



STARTUP  
INCUBATION AND  
INNOVATION  
CENTRE  
IIT KANPUR

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# TECH की बात

**Igniting the Power of Innovation:**

**Pioneering Solutions, Transformative  
Collaborations, and IP Leadership  
Fueling India's Sustainable Future**

# MENTOR MANTRA



## Dr. Bharat Panchal

Chief Industry Relations & Regulatory Officer - India,  
Discover Financial Services

### Managing Start-up Risks

#### The start-up ecosystem in India

India's start-up ecosystem is thriving and ranks as the third-largest in the world. In 2022, over 1,300 tech start-ups were added, bringing the total number of active tech start-ups to approximately 25,000-27,000. The country also witnessed the emergence of 23 unicorns, securing the second-highest position globally. Looking ahead, a NASSCOM report projects that India will have an impressive count of 95 to 105 unicorns by 2025. The impact of these start-ups extends beyond numbers, as they significantly contribute to job creation. In 2022 alone, they generated around 269,000 direct employment opportunities.

Running a start-up entails inherent risks, just like any other business venture. However, start-ups face a distinct set of challenges and uncertainties that magnify the risks involved. These risks encompass various aspects of the business, such as its viability, customer preferences, technological dependencies, evolving customer trends, policy, and economic conditions, as well as existing and future competitors. Consequently, it becomes imperative for start-up entrepreneurs to possess a keen awareness of these risks, effectively manage them, and prioritize their mitigation strategies. By acknowledging and addressing the unique risks associated with start-up businesses, entrepreneurs can enhance their chances of success in the dynamic and competitive landscape they operate within.

#### Why Risk Management?

Risk and opportunity are complementary. There is a direct relationship between risk and reward—the greater the potential upside, the higher the risks involved, and sometimes the other way around. Successful start-ups achieve through a keen awareness and management of risks.

#### Major Risks for Start-Ups

Like any other business, start-ups also need to identify the various risks that can impact the venture and make an assessment of their importance in specific risk scenarios. A few of the risk scenarios that are true for starting a business are:

- There is no guarantee that you will have a good market and customers will like your products or services.
- Start-ups need to borrow hefty amounts of money to finance their venture in its earliest stages; there is a chance that they will not make enough profits to be able to pay these loans back.
- Start-ups may not be in a position to determine the correct price for their product at the beginning which may result in raising prices or changing their business model, running the risk of customer dissatisfaction.
- With the growth of the business, the founders will invariably have to start handing over responsibility for certain tasks to employees which brings uncertainty and risk related to their skills and performance.

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● Start-ups will have to face the risks of day-to-day operations, natural disasters, civil unrest, market economics, etc. But the most important risk would be government reforms and policies towards start-up businesses.

It may not be possible to mitigate every risk. Hence, a start-up must decide its risk tolerance. What kind and how much risk are you prepared to accept? Below is an outline of the risks faced by most businesses and some strategies for mitigating them.



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## People Risk

Losing good people and hiring bad people are the biggest risks. Poor handling of these risks can cause heavy damage during the early stages when it is dependent on a small core team; as the firm grows and can hire more staff, these risks get diversified and are reduced. Other risks include unskilled co-founders, disagreement amongst founders over investment or the business model, and the departure of a talented founder. One good way to mitigate these risks is by choosing someone you already know well as a co-founder, as opposed to just bringing someone you just know. Make sure that you choose the right co-founders with skills complementary to your own.

As your business grows and you delegate responsibility to employees, part of the success of your venture will rest in their hands. Selecting the right people with a mix of talents is a big task. Employees are also equally taking a risk to join a startup, so they also have their own risks to manage before joining the start-up. If the employee has a good attitude, some knowledge deficits are inevitable; you should cultivate such employees and provide them with training to overcome any skill gaps. A smart and hard-working employee should be retained even if there is a gap between his or her specific skills and your needs.

To retain valuable employees in a start-up, it is essential to provide them with suitable financial incentives. In India, the implementation of an Employee Stock Ownership Plan (ESOP) has proven to be effective. This plan grants employees equity in the company, gradually vested over time, and serves as a powerful tool for retaining talent. Additionally, spreading out annual bonuses over a period of time can also be a successful strategy for retaining top performers. By offering adequate financial compensation through mechanisms like ESOPs and extended bonus payouts, start-ups can incentivize employees to stay committed, align their interests with the company's success, and foster a motivated workforce.

