

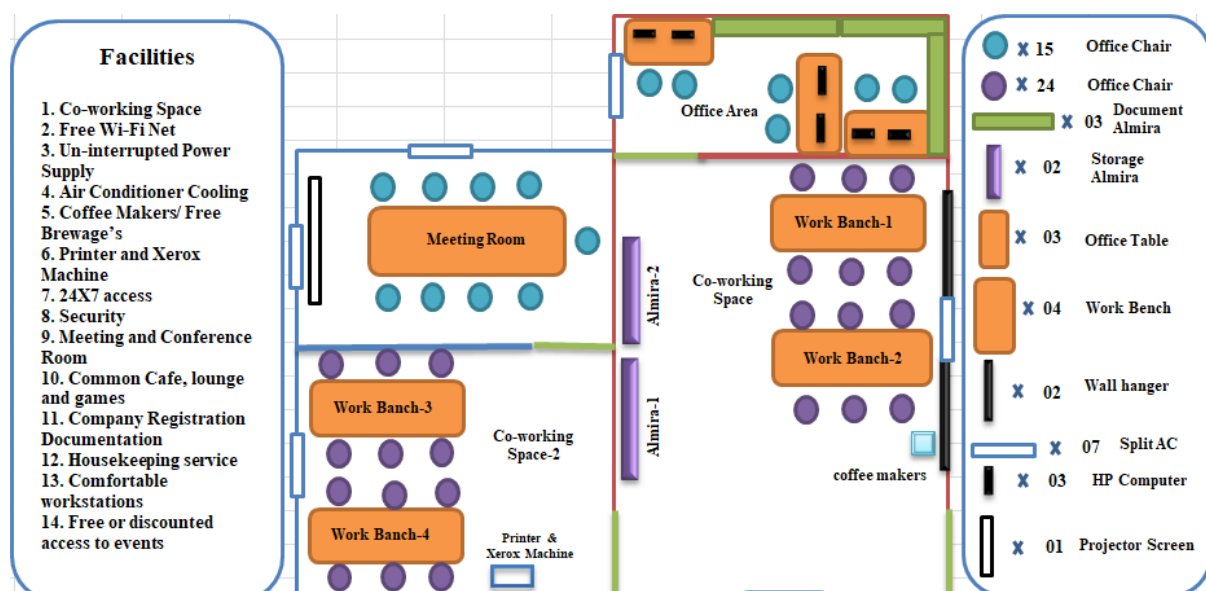
# COER – INNOVATION INCUBATION CENTRE

## (COER-i2C)

### BRIEF SUMMERY

In College of Engineering Roorkee (COER) students are getting motivation for innovation and starting their own Startup from various activities conducted by various clubs, The Entrepreneurship Development Cell (EDC) was one of them, which was effectively working from 2016-17 academic session after achieving desired goal EDC further extended its scope and converted into Innovation, Incubation Centre (i2C) in 2018-19 at COER, Roorkee. The i2C was developed on the basis of comprehensive surveys on the technology developments, available human resources of aspiring engineering and technology graduates, and industry trends. In i2C we also believe that for betterment of society we also have to put hands in hand with the State Government to leverage the talent and aspirations of engineering graduates of the College for opportunity creation and wealth generation while meeting their immediate and future needs of the society and industry alike.

The i2C is facilitated by the COER with an advisory board of experienced and eminent industrialists and an executive committee of dedicated mentor with active participation of faculty and support staff of the college.



## **PURPOSE**

The mission of the i2C is to encourage and support establishment and growth of technology based start-ups. By fulfilling this mission, the Centre shall contribute to job creation, improve employability of graduates, enhance economic health of the region and meet the demands of the society and industry across the entire State through the regional centres and sub-centres of the college.

This centre envisages facilitating incubation of new start-ups/entrepreneurs & enterprises for innovative technologies by providing need based physical, technical, business and networking support, facilities and services to test and validate their venture before successful establishment of enterprises.

