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The Lean Playbook

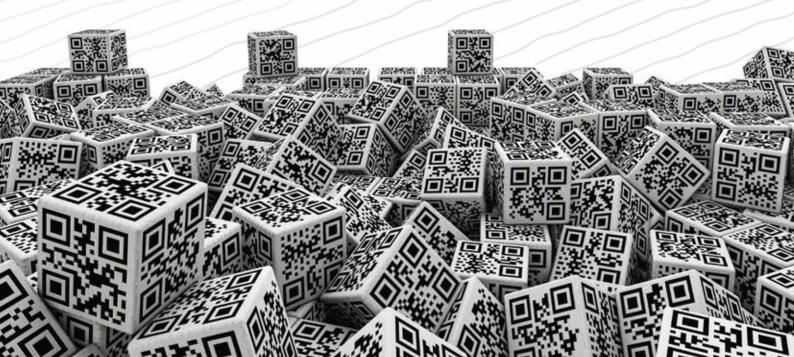
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STARTUP SUCCESS STORIES





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INTRODUCTION

POV

13 REASONS WHY YOU SHOULD NOT GO FOR A FUNDRAISE

"All that glitters is not gold" – this age-old proverb holds true in the startup funding world. The euphoria amongst founders to "get funded" has reached an all-time high. 'How to raise funding?' is searched on google by a wannapreneur



STARTUP STORIES

COVER STORY

INDIA STACK TRANSFORMING INDIA INTO A DIGITAL ECONOMY

A "stack" comprises
all the technologies
required to operate an
application: computer
languages,
architecture, libraries
or lexicons, servers,
user interfaces and
experiences, and
software – the apps
themselves...

STARTUP STORIES

STARTUP STORIES



CRYSTALBALL GETS TYPE CERTIFICATION FROM DGCA

Crystalball began its journey towards making a multi-rotor drone that was DGCA compliant, incorporating feature functionalities of the 'No Permission, No Take-off' module.



FIRST HUMAN TRIAL OF AI BACKED GIANT SWING DONE AT 11TH

Manali Swing offers one of the most creative & Safe Giant Swing with 100+ Jump styles allowing 70m free fall backed by AI promising impeccable safety like never before.



BUILDING AUTONOMOUS INDOOR ROBOTS FOR WAREHOUSES

Autonomous Carts for Distribution Centers (ACDC®) are autonomous mobile robots designed to operate safely within warehouses.

13 Reasons Why You Should Not Go For A Fundraise

"All that glitters is not gold" – this age-old proverb holds true in the startup funding world. In the past decade, an entrepreneur's goal post has changed from creating a profitable business to raising a round of funding. Funded entrepreneurs are perceived to be more successful than those who are not able to raise equity funding or for that matter, not aiming for a capital infusion.

The euphoria amongst founders to "get funded" has reached an all-time high.
'How to raise funding?' is searched on google by a wannapreneur even before the individual forms a legal entity to

kickstart business.

While it is true that funding gives you more firepower to scale up your venture (and the glamour associated with it), it can at times become a crown of thorns for the funded founder. Some ventures by design are just not fundable. The Entrepreneur's effort of chasing investors in a non-fundable business is a total waste of time – time that could have been spent on strengthening revenue channels. Before a founder jumps in the capital raising game, here are 13 reasons to ponder on why one should reconsider.

13 reasons why >>

"All that glitters is not gold" – this age-old proverb holds true in the startup funding world.



