



## **INNOVATION, INTELLECTUAL PROPERTY AND ENTREPRENEURSHIP POLICY**

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## **LIST OF ACRONYMS**

PCCoE	Pimpri Chinchwad College of Engineering
CIIL	Center for Innovation, Incubation and Linkages Forum
AICTE	All India Council For Technical Education
NSTEDB	National Science and Technology Entrepreneurship Development Board
NISP	National Innovation and Startup Policy for students and faculty
IIC	Institute Innovation Council
ARIIA	Atal Ranking of Institution on Innovation Achievement
MSME	Micro Small Medium Enterprises
DST	Deaprtment of Science and Technology
DSIR	Department of Scientific and Industrial Research
CSIR	Council for Scientific and Industrial Research
TIFAC	Technology Information Forecasting Assessment Council
TBI	Technology Business Incubation
AIM	Atal Innovation Mission
AIC	Atal Incubation Center
EDII	Entrepreneurship Development Institute of India

PRISM	Promoting Innovation in Individuals, Start ups and MSME's
NIDHI	National Initiative for Developing and Harnessing Innovations
NIMAT	National Implementing and Monitoring Agency for Training
IEDC	Innovation and Entrepreneurship Development Cell
MeitY	Ministry of Electronics and Information Technology
TIDE	Technology Incubation and Development of Entrepreneurs
MCCIA	Mahratta Chamber of Commerce, Industries and Agriculture
ISBA	Indian Science and Technology Entrepreneurs Parks and Business Incubation Association
STEPs	Science and Technology Entrepreneurs Park
CII	Confederation of Indian Industries
FICCI	Federation of Indian Chambers of Commerce & Industry
PI	Principal Investigator

## DEFINITIONS

1. **Innovation:** Conceptually, any innovation implies substantial improvement in the ways of doing things, producing goods or providing services. It may involve a new use of an existing resource or producing or delivering existing goods or services through new methods or new instruments/materials.
2. **Startup:** Startup is an entity that develops a business model based on either product innovation or service innovation and makes it scalable and replicable so as to be self-reliant. Startup may also be an entity that satisfies the requirements of the Department of Industrial Policy and Promotion (DIPP), Government of India, notification dated 17.02.2016 as specified in the G.S.R. 180 (E).
3. **Proof-of-concept (POC) stage:** Proof-of-concept is the stage where the innovator / startup demonstrates a fundamental functioning demonstration of the idea / hypothesis / innovation.
4. **Prototype-stage:** A prototype-stage is a pre-production / pre-launch stage where the innovator / startup team has developed a basic minimum viable product (MVP) with most key features desired in the final product.
5. **Minimum viable product (MVP)** is a product with just enough features to gather validated learning about the product and its continued development.
6. **Startup India Action Plan:** The Government of India has announced the 'Startup India, Stand up India' initiative for creating a conducive environment for startups in India. Different ministries of the central government have initiated a number of activities for this purpose, and the government has also published an action plan for the same.
7. **Student Startup:** Student Startup is any student-led innovation based startup

that has been founded by the efforts of one or more student(s) and / or alumni (not more than 5 years from graduation), from any university / educational institute in the state, with or without the help of faculty guides and external support agents. Recently, AICTE has developed a national roadmap for student startup support system.

8. **Academic / educational institute:** Any government / grant-in-aid / self-financed institute / college in the state affiliated to a recognized university of Gujarat.
9. **Pre-incubation:** Pre-incubation makes up early stage support systems for the innovation & startup value chain that comprises an enabling environment to trigger creative ideas, hand-holding ideas at conceptualization stage, extending basic facility to test the ideas and validate its early users, basic common working infrastructures, and access to existing resources before the innovation reaches an enterprise stage.
10. **Incubator:** Incubator is an organisation established to accelerate the growth of startups, through an array of business support, resources, mentorship, networking and other common services such as physical space, capital, and coaching.
11. **Technology Business Incubator:** A Technology Business Incubator (TBI) is an incubator established to support technology-driven startups generally supported by the National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology (DST), Government of India.
12. **Atal Innovation Mission (AIM):** The Atal Innovation Mission (AIM) is Government of India's endeavour to promote a culture of innovation and entrepreneurship. Its objective is to serve as a platform for promotion of world-class Innovation Hubs, Grand Challenges, Startup businesses and other self-employment activities, particularly in technology driven areas. AIM is established under the NITI Aayog.

