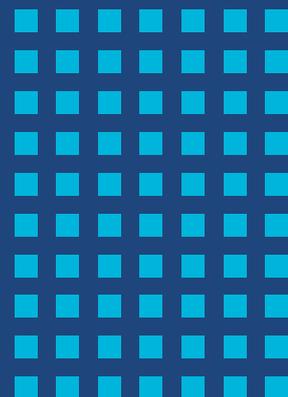


PUNE KNOWLEDGE CLUSTER

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



Greetings, dear readers!

We are back with the next issue of PEAKS – PKC's Quarterly Newsletter! In this issue, we highlight key milestones from PKC's journey from **July to September 2025**.

The **Cover Story** features our program, **SAFAL: Plastic Waste Management**. The **Sneak Peak** section gives the reader a peek into **Citizen Science Conclave**. In this issue, we are also **In Conversation** with **Mr. Sameer Dhamangoakar** from **CII Young Indians, Pune**.

The section **Innovations in Action** showcases **BiofuelCircle**, which is building a circular bioeconomy for India by creating a digital marketplace and a decentralized network of Biomass Banks to enable cleaner energy and empower rural communities, and **Genepath diagnostics**, a pioneer in making world-class molecular diagnostics accessible and scalable, bridging global standards with local healthcare needs through innovation and collaboration.

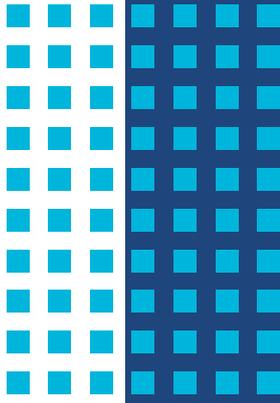
In this issue, the readers will also get an overview of the Events that PKC has organised and important partnerships that PKC has fostered within the last quarter. The **Spotlight** section features **STEM RewirEd**, a PKC initiative designed to bridge the digital divide and empower rural teachers with hands-on STEM tools for effective learning.

Happy reading!



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

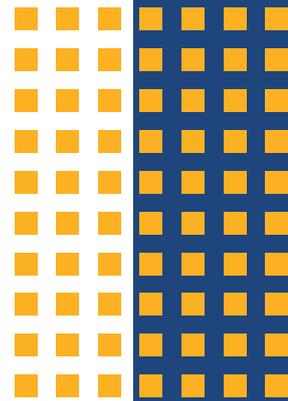
In This Issue



<i>Cover Story</i>	04
<i>Conversation</i>	08
<i>Sneak Peak</i>	11
<i>National and International Events</i>	16
<i>Citizen-centric Talks</i>	20
<i>MoUs and Partnerships</i>	21
<i>Innovations in Action</i>	22

Cover Story

SAFAL Workshop: *Empowering Pune's Frontline Workforce*



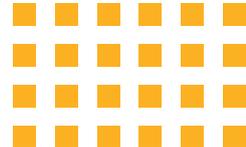
Behind every clean street in Pune stand the tireless efforts of *Safai Karamcharis* and *Kachra Vechaks* (waste pickers) - frontline sanitation workers who brave high-risk environments, yet remain largely unseen. To enhance their skills, safety, and dignity at work, **Pune Knowledge Cluster (PKC)** in collaboration with the **Pune Municipal Corporation (PMC)** and **Social Lab Environmental Solutions**, has launched the **SAFAL workshop series**.

What SAFAL Offers

The workshops are designed as **capacity-building programs** that go beyond technical training to focus on **human-centered learning**. They cover:

- **Waste literacy:** Understanding different types of waste and safe sorting mechanisms
- **Health & safety practices:** Training in the use of protective gear and preventive measures for high-risk tasks
- **Interactive role plays:** Building confidence, communication, and teamwork among participants
- **Positive public engagement:** Encouraging respectful interactions that uplift the dignity of sanitation workers
- **Safety Kit and E-Shram Card:** Each participant gets an E-Shram card registered in his/her name and a complimentary safety kit.