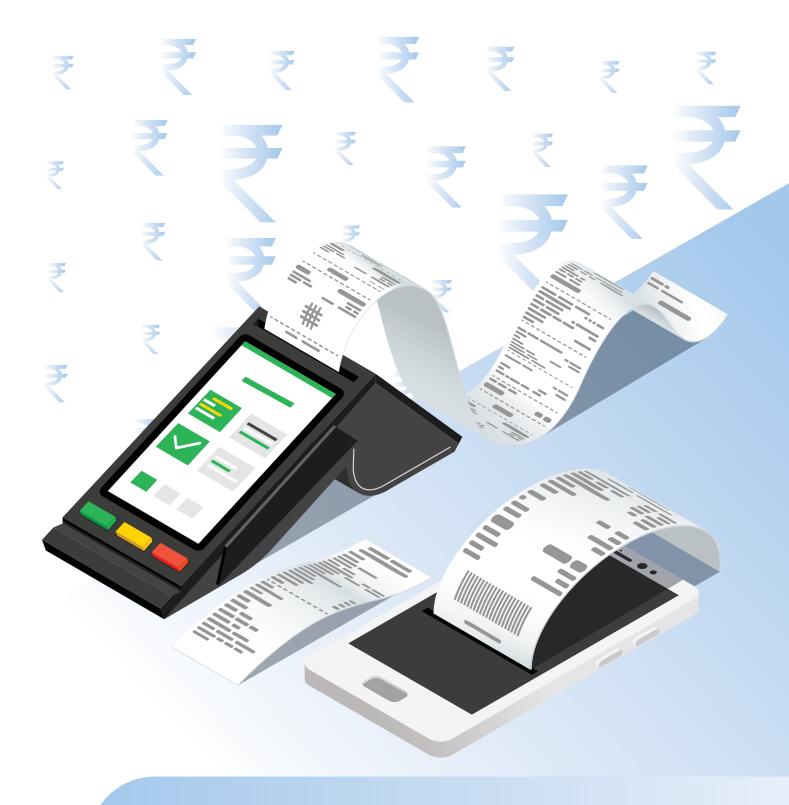


- Your business might not be fundable: Not all businesses are attractive to VCs. Parameters such as founders' background, scalability of the business, technology, entry barriers, being asset-light etc. form a major component of the investor lens. Large number of startups and SMEs do not fit into these criteria. At times, your business might not even need growth capital. Brick and mortar trading, pure-play manufacturing, and commoditized ventures are some of the examples that are not the right candidates for an equity round. Why waste time when you can make money and grow without a fundraise?
- Founders' Bandwidth: Capital raise is an intensive process and has multiple steps starting from creating a compelling pitch, backing it with numbers, meeting investors, negotiating agreements, managing the due-diligence process, and post-funding compliances. The founder is at the epicenter of this. During a fundraise, the founder's bandwidth gets consumed leaving very little time for driving business. If you are a single founder, this can be a nightmare as jumping into fundraising can come at the cost of your business performance getting impacted.
- Control: Even if the investor is a minority shareholder in the company (say 20%), and founders are having a majority representation on the board, the investor can still have decent control over important matters of the company through the reserved matters clause. Reserved matters gives the investor-appointed director a veto over certain key decisions. These decisions are pertaining to appointment or termination of the CxO, changes in the structure of the board, approval of the annual business plan, material variation in expenditure, transfer of IPR, etc.
- Hockey stick growth vs running the venture at your own pace: You cannot think small when you go to investors. The objective is to pump in capital, acquire customers and take up a sizable market share. Funded startups are expected to grow at double digits month on month. Aggressive growth goes hand in hand with funding. Many entrepreneurs may not be ready or tuned in to this thought process.

