

Mahatma Education Society's

Pillai HOC College of Engineering and Technology, Rasayani



Innovation and Startup Policy
(for Students and Faculty)

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National Innovation and Startup Policy for Students and Faculty

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Preamble

Innovation and Entrepreneurship are two words that are uttered almost in one breath and will continue to be the life blood of the evolution of human society. If innovation and entrepreneurship is such an integral part of societal development then it must be inculcated in the young and be part of the academics. In pursuit of this and in accordance with the guidelines of MoE Govt. of India, PHCET has endeavoured to create this innovation and startup policy. This policy is more aspirational and spells out how PHCET would pursue, encourage and promote entrepreneurial and start up efforts. With the hope that this policy will be guiding document for sustaining the innovation, startup and entrepreneurial efforts of the students and faculty of PHCET and is made available and amenable for improvement.

Pillai HOC College of Engineering and Technology Innovation and Startup Policy

National Innovation and Startup Policy for Students and Faculty

1. Strategies and Governance

PHCET has proposed the development of Innovation and Entrepreneurship in addition to the conventional verticals of placements and higher education. PHCET has created an Innovation and Entrepreneurship Policy (I&E Policy) that has paved the way for the creation of a culture among students and faculty that encourage them to pursue entrepreneurship as a career choice.

The following steps have been taken to implement I&E policy.

- a) Entrepreneurship promotion and development is one of the major activities at the Pillai HOC College of Engineering and Technology (PHCET), and a well-defined strategy has been formulated to facilitate development of an entrepreneurial ecosystem. To assess the performance of an entrepreneurial ecosystem specific objectives and associated performance indicators are identified.
- b) Implementation of the entrepreneurial agenda is the responsibility of the NISP Coordinator, to bring in required commitment, which will be supported by the higher authorities of college.
- c) Resource mobilisation plan is worked out for supporting pre-incubation, incubation infrastructure and facilities. A sustainable financial strategy is adopted in order to reduce the organizational constraints to work on the entrepreneurial agenda.
 - i. Investment in the entrepreneurial activities is a part of the institutional financial strategy. Minimum 2% fund of the total annual budget of the institution will be allocated for funding and supporting innovation and startups related activities through creation of separate 'Innovation fund'.
 - ii. The strategy should also involve raising funds from diverse sources to enhance funding. Bringing in external funding through government (state and central) such as DST, DBT, MHRD, AICTE, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Startup India, Invest India, MeitY, MSDE, MSME, etc. and non-government sources should be encouraged.

- iii. To support technology incubators, college may approach private and corporate sectors to generate funds, under Corporate Social Responsibility (CSR) as per Section 135 of the Company Act 2013.
 - iv. Institute may also raise funds through sponsorships and donations. Institute will actively engage alumni network for promoting Innovation & Entrepreneurship (I&E).
- d) For expediting the decision making, hierarchical barriers are minimized and individual autonomy and ownership of initiatives is promoted.
- e) Importance of innovation and entrepreneurial agenda will be promoted across the institute and it will be highlighted at institutional programs such as conferences, convocations, workshops, etc.
- f) Student and faculty start-up Policy and action plan is formulated at institute level, which is in line with the current document along with well-defined short-term and long-term goals.
- g) PHCET will develop and implement I&E strategy and policy for the entire institute in order to integrate the entrepreneurial activities across various departments, faculty within the institute.
- h) Product to market strategy for start-ups has been developed by the institute.
- i. Development of entrepreneurship culture should not be limited within the boundaries of the institution.
 - ii. Institute would be the driving force in developing entrepreneurship culture in its vicinity (regional, social and community level). This shall include giving opportunity for regional startups, provision to extend facilities for outsiders and active involvement of the institute in defining strategic direction for local development.
 - iii. Strategic international partnerships would be developed using bilateral and multilateral channels with international innovation clusters and other relevant organizations. Moreover, international exchange programs,

internships, engaging the international faculties in teaching and research should also be promoted.

2. Start-ups Enabling Institutional Infrastructure

Creation of pre-incubation and incubation facilities for nurturing innovations and startups will be undertaken. Incubation and Innovation need to be organically interlinked. Without innovation, new enterprises are unlikely to succeed. The goal of the effort should be to link INNOVATION to ENTREPRISES to FINANCIAL SUCCESS.

- a) PHCET is in process of creating facilities for supporting pre-incubation (e.g. IICs as per the guidelines by MoE's Innovation Cell, EDC, IEDC, New-Gen IEDC, Innovation Cell, Startup Cell, Student Clubs, etc.) and Incubation/ acceleration by mobilizing resources from internal and external sources.
- b) This Pre-Incubation/Incubation facility is accessible 24x7 to students, staff and faculty of all disciplines and departments across the institution.
- c) Institute would offer mentoring and other relevant services through Preincubation/Incubation units and might charge a suitable fee for providing space to the startups. At times, there may be equity sharing in Startups supported through these units. The extent of equity sharing will depend upon the nature of services offered by these units and are elaborately explained in Section 3.