Presently the COER-i2C is promoting entrepreneurs in fields of design, automation, robotics and various application of engineering and management by which try to serves to the society in large and affordable manner.

## **DESCRIPTION**

In i2C we are providing an ecosystem to start-ups of enterprising students and immediate alumni of the college and affiliated partners. The i2C provides working space at flexible lease, common office and maker's laboratory facilities, business guidance, mentoring, and other technical resources in a network mode at the main centre of the college. The i2C can host approximately twelve to fifteen start-ups and innovators at a time in a new 5,000 square feet well equipped facility that would include a mix of office (Common Working Place), Meeting/Seminar hall, Conference hall and lab space & necessary infrastructure for prototype building & legal support. The facility, owned by the College and State of Uttarakhand, is being built at the Main Centre of the College and shall be operational within one year.

## **CORE STRENGTH OF COLLEGE OF ENGINEERING ROORKEE (COER)**

COER is govern by Seth Roshan Lal Jain Trust, with a mandate of bringing all engineering & technologies, management and other streams of education under one umbrella in the next 4 to 5 years.

The core strength of the College is its vast human resource of students and faculty at the College as well as 10000+ alimonies in engineering, management and other branches of education, having professional network teeming with youngsters with bright ideas and big

aspirations. The College would like to leverage this demographic advantage to build a vibrant ecosystem to support initiatives for wealth creation in the era of competitive technology developments. Nearby schools, colleges, industries and other part of society can have utilized benefits of our well-equipped laboratories, we are highly willing and enthusiastic to do partnership in this endeavour.

Being a renowned technical institution of the State, COER is better placed to put its technical and professional knowledge to best of its use for practical applications. With a network of more than 150 trained engineering faculty, and access to sophisticated equipment in the college laboratories, the pre-incubation activities up to prototype level can be speeded up in the innovation and incubation centre with significantly improved chances of survival of the Startups.

The college has now access to a large number of experts in industry, many of them alumni of the college. The college has built its relations with several companies and industry organizations who are willing to participate in the Start-up activities. The college has a database of experts as mentors and probable investors in the Start-up activities of the Centre. The experts have been already roped in to make appropriate changes in curricula and research activities at the college

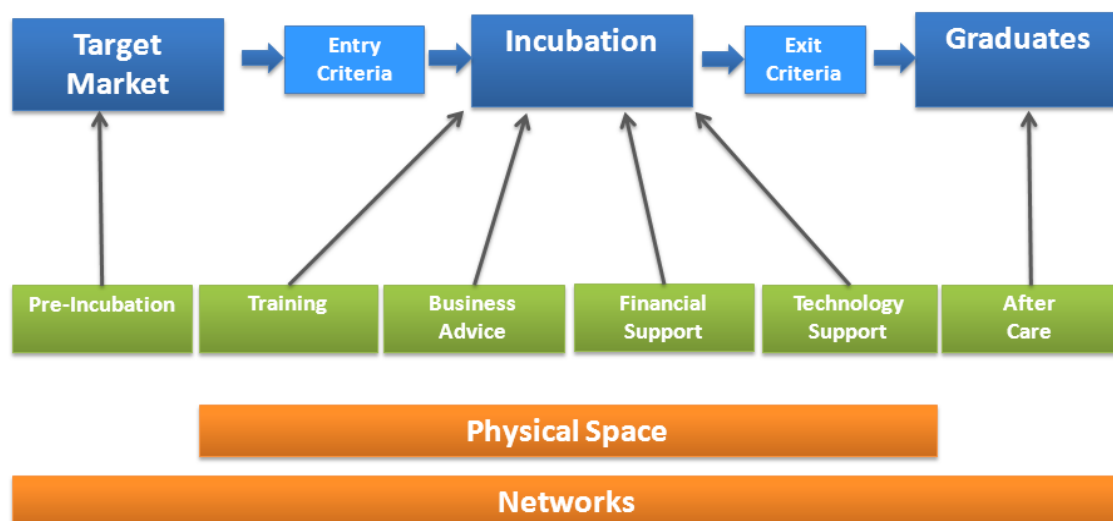
## **NEED OF INNOVATION AND INCUBATION CENTRE**