- **Driving valuation:** Growth drives valuation and valuation drives the ultimate exit bounty that investors make at a liquidity event. Hence, there is constant pressure on the founder to ensure growth in valuation. Subsequent funding rounds need to happen ideally at a higher valuation. Lower value referred to as a down round can be detrimental to founders' equity.
- Creating liquidity event for investors: Raising a round of capital is just the starting point. Angels and VCs invest in a venture only to exit at the end of 5 to 7 years. An exit event happens through a secondary sale, acquisition, or an IPO. It is the founder's responsibility to ensure that the investment is taken to its logical conclusion and investors get a profitable exit. The success of raising VC money is in providing a profitable exit. This journey from first fundraise to exit is arduous. Very few make it to the end. At times, clauses such as put option on the company or the founders as a last resort for investor exit can be very painful for the entrepreneur.
- Understanding legal terms: A successful fundraise requires maneuvering through pages and pages of legal agreements (SHA). VC transactions have fancy clauses and rights such as exit right, drag along, tag along, ROFR, anti-dilution, indemnity, etc. While you can always appoint a lawyer to ensure that the founder's rights are protected, a founder must still spend a considerable amount of time learning these terms understanding the legal aspect of capital raise.
- One round is not enough: Scaling up requires deep pockets and multiple funding rounds. Time taken to close a round is typically 6 to 9 months. Every round gives the company a runway for 18 to 24 months. This means, the founder must be on road to raise capital almost every year.
- Cost of capital raise: To raise a round of funding, you must frontload certain costs such as hiring lawyers and experts, due-diligence cost, compliance cost, and even statutory costs such as stamp duty payment, etc. Not all costs are success based some must be incurred upfront.
- Competing with Deeper Pockets: When a sector heats up, multiple players can raise investments— some who have come in after you can end up raising much larger rounds. CACs go off the roof, customers are given freebies and all that you have built so far looks irrelevant. Competing with deeper pockets in a heated-up space can be challenging.

- Reviews, MIS and reporting: Once you onboard an investor, you have to get used to monthly reviews, preparing and sharing MIS, professionally managed board meetings, budgeting, business plan exercise, and reporting key metrics. Reasons for deviation and actions taken are discussed periodically. While some may say that this is a step towards professionalism, many entrepreneurs find this process cumbersome and are just not used to run a business in this fashion.
- Founders' remuneration: Post funding, the founder signs an employment agreement with the company. His compensation structure and performance bonus are defined by the board just like for any other employee. This way of functioning can be very different for a few founders who have been used to taking remuneration and claiming expenses in a privately held venture.
- Mental resilience: To drive growth and valuations, entrepreneurs are often known to put in long hours, sacrifice personal and social life and make the venture their sole purpose of existence. While it all looks glamourous, it can put extreme pressure on the founder and can have an impact on mental and physical health.





INDIA STACK



INDIA STACK - TRANSFORMING INDIA INTO A DIGITAL ECONOMY FOR THE FUTURE!

India has seen exponential growth in digital services adoption, and financial services have been at the forefront of this innovation and change. India's FIs and FinTechs have created a phenomenal ecosystem of collaboration, creating a symbiotic relationship and fostering improved banking services and financial inclusion for the underbanked.

A "stack" comprises all the technologies required to operate an application: computer languages, architecture, libraries or lexicons, servers, user interfaces and experiences, and software – the apps themselves – and tools used by developers, such as APIs, which connect databases and software.

IndiaStack has played a catalytic role in this digital foundation and evolution. India's government has led the creation of a tech stack for the entire country, from identity to payments to other services, that has made this country a fintech pioneer in its own way.

IndiaStack has acted as a disruptive force and reinvented the wheel to build new processes and provide a low-cost digital push. There have been significant benefits such as lower cost of transactions, lower onboarding costs for businesses, and personalized offerings at scale – allowing new companies, developers, enterprises, and the government to build their digital footprint in the country.

IndiaStack enables businesses to tap into customer segments that were previously out of reach. This is embodied in a combination of technological projects known as the India Stack.

4 MAJOR LAYERS OF INDIA STACK

CONSENT LAYER

Provides a modern
Privacy-enhancing data sharing
framework based on electronic
consent

CASHLESS LAYER

Provides payment network that includes IMPS, AEPS, APB, and UPI

PAPERLESS LAYER

Rapidly growing base of paperless systems with billion of artifacts.



A unique digital boimetric identity with open access of nearly a billion users.

