



STARTUP  
INCUBATION AND  
INNOVATION  
CENTRE  
IIT KANPUR

## VOLUME 3

Edition - 02

February 2024

# TECHकी बात

Empowering Her: Women Leading Tech Today





# MENTOR Mantra



MR. TARUN BHARGAVA

Strategy, Planning, Financing, Governance, Risk,  
Cash Flow Management.

Expectation setting is key to business relationships

In a professional relationship, the transaction between a buyer and seller of goods, services, or securities is crucial. Once the deal is signed, they become business partners and must work together to fulfil their respective obligations that have been agreed upon.

Startups and investors rely on each other for funds and invested capital. Apart from valuation, they need to agree on the terms that will govern their relationship. After initial due diligence, a term sheet outlines the key terms of the investment, like amount, valuation, and type of securities.

Investment amount, valuation, nature of securities, and key terms like CCD and CCPS must be more detailed than plain equity. As the founder is the heart and soul of the business and a significant criterion for investment, the end-use of funds should be given to founders to use in their desired way.

## Key terms of investments to protect rights and mitigate risks:



All 'financial' investors must exit in 3 to 5 years to give returns to their LPs.



Right of first refusal (ROFR), tag along and drag along are key rights investors would want.



Information rights and Rights on key decisions like budgets, expenses, and key hirings are important.



Governance like the composition of the board of directors, and delegation of authority to the management team who will run daily operations is necessary.



Indemnities must be taken seriously and not seen as 'legal clauses'.

The founders of a startup may perceive certain requirements or guidelines as restrictive and limiting, but they are ultimately necessary measures to ensure success and growth. Conditions precedent and subsequent are important, as well as exclusivity, definitive agreements, and expenses. These factors are crucial in achieving unicorn status and beyond.



# Contents



### New Incubation

New startups with novel and innovative technologies have been incubated at SIIC, IIT Kanpur during February. Read on to learn about the startups.

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### Monthly Timeline

Take a deeper look into the exhilarating developments within the thriving SIIC-IIT Kanpur ecosystem throughout the month.

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### Program Highlights

Learn about some outstanding accomplishments in the various program verticals that are currently up and running at SIIC, IIT Kanpur.

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### Success Stories

Know more about the inspiring startups that have elevated our incubation ecosystem with their remarkable accomplishments on a national scale.

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### Innovators se Baat

Discover the unique and advanced technologies that are currently being incubated at SIIC, IIT Kanpur.

Refer to the section for more details.

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**Free Stream Technologies Pvt. Ltd.** implements a Proof-of-Concept for Direct-to-Mobile (D2M) Broadcasting Technology in 19 cities, starting from New Delhi. The goal is to assess the viability of deploying D2M broadcasting technology on a large scale nationwide. The startup specializes in various aspects such as network planning, hardware procurement, software licenses, installation, commissioning, annual maintenance, service development, marketing, and sales.



**Sunsync Technologies Pvt. Ltd.**, established by Swaraj Patil and Rahul Gupta, has created software to revolutionize the solar energy industry by providing advanced single and dual-axis solar tracking solutions. Their customizable solutions cater to various sectors, including MW scale, residential, industrial, commercial, and institutional solar plants.



**Swasvayu Cleantech Pvt. Ltd.** was founded by Dr. Kaniska Biswas and Mrs. Esha Ray. They have created an innovative outdoor air purifier that cleans the air using a unique combination of soap solution and water scrubbing technology. This air purifier is not only multifunctional but also cost-effective.





21st Jan 24



Phool.co has partnered with the Ayodhya Municipal Corporation to revolutionize religious waste management. The flowers offered at Ram Mandir are now being recycled into eco-friendly products such as incense sticks and gulaal. This initiative seamlessly connects spirituality and sustainability by offering tours of the incense-making facility and selling handmade products.



24th Jan 24



SIIC, IIT Kanpur, and the Union Bank of India have signed a Memorandum of Understanding (MoU) to strengthen collaborative efforts supporting startup development. Prof. Ankush Sharma, Director (Ex-Officio) at SIIC IIT Kanpur, and Mr. Sumit Srivastava, Zonal Manager, Lucknow, formalized this partnership, highlighting a shared commitment to promoting innovation and aiding entrepreneurs.