The engineering graduates produced across the State have been facing problem of unemployability and need many a times retraining in emerging areas of technology. The dynamic technology landscape demands learning on feet, but throws newer challenges as well as new opportunities to the young engineers. A paradigm shift is taking place where job seekers need to be converted into job creators, not just to provide opportunities to other graduating engineers but also add value to their education as engineers. The presence of an i2C on the college campus, as the Start-up Ecosystem of the College as well as University, shall drive the energy of the young engineers to creation of an enterprise rather than looking for job elsewhere. The culture can be propagated to other colleges affiliated to the University as well as in other parts of the society. The campus of the college has various industries along with SIDCUL, Haridwar located within 25-50km distance. IT/Software solutions incubated from the college will be easily able to market and sell at the Smart cities like Delhi, Noida and

in NC Region. Electronic products designed from the college will be able to find various clients in these cities.

## OBJECTIVE

- The COER-i2C is currently working towards achieving the following objectives:
  - **Innovation** in project and product development
  - **Incubation** and **business development** in engineering and its applications
  - **Techno-entrepreneurial activities** in various branches of engineering
  - **Skilldevelopment** in **selectedstakeholders** related to **engineering and technological** application sector.



**Figure:COER-i2CStructure**

## REGISTERD STARTUP (2018)

1. Robotic Trade
2. The Next Move (TNM)



All You Need To Innovate...!!



### IN PROCESS:

Lorygo Pvt. Ltd.

Star Lab

Many Mores



सत्यमेव जयते

GSTIN 05CXXPR6604K1ZP

Legal Name UTKARSH RAWAT

Trade Name, if any ROBOTICSTRADE

Annexure A



Government of India  
Form GST REG-06  
[See Rule 10(1)]

#### Details of Additional Places of Business

Total Number of Additional Places of Business in the State 0

#### Registration Certificate

Registration Number : 05CXXPR6604K1C0

1.	Legal Name	UTKARSH RAWAT		
2.	Trade Name, if any	Robotics trade india		
3.	Constitution of Business	Proprietorship		
4.	Address of Principal Place of Business	1, Utkarsh rawat, PILIBHIT ROAD, Khatima, Udham Singh Nagar, Uttarakhand, 262308		
5.	Date of Liability	01/07/2018		
6.	Period of Validity	From	01/07/2018	To NA
7.	Type of Registration	Tax Collector (Electronic Commerce Operator)		
8.	Particulars of Approving Authority			
Signature Signature Not Verified Digitally signed by 22 GOODS AND SERVICES TAX NETWORK 1 Date: 2018.07.27 10:34:00 IST				
Name				
Designation				
Jurisdictional Office				
9.	Date of issue of Certificate	27/07/2018		
Note: The registration certificate is required to be prominently displayed at all places of business in the State.				



GSTIN 05CXXPR6604K1C0

Legal Name UTKARSH RAWAT

Trade Name, if any Robotics trade india

#### Details of Proprietor

1



Name Utkarsh rawat  
Designation/Status proprietor  
Resident of State Uttarakhand

is a system generated digitally signed Registration Certificate issued based on the deemed approval of application on 27/07/2018 .

## Activities Conducted in 2019-20 Session

### 1. Boot Camp of Startup India Yatra-Uttarakhand by Government of Uttarakhand & Tides, IIT Roorkee

Boot Camp of Startup India Yatra- Uttarakhand was held in COER on 16th -17th September 2019, under the Startup India initiative. Startup India Yatra is the tier 2/3 initiative that will travel to small cities of India to search for entrepreneurial talent and help develop Startup ecosystem in the state. The Uttarakhand Edition is travelling to eight cities of Uttarakhand and will conclude at a grand finale to be hosted in Dehradun. One such city was Roorkee. A Boot Camp was held at COER on 16<sup>th</sup> and 17<sup>th</sup> September 2019.