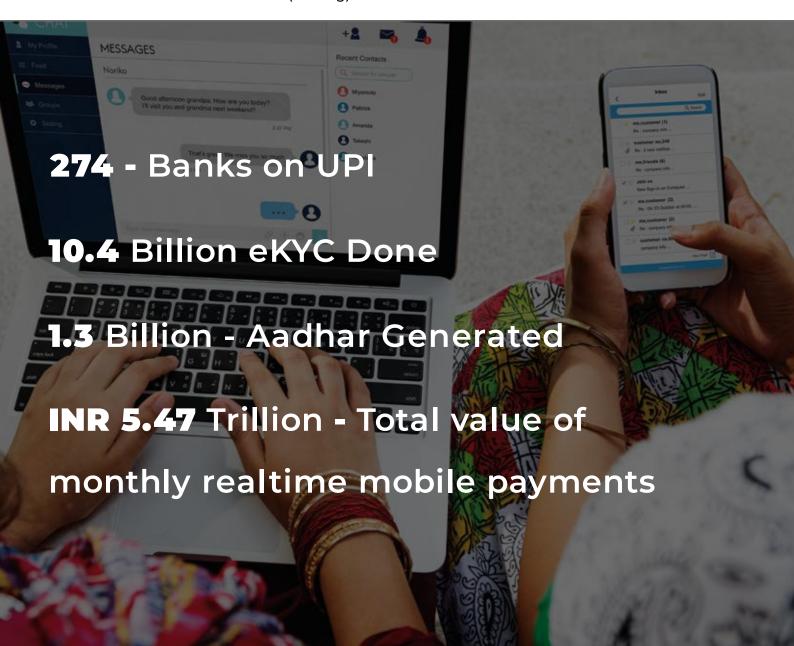
COVER STORY

The following APIs are considered to be a core part of the India Stack:

- ◆ Aadhaar Authentication
- ◆ Aadhaar e-KYC
- eSign
- Digital Locker
- Unified Payment Interface (UPI)

The following APIs are considered to be societal platforms built on similar principles like India Stack:

- ◆ **GSTN** The Goods and Services Tax Network
- ◆ **BBPS** The Bharat Bill Payment System
- ◆ **ETC** Electronic Toll Collection (FASTag)



COVER STORY

Key Parts of India Stack

We will now list out the key parts that consist of India Stack and will play a larger role in our day-to-day lives.

Unique Identification Number

The India Stack or Aadhaar Stack is made up of the UIDAI. This is the Unique Identification Number that is linked to the biometric readings of the individual.

e-KYC

In order to receive industry feedback, Aadhaar was added as an e-KYC project. This enables organizations to get instant verification of customers. Some of the details that are provided include the place of residence and the date of birth of the individual.

AADHAAR

AEPS

The NPCI developed the Aadhaar Enabled Payments Systems or AEPS. It improves financial inclusion for retail outlets that can go cashless and allows for government entitlements and bank-to-bank transfer disbursement.

UPI

The Unified Payment Interface or UPI enables a payment request and customer to send funds to a beneficiary and collect requests from a customer for payment. The best part is that it allows India to trade and transact digitally.



DigiLocker

Another great feature is a DigiLocker that is used as a Government of India repository for documents. Users can sign up for services by linking their Aadhaar cards. It can be used to upload documents, eSign them, and share them at any time, from anywhere.

Digital Signature

The second component, apart from the DigiLocker of the Paperless Layer, is the Digital Signature. This provides the capability that allows individuals to electronically sign contracts with any entity without a pen or paper.



Bharat Bill Payment System (BBPS)

Bharat Bill Payment System (BBPS) is India's unified bill payment system. The BBPS intends to offer interoperable and accessible bill payment services to customers through a network of agents, enabling multiple payment modes and providing instant payment confirmation. Bharat Bill Payments System is an integrated online platform under National Payments Corporation of India (NPCI) umbrella for all kinds of bill payments.



Goods and Service Tax Network (or GSTN)



The Goods and Service Tax Network (or GSTN) is a non-profit, non-government organization. It will manage the entire IT system of the GST portal, which is the mother database for everything. The government will use this portal to track every financial transaction and provide taxpayers with all services – from registration to filing taxes and maintaining all tax details.

