



Indian Institute of Technology (Indian School of Mines), Dhanbad

Centre for Innovation, Incubation and Entrepreneurship (CIIE)

Introduction

Centre for Innovation, Incubation and Entrepreneurship (CIIE) is a Not for Profit Centre at Indian Institute of Technology (Indian School of Mines), Dhanbad, dedicated to promote innovation and Entrepreneurship. It is a pedestal to help knowledge driven enterprises to establish and prosper under organized scientific guidance. It also facilitates swift commercialization of a product based on sophisticated technology. The main objective of the **CIIE** is to produce successful firms that will leave the program financially viable and free-standing. These incubators “graduates” create job, commercialize new technologies, and strengthen national economies. Incubator tenants not only benefit from business and technical assistance, they also benefit from official affiliation with the incubator, a supportive community with an entrepreneurial environment, direct link to entrepreneurs, and immediate networking and commercial opportunities with other tenant firms.

The Ecosystem

CIIE aims to coordinate, synergize and leverage the various strands of excellence driving innovation and entrepreneurship in a thriving ecosystem consisting of research at the cutting edge of science and technology, a highly successful body facilitating industrial interactions, and incubation in sectors such as rural technologies, industrial solutions and social impact.

CIIE supports members of the IIT (ISM) including staff, students, alumni, faculty, and R&D partners, in creating successful business ventures that can translate benefits from technology and knowledge innovations to the society at large.

Mission

“To motivate, build and promote out of box thinking, development of innovative ideas. To build an environment that will facilitate the creation of social enterprise knowledge through research and empower students to apply their entrepreneurship abilities to develop solutions for greater social impact through academia.”

How do we achieve this?

Education: Academic programs on social innovation and entrepreneurship for students across disciplines and degrees at IIT (ISM), Dhanbad.

Research: CIIE provides an enabling environment for both student and faculty researchers interested in social enterprise research within the IIT (ISM) campus.

Catalyzing Innovation: Encouraging young innovators and entrepreneurs by assisting in the development of socially-beneficial products and ideas

Collaboration: Creating an ecosystem that extends to other technology institutions, including IIT (ISM) and IITs.

Overview

CIIE is the umbrella body for nurturing and overseeing innovation and entrepreneurship at IIT (ISM), Dhanbad. CIIE will leverage from past experiences and give entrepreneurship a stronger push as well as serve to coordinate and promote innovation-driven activities at the institute. CIIE seeks to nurture technology and knowledge based ventures through their start-up phase by providing the necessary support to help entrepreneurs survive in the competitive market and reach a stage where they can scale-up their ventures further. The CIIE aims to build and share resources including space and infrastructure, access to business support services, mentoring, training programmes to enhance the skills of entrepreneurs and seed funds. The scope of support is broad-based, and covers technologies/IP developed wholly at the Institute or partly through collaborations elsewhere, as well as external start-ups with which IIT (ISM) members are associated as consultants or mentors. CIIE is also particularly open to proposals with strong social and strategic impact:

- Not for profit Centre.
- Technology Business Incubation.
- Training and awareness programs in Entrepreneurship (EAC, EDP, FDP).
- Competitive events, lectures and workshops on soft skill development, case studies, bplan competitions, innovators camps etc.
- Promoting Innovations in Individuals, Start-ups and MSMEs(PRISM).
- Technology Commercialization Program.

Objectives of CIIE

- New Venture Creation through providing incubation and host of other support in the areas of Mining Engineering, Petroleum Engineering, Earth System Sciences, Geo-Physics, Information and Communication Technology (ICT), Biotechnology, Food Technology, Agriculture and Allied sectors.
- Technology Commercialization, targeted at providing a much needed platform for speedy commercialization of technologies developed in the academic and R & D institutions to reach the end users.
- Interfacing and Networking between academic, R & D institutions, industries and financial institutions.
- Value Addition through its services provided to its incubates as well as to the existing technology dominated SMEs, TBI aim at value addition.
- Creating value added jobs & services,
- Fostering the entrepreneurial spirit.