#### 1<sup>st</sup> Day (16<sup>th</sup> Sept. 2019)

On the very first day of the session commenced with a welcome note by Prof. S P Gupta (Director General of COER). Mrs. Anjani Rawat (General Manager, District Industries Centre Uttarakhand) was the Chief Guest for the day. The speakers influenced the students, namely Dr. Akshay Dvivedi, (Professor of Department of Mechanical and Industrial IITR) and Mr. Azam Ali Khan (CEO TIDES) amongst many. A large no. of students, around 150, registered for the camp.

#### 2 DAY (17<sup>th</sup> Sept. 2019)

The session started at 10 AM and different teams got the chance to pitch their ideas. Every team had put unique inputs and everybody present got to learn new things as they grasped knowledge of different subjects. The session continued till 2 PM



Once every team had presented their ideas, the TIDES team told everyone that the results would be up on TIDES website.

**Result (declared by TIDES IITR):** Following five team were shortlisted with their startup idea from startup boot camp.

S.No.	Presenter	Startup
1	Harsh Chaudhary	Annapurna
2	Ashutosh	
3	Nishant Pundir	Focusky

4	Manan Verma	Dewdrop Academy
5	Tusar Srivastava	Geniofy

## 2. First Innovation Day (15<sup>th</sup> Oct, 2019)

**Conducted by:** Dr. Adesh Arya

Ministry of Human Resources Development (MHRD) has declared 15<sup>th</sup> October as Innovation Day to commemorate the Birthday of Hon'ble Dr. APJ Abdul Kalam, former President of India. Therefore, 15th October, 2019 shall be marked as Innovation Day at COER.

Young innovators of various streams viz. CSE/IT/ET/ME/EN/PPE/Civil/MBA/MCA/BBA/BCA/B.Com have participated in Innovative Idea Poster Presentation and Power Point Presentation (PPT) events

### About the Events:

- Pre-Final was organized in each department on 14-10-2019 from 2:00 PM onwards.
- Final was organized on 15-10-2019 in CE-105 from 3:00 PM onwards. (Only Selected PPTs and Posters has presented)
- Attractive prizes were distributed to winners.

**Mr. Aadesh Kumar Arya** was the overall coordinator for the event.

For the organization of the event, following faculty members were nominated as branch coordinators and Co-coordinators:

S. N.	Coordinators	Co-coordinators	Branch/Course
1.	Mr. B. D. Patel	Mr. Arvind Kumar	ET
2.	Mr. Kamal Kant Verma	Ms. Supriya Shukla, Mr. Bhupal Arya, Mr. Himanshu Barthwal, Mr. Punit Sharma	CSE & IT
3.	Mr. Ashutosh Shukla	Mr. Nitin Chand	EN
4.	Mr. Nishant Kumar	Ms. Anshu Arya	CE
5.	Mr. Varun Pratap Singh	Mr. Amit Dhiman	ME
6.	Ms. Kashmira Majhi	Mr. Divya Jyoti	PPE
7.	Dr. Himadri Phukan	Mr. Amit Kumar	MBA/BBA/B.Com
8.	Mr. Vipin Jayswal	Mr. Ravi Kumar	MCA/BCA

Jury members for the event were:

- Dr. Sudhir Kumar Gaur, Professor, Department of Management Studies

- Dr. Siddharth Jain, Associate Professor, Department of Mechanical Engineering
  - Dr. Mridula, Assistant Professor, Civil Engineering
  - Mrs. Anuradha, HOD, Electrical & Electronics Engineering Department
  - Mr. Mayank Dev, HOD, Electronics & Telecommunication Department
  - Mr. Ashutosh Shukla, Assistant Professor, Electrical & Electronics Engineering Department
- 
- A total of 180 students have participated from all departments in the final event.
  - List of Winners as branch wise is followed as:

Department/Semester	Name of Students
CSE/5 <sup>th</sup>	VISHAL MEHRA
	VANYA SHARMA
	SHUBHDA WALIA
PPE/7 <sup>th</sup>	SUVAYAN SANYAL
	MOHAN BERA
	JOBDEB MAHATA
ET/5 <sup>th</sup>	ANSHUL TYAGI
	AYUSH KAPIL (AEI)
	RISHABH VERMA
EN/3 <sup>rd</sup>	ARYAN CHAUHAN
	HARSH CHAUHAN
	VANSH JAISWAL
	ABHISHEK KUMAR
ME/7 <sup>th</sup>	SHUBHAM ARORA
	SHUBHAM PAL
	VISHAL MOURYA
	YASHASVI SACHDEVA
	SHIVAM DHIMAN
BCA	SANJANA SINGH
	RAJAT THAKUR
	HARSHIT TYAGI
MBA/1 <sup>st</sup>	SUBHAM SRIVATSA
B.COM/1 <sup>st</sup>	AMRIT TYAGI



CE/3 <sup>rd</sup>	VAISHNAVI
	OMPRAKASH VATHS
	MOHD. FAISHAL
	SANGEETA BHAKUNI

- At Institute level First, Second, and Third prize has been given.

First Prize – CSE 5<sup>th</sup> Semester

Second Prize – PPE 7<sup>th</sup> Semester

Third Prize – EN 3<sup>rd</sup>, ET 5<sup>th</sup> and BCA 5<sup>th</sup> Semester (Due to tie)

Prof. (Dr.) S. P. Gupta, Director General, Prof. (Dr.) O. P. Soni, Director General, Prof. (Dr.) BM. Singh, Dean Academic, Dr. D. V. Gupta, Dean (Basic & Applied Science), visiting faculty from Russia and faculty members from the various departments were present.

Director-General, Prof. (Dr.) S. P. Gupta said that Dr. Abdul Kalam is not with us by the physical body, yet he is along with us by his thought and great works. He said that Innovation is the key to success. Innovation is very imperative for the economic development of any nation. Innovation is within reach of the developing countries as it does not necessarily have the high financial and human capital requirements of high-tech R&D. Prof. Gupta discussed that Innovative Ideas can be generated by continuously thinking.









<b>COER – INNOVATION INCUBATION CENTRE (COER-i2C)</b>
<b>Activity Planned</b>
<b>Name of Activity</b>
COER and COER-SM faculty meeting for innovation and incubation related activities
Meeting of BOGs and IQAC for i2C
Approvals of funds and activities calendar
PPT presentation by i2C Convenor and branch coordinators to various year students in each Stems
Selection of departmental i2C Coordinators
One day workshop on “Entrepreneurship and innovation as career opportunity”
Promotion, identification and recommendations for potential students and faculty team for allotment of project
Information sharing about COER_i2C and its functioning with students
Registration of students as student partner of cell
Presentation of interested entrepreneur in front of i2C panel First Notice: For presentation in front of reviewing panel (PPT by Startup group, as per instruction for PPT content, with basic business model) with allotted time slot
i2C contact building with various sectors companies (Contact Reviving)
Approval/Rejection/Revision through Reviewing Panel
Filling of registration form by selected/qualifying students
Workshop on "ABCD of Startup"
Workshop on "Importance of Patenting and IPR for Startup"
Space allocation to Startup in common working place
<b>Presentation of i2C Coordinator</b>
Information sharing of rules, governing regulation and responsibility of start-ups w.r.t. i2C
Information sharing of facilities of common working place with selected Startup
Lecture on how to start a Startup (Steps which should followed by a good Startup)
Enrolment in two MOOC's (digital marketing, Basics of Business model)
Distribution of mentors to start-up
<b>Technology Training and Market Search activity start</b>
Workshop on "Model Making, Poster Making and Project Planning
i2C Talk (Motivational) --My Story- Entrepreneur's Life & Crossroad- Motivational Speak- To be Share by Entrepreneurs