13. **Tinkering Lab / Fab Lab / Innovation Studio:** A Tinkering Lab / Fab Lab is a combination of experimental research and specialisation, where students may tinker with emerging technology and fabricate and create new products / prototypes.
14. **Accelerators:** An accelerator is similar to an incubator except, as the name suggests, a startup accelerator fosters rapid growth of the startups it incubates. Usually accelerators package mentorship, access to technology, office space and access to an innovative community into a relatively shorter timeline for faster growth.
15. **Angel Investors:** An angel investor is a person who provides financial support by investing capital - typically, a relatively smaller seed capital - in a startup.
16. **Venture Capital:** Venture Capital (VC) is a type of funding that originates from venture capital firms that specialise in building high risk financial portfolios. Typically, such firms provide growth-level funding to established startups against equity as well as create value for startups by providing access to their networks for employees, clients, products, or services of the startup.

## 1. Introduction:-

Innovation is the key for every economy to grow, and innovation takes place at every layer of the society. At PCCoE we have established a culture of Innovation at each Department. To make our country to be in top 10 countries in the world in Global Innovation Index, we have established PCCoE Center for Innovation Incubation and Linkages Forum.

PCCoE CIIL will Nurture Innovation, Intellectual Property , Entrepreneurship in students, faculty, staff and Alumni.

PCCoE CIIL will provide Pre Incubation, Incubation, Intellectual Property facilitation, Entrepreneurial Training, prototyping facilities at the center.

Harnessing the creative potential of young students across our institute is also necessary to generate an entrepreneurial model of inclusive development. Every innovative idea goes through a stage of proof of concept, prototype, product, testing and trial, redesign and development of utility. The innovation & entrepreneurial journey may have to be aborted at different stages depending upon the market response or technological trajectory. Unless one can fail fast without a stigma of failure, new enterprises with better grounding and vision shall never emerge. Also, it is not necessary that every young student innovator / entrepreneur or a startup may stick to the original idea with which they start. For any innovation policy to succeed, it is imperative that it provisions for allowance of failure, as well as permit the restarting or pivoting of an innovation and its further development.

This policy document, therefore, recognizes various constraints that budding innovators and entrepreneurs suffer from and take them as inputs while developing a holistic innovation and pre incubation model While it's important to support innovators, it's equally important to envisage a sustainable ecosystem-based approach for the Institute and Nation for strategic advantage in the long run.



## 2. NEED FOR CREATING END-TO-END SUPPORT FOR INNOVATIONS AND ENTREPRENEURSHIP AT PCCOE CIIL

A progressive innovation and startup ecosystem comprises of several key components, mainly a vibrant academia led innovation, pre incubation, incubation, acceleration, access to seed, angel and venture capital funding, market access, practical regulatory support, ease of doing business and growth and up scaling environment with government's ownership to drive the agenda.

