

INCUBATION HUB

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1. Background

NITI Ayog, in 2016, launched Atal Innovation Mission (AIM), intending to foster an innovative and entrepreneurial spirit amongst the general populace. The mission of AIM was to provide an overarching structure to monitor the country's eco-system for innovation and entrepreneurship and to design new programmes and policies to support innovation in various economic sectors. AIM promotes the formation of new business incubation facilities, called Atal Incubation Centres (AICs), to help potential new initiatives mature into financially sustainable businesses. AIM plans to engage with the country's successful incubators to help them expand by providing scale-up resources. Start-up creation, early stage and expansion are three major stages of incubation to achieve the goals set by AIM. Figure 1 discusses the three stages of incubation.

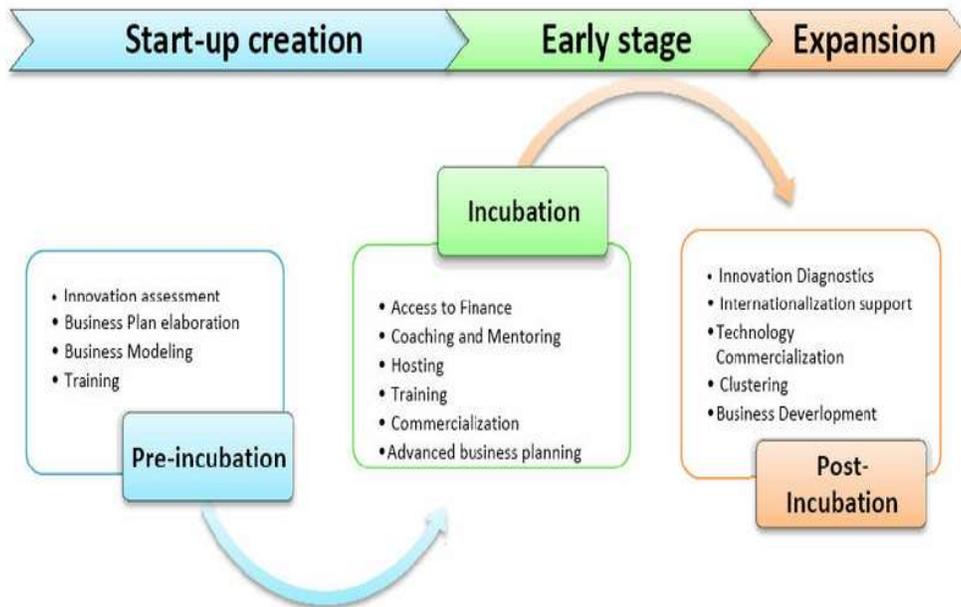


Fig. 1: Stages of Incubation

2. Atal Incubation Hub (AIH) @ HBTU Kanpur

In 2018, the Atal Incubation Hub (AIH) at HBTU Kanpur was established to achieve the AIM goals.



Fig. 2. Incubation HUB at HBTU

The hub is geared towards supporting entrepreneurs in developing their businesses in the initial stages, accelerating the growth and success of start-ups, and early-stage companies. The Incubation support includes providing technological facilities and advice, seed funds in the early stages, networking and linkages, co-working spaces, lab facilities, mentoring, and advisory support. Further, the AIH is a good path to capital from angel investors, government organizations, economic development coalitions, venture capitalists, and other investors. Figure 3 illustrates the process of incubation at HBTU.