19th Feb 24



SIIC, IIT Kanpur, and WASME signed an MoU at the Noida Outreach Centre, IIT Kanpur, in the presence of Dr. Nikhil Agarwal, CEO, SIIC, Dr. Sanjiv Layek, Ph.D, MBA, M.Phil, B.Sc (H), Executive Secretary, WASME, and other members of the Cleantech team of SIIC. This collaboration aims to create opportunities for small and medium enterprises to support emerging entrepreneurs, MSMEs, and visionary young minds.



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# Program

## HIGHLIGHTS



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The **India International Science Festival 2023-24** took place from January 17-20 at Faridabad RCB, organized collaboratively by the Ministries of Science and Technology, Earth Sciences, Space, and Atomic Energy, along with Vijnana Bharati. Dr. Nikhil Agarwal, CEO of AIIDE-CoE and SIIC, IIT Kanpur, shared insights with startups and entrepreneurs in a panel discussion. The festival aims to involve diverse communities in innovative science with a Swadeshi spirit, showcasing how STEM solutions improve lives.

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SIIC, IIT Kanpur was actively involved in the **7th Annual Global Convention of Entrepreneurs** at IMT Ghaziabad on January 27-28, 2024, emphasizing Startup Sustainability and Innovation. Dr. Nikhil Agarwal, CEO of SIIC, along with prominent figures like Ms. Sara Oued El Hachemi and Mr. Baybars Altuntas, attended. Awardees from the SGGFC program, Uneako and Celligo Natural Fibres, presented their technologies, and SIIC startups Pacing Grass, Sunsync, and Agronxt actively participated.

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Leadership representatives from **Green Graphics Trading DMCC**, Dubai, visited SIIC, IIT Kanpur's Noida Outreach Centre on 17th January 2024 to collaborate with Transpacks Technology (Checko). Mr. Satish Chandra, co-founder of Transpacks Technologies, and Mr. Ankit Saxena, AVP Investments at SIIC, expressed a strong interest in partnering with startups focused on cybersecurity and space technology.

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SIIC, IIT Kanpur recently hosted a workshop to raise awareness about the **Design component of the MSME Innovative Scheme**, supported by the Ministry of MSME on 7th February 2024. The event aimed to enlighten participants about the program's significance, through dynamic presentations, outlining key aspects of the design component. The workshop exemplified SIIC's commitment to fostering innovation and entrepreneurship in the MSME sector.

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# Program

## HIGHLIGHTS



The SIIC-incubated startup, Aethrone Aerospace, showcased their drone at the **International Search and Rescue Conference & Exhibition (INSRC) 2024** in Abu Dhabi from 12th-14th February 2024. This is developed in partnership with the Indian Navy, under the iDEX challenge to deliver rapid response capabilities during emergencies and natural disasters.

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SIIC-supported startups participated in the **National DefTech Summit 2024**, contributing to discussions on transforming India's Techade for Defense, Aerospace, and Aviation. The event highlighted India's progress in digital infrastructure, policies, and industry leadership, fostering dialogue on crucial topics, emerging trends, and strategies for a resilient and future-ready nation.

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**LCB Fertilizers Pvt. Ltd.** inaugurated a new organic fertilizer plant on January 28, 2024, in Panditpur, Asadhya. The ceremony was presided over by Prof. Ankush Sharma, Professor-in-charge, SIIC, IIT Kanpur, with the distinguished presence of Prof. J Ramkumar from the Department of Mechanical Engineering.

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**Primary Healthtech** recently organized a health camp in Guwahati, Assam for truck drivers and their families. The event was supported by the CSR initiative of Safexpress Private Limited, a reputed logistics services provider in India. The health camp was used as a testing platform for Primary Healthtech's innovative technology, MobiLab.

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## RCUBE RECYCLING

an awardee under the Startup Gateway for Garbage-Free Cities program funded by MoHUA has been shortlisted in the top 20 MSMEs for the prestigious 16th Bangladesh Int'l Plastics, Printing & Packaging Industry Fair. The fair was held from 24th - 27th January 2024 at the International Convention City Bashundhara (ICCB) in Dhaka, Bangladesh.

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## MEUKRON TECHNOLOGIES

has been awarded the Technovation Award 2024 in the 'Startup Innovation in Manufacturing' category for Semiconductors at the India Electronics and Semiconductor Association (IESA) Vision Summit 2024 in Bengaluru. Their pioneering work in glass micro-machining, specifically for MEMS/IC packaging applications, was well-received.