No.	Phase	Ecosystem Layer	Key Interventions
I	Pre-incubation	Exposure / Culture-building	<ul style="list-style-type: none"> <li>- Outreach to student</li> <li>- Literacy program in innovation/IPR</li> <li>- Engaging various stakeholders</li> <li>- Changing mindset</li> <li>- Conducive and creative environment</li> </ul>
II		Ideas / Innovation/IP	<ul style="list-style-type: none"> <li>- Design thinking &amp; ideation</li> <li>- Problem-solving skills</li> <li>- Pedagogic, academic &amp; skill programs</li> <li>- Live projects &amp; research</li> <li>- Projects to proof of concepts (PoC)</li> <li>- PoC to minimum viable prototypes (MVP)</li> <li>- Common infrastructure &amp; resources</li> <li>- Startups and other business ideas</li> <li>- Ecosystem building</li> <li>- IP creation and protection</li> <li>- Academic &amp; pedagogic interventions</li> <li>- Pre Seed support</li> <li>- Validation through early users</li> <li>- motivation /awards/citation/ recognition</li> </ul>
III	Incubation / acceleration	Start up	<ul style="list-style-type: none"> <li>- Business model development</li> <li>- Mentorship</li> <li>- Market access &amp; incubation</li> <li>- Industry linkages</li> <li>- Policy support</li> <li>- Post seed support</li> <li>- Funding for full-fledged product realization</li> <li>- Angel funding</li> <li>- Customer validation</li> <li>- Legal and strategic support</li> <li>- Access to dedicated infra</li> </ul>

IV		Scale up	<ul style="list-style-type: none"> <li>- Growth stage support</li> <li>- Regulatory support</li> <li>- Venture capital and private equity</li> <li>- Acceleration support</li> <li>- Public policy support</li> <li>- Ease of running technology business</li> <li>- Facilitating exit</li> <li>- Expansion &amp; globalization</li> </ul>
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### 3. NURTURING INNOVATION AND ENTREPRENEURSHIP CULTURE

We at PCCoE CIIL has established a mechanism for UG, PG ,PhD students, Faculty and staff of all departments for nurturing Innovation and Entrepreneurship culture. We at PCCoE formed four verticals in Research and Innovation namely--

**R1 Research and Innovation Activities and events**

**R2 Quality Publications, Funding Proposals, Consultancy, Sponsored Research (Activities/ Events)**

**R3 Intellectual Property Cell**

**R4 Board of Innovation Incubation and Enterprise.**

Each department has a Research and Innovation Coordinator and one faculty coordinator for R1, R2, R3 and R4 .

All departments organize various events in Research and Innovation and enhance their R & I Index in R & I quality objective status of ISO 9001 2015.

We at PCCoE established an Innovation center which is open 24 x 7 with all facilities of VMC, CNC, TIG, MIG and all hand tools and fixture tables to work on prototype development.

We at PCCoE is having a Product Innovation Lab. established by Dassault systems under CSR funds having facilities of 3D printing, 3D scanning, Humanoid Robo, LEGO kits for experiential learning.

We at PCCoE have a E-yantra lab established by IIT Mumbai for innovation in Robotics and Automation.

We are academic partner of Atal Incubation Center Pinnacle and promote Entrepreneurial and startup activities through them.

We have Nayan Electronics Robotics and Automation lab established by Nayan Electronics to promote innovation and training in Robotics, Automation and Industry 4.0.

Research, Innovation and Entrepreneurship activity calendar to be prepared by each Department and to be displayed on PCCoE CIIL website at the start of Academic Year.

All the activities must be linked with Institute Innovation Council and uploaded on MIC/ IIC portal of AICTE.

All the Research, Innovation and Entrepreneurship activities must be planned in such a way to improve PCCoE Ranking in ARIIA and NIRF.

#### **4. NORMS FOR FACULTY STARTUPS**

- a. PCCoE CIIL will allow our Faculty and staff to register their startup at our Incubation center and motivate them to participate in various events organized by CIIL.
  - i. Role of faculty may vary from being an owner/ direct promoter, mentor, consultant or as on-board member of the startup.
  - ii. Faculty startup may consist of faculty members alone or with students or with faculty of other institutes or with alumni or with other entrepreneurs.
- b. In case the faculty/ staff holds the executive or managerial position for more than three months in a startup, they will go on sabbatical/ leave without pay/ utilize existing leave.
- c. Faculty must clearly separate and distinguish on-going research at the institute from the work conducted at the startup/ company.
- d. In case of selection of a faculty start up by an outside national or international accelerator, a maximum leave (as sabbatical/ existing leave/ unpaid leave/ casual leave/ earned leave) of one semester/ year (or even more depending upon the decision of review committee constituted by the institute) may be permitted to the faculty.
- e. Faculty must not accept gifts from the startup.
- f. Faculty must not involve research staff or other staff of institute in activities at the startup and vice-versa.

