



# PRINCE

Shri Venkateshwara Padmavathy  
Engineering College, Ponmar, Chennai-127



**INTERNAL QUALITY ASSURANCE CELL (IQAC)**  
**INSTITUTION'S INNOVATION COUNCIL (IIC)**



## 2020

**Centre for Innovative Research,  
Incubation and Entrepreneurship  
Development (CRED)**



# PSVP INNOVATION & STARTUP POLICY

In Line with National Innovation and Startup Policy (NISP)

## Abstract

### **INNOVATION and STARTUP Policy 2020 for Students and Faculty**

(In-line with the National Innovation and Start-up Policy)

#### **A Guiding Framework for Higher Education Institutions**

The Innovation and Startup Policy 2020 for students and faculty of Prince Shri Venkateshwara Padmavathy Engineering College (PSVPEC) will enable the Institution to actively engage students, faculty members and staff in innovation and entrepreneurship related activities. This framework will also spell out the terms for Intellectual Property ownership, technology licensing and institutional startup guidelines, thus enabling creation of a robust innovation and start up ecosystem across the Institution.

Prince Shri Venkateshwara Padmavathy Engineering College, Chennai aims to provide an enabling ecosystem for the students, faculty and staff of the college to harness their innovative potential, by smoothly integrating the technological and creative skills of all the stakeholders to solve the contemporary problems. The Centre for Innovative Research, Incubation and Entrepreneurship Development (CRED) at PSVPEC aspires to kick-start an entrepreneurial culture, and can be a catalyst which contributes to increased knowledge, wealth and employment for the state and the nation at large.

## Preamble

The All India Council of Technical Education (AICTE) released a Startup Policy document for AICTE approved institutions during November 2016, to address the need of inculcation of innovation and entrepreneurial culture in higher education Institutions (HEIs). Later during the year 2019, the MHRD's Innovation Cell formulated a National Innovation and Start-up Policy (NISP) as a guideline for all HEIs. The MHRD's innovation cell conducted series of follow-up workshops and trained the Institutions. This led to the formulation of new Start-up and Innovation policy for the Institution. A special committee was formed and this policy document is the brain child of subsequent deliberations that happened in the meetings.

The role of Higher Education Institutions / Universities has always been crucial as a part of the Innovation and Entrepreneurial ecosystem. The HEIs are natural incubators for nurturing the creative potential of students and also present an ideal platform to enterprise creation within the campus which later taken the world by storm. For a transient economy like India the HEIs can play a significant role for fostering an innovation culture within the campus and can help in preparing the students for contributing to the growth economy.

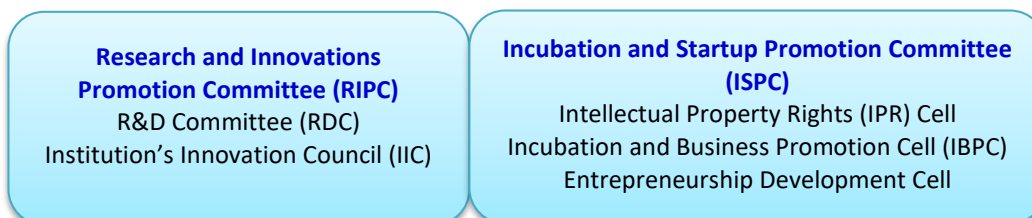
## Introduction

Innovation and Entrepreneurship must emerge as one of the focal points of today's education system with focus on creation of economic hubs so that the nation aspires to become a five trillion-dollar economy in the near future. To achieve this milestone, systems and mechanisms must be evolved to convert the present demographic dividends into high quality technical human resources, which could eventually create wealth generation hubs through Startups and entrepreneurship. All over Chennai, there are multiple dynamics at play with regard to entrepreneurial activities. The Tamil Nadu government, entrepreneurs and advocacy groups seek to promote entrepreneurship, which officially and logically forms part of their mandate. However, there are certain inherent factors that inhibit the entrepreneurial activity at the community level. The role of education institutions is significant in developing the innovative skills and entrepreneurial activity of the students and the staffs.