Major Activities at CIIE

- Creating a collaborative environment between industry and academia through joint research projects and consulting assignments.
- Incubating early stage technology based innovative entrepreneurial ventures.
- Encouraging and enabling the alignment of R&D activities to potential needs of the industry.
- Identifying technologies/innovations which have potential for commercial ventures.
- Physical infrastructure and support systems creation for business incubation activities.
- Foster and promote entrepreneurship spirit.
- Facilitate knowledge creation, innovation and entrepreneurship activities.
- Facilitate networking with professional resources, which include mentors, experts, consultants and advisors for the incubatee companies.
- Enabling development of high quality personnel and motivating researchers to grow professionally within organizations through part time Masters and PhD Programs.

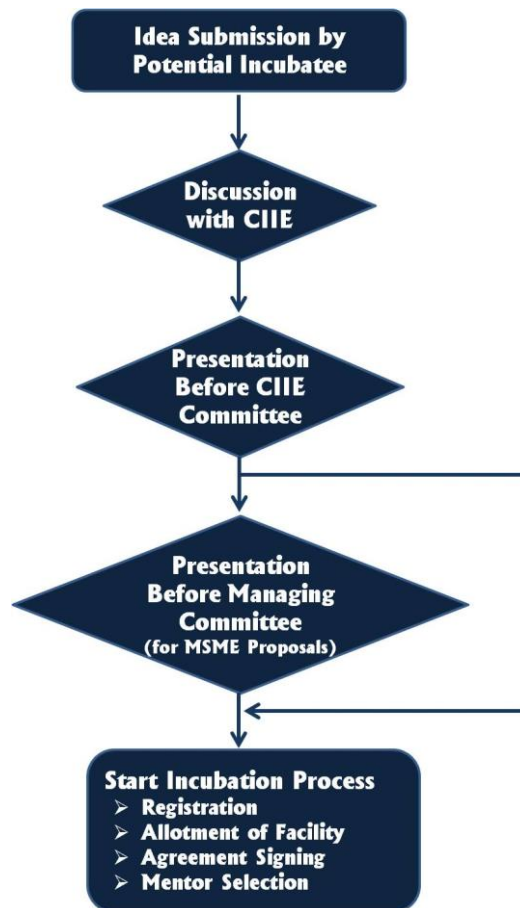
Value added services offered by the CIIE

Start-ups are being counseled, mentored, given technical and business advices by experts and respective faculties of the institution. We will provide 3-tier counseling to the start-ups. CIIE will act as also home to other supportive programs which have been able to support entrepreneurs and innovators coming to CIIE. The presence of a constellation of associated programs as mentioned below has greatly assisted the CIIE ecosystem development. CIIE along with supporting agencies and programs at IIT (ISM), Dhanbad supports innovators by

- i.** Mentoring (round the clock)
- ii.** Technical support (Design, Simulations, Development and Testing)
- iii.** Financial support (Seed Support, Innovation, Refinement & Commercialization Grant)
- iv.** Legal advices are given with the help of Intellectual Property.
- v.** Fabrication Assistance through IIT (ISM) and IIT's numerous labs.
- vi.** Market Information (Product Development Strategies, Business Intelligence and Business Architecture)
- vii.** Networking with Research Laboratories (For Knowledge diffusion and day to day interactions).

Operating Model

CIIE is poised to straddle the academic community at IIT (ISM), Dhanbad on one hand and the social and industrial bodies on the other, supported by the IIT (ISM), Dhanbad and dedicated incubators. A Governing Board consisting of faculty, administrators, representatives from IIT (ISM), Dhanbad incubators and alumni guide and steer CIIE activities.



At the operational level, CIIE is primary responsible for nurturing new companies, as well as for identifying promising pre-company opportunities. In this process IIT (ISM) resources including the extensive and very active alumni network play a major role.

Eligibility

CIIE seeks to support all members of the IIT (ISM), Dhanbad to translate innovations into products, processes and services that are commercially viable. Admission to CIIE is open to:

- UG, PG, JRF & PDF Students and Project staff
- Alumni
- Faculty and staff (current and retired) including adjunct faculty

The admission to CIIE is open to aspiring *start-ups* in the different areas, promoted by:

- Students and alumni of IIT (ISM), Dhanbad.
- Faculty members (present or former) of IIT (ISM), Dhanbad
- R&D partners (sponsors of R&D and consultancy projects)
- Industrial Collaborators

Beneficiaries

A team which consists of at least one member from IIT (ISM), Dhanbad community who could be

- Students
- Alumni
- Faculty
- Permanent Staff
- Research Partner Institute
- Society at Large

The scope of support is envisaged to be broad-based, and cover technologies/IP developed wholly at the Institute or partly through collaborations elsewhere, as well as external start-ups with which IIT (ISM), Dhanbad personnel may be associated as consultants or mentors. CIIE will in particular, also be open to proposals with strong social and strategic impact.

