



STARTUP
INCUBATION AND
INNOVATION
CENTRE
IIT KANPUR

TECHकी बात

SIIIC startups :
Pioneers of indigenous
scalable technology





MENTOR'S DESK

Converting an Idea into a Business Opportunity

Ravi Challu

Founder: BulletproofYourStartup.com

You have an idea about a product or service that you think would be great to create. Like one of those back itches that refuse to go away. The idea, probably a great business opportunity has been gnawing at you and not letting you to rest. Probably you don't even know how it started at the first place.

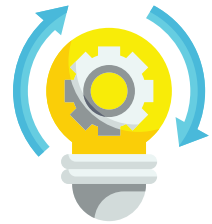
How did it all start?

Maybe you were just connecting the dots and discovered something missing.

Was it serendipity?

You observed something missing and unexpectedly discovered an opportunity which can prove to be a great business opportunity with some modification.

Or was it just belief in a product that you felt was compelling and had to be implemented?



How do you ensure your success?

This is the first time you are perhaps considering building a business. You know your family will have serious concerns which you will have to address.

Maybe you are married and you do not realize how stressful life could become given the uncertainty of setting up a startup business. It is the itch that refuses to die down.

What should you do? Is this something you really want to do that justifies the risk? How do you make sure that the risk can be managed and is therefore worth taking?

Like everything else in life that is important to you, four fundamental questions become critical to answer to understand with absolute clarity what you are getting into.

What do you love doing?

Maybe you love coding or come back home and spend time building a hobby. Or is it music or painting that draws you?

What are you really good at?

Despite what you may desire and what really matters is what you are good at. If you are good at creating music and really love doing that then that is what you will always be drawn to. That is where your energy lies.

What does the world need?

If the world needs what you love doing and is also good at it, then the following becomes more likely.

But will you get paid for it?

This is what will determine whether the idea you have will remain a side hustle while your main preoccupation earns you money or will it become the centrepiece of your existence. In Aristotle's words...





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“WHERE THE NEEDS OF THE WORLD AND YOUR TALENTS CROSS, THERE LIES YOUR VOCATION”

If the answers to these questions have encouraged you to move ahead then consider whether it is important enough for you to stake your life or should it be just a side hustle? And above all why is it you?

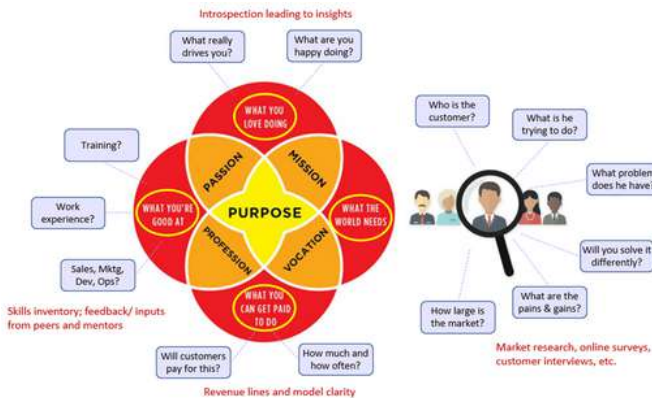
So to sum up, you really need to answer these questions before you start building a business. The answers will determine whether you should even proceed with building a business out of the idea.

Is this a real business opportunity?

What really matters is whether you are following a real passion or you are on a mission to change the world. Your venture is just a way to earn a living or is it a profession that will build wealth. Your success in business is guaranteed if all the four answers can come together.

To figure this out you need to carry out four basic activities which are predominantly data-based.

1. Introspection about what really drives you and what you are happy doing.
2. Find out about the market through market research, online surveys, customer interviews, and POCs.
3. Figure out revenue lines and model.
4. Build skills and experience inventory that may be required



So should you chase your dreams, explore your ideas and bring them to fruition? Of course, you should. It guarantees you much sought-after independence and probably wealth. But above all, it offers you a chance to make an impression in the universe.

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Volume- 01 | Edition - 07 | July 2022



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SNAPSHOT JULY 2022

Head to the section to learn about the current call for applications at SIIC and other exciting statistics achieved during the month of July!