This holistic approach ensures that participants not only gain knowledge but also feel more empowered in their daily roles.



PKC's Role in SAFAL

- Identifying and engaging key stakeholders across the ecosystem
- Managing funds and overseeing program delivery
- Partnering with organizations to ensure accountability and long-term impact

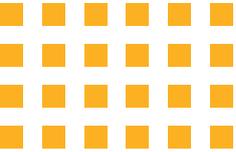
Program Partners

- Pune Municipal Corporation (PMC)
- Social Lab Environmental Solutions



Impact So Far

Since its launch, **SAFAL** has successfully trained over **400 Safai Karamcharis and Kachra Vechaks** across three batches. This milestone reflects Pune's growing commitment to inclusive, sustainable, and dignified waste management practices. Each trained worker not only improves their own safety and efficiency but also contributes to a healthier and cleaner city for all.



Voices from the Field

“The SAFAL initiative, led by the Pune Knowledge Cluster (PKC) and Social Lab Environmental Solutions with support from the Pune Municipal Corporation, is a commendable step towards strengthening waste management practices in the city. By focusing on upskilling Kachra Vechaks and Safai Sevaks through training in hygiene, use of safety equipment, waste segregation, and awareness of welfare schemes, this program is directly addressing the needs of those at the heart of waste management. Such capacity-building workshops should be scaled up and implemented across Pune to ensure greater efficiency, safety, and dignity for our waste workers.”

— **Smt. Nilima Kakde**
Health Inspector, PMC Pune

“Addressing the needs of Pune’s Safai Karamcharis is absolutely essential for the vision of clean Pune! PKC is delighted to join hands with Pune Municipal Corporation and Social Lab Environmental Solutions to enable the attention that was long due.”

— **Chaitra Narayan**
PKC

Aligning with the SDGs

The SAFAL initiative directly contributes to the **United Nations Sustainable Development Goals (SDGs)**:

- **SDG 3 (Good Health & Well-being):** By promoting safety practices and providing protective gear, the program safeguards the health of sanitation workers.
- **SDG 8 (Decent Work & Economic Growth):** Registering participants under the E-Shram card system ensures formal recognition and social protection, advancing decent work opportunities.
- **SDG 11 (Sustainable Cities & Communities):** By empowering frontline workers, the program supports cleaner, more sustainable, and resilient urban spaces.
- **SDG 12 (Responsible Consumption & Production):** Waste literacy and safe handling practices contribute to responsible waste management and circular economy principles.

Through SAFAL, Pune demonstrates how local action can create meaningful impact in building a healthier city, a more dignified workforce, and progress toward global sustainability.

The Road Ahead:

The success of SAFAL lies not just in the numbers but in the confidence, safety, and recognition it brings to Pune's sanitation workforce. With continued support from civic bodies, NGOs, and citizens, the vision is to expand this initiative across the state, creating a stronger, safer, and more dignified waste management ecosystem.



In Conversation

Mr. Sameer Dhamangaonkar
Chair of Young Indians (YI) Pune Chapter



About CII Young Indians (Yi):

Young Indians (Yi) is an integral part of the Confederation of Indian Industry (CII), founded in 2002 to bring together young professionals, entrepreneurs, and changemakers. With more than 70 chapters across India, Yi engages in nation-building through initiatives in entrepreneurship, innovation, skill development, environment, healthcare, and road safety.

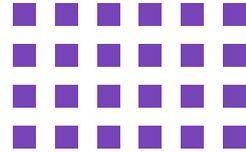
Q. Could you share your journey with Young Indians (YI) and what inspired you to take up the role of Chair for the Pune Chapter?

I had a long stint in the corporate sector before starting my entrepreneurial journey in 2019. Just as I began, COVID hit, which made those early years very challenging. In 2021, during the pandemic, I became part of YI. Initially, I joined to connect with like-minded entrepreneurs and professionals, but soon realized YI was much more than that—it's about nation-building, youth leadership, and thought leadership.