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## DREAM AEROSPACE

Dream Aerospace has won at the Eureka - Road to Enterprise Contest, Asia's largest Business Model Competition organised by the e-Cell of IIT Bombay. They bagged a prestigious cash prize of 1.25 Lakh INR, for turning innovative ideas into a roadmap for commercial success.

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## ENDURE AIR SYSTEMS

co-founders, Rama Krishna Mendu and Chirag Jain, have won the Forbes India 30 under 30 title in the Industry & Manufacturing category of Made in India drones that are easily operational in rough terrains and situations.

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## SPACE PHILIC

Space Philic has successfully tested their Vibhu Engine VE-80, which is powered by their revolutionary GP-300 Green Propellant. This marks a significant milestone in the progress towards sustainable development in space technology.

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## WEATHER RISK MANAGEMENT SERVICES GLOBAL

a startup formerly incubated with SIIC, IIT Kanpur has secured €2.1 million (INR 17 crores) from the InsuResilience Solutions Fund. The funding will support WRMS Global in offering yield guarantee solutions to small farmers in the agricultural and climate risk management sector.

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## NADIPULSE PROGNOSTICS PVT. LTD.

was honoured with an award at the Digital Health Summit & Awards for their innovative work in digital diagnostics. The award was presented to Ms. Kajal Shrivastava, the Founder and CEO, by Shri Ramdas Athawale, Minister of State of Social Justice & Empowerment of India.



## LCB FERTILISERS

has earned the Indian Council of Agricultural Research certification for its organic fertilizer, Navyakosh. This fertilizer has been proven to promote full plant development in just 60 days, resulting in an impressive 29% increase in yield, highlighting its effectiveness and agricultural benefits.

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## NELLIKA

an awardee of the SIIC's Startup Gateway for Garbage-Free Cities (SGGFC) program, is working towards a cleaner and digitally empowered Goa. The Panchayat government, led by Honourable Minister Mauvin Godinho, is pioneering an innovative initiative that aligns with two important visions of Prime Minister Modi - Swachh Bharat Mission and Digital India.

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## IIT KANPUR

received the STEM Impact Awards for three consecutive years at the STEM Summit 2024 in Bengaluru on February 1, 2024, for inventing the "Haptic Smart Watch for the Blind & Visually Impaired." Prof. Ankush Sharma and Prof. Siddhartha Panda jointly accepted the award from Mr. Alwin Wong. Additionally, IIT Kanpur was honoured with the Best Assisted Technology Initiatives by Educational Institutes' Award at the ATF Awards 2023.

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## Innovators

SE BAAT



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### VASUNDHARA BIOFIBERS

Preeti Singh, a mechanical engineer with a degree from Madan Mohan Malaviya University of Technology, Gorakhpur, is the founder of Vasundhara Biofibers. Her company is currently developing innovative packaging solutions. These solutions are biodegradable and made from unused sustainable raw materials. We recently spoke with Preeti, who shared the challenges and successes she's encountered in her work.

SIIC: How did you come up with the idea of biofibers?

PS: While visiting a village, I noticed that the residents were aware of the negative impacts of plastic but lacked proper disposal methods. It struck me that instead of letting harmful plastics pile up, we could turn them into something eco-friendly. This approach could address pressing global issues like deforestation and environmental pollution. We decided to extract pulp from these plastics and repurpose it to create sustainable packaging materials such as utensils, cutlery, bags, and packaging boxes. The implementation was no small feat – we gained knowledge, took various courses, and officially kicked off the project in 2021.

SIIC: What is the technology you are working on?

PS: At Vasundhara Fibers, we are creating eco-friendly packaging from sustainable materials using a mix of chemical, biotech, and mechanical engineering. Our approach involves treating biomass with a combo of physical, biological, and chemical methods during pulp production, cutting down on water use and chemical requirements. Traditional packaging harms the environment, but our solution tackles this by developing organic fiber from kans grass, an underutilised resource.

SIIC: Have you received any grants for your startup?

PS: SIIC, IIT Kanpur has been a constant support, guiding us every step of the way. The RKVY-RAFTAAR Agri-business Incubator at IIT BHU, Varanasi, has also been a strong pillar, offering unwavering support and guidance as we progressed in our business. We're grateful for the NIDHI EIR fellowship received under the DST grant.