The CRED is a Centre for Excellence for Innovative Research, Incubation and Entrepreneurial Development under Prince Shri Venkateshwara Padmavathy engineering College. The competencies through which PSVPEC ensures an outstanding career for its students are the excellence of faculty members, a wide range of developmental activities and programs, different student community platforms, and strong industry-academia interface. PSVPEC's other prime focus has been research, innovations and entrepreneurship development for the students and staffs in the college. The centre aims at cultivating entrepreneurship attitude in the minds of students, supply them with adequate resources for the development of an enterprise and fuel them with wisdom to face the corporate business world. The centre also aims at developing technological innovations, social entrepreneurship and innovating techniques to solve social challenges. The CRED at PSVPEC intends earnestly to assist its students, alumni, faculty, and staff members towards transforming into a successful innovator and an entrepreneur.

## Centre for Innovative Research, Incubation & Entrepreneurship Development (CRED)

The Centre for Innovative Research, Incubation & Entrepreneurship Development (CRED) was launched during October 2018 with the vision of building an efficient and effective ecosystem for research and innovation in the campus. This framework was discussed and formulated with a panel of experts, management team and IQAC team. With a visionary of establishing a sound environment in research, innovation and incubation for the students and faculty members, the CRED spearheaded with multiple activities through Research and Innovations Promotion Committee (RIPC) and Incubation and Startup Promotion Committee (ISPC). The committees under RIPC and ISPC are as under:



### VISION OF CRED

- Aspirational Entrepreneurship culture within college: Management, alumni / students & faculty.
- College as a collaboration hub: between faculties, alumni, local industry, other institutions, entrepreneurs, banks, etc.
- Supportive ecosystem for research, innovation and incubation.

### MISSION OF CRED

- Promotion of research and innovations among students and faculty members
- Creation of an aspirational entrepreneurship culture i.e., opportunity driven entrepreneurship as opposed to necessity driven
- Enhancement of the support ecosystem for entrepreneurs
- Rapid and inclusive growth of Small scale industries / Startup enterprises and innovation

## Objectives

This vision can be achieved by CRED if it can successfully meet the below listed objectives: -

- Encouraging students and faculties to bring innovative ideas.
- Identification of the best of ideas and providing them a 'womb' to incubate eventually to transform into Startup or entrepreneur endeavour.
- Empowering an idea with all important ingredients and resources aiding its conversion into a successful product or service.
- Motivating students for self-employment which in turn leads to Entrepreneurships. Channelizing all the power engines in one direction to achieve the goals defined.
- Attracting the small-scale investments into the incubation and startup ecosystem within the Institute.
- Networking the stakeholders and maximizing industry academia engagement. Bridging the gap between various stakeholders helping eliminate the geodemo-socio-economic disadvantages hampering growth of Startups.
- Establishing technology-based Incubators/Accelerators in each Engineering sector across the Institute. Helping entrepreneurs to grow holistically with business acumen.
- Bring socio-economic change in the valley by finding innovative solutions to the daily met problems.
- Contributing to the macro-economic measures of employment generation, balance of trade and increased per capita income.

### **Focus of CRED**

The focus of the proposed centre shall be to help the students of institute as well as the local economic players to augment their products and offerings, by raising the technology quotient. By augmentation, it is meant to either upgrade the existing processes or propose an alternative process using the latest technologies. At the same time, the centre shall also encourage ideas for incubation that may open up new services or products among the faculty and students.

## PSVP Innovation and Startup Policy (PSVP-ISP)

**Vision:** To establish a vibrant innovation and entrepreneurship ecosystem to develop indigenous and sustainable solutions for addressing the societal needs.

The '**Innovation and Startup policy**' is a guiding framework to envision an educational system oriented towards start-ups and entrepreneurship opportunities for student and faculty members. The guidelines provide ways for developing entrepreneurial agenda, managing Intellectual Property Rights (IPR) ownership, technology licensing and equity sharing in Startups or enterprises established by faculty and students. This policy framework shall motivate the young minds to indulge in innovation and pursue the entrepreneurial path for developing thyself and the Nation as a whole. Moreover, this policy document will guide the Institutions to attain the **Prime Minister's vision of "Atmanirbhar Bharat"**.

### **Mission**

- To establish vibrant and dynamic Startup Ecosystem across all the departments.
- To enable the institute to actively engage students, faculties and staff in innovation and entrepreneurship related activities.
- To create a space for Collaboration, Co-creation, Business Relationships and Knowledge Exchange.
- To facilitate the institute in terms of Intellectual Property (IP) ownership management, technology licensing and equity sharing.