One of the things I value most is that within YI, No one asks about your degree, your business background, or your industry—it's about collective belonging. Over time, I took on leadership roles, became Co-Chair in 2024, and transitioned to Chair in 2025.

Experiences like these have been transformative, and that's what drew me deeper into YI.

In this issue of PEAKS, we are *In Conversation with Mr. Sameer Dhamangaonkar, Chair of Young Indians (YI) Pune Chapter*. With a rich background spanning corporate leadership and entrepreneurship, Sameer has been actively engaged in nation-building and youth empowerment initiatives through YI. He has represented India at the G20 bilateral talks in the UK and was selected for the Stanford Seeds Path Program, where his startup emerged as a South Asia cohort winner. Under his leadership, YI Pune continues to drive impactful programs in sustainability, innovation, road safety, and youth leadership, while building strong collaborations with academia, industry, and civic bodies to shape future changemakers.



Q. How does the Pune Chapter of YI distinguish itself from others across India?

YI Pune is among the oldest chapters—19 years strong, and has always blended Pune's unique identity of education and industry. We are tightly integrated with CII Pune, which not every city has, giving us an added advantage.

We run a strong **Yuva vertical**, engaging more than 30,000 college students in Pune. Many of our youth-focused programs, like innovation challenges, financial independence summits, and large-scale collaborations with schools which have created lasting impact.

Another distinction is Pune's role in contributing innovative ideas at the national level. For instance, YI Business Empowerment, a flagship initiative across India, was pioneered here.

Q. Could you highlight some flagship programs and initiatives that have made a real difference in the community?

Certainly. Some of our impactful programs include:

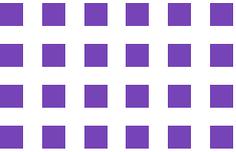
- **Chhota Cop** – Road safety sessions in schools where children evaluate whether their parents follow traffic rules.
- **Drug abuse awareness programs** for youth.
- **Nakshatra One plantation drive**, an Indian-rooted approach to afforestation inspired by the nakshatra system.
- **AI Skills Passport Program**, in collaboration with EY Foundation and Microsoft, to upskill students in AI.
- **Young Indians Parliament**, a student-led simulation of India's parliament for classes 9–12, which has received praise from the Ministry of Parliamentary Affairs.

Internationally, YI is a member of the **G20 Young Entrepreneurs Alliance**, and our Pune chapter has even had a member win the global G20 Startup Competition.

Q. Partnerships seem central to YI's work. What do you look for in collaborators, and how do they advance your mission?

Collaboration is crucial—we believe nothing meaningful can happen in silos. We look for like-mindedness, shared values in nation-building, innovation, youth empowerment, and openness in working together.

For example, our recent collaboration with PKC allows us to explore large-scale, replicable initiatives in areas like road safety and waste management. We also recently partnered with the Green Terry Foundation to work towards making university campuses net zero, leveraging our joint association with AICTE.



Q. What upcoming projects are you particularly excited about?

A few big ones stand out:

- **Vikasit Bharat Young Leader Dialogue (VBYLD)** – A central government–supported dialogue on India@2047, focusing on technology's role.
- **Job and Skill Conclave in Pune** – to connect youth with opportunities.
- **Major road safety initiative** in collaboration with an MNC.
- **Mentor-Mentee Program** – assigning mentors to students for personal and professional guidance.

Q. On a personal note, what has been your most inspiring experience as Chair of YI Pune?

Without doubt, the **Leadership Academy** stands out. Every incoming Chair undergoes 72 hours of intense leadership training, working with peers from 70+ cities. It's an unforgettable, transformative experience that builds both leadership and camaraderie.