2

SUCCESS STORIES

SIIC's startups are on the rise as they take their innovations to international and national platforms. Read now!



3-4

INNOVATORS' KI BAAT

This section introduces our readers to one of the many revolutionary, innovative technologies currently under incubation at SIIC. Read on to know more about our transformative ecosystem.



5

INITIATIVES AT SIIC IIT KANPUR

SIIC, with the support of its kind industry stakeholders, has propelled the product development for two startups with high potential for social impact.



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CONTENT

Volume- 01 | Edition - 07 | July 2022



PROGRAM HIGHLIGHTS

This section is about the major highlights across the multiple program verticals currently active at SIIC for the month of July.



FROM THE IPR AND TECH-TRANSFER CELL

The IPR and Tech Transfer Cell at IIT Kanpur facilitate various events in the academic and incubation ecosystem about technology licensing. Read now!



9

FUNTECH

Work up your mind with an interesting innovation themed cross-word at the end!

SNAPSHOT JULY 2022



With pathbreaking innovations brewing at SIIC's startups, the incubator aims to create impact at the bottom of the pyramid. SIIC has developed the experience that has become the main ingredient in nurturing the early-stage, technology-focused startups in the domains such as agriculture, healthcare, aerospace, and medical devices.

188

Applications
received

03

Calls currently
open

400+

Attendees reached
through events

CALLS OPEN



The prestigious **NIRMAN Accelerator program** supported by the Department of Science and Technology's (DST) NIDHI scheme portfolio is for startups in the Healthcare and Agriculture domains. The program will support manufacturing-focused startups to overcome challenges across their prototype and market entry phase.

Visit - www.siincubator.com for more information.

Last date to apply: 15th August 2022



The **Biotechnology Ignition Grant (BIG)** 21st call is open for startups and innovators working on ideas to POC in the domain of Biotechnology, medical devices, diagnostics, medical innovation, agriculture, agritech, sustainability, clean environment, waste to value, secondary agriculture and other allied areas.

Visit - www.siincubator.com for more information.

Last date to apply: 16th August 2022 (17:30 hrs)

SUCCESS STORIES

SIIC is currently running with a portfolio of 100+ incubated startups across multidisciplinary domains. Our startups have been consistently creating newer benchmarks as they take their innovations to national and international platforms.



Viva Tech audience listening to Nandakishore Harikumar, Co-founder Technisanct in Paris

Viva Technology is Europe's biggest startup and tech festival. Every year VivaTech brings together business leaders, startups, investors, researchers and innovators in Paris and online to ignite positive changes in business and society. The 6th edition of the festival was organised in Versailles, Paris, witnessing the participation of 15 Indian startups and startups from 146 other global countries.

Two of SIIC's startups were among the 15 startups that represented India at the Viva Technology Festival.

technisanct

T-Sanct Technologies: Their flagship product Integrite works against the issues of cyber threats, spreading of misinformation, privacy and data breaches using big-data and artificial intelligence.



napID Cybersec: The One-Touch authenticator by napID Cybersec helps banks and enterprises to authenticate genuine users and prevent fraudulent login and payments.

VIVA TECHNOLOGY

Digital India Week: The 2022 Digital India Week was observed from July 4 to July 9, 2022. It was inaugurated by the Hon'ble Prime Minister, Shri Narendra Modi, in Gandhinagar, Gujarat. The theme of Digital India Week 2022 was "Catalysing New India's Techade", which will enable a decade that is the "Techade of India" with the help of the Digital India Mission.

Eight SIIC's startups participated in the Digital India Week organised at the Mahatma Mandir Convention and Exhibition Centre, Gandhinagar, Gujarat. The startups were shortlisted based on their DPIIT application on the Startup India portal.