## Financial Risk

No cash means no business. It is the most crucial risk one has to manage and one must ensure that they never get to this stage. Many financial risks can lead you to this stage:

- Customers can refuse to pay your invoices.
- The cost of your raw materials or suppliers could suddenly rise.
- Customers may switch to a competing product and not buy your product or service anymore.
- Foreign exchange rates go volatile and you do not have enough hedging for such a risk.
- A spike in interest rates could raise the cost of your working capital.
- The government decides to end benefits given to start-up businesses.
- A slowing economy could reduce demand for your product or service.

Not all of these risks are relevant for all businesses but as a start-up, you must know which ones may affect your venture. It's a fact that it is difficult to raise money when you need it most; while everybody wants to give you money when you don't need it. The best way to minimize your financial risk is to take funding when it is available and keep it in reserve for a rainy day; this is the strategy that most start-ups take.

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### Risk of Policy & Non-Compliance

Government policies have a significant impact on the startup business environment. For instance, the introduction of tax holidays for start-ups over a three-year period has been a welcome move. However, it's important to recognize that government policies can be subject to change at any time. For instance, if the government decides to impose excessive taxes or duties on a particular sector, it can potentially discourage investor interest in that sector. Such policy changes can significantly influence the investment climate and the overall attractiveness of specific industries for start-ups. Therefore, start-up entrepreneurs need to stay informed about evolving government policies and anticipate their potential effects on their business operations and investment prospects.

Similarly, businesses that do not follow government regulations can face fines and even prosecution. To avoid this problem, it is very important to define a robust compliance framework that should ensure that you comply with all the regulations that affect your business, including necessary permits and licences, employment and labour laws, corporate governance, and tax compliance.

Intellectual property is the biggest asset for any start-up. Therefore, to prevent competitors from stealing your innovation, consider investing in copyrights, trademarks, and patents.

### Conclusion

A start-up business is surely full of risks, and some risks are inevitable and cannot be mitigated. To be successful, any start-up must learn to accept those risks that are unavoidable and mitigate those that can be managed. The best safeguards against major risks in start-ups are a good core team and talented employees, a business-friendly government, diversified products and marketing channels, and prudent financial management.

### About the Author :

*Dr. Bharat Panchal is currently working as Chief Industry Relations & Regulatory officer- India, Discover Financial Services. He is the former Chief Risk Officer- APAC, Middle East, and Africa at FIS Global & Chief of Risk @ NPCI. Dr. Bharat is well-known as an architect of digital risk management & cyber security of India's entire retail payment ecosystem as he has built a world-class digital risk management and cyber security environment for all products like RuPay, IMPS, FasTag, and the most prestigious UPI at NPCI.*

*He regularly writes about best practices in digital risk management, cyber-related fraud, and risk governance. He can be contacted at [theriskymonk@gmail.com](mailto:theriskymonk@gmail.com). The views expressed in this article are purely personal.*

### Concentration Risk

Focusing on any single product, service, or aspect of a business is a serious risk. This risk is not that risky during the initial period, but once the business has matured, non-diversification could be a big risk for long-term sustainability.

Though diversification is mainly associated with financial portfolio management theory, start-ups should realise that the same general principles also apply to running a business. You should not rely on a single product or service in your business. It's very important to prevent concentration risk in a small group of clients, vendors, products, employees, marketing channels, or even geographies.

Dependency on one or two large clients runs the risk of wiping out the business if anything goes wrong with them. To mitigate this risk, start-ups should diversify their customers and avoid the concentration risk of their revenue coming from a few clients.

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Aerobus Environment Solutions has developed an innovative product, a wind panel, which will be installed on the rooftop of city buses, trucks, cabs, etc. It uses the motion and aerodynamic flow of the air around the vehicle to let the air pass through air filters and a vertical-axis wind turbine. The final output from this solution will be cleaner air in the environment and renewable energy generation.

**Founder:**

**Sangeetha Singhal, Akshansh Yadav**

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## LATEST INCUBATION

During May, new startups with novel and innovative technologies have incubated at SIIC, IIT Kanpur. Read on to know about the startup.



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## SUCCESS STORIES AT SIIC, IIT KANPUR

SIIC, IIT Kanpur startups have strengthened our incubation ecosystem through their achievements. Read on to know more!



