



PRINCE Dr. K. VASUDEVAN COLLEGE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, Affiliated to Anna University & ISO 9001:2015 Certified Institution)

Medavakkam-Mambakkam Main Road, Ponmar, Chennai-600127



PDKV INNOVATION AND STARTUP POLICY

(In-line with the National Innovation and Start-up Policy 2019)

April 2022

ABSTRACT

A Guiding Framework for Higher Education Institutions

According to our Honourable Prime Minister's Atma Nirbhar Bharat plan to create a self-reliant nation, the Innovation and Startup Policy 2019 was promoted in Prince Dr. K. Vasudevan College of Engineering & Technology to 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.

The policy was essentially intended to encourage AICTE-approved institutions in following the Government of India's "Startup Action Plan." Following the launch of the Startup policy by AICTE and consequent collaboration and feedback from education institutions, there was a necessity for a more complex and exhaustive policy steering policy that could be appropriate to all HEIs in India. The policy will assist PDKVCET in accomplishing its mission of developing industry-ready experts with the essential skill sets, a perspective of social and ethical obligation, and the potential to solve contemporary challenges with innovative ideas.

PDKVCET is committed to facilitate and create technology entrepreneurs from the students of various disciplines of our institution who are coming out with innovative and viable business ideas / products, by providing them the facilities and mentorship assistance related to business such as marketing, technical and financial domains". Since Startup companies lack many resources, experience and networks, ED Cell provides services which help them to get through initial hurdles in starting up a business. These hurdles include space, funding, legal, accounting, computer services and other prerequisites to run the business. Based on the policy guidelines, a team of experts would review and select the start-up by considering its techno-commercial aspects.

EXPERT COMMITTEE

Date of Formation: 15.04.2022

S.no	Name of the Expert	Affiliation	Role in NISP / Institution
1	Dr T Sunder Selwyn	Principal, PSVPEC	President, NISP
2	Ms. R. DEEPA	Assistant Professor/CSE	NISP Coordinator
3	Ms. M. Priyanka	HR(Recruiter), Tata Consultancy Services, Chennai.	External member - Industry
4	Mr. Sridhar Saravanan	Chief Executive Officer, RJS Software Solutions	External member - Alumni entrepreneur
5	Mr Ramachandran	Lead Research Scientist, REST Labs	External member - IPR
6	Dr. G. Suganya	Associate Professor, School of Computer Science, VIT University, Chennai	External member – Researcher and Academician
7	Ms. R. Deepa	Assistant Professor	IIC Convener
8	Ms. B. Geetha Bala	Associate Professor & Head, BME	Convener, Research and Development Cell
9	Mr. Rajmohan	Assistant Professor, Mech	Convener, IPR Cell
10	Ms. Ebenazer Roselin	Assistant Professor, CSE	Internship Activity Coordinator
11	Dr. G N K Suresh Babu	Professor, AI & DS	Convener, ED Cell
12	Ms. Bhuvaneswari	Assistant Professor, S & H	Website & Social Media Coordinator
13	Ms. P. Suganthi	Associate Professor, S & H	Member
14	Ms. J. Vasanthi	Associate Professor & Head, S&H	Member
15	Ms. B. Latha	Associate Professor, CSE	Member

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 (NISIP) as a guideline for all HEIs. The MHRD's innovation cell conducted series of follow-up workshops and trained the Institutions. This policy will also facilitate Intellectual Property ownership management, technology licensing and institutional Startup policy, thus enabling creation of a robust innovation and start up ecosystem.

VISION:

Provide entrepreneurial education and training, inspire students to come up with innovative ideas, govern Intellectual Property Rights (IPR) licencing, and promote start-up firms.

MISSION:

- To create a sustainable ecosystem of Innovation and Research & Development.
- To promote a robust Start-ups that will result in progression and enterprise-driven industrial and commercial growth.

OBJECTIVES:

1. To encourage and motivate the students of our institution to do the state-of-the-art projects in order to promote innovation and start-ups.
2. To facilitate the students in exchanging their new innovative ideas with collaboration across various disciplines in the institution.
3. To provide sufficient spaces & built-up area with all facilities for accommodating new start-ups.
4. To provide services such as enterprise promotion, business advice, financial counselling, assistance with business management and accounting, legal and regulatory guidance, access to mentors etc.,
5. To facilitate early-stage funding to stimulate commercialization of research discoveries by all leading Banks and Financial Institutions and to support in validating

proof of concept and subsequently to assist them to cover costs like certification, manufacturing pilot services etc.,

6. To provide technical and consultancy services that include R&D activities, product development, re-engineering, calibration and testing facilities, quality assurance and market research to the start-up business.

