



Office of Principal Scientific Advisor
to the Govt. of India
Science & Technology Cluster



PU-IIT Regional Accelerator for Holistic Innovations Foundation
Northern Region Science and Technology Cluster
An initiative of the O/o the Principal Scientific Advisor, Govt. of India

March 2025

PI-RAHI FOUNDATION NEWSLETTER

Empowering Women Entrepreneurs at Tech Startup Connect & Grow Workshop under SHE COHORT 3.0!

The success of the Tech Startup Connect & Grow Workshop under SHE COHORT 3.0 organised by PI-RAHI: Northern Region S&T Cluster in collaboration with Punjab State Council For Science And Technology at Panjab University, Chandigarh! The Workshop began with Ms. Neha Arora, COO, PI-RAHI, introducing PI-RAHI's vision of fostering collaboration between research, industry, and innovation to drive regional and national impact. With 200+ passionate students from (Chandigarh Group Of Colleges, Saraswati Group of Colleges Mohali, Punjab ,Panjab University) ,entrepreneurs, and industry leaders, the event fostered mentorship, networking, and knowledge-sharing—driving innovation and growth for women in tech entrepreneurship.

About SHE COHORT 3.0

An initiative dedicated to empowering women in tech-driven startups through structured mentorship, strategic guidance, and industry connections.

Key Highlights:

Inspiring Leadership Talks – By Prof. Renu Vig (VC, Panjab University), Dr. Dr Dapinder Kaur Bakshi (PSCST), Er. PRITPAL SINGH (PSCST) and Prof. Rajat Sandhir (Director PI-RAHI and Prof. Dept of biochemistry, PU, Chd.) on fostering a supportive startup ecosystem.

Fireside Chat – "Empowering Women Entrepreneurs – Policies & Progress" with Manish Verma (CEO, Angelblue Holdings), Dr. Dr Dapinder Kaur Bakshi(PSCST), and Satyendra Singh (TBI IISER Mohali).

Entrepreneurial Journeys – Insights from Ms.Isha Handa (AIC ISB) and Satyendra Singh (IISER Mohali) on resilience and innovation.



TECH STARTUP CONNECT & GROW WORKSHOP
Under **SHE COHORT 3.0**
SHE (Start-up Handholding & Empowerment)





Panel Discussion – "Tech-Driven Women Entrepreneurs: The Future of Innovation & Impact", featuring industry leaders like Prerna Kalra(HanuAI), Isha Handa (AIC ISB), Anubhi Khandelwal(Terafac), and Manish Verma (AngelBlue Holdings).

Launch of IDEA-PHIED 3.0 – A platform to fuel innovative startup ideas.

Networking & Collaboration – Meaningful conversations with mentors, investors, and industry experts shaping the startup landscape.

Key Takeaways:

Women entrepreneurs are breaking barriers & shaping the future of technology

Innovation has no gender—inclusive opportunities drive growth.

Right mentorship & networks can turn ideas into successful ventures.

PANJAB UNIVERSITY, CHANDIGARH

Panjab University Colloquium Series

in association with

**PU-IIT Ropar Regional Accelerator for Holistic Innovations Foundation
Northern Region S&T Cluster**

Conducted a session on the topic
"Digital Public Infrastructure and How It Changes India"

PU Colloquium Concludes with an Insightful Talk by Dr. Adil Zainulbhai!

The PU Colloquium Series at Panjab University concluded on a high note with an engaging session by Dr. Adil Zainulbhai, Chairman, Capacity Building Commission, Government of India. The event began with an introduction by Prof. Renu Vig, Vice Chancellor, PU, setting the stage for an enlightening discussion.

Dr. Zainulbhai spoke on Digital Public Infrastructure (DPI) in India, emphasizing how India has built robust, scalable, and inclusive digital systems that outperform even developed nations. He cited the example of CoWIN, which provided seamless vaccine certification, unlike the U.S., where a paper-based system was used. He also highlighted ONGC's use of DPI for operational efficiency.