Electronic Toll Collection (FASTag)

National Payments Corporation of India (NPCI) has developed the National Electronic Toll Collection (NETC) program to meet the electronic tolling requirements of the Indian market. Interoperability, as it applies to National Electronic Toll Collection (NETC) system, encompasses a common set of processes, business rules and technical specifications, which enables customers to use their FASTag as a payment mode on any toll plazas irrespective of who has acquired the toll plaza.



FASTag is a device that employs Radio Frequency Identification (RFID) technology for making toll payments directly while the vehicle is in motion. FASTag (RFID Tag) is affixed to the vehicle's windscreen and enables a customer to make the toll payments directly from the account linked to FASTag. It offers the convenience of cashless payment and benefits like - savings on fuel and time as the customer does not have to stop at the toll plaza.

eSign



eSign is enabled through an API that facilitates an Aadhaar cardholder to electronically sign documents. This is authenticated through biometric readings and through an OTP. This reduces paperwork with the authentication process and provides legal validity with this signing mechanism. All eSigns are managed by the Controller of Certifying Authorities which is a part of the Ministry of Electronics and Information Technology.

Going Global?

The next big challenge for the India Stack and Indian fintech will be taking it globally – not just to export an Indian model for national pride, but to create a ramp for Indian companies to do business abroad. Many developing markets could find India's model valuable and relevant. Indeed, Nilekani said, so could the U.S. with its sizable population of underbanked and chronically poor. What that means in practice is unclear; however, the Indian government has been in talks with tech-savvy places with many Indian workers, such as Singapore and the United Arab Emirates, about allowing Indian citizens to access UPI from abroad. The other use case would be to enable global tech companies that are piggybacking off the India Stack to take those services abroad.

FUN CORNER

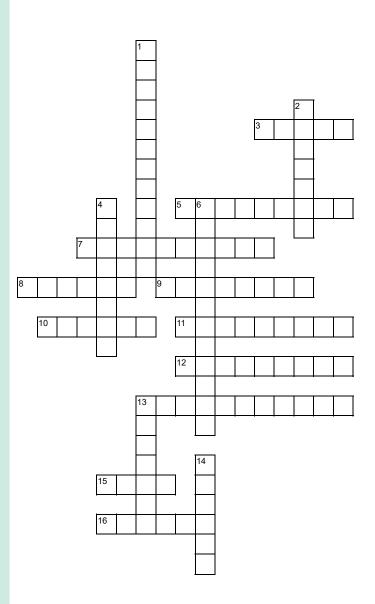
STARTUP CROSSWORD

Across

- 3 A type of funding typically provided by government agencies or non-profit foundations.
- 5 An investor measures a company's growth by determining whether or not they have met certain
- 7 The amount of securities assigned to an investor broker or underwriter in an offering.
- 8 Assets minus liabilities.
- 9 Creative process of generating, developing, and communicating new ideas.
- 10 The purchase of a company's shares that gives the purchaser controlling interest in the company.
- 11 The method of distributing products or services involving a franchiser, who establishes the brand's trademark or trade name and a business system.
- 12 An organization that helps develop early stage companies, usually in exchange for equity.
- 15 The likelihood of seeing a lower return than expected, including the possibility of losing some or all of the original investment.
- 16 A combination of two or more companies, often similar in size.

Down

- An expense recorded to reduce the value of a longterm tangible asset.
- 2 Monetary assets currently available for use.
- 4 Reduction in the percentage ownership of a given shareholder in a company caused by the issuance of new shares.
- 6 Individual who accepts financial risks and undertakes new financial ventures.
- 13 An individual providing business connections, guidance, advice and support to the entrepreneur as they develop and grow their startup.
- 14 The minimum acceptable level of stockholders or directors of a startup needed to hold a corporate meeting or vote.