### **Objectives of PSVP-ISP**

- Innovation Development
- Entrepreneurship Exposure and Skills Development
- Support Facilities for Start-up Services
- Inter-Institutional Partnership
- Network with Regional and National Start-up Eco-System
- Industry Support, Corporate & Private Partnership Linkage
- Technology Commercialization

## Guidelines for promoting innovation & entrepreneurship at PSVPEC

### 1. STRATEGIES AND GOVERNANCE

Entrepreneurship promotion and development will be one of the major dimensions of the Institutions strategy. To facilitate development of an entrepreneurial ecosystem in the Institution, specific objectives and associated performance indicators will be defined for assessment.

- The entrepreneurial agenda will be the responsibility of the Head of the Institution and the CRED of PSVPEC. Heads of all departments and the IIC of PSVPEC will work together to successfully implement the entrepreneurship culture.
- Resource mobilization plan will be worked out at the institute for supporting preincubation, incubation infrastructure and facilities. Investment in the entrepreneurial activities will be a part of the Institutional financial strategy. Minimum 1% fund of the total annual budget of the Institution will be allocated for funding and supporting innovation and startup related activities.
- The strategy will also involve raising funds from diverse sources including Government agencies (state and central) and through sponsorships and donations. Institution will actively engage alumni network for promoting Innovation & Entrepreneurship.
- Importance of innovation and entrepreneurial agenda will be educated across the Institute and promoted and highlighted at Institutional programs such as smart India hackathon, conferences, convocations, workshops, etc.
- Action plan will be formulated at Institution level, with well-defined short-term and long-term goals. Micro action plan will also be developed by the affiliated Institutes to accomplish the policy objectives.

### 2. ESTABLISHING INFRASTRUCTURE FACILITIES

PSVPEC will facilitate all the students, faculties and staffs to utilize its vast resources and infrastructure as needed. The Institute also supports pre-incubation and Incubation by mobilizing resources from internal and external sources. This Pre-Incubation/Incubation

facility will be accessible to students, staff and faculty of all disciplines across the institution. PSVPEC will offer mentoring and other relevant services through Pre-incubation/Incubation units in-return for fees, equity sharing and (or) zero payment basis. **A minimum of 1% of annual Institutional budget will be allocated for innovation and start-up.** Full cooperation will be extended by the institute on resource mobilization from financial institutes such as MSME, IEDC, DST, MHRD, AICTE, CSIR, NRDC, Start-up India, Invest India etc. and other non-governmental organizations etc.

### 3. NURTURING INNOVATIONS AND STARTUPS

- Institution will establish processes and mechanisms for easy creation and nurturing of Start-ups/enterprises by students, staff, faculty, alumni and potential startup applicants even from outside the Institutions.
- The Institution ensures to achieve the following:
  - Incubation support: Offer access to pre-incubation & Incubation facility to startups by students, staff and faculty for mutually acceptable time-frame.
  - Will allow licensing of IPR from Institute to start up.
- Institute will facilitate the startup activities/ technology development by allowing students/faculty/ staff to use Institute infrastructure and facilities, as per the choice of the potential entrepreneur in the following manners:
  - Short-term/ six-month/ one-year part-time entrepreneurship training.
  - Mentorship support on regular basis.
  - Facilitation in a variety of areas including technology development, ideation, creativity, design thinking, fund raising, financial management, cash-flow management, new venture planning, business development, product development, social entrepreneurship, product- costing, marketing, brand-development, human resource management as well as law and regulations impacting a business.
- Institution will link the startups to other seed-fund providers/ angel funds/venture funds or it may setup seed-fund once the incubation activities mature.
- For staff and faculty, Institution will not claim any equity or consultancy fees.

- Faculty / staff shall involve themselves in entrepreneurship / start-up activities without affecting their regular roles.
- The Institute will provide services based on fee-based model. Seed funds shall be provided only to student/alumni initially.
- Institute could extend this startup facility to alumni of the Institute as well as outsiders.