- Life and Limb
- WeRehab Technologies
- Primary Healthtech
- E-panipuri Kartz
- AiRTH Research
- Likhotronics Tech
- napID Cybersec
- Pradivya Software



INNOVATORS' KI BAAT



Polycycling Solutions Pvt. Ltd. which goes by the brand name - NovoEarth is a deep tech impact venture that has developed solutions in the form of NovoBuild and NovoPolymer for one of the most serious challenges of the twenty-first century- plastic pollution, which is rapidly stacking up in our landfills and oceans. Transitioning away from present plastics is incredibly tough because of its outstanding strength, light weight, durability and cost-effectiveness. As it has multiple layers and is difficult to collect, single-use plastic is regarded as non-recyclable. It has also proven difficult to discover alternatives to plastic.

Polycycling Solutions has created methods to combat plastic waste and transform non-recyclable plastic waste into NovoBoard, a building material that will last for decades. It is a 100% recyclable board created from multi-layered plastic wastes such as wrappers, sachets, as well as other plastic wastes. It is waterproof, termite-resistant, rust-proof, fungal-proof, and fire retardant since it retains the best characteristics of plastic. NovoBoard is available in 8ft/4ft thick boards used by furniture manufacturers, contractors and architects for shuttering and roofing because it has high compressive strength. It has an incredible potential to be utilized in interior designing, partitions and a variety of items. Making one such board consumes fifty kgs of non-recyclable plastic trash from the environment and decreases the use of wood-based boards, which is the root cause of deforestation.

NovoPolymer creates the next generation of bio polymers using biotechnology. Industrial and agricultural wastes available across the world are turned into 100% compostable polymers that could be processed in standard plastic processing machines to create solutions in the single-use plastic and biomedical domains. Kerastic, a new category of 100% compostable biopolymer is aiming to replace single-use plastic from keratin rich industrial waste which is intended to be as durable as nylon.





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INNOVATORS' KI BAAT



This can be processed into films and bags, containers and utensils. The product is hydrophobic, non-burning, and its biodegradable qualities make it a must for any brand or company trying to meet their SDG obligations. It outperforms any other alternative biopolymer, such as plant protein or modified starch, in terms of strength, tear resistance, and economic viability. PHBV by NovoPolymer is a bio-based and biocompatible polymer produced by microbial fermentation from carbon-rich agricultural waste, and is completely compostable in both soil and marine environments. This third-generation biopolymer is suitable in different biomedical applications like the controlled release of drugs, medical implants and repairs, orthopaedic devices and food packaging.

This startup is headed by Sarthak Gupta, Shahid, Anmol and Rishabh as the co-partners, united to work on a mission to make Uttar Pradesh, especially Kanpur, free from plastic pollution. While plastic has made our lives easier in many ways, it also has a significant impact on our environment and health. This discovery is evolving people's perceptions of alternative materials. SIIC IIT Kanpur's support and mentorship along with the Biotechnology Ignition Grant (BIG) have helped him in his vision of clean UP, green UP. Sarthak Gupta, a Mechanical Engineer and a native of Kanpur was always anxious about the pollution of Kanpur. Associating with Shahid, a biotechnologist and a nano-scientist, Anmol and Rishabh with MBA in Finance and Entrepreneurship made him see his dream come true.

The unification of Mechanical Engineering, Biotechnology and Business Management helped them in making Polycycling possible. "The immense support and mentorship from Dr. Vivek Verma, Dr. Amitabha Bandopadhyay and Mr. Sunil Singhal made the assignment possible" said Sarthak Gupta. They are proud to have been incubated at IIT Kanpur in its growth journey. The network of experienced academics, mentors and team members provided them with right opportunities, investments and mentor pool. The committed funding from SIIC brought them into this ecosystem and helped them in making FDA-approved, low-cost, durable wooden items useful for humans without any harmful side effects.



 **NovoEarth**



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INITIATIVES AT SIIC

SIIC's initiatives cater to some of the pertinent technological and infrastructural gaps at the pan-India level. The startups strive to strengthen the entrepreneurial ecosystem leveraged by the collective partnership between the esteemed industries and the incubator.



Jellnex developed by Duosis Bio-Innovations

Two SIIC startups have received support from the Multi Commodity Exchange of India Limited (MCX) under corporate social responsibility. The funds have been released to Duosis Bio-Innovations and Invoviron Industries working in the 'waste to value' domain. The two startups have received support for their product development, which has enabled them to expedite the development phase of their respective innovative solutions.