Key Takeaways from the Talk:

India's Aadhaar and UPI give it a unique advantage in digital transformation

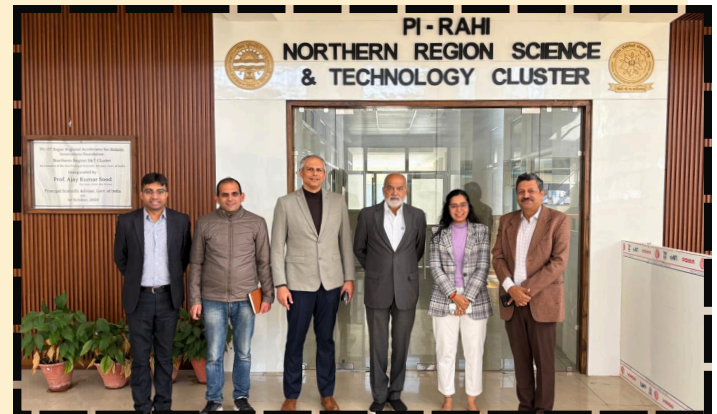
DPI fosters transparency, efficiency, and accessibility across sectors

The future of India's economy is closely tied to scalable digital solutions

Dr. Zainulbhai concluded the session with an interactive Q&A, addressing thought-provoking questions from the audience.

Post-session, he visited PI-RAHI's Cluster Building, where Team PI-RAHI walked him through the initiatives driving regional problem-solving and startup acceleration. Prof. Rajat shared insights into PI-RAHI's grant support of up to ₹10 Lakh for TRL-4 and above, its role as the largest S&T cluster, and its focus on capacity building.

During the visit, he explored one of the startups incubated within the cluster, gaining a first-hand view of innovation in action. PI-RAHI looks forward to strengthening synergies with him to drive capacity-building programs and advance DPI initiatives further.



Northern Region S&T Cluster

In the association with **CIL, Panjab University**
conducted a session on

"SCIENCE IN OUR TIME"

-For People, Planet, and Prosperity

A Thought-Provoking Session on Science, Innovation & the Future!

On January 28, 2025, PI-RAHI had the privilege of hosting an insightful session with Prof. Lars Montelius, a global leader in nanotechnology and sustainable development.

The session began with Ms. Neha Arora, COO, PI-RAHI, introducing PI-RAHI's vision of fostering collaboration between research, industry, and innovation to drive regional and national impact. This was followed by Prof. Rajat Sandhir, Director and Principal Investigator of PI-RAHI, who gave a formal and insightful introduction to our esteemed guest, Prof. Lars Montelius.

Prof. Montelius took us through the groundbreaking contributions of hashtag#Sweden and hashtag#Lund University, highlighting innovations like ultrasound imaging of the heart by Dr. Inge Edler and Dr. Carl Hellmuth Hertz, and the Dialysis Machine invented by Dr. Nils Alwall at Lund University. He also spoke about NanoLund, Sweden's premier nanotechnology research hub, and celebrated the 2023 Nobel Prize in Physics awarded to Prof. Anne L'Huillier for her work in atomic physics. Additionally, he touched upon hashtag#Bluetooth, a revolutionary Swedish invention that transformed wireless communication.

Mega-Trends Shaping Our Future

He then explored the science of our time, touching upon:
Post-COVID Green Transformation & industrial challenges

Mega-trends—IoT, AI, Big Data, Health, Urbanization, Green & Digital Technologies

The global chip war & Nanoimprint_Lithography



Who Am I & What Do I Want?

Prof. Montelius concluded with two thought-provoking questions, urging us all to reflect on our role in shaping the future.

An Engaging Q&A & a Token of Appreciation

The session ended with a dynamic Q&A, followed by PI-RAHI presenting a token of gratitude to our esteemed speaker.

On January 21st, 2025, PI-RAHI hosted an engaging and insightful session at the Seminar Hall, Department of Microbiology, Panjab University, Chandigarh, Sector-25, which brought together entrepreneurs, innovators, and startup enthusiasts to explore the nuances of the start-up ecosystem. Here's a quick recap of the incredible moments:

Introduction by PI-RAHI

The event began with our dynamic COO, Ms. Neha Arora, providing an overview of PI-RAHI and its vision to foster innovation and entrepreneurship.

Words of Wisdom

Prof. Rajat Sandhir, Director and Principal Investigator of PI-RAHI, shared the broader mission of PI-RAHI and emphasized the importance of bridging the gap between research and real-world applications.

Prof. Naveen Gupta, our esteemed guest, welcomed the participants with encouraging words and set the tone for an inspiring discussion.

The Keynote Session

Our expert speaker, Mr. Manish Verma, Co-founder & CEO of AngelBlue Holdings Private Limited, took the stage to demystify the Indian start-up ecosystem.

He shared valuable insights into #funding,#valuation, #business_models, building a successful #startup, the essential pillars of start-ups (#Distribution, #Manpower & #Culture,#Financial_Capital, #Product, and #Processes), the startup lifecycle. and more.

Myth-busting was a key highlight, as Mr. Verma addressed common misconceptions like: You need a revolutionary idea to succeed, Funding is the name of the game, Being first means you'll win, and many more.