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## INNOVATORS SE BAAT

This section introduces our readers to a specific innovative technology currently under incubation at SIIC, IIT Kanpur. Read on to know more about the revolutionary advancements and transformative ecosystem.



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## MONTHLY INITIATIVES AT SIIC, IIT KANPUR

In May, the SIIC, IIT Kanpur ecosystem established and enhanced a more promising social impact. Refer to this section for more details.

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## PROGRAM HIGHLIGHTS

This section highlights the notable advancements achieved in the different program verticals presently operational at SIIC, IIT Kanpur. Refer to this section to learn more.



## FROM THE IPR AND TECH-TRANSFER CELL

This section provides insight into the key happenings within the IPR domain and Technology Transfer Cell, which can enhance your understanding of the technology licensing process at SIIC, IIT Kanpur. Refer to this section to learn more.

## Aerobos Environment Solutions Private Limited



Aerobos Environment Solutions has developed an innovative product, a wind panel, which will be installed on the rooftop of city buses, trucks, cabs, etc. It uses the motion and aerodynamic flow of the air.

Around the vehicle to let the air pass through air filters and a vertical-axis wind turbine. The final output from this solution will be cleaner air in the environment and renewable energy generation.

### Founders:

**Mr. Gangesh Singhal & Mr. Akshansh Yadav**



# SUCCESS STORIES AT SIIC, IIT KANPUR



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## DREAM Aerospace

SIIC's Incubatee DREAM Aerospace has been honoured with the prestigious TANSEED 4.0 Grant of 10 Lakhs by the Hon'ble Chief Minister of Tamil Nadu, Thiru M.K. Stalin. The achievement showcases their unwavering dedication to revolutionizing the space sector.

This milestone is a testament to the relentless efforts of Mr. Hari Krishnan KJ, Mr. Rogith Srinivasan, and their team.



## RF Nanocomposites Pvt. Ltd.

This startup has been invited to the prestigious IETE International Conference India (ICI-23) on 'Artificial intelligence' (AI) and 'Machine learning' (ML) Driving 5G - Advanced and 6G - Making 6G and Artificial intelligence (AI) in India for the World'. They came together with industry leaders, policymakers, and experts in the field to explore cutting-edge advancements in AI, ML, and 5G technologies.



## LCB Fertilizers

Team LCB Fertilizers got featured on The Better India. A small success story of producing fertilizers from 5kg per month to 500 tonnes per month within 2 years.

They have used multiple technologies like biotech, nanotech, polymer, and chemical engineering in developing single-product fertilizers.





## FinTech Life True Technologies Pvt. Ltd. revolutionizes waste management with groundbreaking instant mix waste processing technology.

India's first and only instant mix waste processing machine is getting ready to be installed in Aurangabad, Maharashtra. This will be exclusively used for the demonstration of commercial-grade models. It makes waste get converted into Grade 1 RDF dry fuel with qualities better or equal to coal. It is applicable in many schemes like skyscrapers, housing societies, premises of institutions and hostels, hospitals, malls, commercial spaces, defence residential zones, airports, and railway stations. Waste will not pile up in landfills to make mountains anymore. Waste will be instantly converted into saleable byproducts. This is a coal-replacement fuel.



## Life and Limb Private Limited Secured a Finalist spot in the 3D Pioneers Challenge 2023, Shaping a Sustainable Future through Innovative Design

The 3D Pioneers Challenge recently hosted an international design competition that sought out pioneers and innovators in the field of additive manufacturing and advanced technologies. This prestigious event aimed to recognize individuals and organizations that are actively shaping a sustainable future and pushing the boundaries of possibility. BIONICLI® of Life and Limb Private Limited has been selected as one of the finalists in the 3D Pioneers Challenge 2023.



## Arogyam Medisoft's Agriculture and Healthcare Solutions to Enhance Biotechnology Skill Development at St. Xavier's College through Enactus Social Initiatives



The agriculture (Soil Sathi) and healthcare (HaemurEx) solutions from Arogyam Medisoft Solution Private Limited have been adopted by St. Xavier's College (Autonomous), Kolkata, as part of their esteemed social initiatives through Enactus.

Recognizing the immense potential of these solutions, the college has decided to incorporate them into its curriculum, offering students a valuable opportunity for skill development in the field of Biotechnology. This collaboration marks a significant milestone for Arogyam and reaffirms its commitment to driving positive change through innovative technologies.