First Level Project and Technology Scrutiny
Review of knowledge of Fundamentals of related fields
Review of Scope Identification and Gap findings
First detail presentation through Startup about their vision mission objectives and goals
Recommended List of Items or technology recommended for further study
Interaction and relation building with resources to start-ups
Conferences, Trade Fairs and Market search
Formation of Appendixes and Formats for individual start-ups (MoU and Draft writing)
Industry visits and collaboration in related field
Workshop in DIC, IITR, Roorkee on Product Design and development
Presentation of Progress and discussion on future plan through Startup in front of Progress reviewing Committee
Engineers Day (Business Model and Poster Presentation)
FDP on "Benefit of Startup for a teacher" "Teacher as an Entrepreneur " How to mentor a Startup
Workshop on "All about accounting for Startup"
Innovation Day Celebration on 15th October, 2019 as Mark of Dr. A.P.J Abdul Kalam Birthday (Model and Poster Presentation)
First Review by Startup of i2C supports and activities in favour of Startup
Detail search for product/ technology need to buy
Approvals of funding for research
Reverse Engineering application on product/ technology
Fact findings in details
Lecture on how to start a Startup (Steps which should followed by a good Startup)
Technical Gaps and opportunity identification
Detail steps and recommendation (for manufacturing of product/IP/ work on technology)
Final Proposal and expected potential with business plan
Product and Technology Development and Commercialization Month (WIP)
Workshop on "New tools of Product development"
Collaboration with related Industry
Digital Marketing Companying for upcoming product
Contact establishment with at least five whole seller and 20 distributer for product market survey
Workshop on "All about advertising and Branding"
Identification of Freelancers/ Manufacturer required to manufacture final product

Tracking of Product/ Technology development through free lancers and prototype manufacturers
Second Review of i2C supports, activities and WIP outcomes
IP and Market potential search of product/technology
Beta testing of prototype
Error rectification and final modifications in prototype
Creation of Digital platform for product soft launching
Preparation of Documents for Firm registration
Formation of Company
Digital and on-shop Market Launching and IP filling of product/technology
Research Paper/ IP/ Project funding from Government, VC, Angele financing or Soft Banks
Signing of MOU
Third review of i2C supports and activities
Business building supports and continuing modification and improvement in product and services of Startup
Data upgradation and planning for next session
Time to time mentoring and support by i2C

# COER-i2C WORKING

## Technology Training and Market Search

1. First Level Project and Technology Scrutiny
2. Study of Fundamentals of related fields
3. Scope Identification
4. Recommended List of Items or technology recommended for further study
5. Promotion, identification and recommendations for potential students and faculty team for allotment of project
6. Conferences, Trade Fairs and Market search
7. Formation of Appendixes and Formats
8. Industry colabiration

## Incubation Centre

1. Detail search for product/ technology need to buy
2. Approvals of funding for research
3. Reverse Engineering application on product/ technology
4. Fact findings in details
5. Gaps and opportunity identification
6. Detail steps and recommendation (for manufacturing of product/IP/ work on technology)
7. Final Proposal and expected potential
8. Collaboration with related Industry

## Product and Technology Development and Commercialization Unit

1. Identification of Freelancers/ Manufacturer required to manufacture final product
2. Tracking of Product/ Technology development through free lancers and prototype manufacturers
3. IP and Market potential search of product/technology
4. Beta testing of prototype
5. Error rectification and final modifications in prototype
6. Digital and on-shop Market Launching and IP filling of product/technology
7. Research Paper/ IP/ Project funding from Government, VC, Angele financing or Soft Banks
8. Signing of MOU
9. Formation of Company