Engagement & Interaction

The participants were actively engaged throughout the session, asking thought-provoking questions and exchanging ideas.

The one-on-one Q&A session provided personalized insights, leaving attendees with clarity and confidence to navigate their entrepreneurial journeys.

INTERACTIVE SESSION ON "DEMYSTIFYING THE INDIAN START-UP ECOSYSTEM"



The 2nd Inter-Cluster Meet on Smart Agriculture held on 17th January 2025, under the aegis of the Office of the Principal Scientific Adviser (PSA) to the Government of India.

Shaping the Future of Smart Agriculture

The 2nd Inter-Cluster Meet on Smart Agriculture was held on 17th January 2025, under the aegis of the Office of the Principal Scientific Adviser to the Government of India. The event brought together Agri-innovators, government entities, academicians, industry stakeholders, Agri-incubators, and startups to discuss and design actionable solutions for a sustainable agricultural future.

Agenda Highlights

Pre-Production Challenges: Addressing high costs and limited availability of quality seeds, fertilizers, and bio-based inputs.

Post-Harvest & Supply Chain Issues: Tackling post-harvest losses through innovative storage, value addition, and efficient resource recovery systems.

Digital Infrastructure and AgriTech Startups: Driving standardization and fostering growth in smart agriculture.

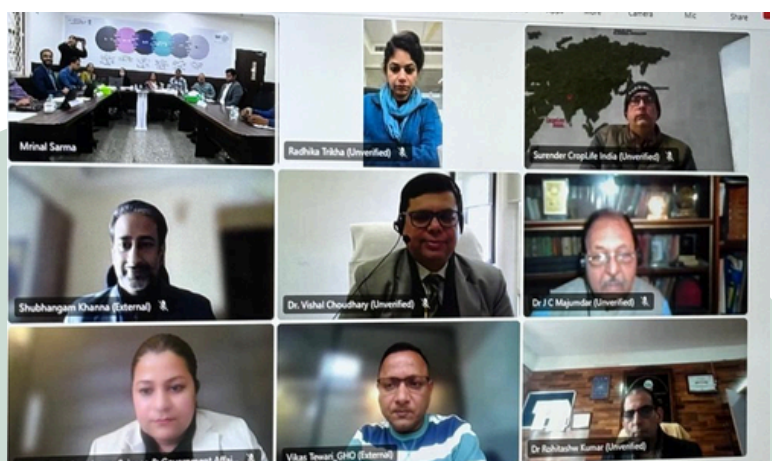
The session, chaired by Dr. Vishal Choudhary (Scientist 'F', O/o the PSA to the GoI), featured representation from various S&T Clusters.

Some of the key takeaways, includes:

- Soil health as the foundation for improving productivity and post-harvest outcomes.
- A one-stop solution to streamline the entire agricultural value chain.
- Innovations to enhance shelf life and make post-harvest solutions more affordable.
- Developing an accessible seed catalogue to map and improve access to seed varieties.
- Strengthening the ecosystem through capacity-building programs for farmers.

As enabling agencies, PI-RAHI is proud to have coordinated this initiative, fostering collaboration and innovation to transform agriculture. We extend our gratitude to the Office of the Principal Scientific Adviser (PSA) for enabling such impactful consortiums that drive meaningful dialogue and actionable outcomes.

This meet reinforced the importance of collective efforts in building a sustainable, tech-enabled future for Indian agriculture. Together, let's empower Aatmanirbhar Bharat and pave the way for a smarter agricultural ecosystem!



Memorandum of Understanding (MOU)

PI-RAHI: Northern Region S&T Cluster has signed a Memorandum of Understanding (MOU) with Innovation Mission Punjab (IMPunjab), an initiative dedicated to fostering entrepreneurship and innovation across Punjab. This collaboration aims to accelerate the growth of a dynamic start-up ecosystem in India.

Through this partnership, PI-RAHI and IMPunjab will work together to support start-ups and innovators by providing essential resources, mentorship, and networking opportunities. By combining PI-RAHI's robust research infrastructure and IMPunjab's expertise in catalyzing entrepreneurial ventures, we envision a strengthened ecosystem that empowers local talent, drives economic growth, and fosters impactful innovation.



PI-RAHI: Northern Region S&T Cluster has officially signed a Memorandum of Understanding (MOU) with AngelBlue Holdings Private Limited, a prominent seed fund investor and growth enabler for early-stage start-ups. This collaboration aims to empower entrepreneurs and foster innovation within the Indian start-up ecosystem.