## Primary Healthtech's 'Mobilab' Receives Special Mention in ZS Prize 2023 for Revolutionary Healthcare Innovation



Primary Healthtech achieved recognition in the prestigious global competition ZS Prize 2023, securing the Special Mention category, for its innovation 'Mobilab'. Primary Healthtech Private Limited has revolutionized healthcare with the development of 'Mobilab,' a compact and affordable multi-diagnostic device. This groundbreaking technology enables the analysis of over 25 parameters to diagnose various conditions, including kidney, liver, pancreas, and heart problems. Primary Healthtech's commitment to inclusive healthcare is evident in its patented nanotechnology, advanced optics, and optimized algorithms, which ensure accurate diagnostic tests with minimal resources. By utilizing Mobilab, patients can access comprehensive healthcare at a significantly reduced cost, approximately 20 times lower than traditional diagnostic methods. Moreover, the device supports 21 Indian languages, ensuring its accessibility to a diverse population. The efficacy of Mobilab has been proven through extensive testing, including seven hospital trials and the collection of 10,000 patient samples. Additionally, Primary Healthtech's cutting-edge approach is exemplified by its possession of seven patents in healthcare technology.

## Green Trek Research and Development Pvt Ltd

**Decarbonizing: At Green Trek, We Don't Just Talk About It, We Do It!**

Green Trek is an eco-friendly brand that specifically focuses on resource efficiency. It strives to make a positive impact on the planet through smart ways of recycling steel waste. It does so through innovative melting processes where GHGs are minimized, the environment is safeguarded and a circular economy is put in place.

### About Founder:

**Mr. Sandeep Gupta**  
Founder & MD

Mr. Sandeep Gupta is the Founder & MD of Green Trek Research & Development Private Limited. After graduating in Computer Science, he was the senior HR manager in an MNC for 7 years in Dubai. He is currently working on recycling different types of steel waste.



**SIIC had the great pleasure of interviewing Mr. Sandeep Gupta from Green Trek Research and Development Pvt Ltd. The interview provided us with valuable insights into their eco-friendly brand and their efforts in decarbonizing through innovative steel waste recycling processes.**

### **SIIC: Please provide us with an introduction to your work.**

**SG:** The production of new metal releases a great deal of greenhouse gas emissions compared to making products from recycled steel waste. Therefore, in order to prevent this and preserve the environment, Green Trek recycles steel waste, thus conserving natural resources by reducing greenhouse gas emissions and using less energy than making metal from virgin ore.

### **SIIC: What inspired you to come up with such an innovative idea?**

**SG:** During a site visit in 2012, Mr. Satinder Nath Gupta, a veteran in the iron and steel industry, noticed a pile of steel scrap lying around. This, he thought to himself, would most likely end up in a landfill somewhere. He had been working in the foundry sector for 35 years and believed it was the time to do something remarkable and explore options for reusing raw materials that are produced as a by-product in steel companies. Mr. Sandeep Gupta, freshly back from Dubai after working in the HR field, shared his father's vision to address the growing issue of steel waste. United by their shared philosophy, the father and son duo embarked on an experimental journey, utilizing available resources to convert steel waste into a viable material. Together, they began conducting experiments to transform steel waste into usable resources, contributing to a solution for the rising problem of waste management in the steel industry.

## Green Trek Research and Development Pvt Ltd

Decarbonizing: **At Green Trek, We Don't Just Talk About It, We Do It!**



### Hadfield Manganese Steel

Jaw plates, Rollers, Liners, Breaker plates, Hammers, Beaters, JCB teeth, JCB Bucket plate, Chain links for dozers, etc.



## SIIC: Could you provide an overview of your technology and its functioning?

**SG:** The working principle of this process of creating a very hot melting point is done using a combination of metals and oxidizers, typically containing iron oxide and aluminium powder. When the metal and the oxidizer are heated in the correct ratio, a highly exothermic reaction occurs, producing temperatures of up to 4,530°F (2,498°C). This thermal release can be used to weld objects, create cast iron, and clean surfaces of rust, paint, or dirt. Thermite technology has numerous applications, ranging from welding to smelting, and in modern-day applications, this technology is used for a variety of tasks. The process does not need any electric power and hence can be used in places where power availability is nil or scarce. Carbon footprints emitted into the atmosphere are minimized by more than 90%.

## SIIC: What is the history and development behind the thermite reaction and its application in pyrometallurgy?

**SG:** The thermite (thermit) reaction was discovered in 1893 and patented in 1895 by German Chemist Hans Goldschmidt. The innovation is a pyrotechnic composition of metal powder and metal oxide.