Duosis Bio-Innovations

Duosis uses waste agricultural products to create a product named Jellnex that is also used in food products as a gelling agent and utilised for the preparation of various foods like ice cream, soup, mayonnaise, Mango RTS, crush, squash, etc. The product has the potential to replace items like Pectin which are currently used on a large scale in the food industry and is also heavily imported. As mentioned by Dr. Ruby Gupta, the product supply chain includes tribal people, and its growth helps in connecting with the last mile population. Her startup also caters to three of the Sustainable Development Goals defined by United Nations, highlighted below:



Dr. Ruby Gupta,
Founder, Duosis Bio-Innovations

Invoviron Industries Trading

The startup is creating value from waste by using non-recyclable plastic waste. The product has the potential to substitute the plyboard at an affordable rate. The product is fire retardant, recyclable, rust-proof, heat resistant, customisable, and water and termite resistant. The product is made from non-recycling plastic waste. It will help India to move toward green economy. The startup also fulfils two Sustainable Development Goals as defined by United Nations, highlighted below:



CSR PARTNER

MCX
METAL & ENERGY
Trade with Trust



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PROGRAM

HIGHLIGHTS

Major highlights across the various programs currently active at SIIC are reflective of the vibrant incubation ecosystem and diverse set of events organized internally and externally in the incubation centre.

Bio - Programs



SIIC attended the BIRAC Biotech Startup Expo 2022

The Department of Biotechnology Industry Research Assistance Council (BIRAC) organised the Biotech Startup Expo - 2022, which was inaugurated by the Hon'ble Prime Minister Shri Narendra Modi. The theme of the Expo was Biotech Startup Innovations: Towards Atma Nirbhar Bharat'. SIIC team, with three of its stellar startups and five SPARSH Fellows, attended the Expo. Hon'ble Minister of Science and Technology Dr. Jitender Singh visited one of our startup stalls and offered to provide support for the government trials the team is willing to undertake.

The 'Biotechnology Industrial Training Program' initiated by SIIC has launched the second cohort of the program

SIIC has launched the second cohort of the Biotechnology Industrial Training Program, in light of cohort one being a success. The students underwent rigorous training at the Bioincubator's BioNEST facility at SIIC IIT Kanpur, along with interactive lectures from the eminent faculty members from the BSBE Department of IIT Kanpur. In the second phase of the training program, the participants received hands-on lab experience in biological sciences and an opportunity to intern with our incubated startups, enabling them to understand the startup work culture.



TIDE 2.0 Program

SIIC's six incubated startups made it to the TIDE 2.0 Investment program



Six incubated startups from SIIC have been selected for the TIDE 2.0 Investment program supported under TIDE 2.0 scheme. The program will support startups from ideation to market outreach under the second cohort of the program. The proposal evaluation was conducted by the MeitY Startup Hub (MSH) based on the proposed product/technology in the domain area/strategic sector and deployment of the emerging technologies, scalability/growth traction and team dynamics.

FROM THE IPR AND

TECH-TRANSFER CELL

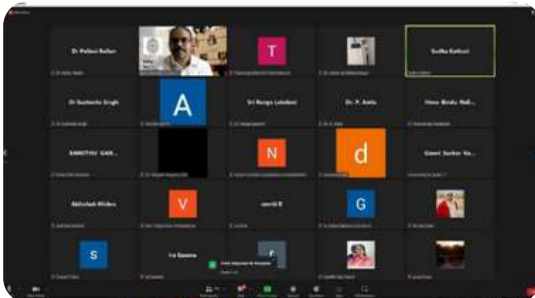


IPR Cell at IIT Kanpur participated in the SYMBIOSIS 2022 Academia-Industry Summit at PGIMER, Chandigarh:



IPR cell at IIT Kanpur participated in an Academia-Industry summit for the commercialization of technologies in the medical device category. The main objective of the summit was to promote the development of technologies in this domain and increase technology transfer to the industry partners through collaborative development. The IPR Cell shared several success stories during the industry summit and apprised the participants about the eight technology transfers to Industry partners in the last financial year at IIT Kanpur