#### **5. NORMS FOR STUDENT FOR PRE-INCUBATION AND INCUBATION**

- a. All departments of PCCoE will motivate their students to participate in Innovation, Proof of Concepts, Prototype development competitions of IIC, Ministry of Education, AICTE , DST, MSME or any government or private organization.

- b. All departments of PCCoE will motivate the students to enroll their students having commercially viable and socially implementable ideas to enroll in our Pre-incubation center.
- c. All departments will also motivate students to start their ventures for successfully developed technology projects and register their company under our Incubation center.
- d. PCCOE Centre for Innovation, Incubation and Linkages( CIIL) will permit students and faculty to register for Pre incubation or Incubation.
- e. Promotion and intensification of Technology Commercialization efforts. Allow Licensing of IPR from Institute to Startup incubated at Incubation Unit.
- f. Facility will be accessible to student, staff and faculty of all discipline and department across the institute.
- g. Provision and streamline relevant services and mentoring support through pre-incubation/incubation units in-return for fees, equity sharing (or) zero payment basis.
- h. In return of services offered (Space, Infrastructure, mentorship, seed fund, accountant and legal and patent support) and use of facilities at institute/incubation unit may take 2-9.5% equity/stake in the startup/company incubated.
- i. PCCOE will allow students to setup Startup ( Social and tech and non-tech ) or working part-time for the startup while studying/working as intern
- j. PCCOE will allow students to earn credit for working on Innovative prototypes/business Models.
- k. Student Innovators/entrepreneurs may allowed to opt for startup in place mini project /major project, seminar and summer training etc.
- l. PCCOE will allow student entrepreneurs to take a semester break/year break to work on their startup
- m. PCCOE will allow student entrepreneurs/innovators to sit for the examination with concession in attendance of 25% on minimum attendance of 75%on case to case basis.
- n. PCCOE will allow Student entrepreneurs to use the address of Hostel (or) pre-incubation and (or) incubation unit to register their venture while studying at Institute.

## **6. NORMS FOR INTELLECTUAL PROPERTY CREATION AND PROTECTION**

All departments of PCCoE will motivate their students, Faculty and staff to work on innovations and

converting them into Intellectual property as patent, copyright, industrial design or trademark.

- a. If fund and (or) resource of PCCOE used substantially, then IPR should be made jointly by Institute and inventor and license together and revenue sharing among the parties.
- b. Filing of IP in the name of Institute will be done if the IP is screened by the IP screening committee and recommended for filing.
- c. All the expenses for filing of IP, publication, examination , opposition will be done by the institute with or without or registered patent attorney.
- d. If any one of inventor want to start a startup based on the technology developed as above, then it can be licensed to inventor with royalty would be no more than 4% of sales price, preferably 1-2%, unless it is pure software product.
- e. If it is in form of shares, then it will again between 1-4%. In case software share divide is based on mutually decided between the institute/incubation unit and incubate company.
- f. On any dispute on IPR ownership and revenue sharing and licensing, then a five member committee setup at PCCOE will look into the matter and recommend.

## **7. NORMS FOR REVENUE SHARING IN CASE OF IP**

Intellectual property ( IP ) of any kind created by faculty, faculty and student, staff, and is registered in the name of Institute will have following revenue sharing terms:-

1. It is first subject to repayment of external project costs including patenting and legal costs.
2. PCCoE CIIL then retains 20% as a contribution towards its ongoing costs on this and other patents.
3. The remainder, 80% of the net license income, is then passed on to the Inventors as per their contribution of the work

## **8. NORMS FOR REVENUE SHARING IN CASE OF PRODUCT DEVELOPMENT, STARTUP AND ENTERPRISE**

PCCoE all departments must look in to product development and sponsored research by industry or any government agency supported research, interdisciplinary research.