The technology is based on Pyrometallurgy which is a branch of extractive metallurgy. It is the extraction and purification of metals by processes involving the application of heat. It consists of the thermal treatment of minerals and metallurgical ores and concentrates to bring about physical and chemical transformations in the materials to enable the recovery of valuable metals.

We took it further over the years, by using it to make castings, such as engine blocks, machine parts, and other various metals. We have also been able to refine the process of the thermite reaction allowing us to cast metals.

## Green Trek Research and Development Pvt Ltd

Decarbonizing: **At Green Trek, We Don't Just Talk About It, We Do It!**



### Chrome Steel

Grinding media, Hearth plates, cutting tools.



## SIIC: What were some of the significant challenges and safety considerations you encountered while working with the thermite reaction technology?

**SG:** The major problems I faced while working with this technology included creating the right combination of metals and oxidizers, ensuring consistent ratios of each component, and handling the high temperatures of the thermite reaction correctly. Additionally, since the reactions are very exothermic, they require precise control and safety measures to avoid any potential harm to workers and equipment. Finally, due to the high temperatures, there is a significant risk of sparking and fire when carrying out the thermite reaction, so safety protocols must be strictly adhered to.

## SIIC: How does your technology add value to the environment?

**SG:** The climate angle of using this process is that it is a much more efficient and cleaner way to produce energy than traditional methods. This process does not produce any emissions, making it a great option for reducing greenhouse gas emissions and helping to fight climate change. Furthermore, since it produces a large amount of heat, it can be used to generate electricity or heat buildings, thus reducing the need for other sources of energy such as natural gas. Additionally, thermite can be used to create hydrogen fuel, which is a clean and renewable source of energy that can help reduce our reliance on fossil fuels.

## Green Trek Research and Development Pvt Ltd

Decarbonizing: **At Green Trek, We Don't Just Talk About It, We Do It!**



### Heat Resistant Steel

Furnace liners, etc.



## SIIC: What help did you get from SIIC, IIT Kanpur?

**SG:** SIIC IIT Kanpur has a dedicated and supportive team. They provide invaluable resources, giving me the confidence to take risks and build my business. They have provided hands-on mentorship and consulting services that have allowed me to hone in on my goals and develop a plan for success. They are constantly pushing me to think outside the box and come up with innovative solutions. Most importantly, the investment team is working with me on my financials and has given me ideas for other revenue streams.

I am very grateful for all the guidance and support they provided me during this journey.

## SIIC: How long can the technology generated be sustained?

**SG:** The technology is self-sustaining, so it can continue indefinitely while it has a source of fuel and an oxidizer. The product of the reaction is solid iron and slag, so it can also theoretically be reused to create further reactions.

## SIIC: What is your go-to-market plan?

**SG:** My go-to-market plan typically includes the following steps:

1. **Develop a customer profile:** Identify the target audience, their interests, needs, and preferences.
2. **Define the value proposition:** Identify the unique value that the product or service brings to potential customers.
3. **Draft a marketing plan:** Develop a comprehensive plan that includes goals, strategies, tactics, and budgets.
4. **Craft a messaging platform:** Establish the key messages that will be used to communicate with customers.
5. **Create content:** Create content that will capture the attention of the target audience.
6. **Get the word out:** Establish a presence in different media channels, such as social media, email, and advertising.
7. **Monitor performance:** Evaluate the effectiveness of the go-to-market plan by tracking results such as website visits and conversions.
8. **Optimize the plan:** Make adjustments to the go-to-market plan based on performance.

## Green Trek Research and Development Pvt Ltd

Decarbonizing: **At Green Trek, We Don't Just Talk About It, We Do It!**



### Stainless Steel

Acidic and chemical containers  
Underwater ship parts, etc.



### Spare parts

For Defense ( bridges, tunnels), Water plants,  
Thermal plants and other industrial plants.



## SIIC: What are your targeted Potential Investment Groups and Future Funding Plans?

**SG:** The targeted potential investment groups would be seed investments, angel investors, and venture capitalists.

Future funding plans will most likely involve conducting a seed round or a convertible note round. The rounds will involve raising a larger amount of money from venture capital firms, angel investors, and private family offices, for a total investment amount that is adequate to sustain our company's operational costs and growth plans. If our company needs additional funds, either due to rapid growth or insufficient capital-raising, we plan to conduct a convertible note round. This round will involve raising more money from accredited investors.