#### **4. IPR FACILITATION**

One of the important mandates of PSVP-ISP is to bring excellence to education, research and innovation, however, it is equally important that protect the Intellectual property. Therefore, it is important that the information with regards to rights over intellectual property is disseminated at the earliest. This policy should be applicable to all inventions and innovations belonging to PSVPEC and covers all different classes of Intellectual Property - Patent, Copyright, Design, Registration, Trademark, and Confidential Information.

The IPR provisions are created to provide a conducive environment leading to development of intellectual property. When institute facilities / funds are used substantially or when IPR is developed as a part of curriculum/ academic activity, IPR would be jointly owned by inventors and the institute. Inventors and institute could together license the product / IPR to any commercial organization, with inventors having the primary say. License fees could be either / or a mix of

- Upfront fees or one-time technology transfer fees
- Royalty as a percentage of sale-price
- Shares in the company licensing the product

The institute would allow licensing of IPR from institute to start up: Ideally students and faculty members intending to initiate a start-up based on the technology developed or co-developed by them or the technology owned by the institute, should be allowed to take a license on the said technology on easy term, either in terms of equity in the venture and/ or license fees and/ or royalty to obviate the early stage financial burden.

If product/ IPR is developed by innovators not using any institute facilities, outside office hours (for staff and faculty) or not as a part of curriculum by student, then product/ IPR will

be entirely owned by inventors in proportion to the contributions made by them. In this case, inventors can decide to license the technology to third parties or use the technology the way they deem fit. If there is a dispute in ownership, a minimum five member committee consisting of two faculty members (having developed sufficient IPR and translated to commercialization), two of the institute's alumni/ industry experts (having experience in technology commercialization) and one legal advisor with experience in IPR, will examine the issue after meeting the inventors and help them settle this, hopefully to everybody's satisfaction.

## **5. CAPACITY BUILDING INITIATIVES**

- The institute would encourage training and development of faculty and staff involved in innovations and entrepreneurship development activities in the institute.
- To achieve better engagement of staff in entrepreneurial activities, institutional policy on career development of faculty and staff would be developed with constant up skilling.
- Faculty and departments of the institutes have to work in coherence and cross-departmental linkages would be strengthened through shared faculty, cross-faculty teaching and research in order to gain maximum utilization of internal resources and knowledge.
- Periodically some external subject matter experts such as guest lecturers or alumni would be engaged for strategic advice and bringing in skills, which are not available internally.
- Faculty and staff would be encouraged to do courses on innovation, entrepreneurship management, and venture development.
- In order to attract and retain right people, institute would develop academic and non-academic incentives and reward mechanisms for all staff and stakeholders that actively contribute and support entrepreneurship agenda and activities.
- The reward system for the staff may include sabbaticals, office and lab space for entrepreneurial activities, reduced teaching loads, awards, trainings, etc.
- The recognition of the stakeholders may include offering use of facilities and services, strategy for shared risk, as guest faculty, fellowships, associate ships, etc.
- A performance matrix would be developed and used for evaluation of annual performance.

## **6. CREATING INNOVATION PIPELINE AND PATHWAYS FOR ENTREPRENEURS**

PSVPEC ensures the students; faculty and staff are exposed to innovation and pre-incubation activities. Career development or employability is the main part of our institutional entrepreneurial agenda. Students/ Staff are taught the ways to solve the problems of the society and consumers. Link between the incubation centre and companies is established to foster the integration of education activities with enterprise-related activities should be done. A certain amount of budget will be allocated by PSVPEC'S CRED for conducting various activities related to innovation, startup and entrepreneurship development. Networking events will be planned for the budding entrepreneurs to meet investors and pitch their ideas.

## **7. NORMS FOR FACULTY & STUDENTS DRIVEN INNOVATIONS AND STARTUPS**

For better coordination of the entrepreneurial activities at PSVPEC, the norms are created to do startups for faculty and students. Faculty who holds the executive position for more than three months in a startup may avail Sabbatical leave/Leave without pay/Utilize existing leave with an approval of the Committee. Faculty must clearly separate and distinguish on-going research at the Institute from the work conducted at the startup/company. Faculty must not involve research staff or other staff engaged in academic projects of the Institute in activities at the startup. The seniority and other academic benefits of faculty during that period will be considered. Students who are under incubation and pursuing some entrepreneurial ventures while studying are allowed to use the address of the Institute to register their company with due permission from the higher authority of the Institute. Students are allowed to earn academic credits on Innovation prototypes/business models and also avail a semester/year break to work on their startup and rejoin academics to complete the program. A committee will review the startup and based on the progress made, the academic credits will be awarded. Faculty and Students are allowed to use Infrastructure and facilities available at the Institute.