Also the potential IP must be converted in Startup by respective faculty and students. For Self Reliant Bharat( Atmanirbhar Bharat ) we must focus on promoting entrepreneurship through enterprises, startups by faculty, students, alumni and other enterprises from outside. We will divide the research work in three verticals 1. Product development through Institute funding 2. Consultancy project from Industry or any other agency 3. Startup or Enterprise incubated at PCCoE CIIL.

#### **A. Product development through Institute funding**

Once the faculty or student group, SIG identifies problem statement for product development or receives consultancy project from Industry, NGO, Government and the project is funded by Institute from R & D grants. We need to distribute the revenue generated through this product commercialization in the following manner:-

- a. If substantial college funds are used the revenue generated will be shared 70 % to Principal Investigator ( PI)and his team and 30 % to Institute out of 30 % of institute share 5 % can be distributed to Administrative office.
- b. If Institute facilities are not used then the revenue generated will be shared 80% to PI and Team and 20 % to institute out of 20 % of institute share 5 % can be distributed to Administrative office.
- c. The ownership of the product remains with the Institution.

#### **B. Consultancy project from Industry or any other agency.**

If Institute , Department, SIG receives consultancy project with funding from Industry or the agency who has given the consultancy project the revenue sharing will be as follows—

- a. The revenue generated will be shared 80 % to Principal Investigator ( PI)and his team and 10 % to Institute and 10 % to respective department out of 10 % of institute share 5 % can be distributed to Administrative office.

#### **C. Startup or Enterprise incubated at PCCoE CIIL.**

If students of the institute establish their enterprise/ Startup, the faculty establish their enterprise/ Startup, faculty and student combine establish their enterprise/ Startup, alumni establish their enterprise/ Startup, staff establish their enterprise/ Startup, faculty with other outside enterprise establish their enterprise/ Startup then the revenue sharing will be in equity sharing basis.

PCCoE CIIL will provide space to the incubate , mentoring support, guidance for company

registration through company secretary, Intellectual property guidance and support, prototype development support using access to workshop, laboratories and innovation center, interaction with venture capitalist, angel investors.

**In return of these facilities PCCoE CIIL will have 2 to 9.5 % equity in the enterprise or startup registered at PCCoE CIIL on case to case basis decided in the agreement with the startup / enterprise.**

The startup/ enterprise must deposit the agreed amount to PCCoE CIIL account by the end of financial year along with their audited account statement for that financial year.

## **9. AWARDS FOR FACULTY / STAFF/ STUDENT/ENTERPRISE/STARTUP**

To motivate students, faculty and staff PCCoE CIIL will facilitate them with awards in Innovation, Entrepreneurship domain. The parameters for awards will be circulated well in advance and the nomination form will be available on PCCoE CIIL website.

- **Most Innovative Department of the Year ( Rs 50,000/-+ Certificate)**
- **Most Innovative Faculty of the Year( Rs 10,000/-+ Certificate)**
- **Most Innovative Staff of the Year ( Rs 10,000/-+ Certificate)**
- **Most Innovative Student of the Year ( Rs 10,000/-+ Certificate)**
- **Best Enterprise of the year incubated at CIIL for Faculty/ Staff/ Student/ Alumni ( Rs 1,00,000/-+ Certificate)**
- **Best Startup of the year incubated at CIIL for Faculty/ Staff/ Student/ Alumni ( Rs 1,00,000/-+ Certificate)**

For all the awards nominations will be called in the month of March and selection process will be done by 5 member committee constituted by CEO of CIIL, and results will be declared by 30<sup>th</sup> April every year.