3. Nurturing Innovations and Start-ups

PHCET has established processes and mechanisms for easy creation and nurturing of Startups/enterprises by students (UG, PG, PhD), staff (including temporary or project staff), faculty, alumni and potential startup applicant even from outside the institution.

- a) While defining their processes, institution will ensure to achieve following:
 - i. Incubation support: Offer access to pre-incubation & incubation facility to start-ups by students, staff and faculty for mutually acceptable scheduled time frame.

- ii. Will allow licensing of IPR from institute to startup: Ideally students and faculty members intending to initiate a startup 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 terms, either in terms of equity in the venture and/or license fees and/or royalty to obviate the early-stage financial burden.
 - iii. Will allow setting up a startup (including social startups) and working part-time for the startups while studying/working: PHCET allows its students / staff to work on their innovative projects and setting up startups (including Social Startups) or work as intern/part-time in startups (incubated in any recognized HEIs/Incubators) while studying/working. The area in which a student wants to initiate a startup may be interdisciplinary or multi-disciplinary. However, the student must describe how they will separate and clearly distinguish their ongoing research activities as a student from the work being conducted at the startup.
- b) Students who are under incubation, but are pursuing some entrepreneurial ventures while studying should be allowed to use their address in the institute to register their company due permission from the institution.
- c) Efforts would be made that student entrepreneurs are allowed to sit for the examination, even if their attendance is less than the minimum permissible percentage, with due permission from the institute head.
- d) Efforts would be made to allow students to take a semester/year break (or even more depending upon the decision of the review committee constituted by the institute) to work on the start-ups and re-join academics to complete the course. Student entrepreneurs may earn academic credits for their efforts while creating an enterprise. Institute would set up a review committee for review of start up by students, and based on the progress made, it may consider giving appropriate credits for academics.
- e) The institute has a provision of accommodation to the entrepreneurs within the

campus for short period of time.

- f) 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:
 - i. Short-term/one-year/two years part-time entrepreneurship training
 - ii. Mentorship support on a regular basis.
 - iii. 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.
 - iv. Institute may also link the startups to other seed-fund providers/angel funds/venture fund or itself may setup seed-fund once the incubation activities mature.
 - v. License institute IPR as discussed in section 4 below.
- g) In return for the services and facilities, the legal entity designated by the institute may take 1% to 5% equity/stake in the startup/company, based on use of brand, faculty contribution, infrastructure support and use of the institute's IPR. The legal entity designated by the institute would normally take nominal equity share, unless its full-time faculty/staff have substantial shares. Other factors for consideration should be space, infrastructure, mentorship support, seed-funds, support for accounts, legal, patents, etc.
 - i. For staff and faculty, the legal entity designated by the institute would not take more than 20% of shares that staff/faculty takes while drawing full salary from the institution; however, this share will be within the 5% cap of company shares, listed above.
 - ii. No restriction on shares that faculty/ staff can take, as long as they do not spend more than 10% of office time on the startup in an advisory or consultative role and do not compromise with their existing academic and administrative work /duties. In case the faculty/staff holds the executive or

managerial position for more than three months in a startup, then they may go on sabbatical/ leave without pay/earned leave.

- iii. In case of compulsory equity model, Startup may be given a cooling period of 3months to use incubation services on rental basis to make a final decision based on satisfaction of services offered by the legal entity designated by the institute/incubator. In that case, during the cooling period, the legal entity designated by the institute cannot force start-ups to issue equity on the first day of granting incubation support.
- iv. The institute could consider providing services based on a mixture of equity, fee-based and/ or zero payment model. So, a startup may choose to avail only the support, not seed funding, by the institute on rental basis.
- v. Institute has a policy to extend this startup facility to alumni of the institute.
- vi. Participation in start-up related activities needs to be considered as a legitimate activity of faculty in addition to teaching, that is, in addition to R&D projects, industrial consultancy and management duties, contributions towards start-ups are considered while evaluating the annual performance of the faculty. Every faculty may be encouraged to mentor at least one startup.
- vii. Product development and commercialization as well as participating and nurturing of startups would now be added to a bucket of faculty-duties and each faculty would choose a mix and match of these activities (in addition to minimum required teaching and guidance) and then respective faculty are evaluated accordingly for their performance and promotion.

