National and International Events



This section showcases events PKC has hosted to promote the building of collaborative networks and also highlights events and meetings where PKC has been invited to present its initiatives.

## Events organised by PKC

### 1. LEAD - Hydrogen Skilling for Sustainable Energy Futures 10 April 2025

Under PKC's flagship **LEAD (Learn | Explore | Access | Discover)** initiative, a one-day hands-on workshop on **Hydrogen Skilling** was conducted in collaboration with **h2e Power Systems Pvt. Ltd.** and **Symbiosis Skills & Professional University**.

The workshop introduced 100+ students to **hydrogen as a clean energy vector**, highlighting its industrial applications and the critical skills needed for India's transition to a **sustainable energy future**. PKC continues to strengthen **industry-academia** partnerships through such capacity-building engagements focused on green technologies.

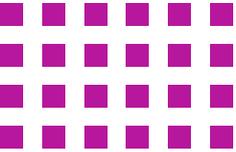


### 2. Workshop on AI and Digital Tools in Education | 7 May 2025

Organized by PKC, the workshop engaged 64 science and mathematics (Grades 5–10) teachers in exploring **practical applications of AI and digital tools** in classrooms for enhancing classroom engagement through technology.

The workshop reflected a strong interest in **future-ready teaching methods** and emphasized the importance of integrating **emerging tools in pedagogy**.





### 3. IBM Security Users meet | 24 May 2025

The Pune Knowledge Cluster hosted the inaugural IBM Pune Security Users Group meet, bringing together around 40 professionals from diverse sectors for insightful discussions on cybersecurity practices and emerging challenges. This collaborative initiative marked a significant step toward fostering a strong, informed, and connected security community in Pune.



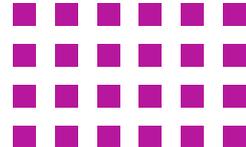
### 4. Future Ready Teaching : Digital Tools for Modern Educators | 30 May 2025

Organized by the Pune Knowledge Cluster, this in-person workshop was designed for school teachers of science and mathematics teaching grades 5 to 10. The workshop convened 56 educators for a full day of interactive learning, focusing on practical insights into the effective integration of digital tools to enhance classroom engagement and pedagogy.



### 5. WBC&M: Walk, Bus, Cycle & Metro - Citizen Connect | 13 to 15 June 2025

Organized by the Pune Knowledge Cluster, in collaboration with the Centre for Environment Education (CEE) and Save Pune Traffic Movement (SPTM), and in partnership with Maharashtra Metro Rail Corporation Ltd., this outreach event was supported by the Citizens Forum of Prabhag 11 (CF@11). The engagement witnessed enthusiastic participation from citizens across age groups and created a space for honest dialogue and community-driven insights.

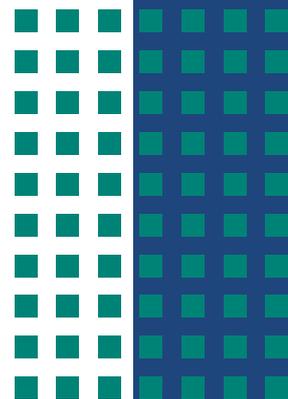


Over three engaging days in Rambaug Colony, Kothrud, residents came together to reflect on how Pune moves, on foot, by cycle, bus, and metro. The initiative aimed to facilitate meaningful conversations around everyday commuting challenges and explore opportunities for promoting sustainable urban mobility.

Key concerns raised during the interactions included pedestrian safety, the need for improved cycle-friendly infrastructure, gaps in first and last-mile connectivity, and suggestions to enhance feeder services and metro timings. This initiative created a space for **meaningful dialogue** on improving Pune's transportation systems and promoting **sustainable urban mobility**.



# Citizen-Centric Talks



PKC's citizen-centric talks are aimed at making science accessible to citizens and increasing scientific curiosity. They are held in a hybrid mode to ensure maximum participation. Recordings of the previous talks are available on our Youtube Channel.



**Speaker:** Dr. Rajeshwari Sinha,

Programme Manager, Sustainable Food Systems Unit, Centre for Science and Environment, New Delhi (CSE).

**Date:** 7th June 2025

**Topic:** Exploring Uncharted waters in the STEM space

Conducted as part of PKC's ongoing series - Conversations with Women Role Models in STEM, in this talk, Dr. Sinha shared her journey spanning chemistry, microbiology, public health, and policy advocacy. Drawing from her rich academic and professional background, she shared how resilience, mentorship, and working across different fields helped shape her career in science.



**Speaker:** Dr. Renu Sharma, of H.M.E Waste Management.

**Date:** 20th June 2025

**Topic:** Mission LiFE & E-waste Management

Conducted as part of PKC's ongoing series - **SustEn**, in her talk, Dr. Renu Sharma emphasized on the alarming rise of e-waste, with India ranking third globally. Most e-waste is handled informally through hazardous methods, causing severe environmental and health problems. Dr. Sharma highlighted the urgent need for awareness, regulatory support, and active engagement from all stakeholders to build a robust ecosystem for a circular economy and promote sustainable electronics practices, aligning with the Sustainable Development Goal 12 – Responsible Consumption and Production.