## 8. PEDAGOGY AND LEARNING INTERVENTIONS FOR ENTREPRENEURSHIP DEVELOPMENT

### **Diversified approach to produce desirable learning outcomes**

- The clubs and associations in the Institution, along with the IIC of PSVPEC shall focus on organizing various programs pertaining to innovation, entrepreneurship and IPR to nurture students towards innovation.
- Institution will start a special annual 'INNOVATION & ENTREPRENEURSHIP AWARD' to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprises eco system within the Institute.
- For creating awareness among the students, the teaching methods will include case studies on business failure and real-life experience reports by startups.
- Tolerating and encouraging failures: Our systems are not designed for tolerating and encouraging failure. Failures need to be elaborately discussed and debated to imbibe that failure is a part of life, thus helping in reducing the social stigma associated with it. Very importantly, this should be a part of Institute's philosophy and culture.
- Innovation champions shall be nominated from within the students/ faculty/ staff for each department/stream of study.

**Entrepreneurship education** shall be imparted to students at curricular/ co-curricular/ extra- curricular level through elective/short term or long-term courses on innovation, entrepreneurship and venture development.

- Integration of expertise of the external stakeholders should be done in the entrepreneurship education to evolve a culture of collaboration and engagement with external environment.
- In the beginning of every academic session, Institute shall conduct an induction program about the importance of I&E so that freshly inducted students are made aware about the entrepreneurial agenda of the Institute and available support systems.

- Industry linkages should be leveraged for conducting research and survey on trends in technology, research, innovation and market intelligence. More MoUs with start-ups may also be inked for knowledge sharing purpose.
- Sensitization of students should be done for their understanding on expected learning outcomes.
- Customized video materials/learning materials should be available for the startups to guide them.
- It must be noted that not everyone can become an entrepreneur. The entrepreneur is a leader, who would convert an innovation successfully into a product; others may join the leader and work for the startup. It is important to understand that entrepreneurship is about risk taking. One must carefully evaluate whether a student is capable and willing to take risk.

**Pedagogical changes** shall be carried out to ensure that maximum number of student projects and innovations are based around real life challenges. Learning interventions developed by the Institute for inculcating entrepreneurial culture shall be constantly reviewed and updated.

## **9. COLLABORATION, CO-CREATION, BUSINESS RELATIONSHIPS AND KNOWLEDGE EXCHANGE**

PSVPEC has a team of Potential partners, Resource organizations, Micro, Small and Medium sized Enterprises (MSMEs), Social enterprises, Schools, Colleges, Alumni, Professional bodies and Entrepreneurs to support Entrepreneurship and co-design the programs. This will create co-creation, bi-directional flow/ exchange of knowledge among the faculty and students. Guidelines are developed managing the for both internal and external stakeholders for relationships among al. Faculty, staff and students are given an opportunity to connect with the external environment through knowledge sharing in ways such as internships, teaching and research exchange programmes, clubs, social gatherings etc.

## 10. ENTREPRENEURIAL IMPACT ASSESSMENT


The performance of the entrepreneurial activities at PSVPEC such as pre-incubation, incubation, and entrepreneurship education to be assessed periodically (quarterly review) using well-defined evaluation parameters suggested by IIC and ARIIA. The evaluations will focus:

- Monitoring and evaluation of knowledge exchange initiatives, engagement of all departments, and faculty in the entrepreneurial teaching and learning
- The number of startups created, support system provided at the university level and satisfaction of the participants, new business relationships created by the university would be evaluated
- Impact to be measured for the support system provided by the institute to the student entrepreneurs, faculty, and staff for pre-incubation, incubation, IPR protection, and industry linkages.

It is India's responsibility to display its strength to the world through knowledge and innovations.

- Narendra Modi



  
PRINCIPAL  
Prince Shri Venkateshwara Padmavathy  
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Ponmar, Chennai-600 127.