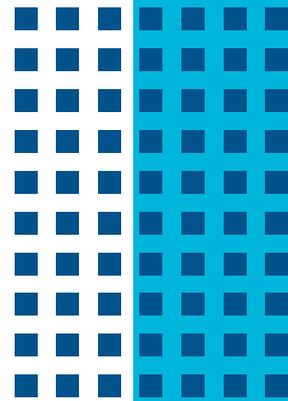
Hosting regional rounds of student innovation competitions and seeing young participants gain confidence has also been very fulfilling. But most inspiring are the small moments—when a student or young professional tells us, “YI gave me this opportunity.” That, for me, makes it all worthwhile.

Q. Finally, what message would you give to young professionals, entrepreneurs, and students aspiring to contribute through platforms like YI?

Don't wait. Engage early, explore opportunities, and contribute with pure intention. YI is not just about networking—it's about building relationships, gaining exposure, and making a real impact. If you want to grow personally while contributing to society, this is the place to begin.

Sneak Peak

Citizen Science Conclave



On 5th July 2025, Pune Knowledge Cluster (PKC) hosted a first-of-its-kind **International Citizen Science Conclave** at IISER Pune under the theme “The Power of People in Science.” The conclave convened over **300+ participants, 17 national & international speakers, and a vibrant Citizen Science Expo** that attracted **200+ visitors**.

An International Citizen Science Conclave 2025

The event showcased citizen-led initiatives across biodiversity, astronomy, health, water, waste management, and digital tools, reflecting how communities and individuals are shaping research and innovation.

- **Expert Dialogues & Keynotes**

Speakers from India, USA, UK, Belgium, Ireland, and France shared insights on embedding citizen science into research, leveraging AI and open-source tools, and building inclusive, participatory frameworks.





• Citizen Science Expo

With 18 posters and demonstrations by institutions, NGOs, and independent citizen scientists, the expo highlighted practical applications—from river restoration and biodiversity monitoring to AI-driven astronomy and climate solutions.





Reflections and Way Forward

The conclave emphasized that citizen science is not only about data collection but also about **community ownership, civic engagement, and the democratization of knowledge.**

Key recommendations included:

- Embedding citizen science into curricula and institutional frameworks.
- Promoting open-source tools, multilingual participation, and AI integration.
- Recognizing contributions of citizen scientists in publications and outcomes.
- Building stronger collaborations across academia, policymakers, and citizen groups.

Looking Ahead

As a first-of-its-kind **citizen science conclave organized by PKC**, this event has set the stage for future engagements and mainstreaming of citizen science initiatives for driving progress within the science and technology ecosystem. PKC looks forward to conducting the **Citizen Science Conclave as an annual initiative**, further strengthening global and local collaborations in participatory research.

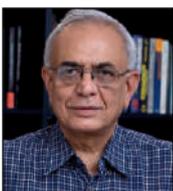
- Explore featured projects: One Million Galaxies | ConnecTree | India Biodiversity Portal | OpenLitterMap | eFloraofIndia

Speakers:

The conclave convened leading voices in citizen science from India and abroad:



Dr. Laura Trouille, Vice President of Science Engagement, Adler Planetarium Chicago, Co-Principal Investigator, Zooniverse platform & Research Associate, Northwestern University, Chicago, United States – Showcased the global impact of Zooniverse in democratizing research across disciplines.



Prof. Ajit Kembhavi, Co-Founder, Pune Knowledge Cluster & Emeritus Professor, IUCAA, Pune, India – Introduced *One Million Galaxies*, demonstrating the power of citizen input in AI-driven astronomy.



Mr. Atharva Pathak, Consultant, Pune Knowledge Cluster, Pune, India – Presented methods for creating and hosting citizen science projects, highlighting PKC's *ConnecTree* and *One Million Galaxies*.



Mr. Shirish Kanitkar, Consultant, Pune Knowledge Cluster, Pune, India – Reflected on how citizen science fosters environmental literacy, stewardship, and community agency.



Dr. Thomas Vattakaven, Senior Application Scientist, India Biodiversity Portal & Strand Life, Sciences, Bengaluru, India – Shared insights from a decade of citizen-led biodiversity data collection.