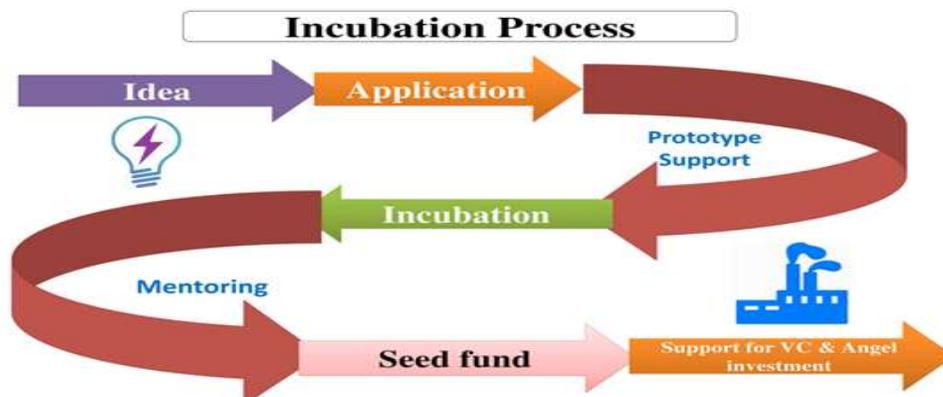


Fig. 3: Incubation process followed at HBTU

3. Implementation of facilities at HBTU

Atal Incubation Hub at HBTU Kanpur has developed the incubation facility in the following phases:

First Phase: In this phase, the minimum required resources to establish the office of the dean of the incubation hub are established.

Second Phase: Incubation Space is provided to the incubated companies

Third Phase: Training, Research and Sustainable Facilities is established in the following forms:

- i.** Laboratory to transform ideas into real-time engineering objects.
- ii.** Integrated digital environment for Innovation, Integration, Incubation and Implementation.
- iii.** Ideation Accelerator with generous funding with the support of Funding agencies that would be a soft facility in the domain of embedded systems, platforms, algorithms, and IT-related ideas
- iv.** Entrepreneurship Research and Training Centre to conduct cutting-edge research, teaching and training in entrepreneurship in the Indian context by utilizing the facilities of the Incubation Hub and the existing intellectual pool in the University.

4. University-Industry Interaction

Incubation cell has been actively involved in interacting with the industry. Following are the major interactions between HBTU and Industry to promote incubation.

- MoU for INCUBATION between HBTU and IIT KANPUR
- DIC MoU between HBTU and IIT KANPUR
- Proforma of the proposal to be submitted to DIC-SPOKE HBTU Kanpur for the research grant to develop the prototype.
- India Innovation Growth Programme 2.0

The details of the above University-Industry interaction can be found at: <https://hbtu.ac.in/university-industry-interaction/>

5. Formation of Company under section 8- HBTU TBI Foundation

HBTU- TBI Foundation was incorporated on 20 May 2022 Under-Companies Act, 2013



GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS

Central Registration Centre

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 and sub-section (1) of section 8 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that HBTU TBI FOUNDATION is incorporated on this Twentieth day of May Two thousand twenty-two under the Companies Act, 2013 (18 of 2013) and that the company is limited by guarantee.

The Corporate Identity Number of the company is U80904UP2022NPL164475.

The Permanent Account Number (PAN) of the company is AAGCH3198H *

The Tax Deduction and Collection Account Number (TAN) of the company is KNPH01851D *

Given under my hand at Manesar this Twenty fourth day of May Two thousand twenty-two .



Digital Signature Certificate
Ms. Susmithaa Selvaraj

For and on behalf of the Jurisdictional Registrar of Companies
Registrar of Companies
Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on www.mca.gov.in

Mailing Address as per record available in Registrar of Companies office:

HBTU TBI FOUNDATION
7/102 FLAT NO.1001, EMERALD GARDEN TOWER NO.1, KANPUR,
Kanpur, Uttar Pradesh, India, 208002



6. Events in Incubation HUB in 2020-21

The Entrepreneurship cell regularly organizes start-up events at HBTU. The major events organized /participated in by the students are listed.

i) Treasure Hunt

Details:The Entrepreneurship cell at HBTU organized an event on 9 January 2021 to enhance students' problem-solving skills.



ii) Basics of Start-up (webinar)

Details:A Webinar was organized on 24 January 2021 on the 'Basics of Start-up.' The speaker **Sanjay Kumar** (founder of Selectors club and Chropath), gave deeper insights into the fundamentals of Start-ups.



iii) Ignite (business model competition)