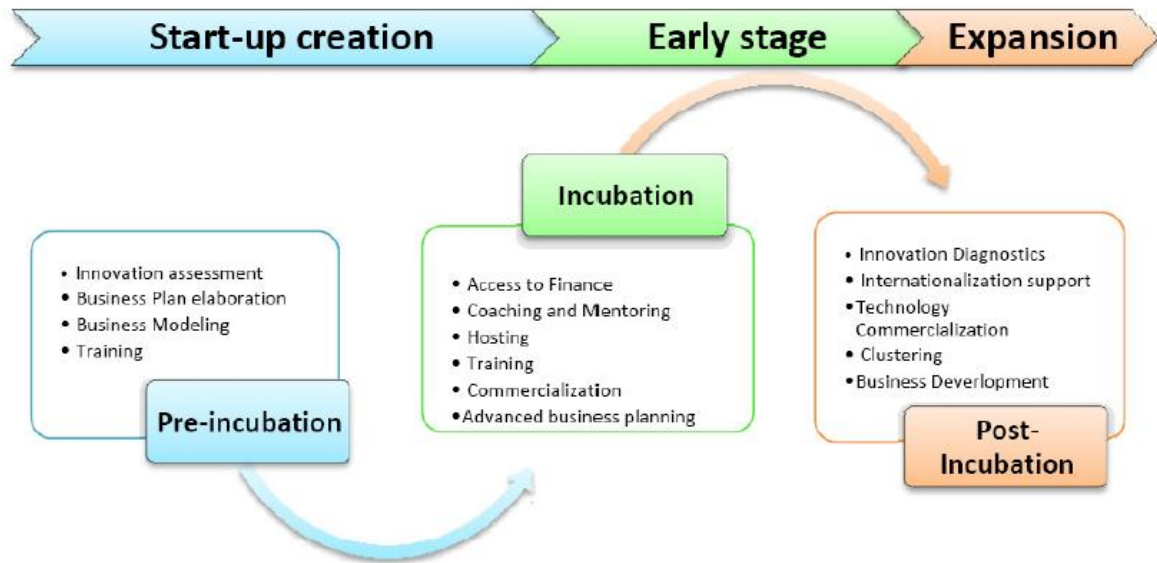
## Technical Team of COER-i2C Centre

<b>Project Leader</b>	Mr. B.D Patel, Head, Centre of Excellence, COER
<b>Faculty Mentor</b>	Mr Varun Pratap Singh, Asst. Professor, Department of Mechanical Engineering
<b>Faculty Mentor</b>	Dr. Aruna Tomar, Asst. Professor, Physics Department
<b>Clerical staff</b>	Mr Akshat

## Technologies and Supports Available at Coer-i2C for Start-Ups, Entrepreneurs and Innovators:

1. Infrastructural Support i.e. Office Space, Meeting Room
2. Technical Training Programs and Business Training Program
3. Platform to Do Networking
4. Management Assistance
5. Other Support Services, Specific to Incubators
6. Help with Business Basics
7. Networking Activities
8. Marketing Assistance
9. High-speed Internet Access
10. Help with Accounting/Financial Management
11. Access to Bank Loans, Loan Funds and Guarantee Programs
12. Help with Presentation Skills
13. Links to Higher Education Resources
14. Links to Strategic Partners
15. Access to Angel Investors or Venture Capital
16. Comprehensive Business Training Programs

## INCUBATION PROCESS AT COER-i2C CENTRE



## Business Model

### Investment in

- Infra and Support Structure
- Equipment's and Technologies
- Staff/ Faculties/Mentors
- Training Material and Kits
- Promotions and Advertisement
- Operation and Maintenance
- Miscellaneous
- Business Generation (Potential Customers)
- 9th, 10th, 11th, 12th Sander School Students
- ITI's students
- Polytechnics Students
- Degree Students
- Non-University Candidate
- Teachers

### Business Generation (Potential Customers)

- 9<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> Sander School Students
- ITI's students
- Polytechnics Students
- Degree Students
- Non-University Candidate
- Teachers

### Revenue Generation

- Various types of Training Modules

- Internship Programs
- Consultancy
- MoU's with Schools
- Projects
- Products
- Business Solutions to Start-ups and Industries
- Co-Working Space for Start-ups on Rent