Dr. Ananya Karmakar, Scientist-C, India Meteorological Department (IMD), Pune, India – Highlighted IMD's climate applications for agriculture, health, and disaster management.



Dr. Ritesh Kumar Choudhary, Scientist-E, Agharkar Research Institute (ARI), Pune, India – Spoke on *eFloraofIndia*, a volunteer-driven botanical documentation platform.



Dr. Suhel Quaderm, Scientist and Programme Head, Nature Conservation Foundation, Bengaluru, India – Showcased projects engaging citizens in tree and bird monitoring.



Dr. Anupreeta More, Research Faculty, Inter-University Centre of Astronomy and Astrophysics (IUCAA), Pune, India – Shared the success of *Space Warps*, where citizen scientists discover Einstein's lenses.



Prof. Katrien Kolenberg, Prof. of Science Communication & Outreach, Professor of Astronomy & Astrophysics, KU Leuven - Faculty of Science, University of Antwerp (UAntwerpen), Vrije Universiteit Brussels (VUB), Institute of Astronomy, KU Leuven, Brussels, Belgium – Presented *AstroSounds*, an inclusive, multisensory astronomy initiative.



Mr. Raghuvansh Saxena, Chief Executive Officer, Earthwatch Institute India, Gurgaon, Haryana, India – Outlined best practices for impactful and sustainable citizen science programmes.



Dr. Shubha Sathyendranath (Plymouth Marine Laboratory, UK) – Demonstrated the integration of citizen observations, satellite data, and digital platforms in water quality monitoring.



Mr. Krishnan Komandur, Chief Executive Officer, Adar Poonawalla Clean City Initiative (APCCI), Pune, India – Shared innovations in technology-driven waste management.



Mr. Masatoshi Shimosuka, Policy Analyst, Global Science Forum (GSF), OECD, Paris, France – Emphasized embedding citizen science into global research policy frameworks.



Dr. Anas Abdulaziz, Senior Principal Scientist, CSIR-National Institute of Oceanography (NIO), Kerala, India – Presented citizen-led water clinics addressing microbial contamination and waterborne diseases.

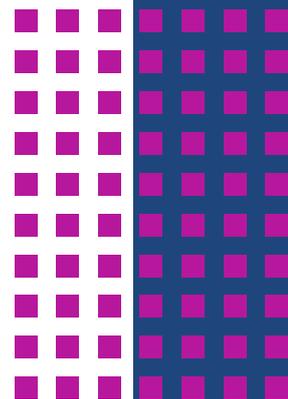


Mr. Seán Lynch, Founder, OpenLitterMap, Ireland, Republic of Ireland – Highlighted gamified litter mapping as a low-barrier entry point for global citizen science.



Special Address: Dr. Vishal Choudhary (Office of the Principal Scientific Adviser, Government of India) – Provided a policy perspective on scaling citizen science in India.

National and International Events

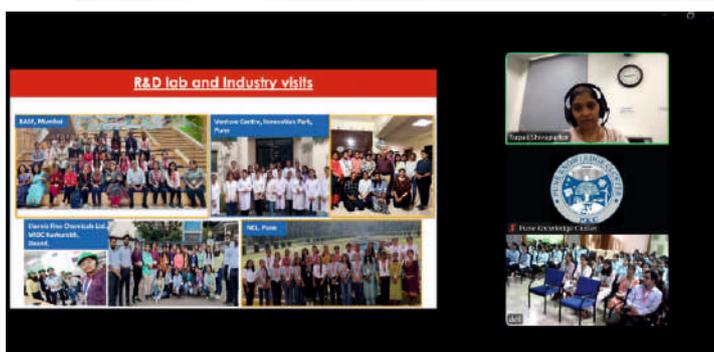
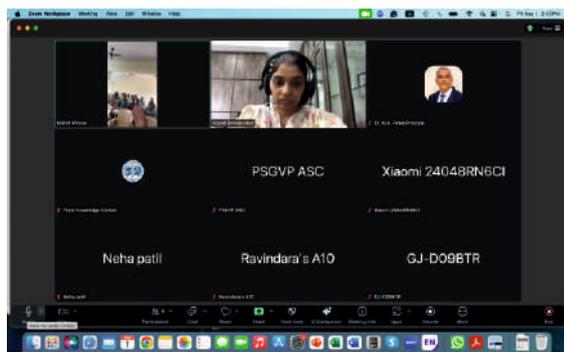