Details: The event was organized on 2 August 2021. The event featured a Business Model Competition (BMC) divided into three rounds. Introduction, SWOT Analysis, and Replication. SWOT analysis (strengths, weaknesses, opportunities, and threats) provides a framework for evaluating the company's competitive position and developing strategic plans. Internal and external factors and current and future potential were all considered in the analysis. Different case studies from the industry were taken and analyzed.



iv. How to make a career in Data (webinar)

Details: The entrepreneurship cell organized a webinar on "How to make your career in Data?" on 2 October 2021. The speaker 'Mr. Saurabh Moody, CEO of 'Alpha AI' demonstrated to the students the methodology adopted to make carriers in Data.



v)Presentation of ideas before the Hon'ble Technical Minister

Details: Entrepreneurship Cell organized an idea exhibition on the occasion of the visit of the Hon'ble Technical Minister of Uttar Pradesh, ' Shri JitinPrasada', on 11 October 2021. HBTU students presented the start-up ideas currently being worked on at the University.



vi) Jaipuria Quiz League

Details:Jaipuria institute organized a quiz on 15 November 2021to develop critical problem skills among students at HBTU.Amazon gift vouchers worth Rs. 1000 and 1500 were distributed to the winners.



vii)Team HBTU at REC IITK

Details:Students of HBTU participated in the REC innovation platform on 19 November 2021. HBTU team HBTU bagged **first place** amongst 1200 students that participated from over 30 colleges.*A cash prize of One lakh was awarded to the team.*



viii) The Venture Championship

Details: The Entrepreneurship cell organized an event on 7 February 2022 for students to help cultivate analytical skills and guide them to become successful Entrepreneurs.



ix) Workshop on LinkedIn(Webinar)

Details:Entrepreneurship Cell HBTU organized an online workshop on 19 February 2022. Ms **Saloni Maurya**, the LinkedIn growth consultant, demonstrated to the students the uses of LinkedIn for professional networking.



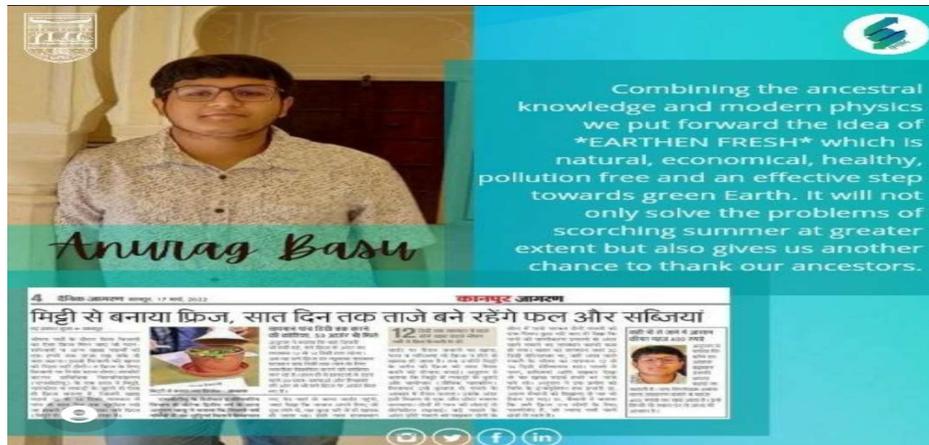
x) Relectra (Retrofitted Electric Bike)

Details: HBTU Chemical Engineering student MayankKhanna successfully retrofitted an old petroleum-run condemned bike with an e-bike'ELECTRA'. The idea was well accepted, appreciated and published on 16 March 2022 in newspapers.



xi) Thanda Bartan (earthen fresh)

Details: HBTU student 'Anurag Basu' worked on the idea of 'Earthen fresh' (made from clay, sawdust, and charcoal) that cools air through the evaporation of water(in the space between the two pots).The idea was well accepted, appreciated and published on 17 March2022 in various newspapers.



xii) Win on Stock-Pe

Details: Entrepreneurship Cell, in association with Stock-Pe, organized Win on Stock-Pe on 8 August 2022 (a 1-day mock trading competition).