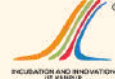
## SIIC: What message do you want to convey to our people?

**SG:** "Startups offer a unique opportunity to break boundaries and challenge the status quo. Seek out innovative ways to redefine what is possible and create a better tomorrow with your vision and drive. With determination and the right mindset, you can make a powerful difference in the world and bring about positive change."

**" What Is Important Is Not Being Big,  
But Smart And Innovative. Our Goal  
Is To Catalyze Change, Not To Hold  
It Back! "**

**Sandeep Gupta – Founder**

# MONTHLY INITIATIVES AT SIIC, IIT KANPUR



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## SIIC IIT Kanpur partners with Advanced Weapons and Equipment India Limited, Ordnance Factory, to provide CSR support to the startup ecosystem.



The Startup Incubation and Innovation Centre (SIIC), a technology business incubator of the Indian Institute of Technology Kanpur (IITK), has signed a CSR Agreement with Advanced Weapons and Equipment India Limited, one of the seven (7) new Defence PSUs formed by converting the Ordnance Factory Board into fully Government-Owned Enterprises. The Agreement was signed on 29th March 2023 at the Ordnance Factory Kanpur in the presence of dignitaries from SIIC, IIT Kanpur, and Advanced Weapons and Equipment India Limited (AW&EIL). Prof. Ankush Sharma, Professor-in-Charge, Innovation and Incubation, IIT Kanpur and Shri Rajesh Choudhary, Chairman & Managing Director, AW&EIL, Ordnance Factory were the signing authorities for this Agreement. Other dignitaries, Mr. Piyush Mishra, the Chief Operating and Financial Officer, SIIC, IIT Kanpur, Mr. Yogi Srivastava, General Manager &

Company Secretary, SIIC, IIT Kanpur and Mr. Akhilesh Kumar Maurya, Director of Operations, AW&EIL, Shri Biswajit Pradhan, Director of Human Resources, AW&EIL, Mr. Manish Kumar Singh, Company Secretary, AW&EIL were also present during the signing of the Agreement.

The partnership between SIIC and AW&EIL aims to provide financial support to the startup ecosystem and promote the incubation of new technology, knowledge, and innovation-based startups at IIT Kanpur under the CSR Policy of AW&EIL, Ordnance Factory. The expected outcome of this partnership is the overall growth and progress of the country, as the startups that emerge from this cooperation are likely to contribute significantly to the economy and society in general.

## SIIC IIT Kanpur's AIIDE-Centre of Excellence joins hands with Moglix to revolutionize the manufacturing industry through AI integration.



AIIDE-Centre of Excellence at SIIC IIT Kanpur has signed a Memorandum of Understanding (MoU) with Moglix Private Limited, the leading B2B commerce company in Asia that specializes in procurement technology and supply chain solutions. The Agreement was signed on April 03, 2023 at IIT Kanpur's Noida Campus in the presence of dignitaries from SIIC, IIT Kanpur, and Moglix Private Limited. Prof. Ankush Sharma, Professor-in-Charge, Innovation and Incubation, IIT Kanpur, and Shri, Rahul Garg, Founder & CEO-Moglix were the signing authorities for this Agreement Exchange. Dr. Nikhil Agarwal, CEO, SIIC & AIIDE-CoE was also present during the signing of the Agreement.

The partnership between Moglix and the AIIDE-Centre of Excellence at SIIC, IIT Kanpur is poised to drive the development of cutting-edge technologies that will keep the manufacturing industry at the

forefront of Artificial intelligence (AI). The collaboration will primarily concentrate on leveraging Artificial intelligence (AI) for supply chain optimization, product recommendation, image recognition, natural language processing, and predictive maintenance. Along with this, both entities will also work together to explore investment opportunities and strategic partnerships with startups incubated at the SIIC, IIT Kanpur, to promote innovation and strengthen the startup ecosystem.



# PROGRAM HIGHLIGHTS



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**SIIC IIT Kanpur conducted the first meeting of the program review committee for the "Startup Gateway for Garbage Free Cities" initiative.**



SIIC, the technology business incubator of IIT Kanpur, recently held the 1st program review committee meeting at its outreach centre in Noida on April 3rd, 2023. The review meeting was organized under the flagship program "Startup Gateway for Garbage Free Cities" with support from the Ministry of Housing and Urban Affairs (MoHUA).