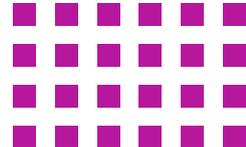
This section showcases events PKC has hosted to promote the building of collaborative networks and also highlights events and meetings where PKC has been invited to present its initiatives.

Events organised by PKC

1. WEnyan awareness session (11 sessions) (offline and online)

Under the WEnyan Scholarship and Mentorship Program, 11 Awareness Sessions were conducted in both offline and online formats. These sessions engaged more than 175 students across Maharashtra and created meaningful conversations around opportunities in chemistry, sustainability, and the vital role of women's representation in these fields.





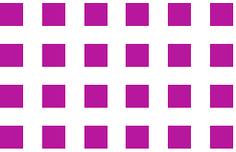
2. Engaging Citizens for Smarter and Safer Mobility

Walk, Bus, Cycle and Metro initiative was carried out in collaboration with the Nudge Group of Pune Knowledge Cluster, Centre for Environment Education (CEE), and Save Pune Traffic Movement (SPTM).

Over the past few months, our team has actively engaged with citizens across Pune to understand their commuting habits and the challenges they face while using public transport and other sustainable mobility options. Key interactions included:

- WBCM Session at MES Senior College – 26 July 2025
- Metro Orientation Sessions – 8 August 2025
- WBCM Community Footpath Assessment – 10 August 2025





WBCM Booths:

- Shivtirthnagar – 13 August 2025
- Gandhi Bhavan – 31 August 2025
- Bavdhan – 7 September 2025
- Bhusari Colony – 17 September 2025

A total of **430 participants** actively shared feedback through TBS forms, took part in interactive activities, and engaged in open conversations. These interactions provided valuable insights into daily commuting choices, barriers in using public transport (Metro, buses, autos, shared autos, e-bikes), and adoption of sustainable options such as walking and cycling.

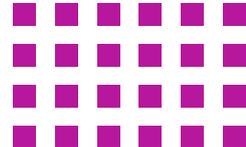
The insights gathered are now shaping strategies to improve facilities, address gaps, and create safer, smoother, and more inclusive commuting experiences for all.



3. Faculty Development Program on Integrating SDGs into Higher Education - 26 & 27 September 2025

Pune Knowledge in collaboration with Cluster EcoSan, recently conducted a two-day Faculty Development Program on Integrating SDGs into Higher Education. The program, at empowering tools to embed Sustainable Development Goals (SDGs) into teaching, research, and mentoring. The program engaged 12 enthusiastic faculty members, providing them with practical tools and strategies to advance SDG integration within higher education initiatives.





Spotlight / Special Feature -

STEM RewirEd: Teacher training workshop - 12 September 2025

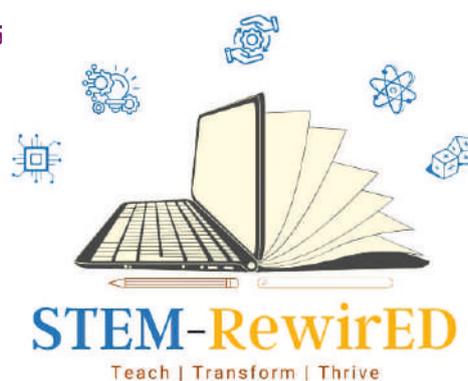
The STEM-RewirED initiative, conceived by Pune Knowledge Cluster (PKC), aims to bridge the digital divide, spark curiosity, and enhance learning outcomes by equipping teachers from rural schools with scientifically curated STEM tools for practical classroom use.