# MoUs and Partnerships

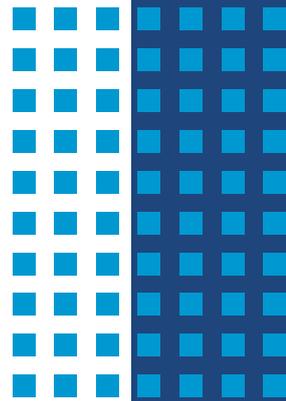
In the last quarter, PKC has signed an MoU with Padma Education Society (PES) - (institution focused on teacher training and skill development), Social Alpha (support science and technology innovations that address the most critical social, economic, and environmental issues of our times) & Symbiosis Skill University (Skill development University).



**SOCIAL**  
alpha



# Innovations in Action

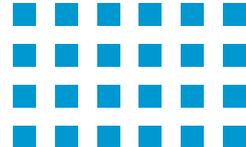


This section showcases impactful innovations that leverage science & technology for the betterment of society.

In this issue, learn more about Panjurli Labs, The Foundation for Neglected Disease Research (FNDR), Qure.ai

1. **Panjurli Labs** and its unique air filtration technology, which is grounded in lived experience and driven by purpose. This patented, self-cleaning air purification system is revolutionizing clean air access in high-pollution, low-resource environments—from industrial zones to underfunded schools. By eliminating filter waste, reducing maintenance by 80%, and upcycling captured pollutants into eco-friendly pencils, Panjurli merges technology with sustainability. With over 65 billion cubic feet of air purified and 300+ installations nationwide, their innovations are delivering measurable health benefits while advancing circular economy goals—proving that clean air can be both affordable and impactful.





2. **FNDR**: The Foundation for Neglected Disease Research (FNDR) is a not-for-profit R&D organization driving breakthrough solutions for diseases often ignored by mainstream pharma—like TB, fungal infections, and AMR. With a unique end-to-end drug discovery facility and a strong global network, FNDR transforms ideas into impactful products. From India's first antibiotic-capturing device to diagnostics for extrapulmonary TB, and next-gen therapeutics for dengue and NTM infections—FNDR's innovations are turning science into real-world action for public health.

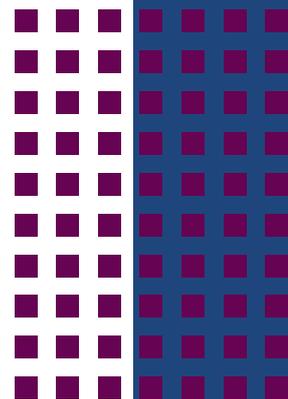


3. **Qure.ai** At Qure.ai, innovation goes beyond algorithms and drives impact where it is needed the most. From enabling TB screening at the Mahakumbh Mela to delivering critical lung assessments at Everest Base Camp, Qure's AI-powered tools like qXR, qER, and qCT are transforming diagnostics in the most challenging settings. Deployed in over 100 countries and integrated into systems like the NHS, Qure's solutions ensure early detection of TB, lung cancer, and stroke—even in low-resource environments. By turning cutting-edge AI into life-saving action, Qure is reshaping global healthcare, one scan at a time. Qure's qXR technology (AI for chest X ray) is the most deployed AI solution to screen for Tuberculosis.



To read more about such *Innovations in Action*, subscribe to our LinkedIn Newsletter- *Innovations in Action*

# Offerings and Opportunities



*This section showcases impactful innovations that leverage science & technology for the betterment of society.*

Through this section, we would like to give the readers a peak into some of PKC's unique offerings.



WEnyan is a scholarship and mentorship program for supporting women in Chemistry and allied areas. The program aims to support women students from marginalized communities/ low-income groups in Maharashtra to pursue education & career opportunities in research & entrepreneurship in Basic Chemistry, Specialty Chemicals, Agro-Chemicals, New Materials, Pharmaceuticals, Medicinal Chemistry, Sustainability, and allied areas.

**Applications for round 4 are now open!**

**WEnyan Scholarship & Mentorship Program 2025 - 2026**

## Who Can Apply?

- Final-year UG/PG women students in science and engineering streams
- Women pursuing full-time entrepreneurship (within 1 year of graduation)
- Ph.D. scholars (years 1–3) working on product or prototype development



*Know more about  
the Program*



Application Link : Scan the QR Code

Application Open: **1<sup>st</sup> June 2025**

Application Deadline: **15<sup>th</sup> August 2025**

write to us: [wenyan@pkc.org.in](mailto:wenyan@pkc.org.in)

Phone: 7823892474