THE STARTUP COMIC

Hey! Jgot an Jean



Poc Prototype



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CRYSTAL BALL

CRYSTAL BALL: India's DGCA and QCI certified drone manufacturer CrystalBall is a UAV manufacturing company working on solving real-life problems in the fields of Survey, Surveillance, Agriculture, and Healthcare. They blend the solutions with UAV and AI to provide the maximum value to the customer. Crystalball is working on some interesting problems having huge impact, using Drones and AI.



Q & A WITH SAI (CO-FOUNDER)

How the idea of making a UAV come into your mind?

As a child, I have always been attracted to making things fly. The technical clubs at IIT Hyderabad allowed me to explore different technologies that fly, and there I got the opportunity to work on drones. When I found the technology of my interest, then my friend Sai and I, along with Sandeep Reddy, started developing solutions that add value to the market. We identified problems in the Agriculture, Healthcare, and Surveying domains and we have been developing solutions to address problems in this domain since 2018.



What was your thought behind making a drone which is DGCA compliant?

Although we had the technology in hand to create an impact, operating drones was illegal (and it still is) if the drones are not properly authorized by the Indian government. We did not want to compromise on the legality of our technology and started working with DGCA and QCI. We were provisionally certified by DGCA in 2020, and now we got the first Type Certification for survey drone in the country and are the second drone company in India to get it.

What challenges you faced while getting certification from DGCA/QCI?

Two of the major challenges we faced were -

- 1. Regulations for the drone industry were still being formed and we had to adapt our technology to constant changes to the regulatory norms.
- 2. There were many tests we had to perform on our product. Few of them include structural design and manufacturing validation, battery testing, environmental testing, tamper-proof solution architecture, flight performance, etc. The facilities needed to perform these tests are not readily available, and we had to identify niche testing centers to perform the tests.

What all things you think startups should keep in mind before applying for the certification?

Few of the things that helped us while getting our product type certified are -

- Being aware of all the requirements clearly from a regulations point of view will help avoid unnecessary work.
- Making sure that the product has enough redundancies and safety factors considered during the design stage itself will make testing safer and more likely to give successful results.

What are the unique features of your drone which makes it compliant with DGCA rules and regulations?

We have added many redundancies and fail-safe measures into our design and build in order to ensure safe flying. In case of emergency, our in-house developed parachute recovery system, although not a requirement from regulations, helped us provide extra confidence to the regulatory authorities.



MANALI SWING

The first human jump on an Al-backed Giant Swing happened at IITH campus

Manali Swing offers one of the most creative & Safe Giant Swing (like bungy jumping just way more interesting) with 100+ Jump styles allowing one to experience the adrenaline of 70m free fall backed by Al promising impeccable safety like never before. They completed India's first of its kind successful Human Giant Swing Trials under the presence of IRATA Level 3 Experts on April 12, 2022.

Founded by 4 childhood adventure enthusiast friends consisting Engineers, Certified Rock climbers and mountaineers -their journey started 2.5 years back with a aim to democratize truly international quality creative adventure sports for youth of our India. The team was selected as a part of NICE Fellowship program and started working on their idea during early 2021 from IITH campus.

The team started working on the Proof of Prototype with the help of iTIC and IITH support. They build the structure which also allows retracting clients back to the platform, unlike 90% of all the outdated Giants swings of the world, which will not only makes user experience way better but also allow them to serve 2x more clients in a day.

Beside crafting the core Swing Technology, ManaliSwing is developing an AI as safety backup which can track participants and jump masters performance across millions of data points and deliver optimized approvals for jumping. Having an intelligent AI will be advantageous for Jump Master & his team making sure no injury, incident, or causality can happen on the site. For example: AI will not approve the jump if there is anything wrong with the followed jump protocol or international standards. This will be one of the best intersections of technology, innovation & adventure sport which has potential to disrupt the whole adventure tourism industry. "You might have heard of the news: Marine engineer aged 25 dies while bungee jumping in Bangalore such a cruel mishappening incident will become a thing of the past!!!" - Utsav one of the co-founder mentioned. "The precious part is – we don't need to have some special hi-tech cameras & expensive setups to do this. This can be franchised anywhere in the world with an existing standard hi-res CCTV security camera feed."- He added.