CIIE is also the nodal body to frame and monitor agreements regarding policy and fair use between IIT (ISM), Dhanbad and incubated companies.

Broad Areas

Different Sectors where incubation can be provided are among, but not limited to:

- Earth System Sciences (including Mining, Petroleum, Mineral, Geo-Physics, etc.)
- Information and Communication Technology
- Food, Agriculture & Allied Sectors
- Augmented Reality, Big Data and Analytics, Image processing and Recognition
- Cloud Computing
- Smart, Energy and Functional Materials
- Affordable Healthcare, Early detection of diseases, Drug design
- Water & Sewage Management
- Organic Electronics, Organic Electronics
- Green Technology, Clean Energy, Renewable Energy, Non- Renewable Energy Sources
- And many more.....

Incubation program is focused on technology and knowledge based ventures. The incubates applying at CIIE are categorized as below:

Type I

Ventures in this category are typically the project initiated by one or more members of the academic staff, students and/or alumni of IIT (ISM), Dhanbad, one of the IITs or other premier institutes, supported by IIT (ISM), Dhanbad, or some other technology promotion agency (government or non-government) with a view to trying out a novel technological idea for upgradation to a commercial proposition, scaling up a laboratory proven concept, and setting up a technology business enterprise.

Type II

A typical venture in this category can be a technology-based start up company promoted by a first generation entrepreneur desirous of R&D partnership with the IIT (ISM), Dhanbad or company with a view to trying out a novel technological idea for upgradation to a commercial proposition, scaling up a laboratory proven concept and setting up a technology business enterprise.

Type III

Venture in this category typically can be a technology/R&D unit of an existing small/medium size enterprise, industry association or a R&D Company that desires to have close technology interface with IIT (ISM), Dhanbad. All the applicants under any of the above categories are evaluated by the evaluation committee of CIIE before the applicant can be granted admission to CIIE. For successful applicant, who are no longer part of IIT (ISM) fraternity, and, are approved for membership by the CIIE evaluation committee will have to execute an agreement for space utilization with the IIT (ISM), Dhanbad as well as a bilateral MOU on Synergistic collaboration with the Institute through CIIE.

Incubation Process and Support Available

Admission to the CIIE involves: submission of an electronic application, rounds of screening by CIIE (where proposals are examined with attention to financial and technical due diligence) and a final approval by the **Managing Committee**. Incubatee companies are required to sign an agreement commencing formal incubation under CIIE. Incubation support is normally offered for a period of 3 years.

Upon admission incubatee companies may be offered shared office space and infrastructure at CIIE on an individual case-by-case assessment basis. Depending on the stage of the start-ups, incubatees

may apply for independent office space at IIT (ISM), Dhanbad at nominal rental rates, based on availability. In addition, CIIE will actively support incubatees with a combination of inputs including:

- i.** Branding: incubatees may apply for permission to brand themselves as “IIT (ISM), Dhanbad Incubated Company” or “Incubated by IIT (ISM), Dhanbad”
- ii. Business support services:** in-house consultants offering Accounting, tax, company secretary, legal and IP services (no and/or discounted fees)
- iii.** Permission to use laboratories, workshop facilities and equipment at IIT (ISM), Dhanbad
- iv. Mentorship:** with CIIE
- v.** Skill development Training workshops: Monthly entrepreneurship meetings
- vi.** Introduction to Angel investors, Venture capitalists and other financial institutions
- vii.** Meetings with visitors of IIT (ISM), Dhanbad (such as academics, alumni, VCs, industry professionals)
- viii.** Showcasing incubatees through networking events
- ix. Seed Funding for entrepreneurship:** are subject to the availability of funds/grants/ schemes meant for this purpose

Incubatee companies are expected from cutting edge research at the academic departments, venture activities of students and alumni, as well as the extensive industry network available.