The program review committee convened for a single day and witnessed an extraordinary level of enthusiasm from twenty impressive startups, both in person and virtually. The committee comprised

notable members such as Shri Binay Kumar Jha, Director of Swachh Bharat Mission, Ministry of Housing and Urban Affairs, Prof. Ankush Sharma, Professor In-Charge, SIIC, IIT Kanpur, Prof. Amitabha Bandyopadhyay, Co-Professor In-Charge, SIIC, IIT Kanpur, Dr. Nikhil Agarwal, CEO, SIIC & AIIDE-CoE, IIT Kanpur, Mr. Piyush Mishra, COO cum CFO, SIIC, IIT Kanpur, Mr. Ankit Agarwal, Founder of Phool.co, Mr. Rajeev Asija, Ex-COO of HCL, Dr. Abhijit Sathe, Founder of Jalconserve Technologies Private Limited, and Mr. Ankit Saxena, AVP, SIIC, IIT Kanpur.

The program committee conducted a comprehensive evaluation of the progress made by each of the twenty startups selected for the first cohort of the program. As part of the program's offerings, these startups will receive a grant of INR 20 lakhs each to promote their technology and business development. In addition, they will have access to mentorship, lab facilities, and business connections. The program aims to connect startups with Corporates and Urban Local Bodies to facilitate the deployment of their solutions on the ground in the waste-to-value sector.

## The first cohort of the program has the following 20 startups:

Ecowrap, EcoKaari, PadCare Labs, Celligo Natural Fibres, RCube Recycling, MuddleArt, MiniMines Cleantech, Aloe Ecell, Uneako, Angirus Ind, Quality Decor Dzines, ReCircle, Trashback India, Spruce Up Industries, Strawcture Eco, ARC-Robotics, Jivoule Biofuels, WeVOIS Labs, Citygen Technology, and Nellikka Complete Solutions.



## Successful completion of the UDAYE Program



SIIC, IIT Kanpur is delighted to share the news of the successful completion of the UDAYE (Unfurling the Development of Aspiring Youth in Entrepreneurship) Program at Startup Incubation and Innovation Centre (SIIC), IIT Kanpur. The program trained 14 UG and PG students from Rama University and equipped them with the necessary skills and knowledge to thrive in the startup ecosystem.

The program covered a wide range of essential topics spanning over five enriching days from 10th April to 14th April. Participants delved into the fundamentals of idea generation, design thinking, funding strategies, intellectual property, and the legal and financial aspects of a startup. The focus was on fostering innovation, nurturing creativity, and honing problem-solving skills.



## Empowering Future Biotech Leaders: Successful completion of the Biotechnology Industrial Training Program 2023



SIIC, IIT Kanpur is thrilled to announce the successful completion of the summer edition of the specialized 'hands-on' training program "Biotechnology Industrial Training Program 2023" for Two Modules - Mammalian Cell Culture (7-day program from April 24 to April 30) and Molecular Biology (5-day program from May 1 to May 5).

The program aimed to provide immersive training to students with a background in Life Sciences. Both modules had the participation of over twenty-five students from different parts of the country. Throughout the training, they gained invaluable experience in a wide range of techniques and had the opportunity to engage with entrepreneurs, professors, and Ph.D. students at BSBE, IIT Kanpur, fostering enriching interactions.

# PROGRAM HIGHLIGHTS



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SIIC, IIT Kanpur is incredibly grateful to Prof. Ankush Sharma and Prof. Amitabha Bandyopadhyay for their valuable presence, and domain experts Prof. Jonaki Sen, Prof. Amitabha Bandyopadhyay, Prof. Bushra Ateeq, Prof. (Dr.) Santosh K. Misra, Dr. Rashmi Parihar, Dr. Aatmeeyata Garg, and Dr. Arijit Bhattacharjee, for their insightful lectures, lab, and central facility visits. Special thanks to Sandeep Shandilya and Shiwangi Maurya for organizing the laboratory experiments and providing in-depth insights into various techniques.