4. Product Ownership Rights for Technologies Developed at Institute

- a) When PHCET's facilities/funds are used substantially or when IPR is developed as a part of curriculum/academic activity, IPR is to be jointly owned by inventors and the college.
 - i. Inventors and PHCET could together license the product / IPR to any commercial organisation, with the patentee having the primary say. License fees could be either / or a mix of
 - 1. Upfront fees or one-time technology transfer fees
 - 2. Royalty as a percentage of sale-price

3. Shares in the company licensing the product
- ii. An Institute may not be allowed to hold the equity as per the current statute, so SPV may be requested to hold equity on their behalf.
- b) On the other hand, 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.
- c) If there is a dispute in ownership, a minimum five members 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. Institute can use alumni/faculty of other institutes as members if they cannot find sufficiently experienced alumni / faculty of their own.
- d) PHCET's IPR cell and/or incubation centre will only be a coordinator and facilitator for providing services to faculty, staff and students. They will have no say on how the invention is carried out, how it is patented or how it is to be licensed. If the institute is to pay for patent filing, they can have a committee which can examine whether the IPR is worth patenting and own the patent. The committee should consist of faculty who have experience and excelled in technology translation.
- e) PHCET's decision-making body with respect to incubation/IPR technology licensing will consist of faculty and experts identified by the Institution.
- f) PHCET will promote Interdisciplinary research and publications on startup and entrepreneurship.

5. Organizational Capacity, Human Resources and Incentives

- a) PHCET will hire people with good creativity and entrepreneurial/industrial background, as well as the right behaviour and mindset. This will aid in the development of the I&E community.
 - i. Any faculty member with previous experience and involvement in I&E will be delegated for training to support I&E.
 - ii. Institutional policy on employee growth will be established with continuous upswing to ensure a greater participation of employees in entrepreneurial practices.
- b) Faculty and departments of the institute will work in coherence and cross-departmental linkages will be strengthened through shared faculty, cross-faculty teaching and research.
- c) Periodically some external subject matter experts such as guest lecturers or alumni can be engaged for strategic advice and bringing in skills which are not available internally.
- d) Faculty and staff will be motivated to do courses on innovation, entrepreneurship management and venture development.
- e) In order to attract and retain right people, institute should develop academic and non-academic incentives and reward mechanisms for all staff and stakeholders that actively contribute and support entrepreneurship agenda and activities.
 - i. The reward system for the staff may include sabbaticals, office and lab space for entrepreneurial activities, reduced teaching loads, awards, trainings, etc.
 - ii. The recognition of the stakeholders may include offering use of facilities and services, strategy for shared risk, as guest teachers, fellowship, associateship, etc.
 - iii. A performance matrix will be developed and used for evaluation of annual performance.

6. Creating Innovation Pipeline and Pathways for Entrepreneurs at Institute Level

- a) To ensure exposure of maximum students to innovation and preincubation activities at their early stage and to support the pathway from ideation to innovation to market, mechanisms should be devised at institution level.
 - i. Spreading awareness among students, faculty and staff about the value of entrepreneurship and its role in career development or employability should be a part of the institutional entrepreneurial agenda.
 - ii. Students/staff will be taught that innovation (technology, process or business innovation) is a mechanism to solve the problems of the real-life society, industry and consumers and the curriculum will include subjects related to this.
 - iii. To prepare the students for creating the start up through the education, integration of education activities with enterprise-related activities should be done.
- b) PHCET endeavours to link their startups, and companies with a wider entrepreneurial ecosystem and by providing support to students who contribute their potential, in the pre-start-up phase. Connecting student entrepreneurs with real life entrepreneurs will help the students in understanding real challenges which may be faced by them while going through the innovation funnel and will increase the probability of success.
- c) PHCET has established the Institution's Innovation Council (IIC) as per the guidelines of MoE's Innovation Cell and allocates appropriate budget for its activities. IICs should guide institution in conducting various activities related to innovation, startup and entrepreneurship development. Collective and concentrated efforts are undertaken to identify, scout, acknowledge, support and reward proven student ideas and innovations and to further facilitate their entrepreneurial journey.
- d) For strengthening the innovation funnel of the institute, access to financing is opened for the potential entrepreneurs.
 - i. Networking events are organized to create a platform for the budding

- entrepreneurs to meet investors and pitch their ideas.
- ii. Provide business incubation facilities: premises at subsidized cost. Laboratories, research facilities, IT services, training, mentoring, etc. should be accessible to the new startups.
- e) PHCET envisages to develop a ready reckoner of Innovation Tool Kit, which must be kept on the homepage on the institute's website to answer the doubts and queries of the innovators and enlisting the facilities available at the institute.

7. Norms for Faculty Start-ups

- a) For better coordination of the entrepreneurial activities, norms for faculty to do startups are being created by the institute.
 - i. Roles of faculty may vary from being an owner/ direct promoter, mentor, consultant or as on-board member of the start-up.
 - ii. PHCET is developing a policy on 'conflict of interests' to ensure that the regular duties of the faculty don't suffer owing to his/her involvement in the startup activities.
 - iii. 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) Faculty must clearly separate and distinguish on-going research at the institute from the work conducted at the startup/company.
- c) 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.
- d) Faculty must not accept gifts from the startup.
- e) Faculty must not involve research staff or other staff of the institute in activities at the startup and vice-versa.