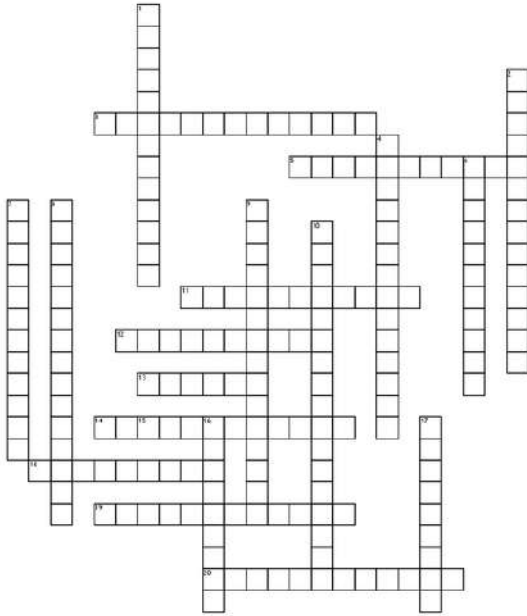
“A new concept of products” organized by MedTech Club, IITK & IEEE



IPR Cell at IIT Kanpur has jointly facilitated a webinar on Intellectual Property Rights organised by IEEE and Medtech Centre, IIT Kanpur. The main objective of the webinar was to increase IPR awareness among the participants, nuances of IP issues, filing tips, value addition and business development by securing IPR's.

FUNTECH THEME - Innovations

For the below crossword, answers will be given in the next edition of the newsletter.



ACROSS

3. Samsung electronics was introduced by _____ . (13)
5. Jansport was founded by _____ . (11)
11. Crayola was created by _____ . (11)
12. Nike was founded by _____ . (10)
13. ASUS was founded by _____ . (6)
14. The microwave oven was created by _____ . (12)
18. Google was founded by _____ . (9)
19. Dell, the technology Company. (12)
20. Ziploc bags were first used by _____ . (12)

DOWN

1. Coca Cola was created by _____ . (13)
2. Facebook was introduced by _____ . (14)
4. Frigidaire was created by _____ . (14)
6. Snapchat was created by _____ . (11)
7. Newspaper was created by _____ . (12)
8. Paint was founded by _____ . (15)
9. Shea Moisture was founded by _____ . (15)
10. Scandinavian Lock was created by _____ . (15)
15. Hennessy was founded by _____ . (9)
16. The iPhone was founded by _____ . (9)
17. Walmart was founded by _____ . (9)

June 2022 CROSSWORD Answers

ACROSS

2. Investment 4. Dividends 9. Risk 12. Price 13. Appreciation
14. Share 15. Products

DOWN

1. Financial Portfolio 3. Liquidity 5. Invest 6. Shareholder 7. Stock market
8. Shareholder 10. Profits 11. Stock

QUICK FACTS

Inventions & Innovators

Source : didyouknow.org

- Leonardo Da Vinci invented the scissors.
- Bill Gates designed a traffic control system for Seattle when he was only 15.
- The cigarette lighter was invented before the match.
- The first man-made plastic was created by Alexander Parkes who publicly demonstrated it at the Great International Exhibition in London in 1862.
- Thomas Edison filed 1,093 patents, including those for the light bulb, electric railways and the movie camera. When he died in 1931, he held 34 patents for the telephone, 141 for batteries, 150 for the telegraph and 389 patents for electric light and power.
- The straw was probably invented by Egyptian brewers to taste in-process beer without removing the fermenting ingredients which floated on the top of the container.
- Count Alessandro Volta invented the first battery in the 18th century.
- Henry Ford invented the modern charcoal briquette.
- One hour before Alexander Graham Bell registered his patent for the telephone in 1876, Elisha Gray patented his design. After years of litigation, the patent went to Bell.
- More than 100 pizza box-related patents have been issued since 1976.



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ECO-SYSTEM ENABLERS

CSR



KNOWLEDGE



INDUSTRY



SERVICE



AI ENABLEMENT



FUNDING & MONITORING



INTERNATIONAL



CLINICAL





CELEBRATING
100
INCUBATEES
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