Through this MoU, we will work together to provide essential support, mentorship, and investment opportunities to aspiring innovators. We believe that by combining our strengths, we can create a thriving environment for innovation and entrepreneurship.

PI-RAHI: Successful and Interactive First Project Review and Monitoring Committee (PRMC) meeting

The successful and interactive completion of PI-RAHI: Northern Region S&T Cluster's first Project Review and Monitoring Committee (PRMC) meeting, chaired by the esteemed Dr. Swati Basu. This foundational review set the stage for future collaborations and marked a significant milestone for the cluster

The PRMC members praised PI-RAHI's efforts, wherein we showcased our initiatives in driving technology transfers from lab to market, capacity building, and accelerating startups, emphasizing our role in creating a thriving ecosystem that strengthens science, technology, and innovation (STI) capabilities. The committee encouraged us to focus on scaling technologies and fostering entrepreneurship through initiatives that maximize social impact while building a strong ecosystem.

Our heartfelt thanks to Dr. Vishal Choudhary, our nodal officer, for his invaluable support to PI-RAHI.

As PI-RAHI is built on the triple helix model—integrating industry, academia, and government—we are excited to introduce SAMADHAN, an initiative inviting industries to submit problem statements as part of a call for solutions. This initiative will foster partnerships with researchers, startups, and tech companies to co-create scalable, sustainable solutions that drive growth and efficiency.



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PU-IIT Ropar Regional Accelerator for Holistic Innovations Foundation

SAMADHAN

Call for Industry Problem Statements: Innovate, Collaborate, and Transform

This Call for Problem Statement is your opportunity to collaborate with top researchers, startups, and innovators to co-create solutions that drive growth, efficiency, and sustainability.

Industries who can Participate

- Agriculture & Food Processing
- Pharma, Medical Devices & Healthcare
- Sustainable Mobility & Green Energy
- Waste Management & Wealth from Waste
- Indigenous Technology Development & Optimisation

Scan to Apply

[Click Here to Apply](#)

How it Works

- Submit Your Problem
- Evaluation
- Collaborate with Innovators
- Pilot and Scale

Why Participate?

- Access Innovative Solutions
- Drive Efficiency and Competitiveness
- Sustainability and Growth
- Funding and Grants

Panjab University-IIT Ropar Regional Accelerator for Holistic Innovations (PI-RAHI) the Northern Region Science & Technology Cluster was officially inaugurated on 1st October, 2024 by Prof. Ajay Kumar Sood, Office of the Principal Scientific Adviser to the Government of India. This initiative aims to foster innovation, research, and entrepreneurship across the Northern region of India, encompassing Punjab, Haryana, Himachal Pradesh, Jammu & Kashmir, and Chandigarh UT.

Key Highlights of the Launch:

- **Foundation Newsletter Launch:** The inaugural edition of the PI-RAHI Foundation Newsletter was unveiled by Prof. Prof. Ajay Sood and Prof. Renu Vig, Chairperson PI-RAHI and Vice Chancellor Panjab University, Chandigarh, highlighting the cluster's efforts in promoting research and innovation.
- **PI-RAHI logo design competition:** Aditya Deryan won the PI-RAHI logo design competition and was awarded Rs. 10,000 for his spiral design, symbolizing limitless opportunities, reflecting PI-RAHI's vision of fostering endless innovation.
- **Winners of PI-RAHI Ideathon held at UIET, Panjab University, encouraging innovative solutions in critical sectors:** Talented innovators were recognized for their innovative solutions in critical sectors:
 1. **First Prize:** Ananay Aggarwal - Awarded ₹5,000 for Crop Hawk, an AI-powered precision agriculture platform that uses NDVI satellite data and drones to monitor water stress and disease in real time.
 2. **Second Prize:** Kirti - Awarded ₹3,000 for Prosta Can Detect, a rapid, non-lab-based prostate cancer detection kit that promises early diagnosis and reduced unnecessary biopsies.
 3. **Third Prize:** Gaurav Rauthan- Awarded ₹2,000 for Cit Peels Naturals, an eco-friendly home cleaning solution incubated at Indian Institute of Technology, Ropar and supported by a BIRAC research grant.