7. Start-ups in Incubation Hub

HBTU students are presently working on the following start-ups.

i) Mr. Anurag Basu

Branch: B.Tech. Civil Engg. (III Year)

Subject: *Preparation of Cost-Effective earthen Evaporation cooler.* The cooler will help the villagers and Nomads in storing food for longer durations. The work aims on keeping the surface wet all time by optimizing the pore fraction. Using the fundamentals the temperature inside the pot can be well brought below to 18⁰C.

ii) Mr Yashraj Bhatia

Branch: M.Tech, Food Technology (II year).

Subject: *Developing Non-alcoholic Fermented drink 'Kombucha'*. The food consists of variety of minerals, enzymes and vitamins. The drink utilizes a bacteria called SCOBY that consumes 90% of sugar during the fermentation process making it a low sugar end product.

iii) Mr Atul Kumar Singh, Mr Nishchhal Prakash Nigam and Mr Aditya Dixit

Branch: B.Tech Chemical Engineering, civil Engg and Paint Engineering (II Year)

Subject: *Developing SaaS-based Learning and Education Platform*. The platform aims at providing tutorials for learning various skills through experts.

iv) Mr Shikhar Chaubey, Mr Tarun Pratap Singh, Divyansh Vaibhav and Kandarp Trivedi

Branch: B.Tech Mechanical Engineering and Chemical Engg (III Year)

Subject: *Developing Electric Vehicle Traction System*. The work aims at providing accurate ways of navigation to 2/4 wheeler vehicles using cloud computing

v) Mr Harsh Maddheshiya, Mr Satvik Tiwari and Nikhil Kumar Giri

Branch: B.Tech Plastic Technology, Plastic Tech. and Computer science (II Year)

Subject: *Developing a system for Laundry and washing*. The work focuses on developing an app to connect laundry services to people at low price with no compromise on quality.

vi) Ms Anushree Trivedi, Mr Mayank Khanna and Mr Tarun Pratap Singh

Branch: B. Tech Chem. Engg, Chem. Engg (Final year) and Mechanical Engg (III Year)

Subject: *Developing an Effective Food Waste Management Scheme* through the use of 'Black Soldier Fly'. The fly is found in tropical and subtropical areas between the latitudes of 40⁰S and 45⁰N in Indonesia and Sweden.

vii) Mr Prakhar Kumar Shukla, Mr Madhav Dwivedi and Mr Harsh Agarwal

Branch: B. Tech Civil Engg and Electronics (II year)

Subject: *To convert vegetable waste into useful compost*. The work focuses on using earthworms, red wigglers and white worms to convert organic waste into manure.

viii) Gaurang Maheshwari & Amisha Srivastava

Branch: B. Tech. Paint Technology (III Year)

Subject: Preparation of Alkyd Resin from post-consumer PET bottles

ix) SahejDheer

Branch: MTech. Paint Technology (I Year)

Subject: Preparation of eco-friendly, water-soluble and light-coloured CNSL (Cashew Nutshell liquid) based resin

x) Mayank Khanna, Suharsh Mahajan, Buddhsen Singh (IV year)

Branch: B. Tech Chemical Engineering and Biochemical Engineering

Subject: *Developing Unicofy Company*

xi) Mr Kandarp Trivedi, Mr Raj Mohan and Mr Raghav Pandey

Branch: B.TechChemical Engg (III Year)

Subject: *Developing an Organic Eco-system*

xii) Mr Mohit Singh Chauhan, Mr Harshit Yadav and Mr Shobhan Srivastava

Branch: B.Tech Paint technology, Bio-chemical Engg and Chemical Engg (III Year)

Subject: *Developing a Green Kart*. Green Kart will be an e-commerce website aiming at the sales and distribution of Sustainable, eco-friendly and Biodegradable products that cannot find their right audience on mega giants like Amazon and Flipkart.

xiii) Prakhar Tandon, Utkarsh Dikshit, Harsh Prajapati, Tushar Bhatia, Raunak Agarwal

Branch: B. Tech computer science and Engineering (III year).

Subject: *Developing a software-based company* with a focus on developing 'MAPAUT' to bring the comfort and ease of a graphical password system