- f) Human subject related research in startups should get clearance from the ethics committee of the institution.

8. Pedagogy and Learning Interventions for Entrepreneurship Development

- a) Diversified approach to achieve the desired learning outcomes will necessarily include cross disciplinary learning using mentors, labs, case studies, games, etc.
 - i. Students Clubs and Students council will participate in the planning, organizing and management of various activities to improve students' leadership and management capabilities.
 - ii. Annual 'INNOVATION & ENTREPRENEURSHIP AWARD' will be launched to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprise ecosystem within the institute.
 - iii. For creating awareness among the students, the teaching methods should include case studies on business failure and real-life experience reports by startups.
 - iv. Tolerating and encouraging failures: 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.
 - v. Innovation champions will be nominated from within the students/ faculty/ staff for each department.
- b) Short-term or long-term courses/ value-added courses in innovation, entrepreneurship and venture growth will be provided to students at the curriculum / co-curricular / extracurricular stage.
 - i. External stakeholders will be invited to share their knowledge and expertise with the students in the entrepreneurship education to evolve a culture of collaboration and engagement with external environment.
 - ii. The Institute will conduct an induction program at the start of every academic session on the role of I&E in order to familiarise the new students about it. The entrepreneurship training program will be revised regularly based on the study results of entrepreneurship.

- iii. Industry linkages will be leveraged for conducting research and survey on trends in technology, research, innovation, and market intelligence.
 - iv. Sensitization of students will be done for their understanding on expected learning outcomes.
 - v. Student innovators, startups, experts will be engaged in the dialogue process while developing the strategy so that it becomes need based.
 - vi. Customized teaching and training materials will be developed for startups.
- c) Pedagogical reforms will be carried out to ensure that student projects and innovations are based on real life challenges and will be reviewed periodically.

9. Collaboration, Co-creation, Business Relationships and Knowledge Exchange

- a) Stakeholder engagement will be given prime importance in the entrepreneurial agenda of the college. PHCET will find potential partners, resource organizations, micro, small and medium sized enterprises (MSMEs), social enterprises, schools, alumni, professional bodies and entrepreneurs to support entrepreneurship and co-design the programs.
- i. To encourage co-creation, bi-directional flow/ exchange of knowledge and people will be ensured between institutes such as incubators, science parks, etc.
 - ii. PHCET will organize networking events for better engagement of collaborators and will open up the opportunities for staff, faculty and students to allow constant flow of ideas and knowledge through meetings, workshops, space for collaboration, lectures, etc.
 - iii. Mechanism will be developed by the institute to capitalize on the knowledge gained through these collaborations.
- b) The institute will develop policy and guidelines for forming and managing the relationships with external stakeholders including private industries.
- c) Knowledge exchange through collaboration and partnership will be made a part of institutional policy and institute must provide support mechanisms and guidance for creating, managing and coordinating these relationships.

- i. Through formal and informal mechanisms such as internships, teaching and research exchange programmes, clubs, social gatherings, etc., faculty, staff and students of the institute will be given the opportunities to connect with their external environment.
- ii. Information and experience from the external ecosystem will be absorbed into the institute's environment.
- iii. Single Point of Contact (SPOC) mechanism will be created in the institute for the students, faculty, collaborators, partners and other stakeholders to ensure access to information.
- iv. Mechanisms will be devised by the institution to ensure maximum exploitation of entrepreneurial opportunities with industrial and commercial collaborators.
- v. Knowledge management will be done by the institute through development of innovation knowledge platform using inhouse Information & Communication Technology (ICT) capabilities.

10. Entrepreneurial Impact Assessment

- a) Impact assessment of the institute's entrepreneurial initiatives such as pre-incubation, incubation, entrepreneurship education will be performed regularly using well defined evaluation parameters and processes.
 - i. Monitoring and evaluation of knowledge exchange initiatives, engagement of all departments and faculty in the entrepreneurial teaching and learning will be assessed.
 - ii. Number of start-ups created, support system provided at the institutional level and satisfaction of participants, new business relationships created by the institute will be recorded and used for impact assessment.
 - iii. Impact will be measured for the support system provided by the institute to the student entrepreneurs, faculty and staff for pre-incubation, incubation, IPR protection, industry linkages, exposure to entrepreneurial ecosystem, etc.

- b) Formulation of strategy and impact assessment should go hand in hand. The information on impact of the activities would be actively used while developing and reviewing the entrepreneurial strategy.
- c) Impact assessment for measuring the success will be in terms of sustainable social, financial and technological impact in the market. For innovations at the pre-commercial stage, development of sustainable enterprise models is critical. COMMERCIAL success is the ONLY measure in the long run.