1. STRATEGIES AND GOVERNANCE

- Entrepreneurship promotion and development should be one of the major dimensions of the Institution's strategy. To facilitate development of an entrepreneurial ecosystem in the organization, specific objectives and associated performance indicators should be defined for assessment.
- Implementation of entrepreneurial vision at the institute should be achieved through mission statements. The entrepreneurial agenda should be the responsibility of a senior person at the level of principal to bring in required commitment and must be well understood by the higher authorities.
- Resource mobilisation plan should be worked out at the institute for supporting pre-incubation, incubation infrastructure and facilities.
 - Minimum 1% fund of the total annual budget of the institution should be allocated for funding and supporting innovation and startups related activities.
 - The strategy should also involve raising funds from diverse sources to reduce dependency on the public funding. Bringing in external funding through government (state and central) and sponsorships.
 - Institute may also raise funding through sponsorships and donations. Institute should actively engage alumni network for promoting Innovation & Entrepreneurship (I&E).
- For expediting the decision making, hierarchical barriers should be minimized and individual autonomy and ownership of initiatives should be promoted.
- Importance of innovation and entrepreneurial agenda should be known across the institute and should be promoted and highlighted at institutional programs such as conferences, convocations, workshops, etc.
- Student and faculty start-up Policy and action plan should be formulated with well-defined short-term and long-term goals.

2. START-UPS ENABLING INSTITUTIONAL INFRASTRUCTURE

- PDKVCET will facilitate utilization of its vast resources and further infrastructure will be added as needed.
- PDKVCET 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, ASPIRE, DST, DBT, MHRD, AICTE, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Start-up India, Invest India, MeitY, MSDE, MSME, and other non-governmental organizations etc.
- Pre-incubation and incubation facilities will be available 24×7 to students, innovators and staff.

3. NURTURING INNOVATIONS AND START UPS

- PDKVCET will establish processes and mechanisms for easy creation and nurturing of Start-ups/enterprises by students, faculties, alumni and potential start up applicants even from outside the institutions.
- PDKVCET will allow applying license of intellectual property rights from the institute to the start-ups based on mutual consent.
- 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.
 - ii Mentorship support on 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.
- For staff and faculty, Institution will not claim any equity or consultancy fees.

- Certification programs on innovation, entrepreneurship and venture development provided for the interested students through various facilitators.
- The institute should also provide services based on mixture of equity, fee-based and/ or zero payment model.
- Institute may extend the facility to the Alumni as well as outsiders.

4. PRODUCT OWNERSHIP RIGHTS FOR TECHNOLOGIES DEVELOPED AT INSTITUTE

- IPR is developed as a part of curriculum/ academic activity, IPR is to be jointly owned by inventors and the institute.
- 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 membered committee consisting of two faculty members (having developed sufficient IPR and translated to commercialisation), two of the institute's alumni/ industry experts (having experience in technology commercialisation) 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.

5. ORGANIZATIONAL CAPACITY, HUMAN RESOURCES AND INCENTIVES

- Institute should recruit staff that have a strong innovation and entrepreneurial/industrial experience, behavior and attitude.
- Faculty members trained periodically and will be given exposure to promote innovation and entrepreneurship
- 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.
- Faculty and staff should be encouraged to do courses on innovation, entrepreneurship management and venture development.

- In order to attract and retain right people, institute should develop academic and non-academic incentives and reward mechanisms for all staff and stakeholders.
- A performance matrix should be developed and used for evaluation as part of annual performance and contribution of faculty/staff towards achieving I&E agenda should be part of matrix.