In April 2022, the startup conducted a full-scale trial of 1000 Dummy jumps followed by successful Human Jumps under the special presence of IRATA Level 3 expert Mr. Ranjit Shinde from their International safety partner KARAM Safety Pvt Ltd. The technology and engineering was verified by International domain expert like Ryan Jenks (founder HowNot2) & Nirat Bhatt (Chairman & MD at Nidus Enterprises Private Limited).

There are less than 10 places in the world where commercial Giant Swing is at place. ManaliSwing is the only Indian start-up that has developed country's 1st state-of-the-art technology for this sport from scratch. The Team is working on the next steps to commercialise the activity and seeking Govt support and clarity to do the same. There is a need of more clarity when it comes to government licensing, clearances, and processes for a new startup if someone wants to enter the space.



ALOG TECH

ALOG: Autonomous Indoor Robotic Systems for Warehouses

ALOG is a deep tech startup developing autonomous systems to improve productivity in logistics, retail, and manufacturing industries.

Raghuram Nanduri, founder, ALOG has worked for around 20 years in various roles in large tech companies and a tech startup.

Initially he explored supporting other startups as an advisor and angel investor, but soon he founded his own company and followed the passion.

Autonomous Carts for Distribution Centers (ACDC®) are autonomous mobile robots designed to operate safely within warehouses.ACDC® uses patented computer visionand AI technologies to map the facility and navigate autonomously.

Autonomous Carts are multipurpose and can be used for a variety of tasks including order picking,inventory putaway, shelf stock replenishment,cyclecounting etc.

They can be configured for any process specific to operation and can also be customized to meet unique requirements. With ACDC, warehouse workers spend less time walking and pushing carts, there by dramatically increasing productivity and throughput.

With ACDC, warehouse workers spend less time walking and pushing carts, thereby dramatically increasing productivity and throughput.





RAGHURAM NANDURI

FOUNDER- ALOG TECH

THE FUTURE OF WAREHOUSING

During his career, he worked for several years providing software solutions related to warehousing and transportation. He spent considerable time in warehouses and distribution centers around the world and saw first-hand their operational challenges and problems, especially in e-commerce order fulfillment. He saw the opportunity for automating warehouse processes using intelligent, flexible, and affordable robots. Amazon acquiring Kiva to automate their fulfillment centers convinced him of the immense potential.

Currently, Alog's mobile robot ACDC is being tried by a few leading companies in India for their warehousing solutions. The robot assists the human workers in carrying the parcels from shelfs to checkout points in an efficient and time saving manner. The feedback so far has been positive, and prospects are evaluating the benefits of deploying their robots. Their solution will help them fulfill more orders in less time and cost thereby giving them a competitive advantage. Alog plans to raise capital soon to accelerate their go-to-market and expand nationally and globally.



STARTUP ANNUAL MEET



iTIC hosted a closed door startup annual meet for networking with entrepreneurs associated with iTIC ecosystem. The event also saw the launch of Coffee Table Book which showcases all the startups of iTIC.

OTTONOMO'22

iTIC and TiHAN organized a grand challenge in the domain of autonomous navigation. The teams can apply in any of the 5 problem statements or an open challenge. Shortlisted teams went through a 6 week bootcamp and were expected to build a **Proof of Concept** during same time. At the end of 6 weeks, the teams would pitch in front of jury and winners would be announced.



Fabrication Factory Series

FFS

With the aim to provide hands-on skills to early stage startup founders and lab operators, iTIC organized a 3 week long Fabrication Series which covers fundamentals and basic operations of tools and equipments.



INNOVATION ACCELERATOR

iTIC and TiHAN
organized a 4 day
Innovation Accelerator
to support researchers
turn their research
ideas into startups.
The Accelerator was
conducted in Hybrid
mode with few
sessions conducted
virtually and rest of
them physically.