SIIC: Can you explain how your product is environment-friendly?

PS: We are using tiny particles and a mix of microorganisms to speed up breaking down lignin and whitening biomass. Heating and mechanical action on the biomass will make the whole process more efficient. The combo of heat, movement, and biology will turn the tough structure into a loose one, making up 77% of the pre-treatment. This cuts down the need for chemicals by 78% and water by 39% in pre-treatment and bleaching, helping tackle deforestation and pollution issues in the packaging industry.

SIIC: What is your mission and vision for Swachh Bharat Abhiyan?

PS: We are on a mission to replace synthetic packaging with biodegradable alternatives. Our B2B approach involves partnering directly with paper industries for pulp business. According to Invest India, the Indian packaging sector was \$50.5 billion in 2019, and it's projected to hit \$204.81 billion by 2025, with a whopping 26.7% annual growth. With increasing awareness and government focus on reducing synthetics, the potential for expansion is high. We're planning to establish more pulp production factories, starting with our current one in Hardoi, Uttar Pradesh.

“We can bring the change  
that we want to see.”  
.....Preeti Singh



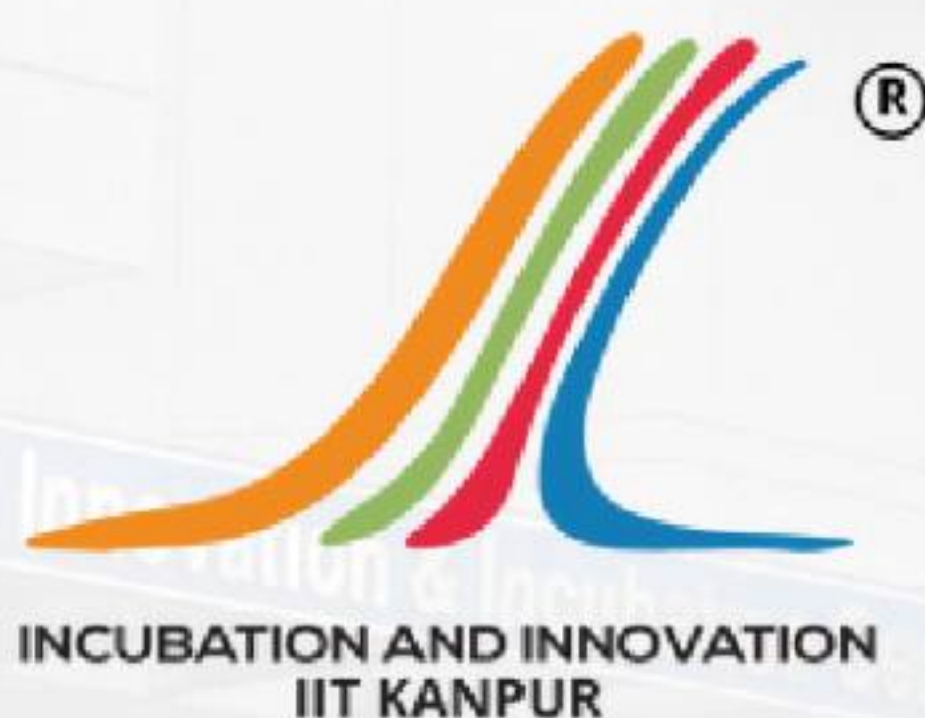




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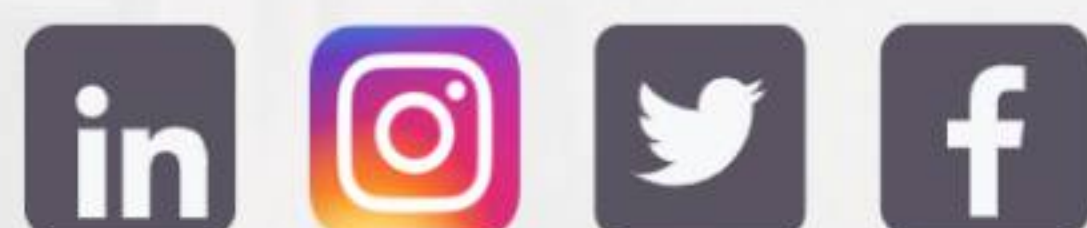


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