The first workshop under the STEM-RewirED initiative was successfully hosted at Agharkar Research Institute, Pune, India (ARI).

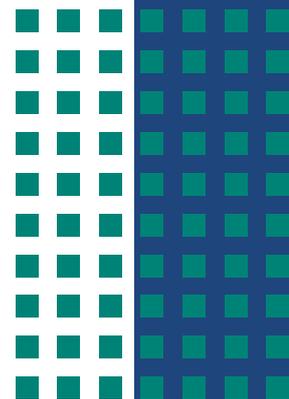
The one-day workshop convened educators from Pune, Konkan, and Dharashiv, who participated in biodiversity-focused sessions on:

- Plant diversity and identification
- Wetland ecosystems and frogs
- Discovering diatoms – invisible jewels of water
- Conducting and recording experiments
- Project ideas for teachers and students

As part of this initiative, we aim to transform 90 schools by advancing digital and inclusive learning. This launch marks the beginning of STEM-RewirED—a program committed to strengthening the capacities of educators and inspiring students, thereby laying a strong foundation for transformative STEM education at the grassroots level.



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.

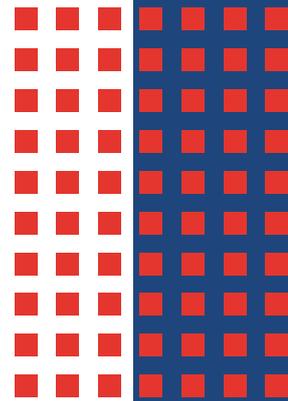


Speaker: Apoorva Deshmukh, Senior Staff Scientist at Praj matrix, R&D centre, PRAJ industries

Date: 11th July 2025

Topic: My insights and deliberate strategies: Fostering career exploration in the industry Conducted as part of PKC's ongoing series - Conversations with Women Role Models in STEM, in this talk, Dr. Deshmukh shared practical insights from her journey in biotechnology and industry, encouraging participants to explore diverse career paths with focus and determination.

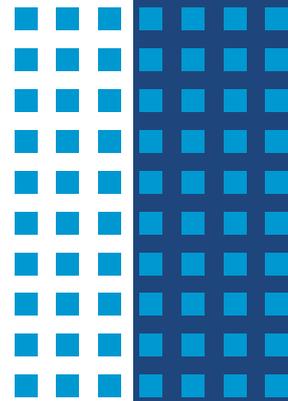
MoUs and Partnerships



In the last quarter, PKC has signed an MoU with Indian Institute of Tropical Meteorology and CII Young Indians.



Innovations in Action

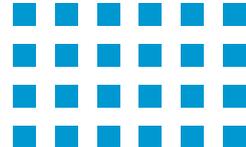


This section showcases impactful innovations that leverage science & technology for the betterment of society.

- 1. BiofuelCircle:** BiofuelCircle is revolutionizing India's bioenergy sector by bringing structure, transparency, and efficiency to a fragmented biomass supply chain. Through its digital marketplace and decentralized network of 35 Biomass Banks across six states, the company connects 45,000+ farmers with industrial buyers, ensuring a reliable and traceable supply of biomass for biofuels. By enabling circular practices—returning digestate to fields as a sustainable soil amendment—BiofuelCircle is not only powering cleaner energy but also improving soil health, supporting carbon sequestration, and driving a farmer-inclusive bioeconomy at scale.



- 2. GenePath Diagnostics:** GenePath Diagnostics is transforming access to advanced molecular testing in India and beyond. By combining world-class laboratory expertise, scalable assay development, and integrated sample-to-results platforms, GenePath makes rapid, sensitive, and affordable diagnostics accessible in resource-limited settings. From screening 28,000+ women for cervical cancer in rural India to enabling millions of COVID-19 tests globally, their solutions are improving healthcare outcomes while setting new benchmarks for quality, innovation, and impact.



To read more such *Innovations in Action*, subscribe to our LinkedIn Newsletter- [Innovations in Action](#)