Admission

Admission to the business incubator is based on the evaluation process carried out by the evaluation committee constituted by CIIE. The incubatee is admitted for up to three years. CIIE will conduct periodic reviews and monitoring of the projects.

Facilities

Physical Infrastructure

- Fully furnished offices
- Personal computers, Printers
- Telecom facilities
- Internet connectivity
- Laboratory Facilities of Incubation Labs

Business Support

Business plan assistance

Mentoring support

Access to professionals with legal, financial, accounting, IP and industry expertise

Showcasing events for exhibition of products and solutions

Networking events to facilitate interaction with investors and industries

Training programmes and seminars relevant to entrepreneurs

Shared Resources

Meeting and conference rooms equipped with projectors & audio/video conferencing facilities

High-end photocopying, fax, scanning machines

Pantry facilities

Lab facilities

Library Facilities

Entrepreneur Infrastructure

Common Computation facilities for the entrepreneurs have been set up. Physical infrastructure like office, workshop space on an affordable basis is made available to the entrepreneurs.

Multimedia facility

Dedicated multimedia facilities for remote board meetings and video conferences are fully running. Regular meetings are held with the CIIE partners through video conferencing. This is to keep pace with the developing technologies in other countries.

Library facility:

The incubatees at CIIE can have access to IIT (ISM), Dhanbad central library at very nominal charges.

Access to Skilled Resources:

CIIE is strongly supported by the IIT (ISM), Dhanbad, a reputed institute in the field of science and technology. IIT (ISM), Dhanbad provides the incubatees at CIIE with enormous intellectual resources, laboratory and library facilities of all the departments in the institute. Our alumni network also works for CIIE to foster incubation.

Other Initiatives

EAD (Entrepreneurship Awareness Drive)

“All humans are entrepreneurs not because they should start companies but because the will to create is encoded in human DNA.” —Reid Hoffman, LinkedIn co-founder

EAD (Entrepreneurship Awareness Drive) is an initiative by CIIE to identify youths to the entrepreneurs within them and to motivate them for their startups. For this EAC (Entrepreneur Awareness Camp) and interactive workshop is organized. The workshops are structured very intelligently to inculcate entrepreneurial skills from basic to advanced level. The workshops included are:

- Exploring Entrepreneurial Spirit:
- Practicing Entrepreneurial Thinking
- Mastering Entrepreneurship

Exploring Entrepreneurial Spirit

“Talkers have always ruled. They will continue to rule. The smart thing is to join them.”

For a successful startup, communication skill is one of the most vital elements; it helps dealing people and giving ideas right direction. The workshop aims to furnish the communication skills, and at the same time, it will also introduce the business jargon.

The workshop will also give the insight of marketing skills which can be the major difference between a billionaire and nothing. In this era of globalization, one needs to connect to the individuals at the very basic level for any successful venture and this is where good marketing skills come to life.

Mastering Entrepreneurship:

This workshop is made to bring out a blossomed entrepreneur in well groomed aspirants. The workshop will introduce the government’s role in startups .It will include various policies and incentives given by government for development of small firms. The knowledge of these can be beneficial for initial growth and also in guarding the firm against the illegal elements.

A live interactive session is also coordinated with successful entrepreneurs, which can help grasping their demeanor. A lot can be learned from their experiences and attendees will have the opportunity to take expert advice for their startup.

Practicing Entrepreneurial Thinking:

This workshop is devoted to involve aspirants in an interactive session where they get fortuity to practice their entrepreneurial skills. The attendees will be given a chance to show their mantle in developing a good Business plan under a seasoned guidance. Business plan is the blueprint of an

entrepreneurial thinking and is very important for implementation of ideas in right direction. Putting ideas down on paper and the act of researching and compiling data about the competitors and the market is very useful for future reference.

A session will also be devoted to give ways of finding right physical and intellectual resources economically. Finding resource is next step after a good B-plan but is very cumbersome and a good guidance can make a difference.

Entrepreneurship Development Program

This program provides platform for high-tech entrepreneurship to help entrepreneurs, corporate venturing executives and others involved in entrepreneurial environments learn what they need to develop ideas into successful businesses, and how to increase entrepreneurial opportunities in their corporations, institutions, and regions.

It covers the entire venture creation process, from generating ideas to building viable global businesses, with a special emphasis on the nurturing roles of corporations, universities, governments, and foundations.