## A seminar on IPR Protection and Technology Transfer at REC Banda was held on 29th April.

Mr. Ravi Pandey, Research Establishment Officer at the IPR Cell, SIIC, IIT Kanpur gave a seminar lecture at the Incubation Centre of REC Banda. There were more than 100 attendees in the session. He delivered an insightful presentation on IPR protection for startups, highlighting the significance of securing intellectual property (IP) during the early stages of business, as it proves substantially more manageable compared to preserving ideas that have already entered the public domain. IP protection puts legal checks on your competition, preventing others from infringing on and profiting from your property. A sound IP strategy from the beginning can also help attract investors, suppliers, partners, and more because this form of protection offers more security with any potential success.

## A talk in a 'Faculty Development Program on Intellectual Property Rights and Wealth Creation' organized by Rama University, Kanpur on 28th April



IIT Kanpur with one of the objectives to increase awareness about Intellectual Property Rights (IPR) and Technology Transfer has been organizing and participating in various IPR-related seminars and workshops across the country. A five-day faculty development program on Intellectual Property Rights and Wealth Creation was organized by Rama University, Kanpur, where Mr. Ravi Pandey, Research Establishment Officer, and Ms. Sonali Nigam from the IPR Cell, SIIC, IIT Kanpur, were invited as speakers to enlighten the participants and students about the career opportunities in the area of Intellectual Property and Technology Transfer.

The seminar helped spread awareness among the participants. The process of patent filing and plenty of success stories of technology transfers from IIT Kanpur to industry partners were shared. An interactive session was also conducted where the participants asked their queries related to patent filing and the challenges faced by a technology transfer office in the process of technology transfer.

## To celebrate World IP Day, a webinar was organised by National Institute of Technology (NIT), Uttarakhand on April 26th.

A webinar was organised by the National Institute of Technology (NIT), Uttarakhand to celebrate World IP Day, and more than 40 participants joined. Mr. Ravi Pandey, Research Establishment Officer, IPR Cell, SIIC, IIT Kanpur being the speaker, apprised the participants on the importance and impact of patents, copyrights, trademarks, and designs in daily life.

To spread awareness about this day, Mr. Ravi also talked about why we celebrate 26th April as World IP Day. He said that 26th April was chosen as World IP Day because it coincides with the date on which the Convention Establishing the WIPO entered into force in 1970. World IP Day is WIPO's IP public outreach campaign in which hundreds of events are organised around the world by IP offices, law firms, private companies, and students.

# FROM THE IPR AND TECH-TRANSFER CELL



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It is an opportunity to explore different aspects of the IP system and how innovators, creators, and businesses can use it to add value to their ingenuity and creativity. He enlightened the audience about the contributions made by the creators and innovators of IIT Kanpur for societal benefit through various technology transfers and commercialization activities.

## IPR Cell at IIT Kanpur received recognition in a report titled "Unpacking India's IP Ecosystem for an Innovation-Led Future" by NASSCOM.

The IPR cell of IIT Kanpur focuses on building a culture of IP creation among students as well as faculty members and has been recognized by NASSCOM in a report titled 'Unpacking India's IP Ecosystem for an Innovation-Led Future' under the heading of 'Leading Academia Patent Creators in India'.



The report also covered the number of IPRs filed and granted at IIT Kanpur till date, i.e., 1000+ filings and 463 grants. An exceptional Technology Transfer Ratio of 13.4% from IIT Kanpur to the industry partners was also recorded. Also, we are proud to announce and acknowledge the achievements of women innovators. Approximately 27% of the total patents filed comprise women inventors which means out of 1000+ IPRs filed, 269 IPRs are filed by women inventors, and 112 of the same have been granted.

The IPR Cell functions under the Intellectual Property Evaluation Committee which works on the due diligence for every patent filed, making sure it is a patentable idea. Various Awareness Programs and Workshops are conducted to overcome some challenges to IP creation. Certainly, the cell also manages the Technology Transfers and Commercialization of the technologies developed at IIT Kanpur where Technology Transfer, Equity Management, and Advisory Committee take care of the valuation, terms, and conditions of the Licensing of the Technology.



# ECO-SYSTEM ENABLERS



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## ECO-SYSTEM ENABLERS

### CSR



NTT DATA



CAPRI GLOBAL  
CAPITAL LIMITED



### KNOWLEDGE



### INDUSTRY



### SERVICE



### AI ENABLEMENT



### FUNDING & MONITORING



### INTERNATIONAL



### CLINICAL

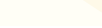
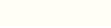
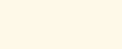
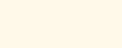
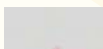
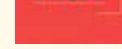
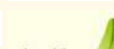
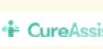




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