INAUGURATION OF PI-RAHI OFFICE



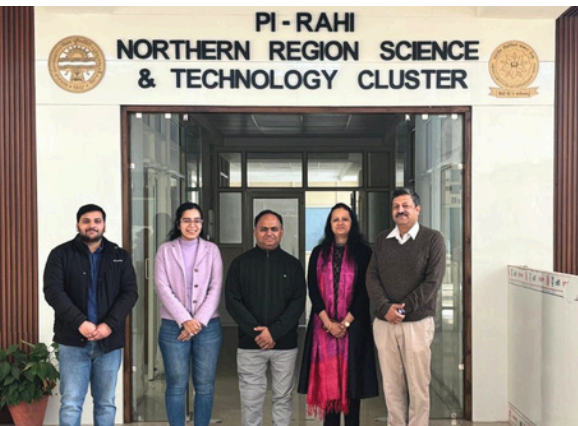
Book Launch: The book "Nobel Stories: Luminaries of Indian Science" authored by Dr. Rajinder Arora, Dr. Jatinder Kaur Arora, Kulbir Singh Bath, and Mandakini Thakur was launched, shedding light on Indian-origin scientists who have either won or been nominated for the Nobel Prize made significant contributions to the field.

PI-RAHI is poised to play a pivotal role in driving innovation and economic growth in the Northern region. With the support of the government, academia, and industry, the cluster is set to create a vibrant ecosystem for entrepreneurs and researchers.



Strengthening Agri-Innovation with Dr. Rohitashw Kumar
We were privileged to welcome Dr. Rohitashw Kumar, Associate Dean and Professor of Agriculture at #SKUAST, to our cluster. His visit included a thoughtful dialogue exploring synergies with PI-RAHI's Agriculture and Food Processing theme, a key focus area for driving regional innovation. With Jammu & Kashmir being one of our mandate regions, this interaction reinforces our commitment to strengthening agriculture through collaboration, innovation, and impactful solutions. Together, we aim to unlock new opportunities for sustainable growth in the northern region.

We had the pleasure of welcoming Dr. Jatinder Kaur Arora, Former Director of PSCST and Advisory Board Chair of PI-RAHI, to our cluster. Her visit was filled with meaningful conversations and guidance that inspired us to think bigger about building Science, Technology, and Innovation (STI) capabilities in the region.



PI-RAHI recently engaged in a dialogue with Amit Mishra and Vijayalakshmi S from FICCI, who visited the cluster to explore ways to enhance the industry-academia connect. This collaboration aims to foster the critical lab-to-market journey, creating impactful opportunities for the entrepreneurial ecosystem in northern India.

PI-RAHI: Northern Region S&T Cluster had a productive meeting with HL Mando Softtech India Private limited

This meeting marks a significant step toward fostering innovation and exploring synergies for the Industry-Academia connect.

Discussions were centered around introducing the idea of cluster and identifying the areas of synergies to collaborate on Industry-Academia ecosystem .

We look forward to building a strong and meaningful partnership and creating impact together!



NORTHERN REGION S&T CLUSTER

WELCOMES OUR ADVISOR



Dr. Jatinder Kaur Arora

Former Executive Director
Punjab State Council for Science and Technology

Key Contributions & Achievements:

National Award for Women's Development through Application of Science & Technology (Govt. of India)

Punjab Sarkar Parman Patra for excellence in S&T
Gr8 Women Award by the Indian Television Academy

As Advisor of PI-RAHI, she will steer multi-stakeholder partnerships to solve regional challenges, drive technology-led enterprises for sustainable impact, and bridge the research-to-market gap through scalable innovations, further reinforcing PI-RAHI's mission to transform India's innovation landscape.

Dr. Jatinder Kaur Arora, Former Executive Director, Punjab State Council for Science and Technology, has officially taken over the role of Advisor at PI-RAHI: Northern Region S&T Cluster, an initiative of the Office of the Principal Scientific Adviser to the Government of India.

PI-RAHI (Panjab University - IIT Ropar Regional Accelerator for Holistic Innovations) is India's first Regional Science & Technology Cluster, designed as a dynamic consortium that brings together academia, industry, incubators, and government to foster research collaborations, technology commercialization, and innovation-driven entrepreneurship across Chandigarh, Haryana, Himachal Pradesh, Punjab, and J&K. The cluster plays a crucial role in bridging gaps between research and industry, accelerating the region's Science, Technology & Innovation (STI) ecosystem, and contributing towards an Aatmanirbhar Bharat.

Dr. Arora is a renowned leader in science, technology, and innovation. With over 35 years of experience, she has been instrumental in policy planning, infrastructure development, and driving initiatives that strengthen India's S&T ecosystem. She has led technology transfer to 1,500+ industries, spearheaded Punjab's State Action Plan on Climate Change 2.0, and served as the Executive Director of Punjab State Council for Science & Technology.



तमसो मा ज्योतिर्गमयः

“Lead me from darkness to light”



धियो यो नः प्रचोदयात्।

“May the Sun illumine our intellects
in the same way he sheds his effulgence”.



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