6. CREATING INNOVATION PIPELINE AND PATHWAYS FOR ENTREPRENEURS AT INSTITUTE LEVEL

- To ensure exposure of maximum students to innovation and pre incubation activities at their early stage and to support the pathway from ideation to innovation to market, mechanisms should be devised at institution level.
 - Spreading awareness among students, faculty and staff about the value of entrepreneurship and its role in career development.
 - Students/ staff should be taught that innovation (technology, process or business innovation) is a mechanism to solve the problems of the society and consumers.
 - Students should be encouraged to develop entrepreneurial mindset through experiential learning by exposing them to training in cognitive skills by inviting first generation local entrepreneurs or experts to address young minds. Initiatives like idea and innovation competitions, hackathons, workshops, bootcamps, seminars, conferences, exhibitions, mentoring by academic and industry personnel, throwing real life challenges, awards and recognition should be routinely organized.
- The institute should link their start-ups and companies with wider entrepreneurial ecosystem and by providing support to students who show potential, in pre-startup 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.
- The institute should establish Institution's Innovation Councils (IICs) as per the guidelines of MHRD's Innovation Cell and allocate appropriate budget for its activities. IICs should guide institutions in conducting various activities related to innovation, start-up and entrepreneurship development.

- Financial support will be provided to PDKVCET ED Cell for conducting programs related to entrepreneurship and innovation.
- A good platform will be provided for the students to expose their entrepreneurial skills.

7. PEDAGOGY AND LEARNING INTERVENTIONS FOR ENTREPRENEURSHIP DEVELOPMENT

- Diversified approach should be adopted to produce desirable learning outcomes, which should include cross disciplinary learning using mentors, labs, case studies, games, etc. in place of traditional lecture-based delivery.
 - Student clubs/ bodies/ departments must be created for organizing competitions, bootcamps, workshops, awards, etc. These bodies should be involved in institutional strategy planning to ensure enhancement of the student's thinking and responding ability.
 - Institutes should start annual 'INNOVATION & ENTREPRENEURSHIP AWARD' to recognize outstanding ideas, successful enterprises and contributors for promoting innovation and enterprises ecosystem within the institute.
 - For creating awareness among the students, the teaching methods should include case studies on business failure and real-life experience reports by start-ups.
- Entrepreneurship education should be imparted to students at curricular/ co-curricular/ extracurricular level through elective/ short term or long-term courses on innovation, entrepreneurship and venture development. Validated learning outcomes should be made available to the students.
 - In the beginning of every academic session, institute should 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. Curriculum for the entrepreneurship education should be continuously updated based on entrepreneurship research outcomes. This should also include case studies on failures.
 - Industry linkages should be leveraged for conducting research and survey on trends in technology, research, innovation, and market intelligence.

- Sensitization of students should be done for their understanding on expected learning outcomes.

8. COLLABORATION, CO-CREATION, BUSINESS RELATIONSHIPS AND KNOWLEDGE EXCHANGE


- Stakeholder engagement should be given prime importance in the entrepreneurial agenda of the institute. Institutes should 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.
 - To encourage co-creation, bi-directional flow/ exchange of knowledge and people should be ensured between institutes such as incubators, science parks, etc.
 - Institute should organize networking events for better engagement of collaborators and should 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.
 - Mechanism should be developed by the institute to capitalize on the knowledge gained through these collaborations.
- The institute should develop policy and guidelines for forming and managing the relationships with external stakeholders including private industries.
- Knowledge exchange through collaboration and partnership should be made a part of institutional policy and institutes must provide support mechanisms and guidance for creating, managing and coordinating these relationships.
 - Through formal and informal mechanisms such as internships, teaching and research exchange programmes, clubs, social gatherings, etc., faculty, staff and students of the institutes should be given the opportunities to connect with their external environment.
 - Connect of the institute with the external environment must be leveraged in form of absorbing information and experience from the external ecosystem into the institute's environment.

- Single Point of Contact (SPOC) mechanism should be created in the institute for the students, faculty, collaborators, partners and other stakeholders to ensure access to information.
- Mechanisms should be devised by the institutions to ensure maximum exploitation of entrepreneurial opportunities with industrial and commercial collaborators.

9. ENTREPRENEURIAL IMPACT ASSESSMENT

- Impact assessment of institute's entrepreneurial initiatives such as pre-incubation, incubation, entrepreneurship education should be performed regularly using well defined evaluation parameters.
 - Monitoring and evaluation of knowledge exchange initiatives, engagement of all departments and faculty in the entrepreneurial teaching and learning should be assessed.
 - Number of start-ups created, support system provided at the institutional level and satisfaction of participants, new business relationships created by the institutes should be recorded and used for impact assessment.
 - Impact should also 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.


NISP COORDINATOR


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