IDEX Roadshow 2022



iDEX Roadshow

roadshow to share insights on iDEX DISC 6 challenges and PRIME challenges. iDEX is a program to support Defense related startups/MSMEs by providing them access to financial aid, mentoring and other required support to solve some of the most important problems of defense.

Symposium on Deeptech Entrepreneurship

The half a day symposium organized by Department of Entrepreneurship and Management, IIT Hyderabad, focused on exploring the Opportunities and Gaps for Deeptech Entrepreneurship in 2022 through keynote address and panel discussions on the sub themes of "Role of Deeptech Entrepreneurship in Turbulent Times" and "Deeptech Entrepreneurship and Sustainability". The symposium drew attention of students specializing in science and technology domain, faculty members, incubated startup founders and team members and entrepreneurs at various stages of concept and organizational development participated in the symposium.

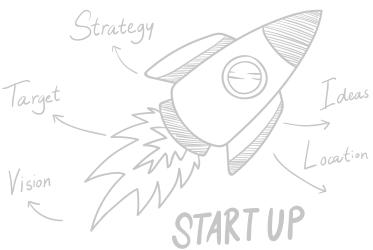


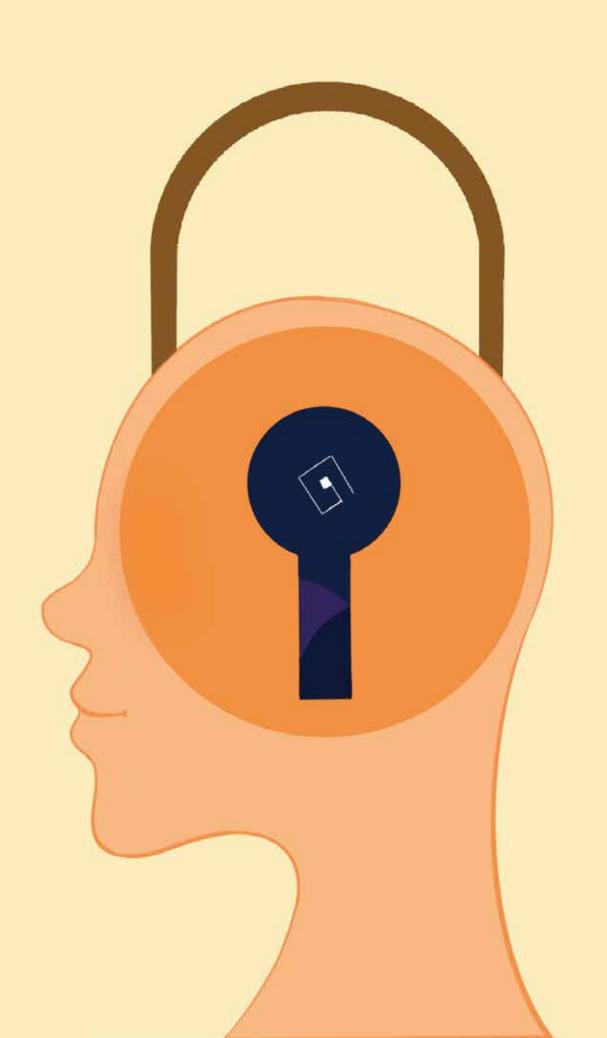


Debriefing Session on NASSCOM Zinnov Tech Start-up Landscape 2021

Department of Entrepreneurship and Management, IIT Hyderabad and iTIC Incubator at IIT Hyderabad organized a Debriefing Session on NASSCOM Zinnov India Tech Start-up Landscape 2021. The session discussed the salient points mentioned in the report and emphasized on the trends and opportunities in the startup ecosystem of India.







iTIC Incubator Statistics



1000+ Jobs Created



100+ Startups Supported



150+ Mentors Associated



INR 7 Cr+
Funds Sanctioned
To Startups



1.5 lakh sq.ft Incubation Park



INR 800 Cr+ Startup <u>Reven</u>ue



iTIC Incubator

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